# Soil Vapor Intrusion Investigation Summary Report (Revised)

at

## Former Imperial Cleaners Site
## 218 Lakeville Road
## Lake Success, New York 11042
## NYSDEC BCP Site #C130225

September 2021

Prepared for:

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## Professional Engineer Certification

I certify that I am currently a professional engineer licensed to practice in New York State in accordance with New York State Education Law, Article 145, Section 7200 et seq. I have completed accredited university courses and degrees in engineering and have sufficient training and experience in remediation, groundwater hydrology, and related fields that enable me to make sound professional judgments with regards to engineering design.

I further certify that this submittal, *Soil Vapor Intrusion Investigation Summary Report (Revised)*, dated September 2, 2021, was prepared under my direction.




Nora M. Brew

9/2/2021

Nora M. Brew, P.E.
Walden Environmental Engineering, PLLC

Date

# 1 INTRODUCTION

Walden Environmental Engineering, PLLC (Walden) has prepared this report to summarize the results of the April 2019 soil vapor intrusion (SVI) investigation conducted at the Former Imperial Cleaners site located at 218 Lakeville Road, Lake Success, New York (the "Site"). This report was originally submitted to the New York State Department of Environmental Conservation (NYSDEC) on March 17, 2020) and has been revised in accordance with comments provided in a NYSDEC letter dated July 23, 2021 (see **Appendix A**).

The Site is currently managed under the New York State Brownfield Cleanup Program (BCP, Site #C130225), subject to New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Agreement (BCA) Index No. C130225-01-18. This agreement was fully executed by 218 Lakeville Acquisition LLC (the current Site owner and Volunteer) and the NYSDEC on February 12, 2018. Previously, the Site was managed under the NYSDEC Voluntary Cleanup Program (VCP) as site #V-00244-1.

The April 2019 SVI investigation was conducted to address the potential for vapor intrusion from contaminated soil vapor and potential impacts to indoor air quality at the Site and neighboring off-site properties. The April 2019 investigation findings supplement the results of the SVI investigation conducted in February 2016. The February 2016 SVI sampling results are presented in the *Soil Vapor Intrusion Investigation Summary Report* (Walden, May 2017) which is attached as **Appendix B** and summarized herein. The 2016 and 2019 SVI investigations were completed in accordance with the NYSDEC-approved *Soil Vapor Intrusion Investigation Work Plan* (Work Plan; Walden, December 2015) and *Remedial Work Plan*, (RWP) dated February 2019), which were developed in accordance with the guidelines set forth in NYSDEC *DER-13: Strategy for Evaluating Soil Vapor Intrusion at Remedial Sites in New York* (dated October 18, 2006), *Guidance for Evaluating Soil Vapor Intrusion in the State of New York* (dated October 2006, with updates, referred to herein as "SVI Guidance"), and NYSDEC *DER-10*: *Technical Guidance for Site Investigation and Remediation*. The Work Plan was approved by the NYSDEC by letter dated December 23, 2015 and the RWP was approved by the NYSDEC by letter dated February 12, 2019. The field work for the investigations included the collection of sub-slab vapor, indoor air and outdoor (ambient) air samples.

A brief Site description and the SVI investigation objectives are presented below. **Section 2** describes the SVI investigation field work conducted at the Site and neighboring properties. **Section 3** summarizes the SVI investigation sampling results. **Section 4** presents conclusions and recommendations based on the SVI investigation results.

## 1.1 Site History and Previous Investigations/Remediation

The Site location is illustrated on **Figure 1**. The Site is a commercial center with a one-story building occupying approximately 4,250 square feet, with four (4) current tenants (CCQ Construction Inc., W Brothers Realty, Tobacco Plaza, Ltd. and Real Eyes Optical) as shown on **Figure 2**. Residential properties are located directly west of the Site and commercial parcels adjoin the Site to the north, northwest and south. The basement of the on-site building has concrete block walls and a poured concrete floor slab. Note that there is a perched water table underlying the site at approximately 30 feet below grade, while the water table is located approximately 150 feet below land surface.

A release of tetrachloroethylene (PCE) at the Site was first noted in 1995. The PCE contamination was suspected to originate from floor drains within the tenant space occupied by a dry cleaner (former Imperial Cleaners) and from a leaching pool and dry well on the property that were associated with the former dry-cleaner operations. A site investigation followed to identify source areas and determine the extent of contaminated soil and groundwater at the Site. The site investigation and remediation work described below was conducted by 218 Lakeville Associates L.P., the owner of the Subject Property at that time, as required by NYSDEC under the VCP.

Contaminated sediments were removed from the source areas (dry well, interior floor drains, and leaching pool associated with the former Imperial Cleaners operations) in 1996 and 2000 to the extent possible without undermining the structures. Post-excavation endpoint soil sampling following the source area removal actions indicated that volatile organic compounds (VOCs) remained in the subsurface at concentrations above the NYSDEC TAGM 4046 Recommended Cleanup Objectives. However, no additional materials were removed because it was determined that further excavation would threaten the integrity of the structures. 218 Lakeville Associates L.P. then installed a soil vapor extraction (SVE) system to remove VOC vapors remaining in the soil in order to address the source areas and improve soil and groundwater quality. The SVE system, which consisted of eight soil vapor extraction wells, began operating in 2001. The SVE system also served to mitigate the potential for SVI impacts affecting on- and off-site structures. A soil, soil gas, groundwater and indoor air monitoring program was implemented to track the reductions in VOC concentrations achieved by operation of the SVE system.

Site closure sampling (soil, soil vapor and indoor air perc badge sampling) was conducted in November 2007 – January 2008 in accordance with a NYSDEC approved work plan. The closure sampling results indicated that the SVE system had successfully reduced soil contaminant concentrations to below the NYSDEC TAGM 4046 Recommended Cleanup Objectives. Permanent shutdown of the SVE system was recommended by 218 Lakeville

Associates L.P. based on the 2007-2008 closure sampling results. 218 Lakeville Associates L.P., the previous Site owner subsequently shut down the SVE system circa 2008 without approval from NYSDEC and NYSDOH. These activities occurred approximately seven (7) years before the current Site owner/Volunteer purchased the site or had any involvement with the Site.

### *1.1.1 February 2016 SVI Investigation*

After the current Site owner/Volunteer, 218 Lakeville Aquisition LLC, purchased the Subject Property from 218 Lakeville Associates L.P. in July 2015, an SVI investigation was conducted to address the potential for vapor intrusion from contaminated soil vapor and potential impacts on indoor air quality at the Site and neighboring off-site properties. The SVI investigation was completed in accordance with the NYSDEC approved *Soil Vapor Intrusion Investigation Work Plan* (Work Plan; Walden, December 2015). The field work was completed in February 2016 (during the 2015-2016 heating season) and consisted of sub-slab vapor, indoor air, and outdoor air sampling and analysis as follows; the sample locations are shown on **Figure 3**. Refer to the *Soil Vapor Intrusion Investigation Summary Report* (Walden, May 2017) presented in **Appendix B** for additional details on the February 2016 SVI investigation and results.

<u>February 2016 On-site Sampling</u>

Sub-slab vapor and indoor air samples were collected in pairs (at each sub-slab sampling location, a corresponding indoor air sample was collected concurrently) from four locations in the basement of the on-site building at 218 Lakeville Road:

- Beneath the former dry cleaners space (SS-1 and IA-1)
- Beneath Tobacco Plaza (in the unfinished area on the west side of the space) (SS-2 and IA-2)
- Two locations beneath the former delicatessen space (this basement area is divided into two sections; one sampling location in each section) (SS-3 and IA-3; SS-4 and IA-4).

Two outdoor air samples (upwind AA-1 and downwind AA-2) were collected outside the on-site building concurrently with the sub-slab and indoor air samples to obtain samples representative of ambient (background) conditions at the site.

<u>February 2016 Off-site Sampling</u>

Off-site sampling was conducted at the same time as the on-site sampling to achieve contemporaneous analytical results. Pairs of sub-slab vapor and indoor air samples were collected per the Work Plan in the lowest level of three off-site properties as follows:

- 2 University Place (SS-5 and IA-5)

- 4 University Place (SS-6 and IA-6)
- 220 Lakeville Road (SS-7 and IA-7)

The owner of 216 Lakeville Road (rear cottage) would not allow a sub-slab vapor sampling probe to be installed inside this building because there was no way to avoid damaging the floors by installing a sub-slab vapor sampling probe as specified in the approved Work Plan. Walden contacted NYSDEC and NYSDOH on February 11, 2016 regarding this issue and the State approved the following modification to the sampling locations at this off-site property:

- A surrogate soil vapor sample (SS-8) was collected outside the 216 Lakeville Road cottage in the asphalt paved area on the west side of the building.
- The indoor air sample (IA-8) was collected inside the 216 Lakeville Road cottage from a location near the outdoor surrogate soil vapor sampling location.

<u>February 2016 Conclusions</u>

**Table 1** of this report presents the February 2016 SVI investigation sampling data. The conclusions based on this data are presented in the *Soil Vapor Intrusion Investigation Summary Report* (May 2017) (attached as **Appendix B)** and excerpted below:

> *"The sub-slab sampling results revealed that vapors (mainly PCE and breakdown products TCE and cis-1,2-DCE) attributable to the historic release of VOCs at the Former Imperial Cleaners Site remain in the subsurface. While the SVE remedial system at 218 Lakeville Road removed VOCs and reduced concentrations to levels acceptable to NYSDEC and NYSDOH, the current SVI sampling results show that VOC concentrations have rebounded since the SVE system was shut down. This rebound is likely due to the low permeability clay layer and perched water table located approximately 30 feet below grade in this area, creating subsurface conditions which have trapped VOC vapors in the tight pore spaces and possibly on top of the perched water.*
>
> *Based on a comparison of the target compound concentrations reported for the sub-slab and indoor air samples to the concentration ranges compared in the NYSDOH decision matrices, mitigation is recommended for 218 Lakeville Road, 2 University Place and 4 University Place to address potential soil vapor intrusion impacts and prevent exposure to VOCs in indoor air. The decision matrix comparison indicates that monitoring is recommended to ensure that residual VOCs do not impact indoor air at 220 Lakeville Road; no action is recommended at 216 Lakeville Road."*

Recommendations

The recommendations presented in the *Soil Vapor Intrusion Investigation Summary Report* (May 2017) have been combined with the recommendations based on the April 2019 SVI investigation. The overall recommendations based on the SVI results are presented herein in **Section 4.2**.

## 1.2 April 2019 SVI Sampling Objectives

After the BCA was fully executed, representatives from the Site owner (218 Lakeville Acquisition LLC), the NYSDEC and NYSDOH met on March 13, 2018 to discuss a remedial action plan for the Site. At that time, the State expressed concern that VOC vapors may have migrated beyond the four (4) off-site properties investigated during the February 2016 SVI sampling event. Therefore, the State requested SVI sampling at an additional seven (7) off-site properties (shown on **Figure 4**) to evaluate the potential for indoor air quality impacts due to VOC vapors from the Site. Sampling at these off-site properties would be contingent upon access/permission procured by the Site owner (with assistance from the NYSDOH as needed), and the State would evaluate all additional SVI data and consequently make recommendations/determinations about any additional actions based on the data.

Representatives from the NYSDEC, 218 Lakeville Acquisition LLC and Walden met in November 2018 to discuss the additional SVI sampling requested by the State and remedial options for the Site. Subsequently, the February 2019 RWP was developed by Walden (and approved by the NYSDEC) which proposed, in part, the completion of additional on-site and off-site SVI sampling as per the State's request in order to evaluate potential indoor air quality impacts related to soil vapor intrusion. This additional SVI sampling (sub-slab soil vapor, indoor air and outdoor air) was performed in April 2019 during the 2018-2019 heating season.

## 2 APRIL 2019 SVI INVESTIGATION FIELD WORK

**Figure 4** shows the locations of the off-site properties targeted for sampling during the 2018-2019 heating season based on the NYSDEC-approved RWP. These properties included the four (4) off-site properties sampled in February 2016 (216 Lakeville Road rear cottage, 220 Lakeville Road, 2 University Place, and 4 University Place) and seven (7) additional off-site properties identified by NYSDEC and NYSDOH (224 Lakeville Road, 216 Lakeville Road main building, 1 University Place, 3 University Place, 5 University Place, 1 University Road, 99 Briarfield Drive).

Walden sent requests for access to each of these off-site property owners via certified mail in February 2019. These requests were followed up throughout March 2019 with phone calls and in-person visits to the properties in an attempt to obtain permission for sampling. Despite repeated attempts by Walden and NYSDOH to obtain access for sampling, permission was granted by only 220 Lakeville Road and 5 University Place; the other off-site property owners either did not respond or refused to grant access. Documentation of Walden's outreach attempts is provided in **Appendix C.**

The April 2019 SVI investigation event consisted of sampling at the Site and the two (2) off-site properties (220 Lakeville Road and 5 University Place) whose owners granted permission for access.

Sub-slab soil vapor sampling points initially installed at the Site and at the adjoining 220 Lakeville Road property during the February 2016 SVI sampling event were utilized again during the April 2019 sampling event. Additionally, one new sub-slab sampling point was installed on April 4, 2019 at the residence located at 5 University Place. Sub-slab vapor, indoor air and outdoor (ambient) air samples were collected over a 24-hour sampling period from April 4-5, 2019. The field work and sampling activities are described below.

### 2.1 Interior Inspection

Pre-sampling interior inspections were performed to identify potential vapor intrusion pathways and to determine appropriate sampling locations. The Site and off-site properties were inspected to evaluate the physical layout and to identify conditions or materials stored and/or used that may affect or interfere with the sampling or interpretation of the sampling results. Consideration was given to factors such as access for installation/sampling purposes, interior uses at the Site, foundation/floor slab installation and conditions, heating/ventilation/mechanical system operation, and utility layout/breaches.

The indoor air quality questionnaire and building inventory sheet provided in the NYSDOH SVI Guidance was completed prior to sampling. Copies of the completed questionnaire for the on-site building and off-site properties are provided in **Appendix D** of this report.

To reduce the potential for interference and dilution effects of samples, the Site tenants and off-site property owners were notified in advance of sampling to ensure that the occupants avoided the following activities within 24 hours prior to sampling wherever possible (per *Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York*, October 2006, p. 33):

- Opening any windows, fireplace dampers, openings or vents;
- Operating ventilation fans unless special arrangements are made;
- Smoking in the building;
- Painting;
- Using a wood stove, fireplace or other auxiliary heating equipment (e.g., kerosene heater);
- Operating or storing automobiles in an attached garage;
- Allowing containers of gasoline or oil to remain within the house or garage area, except for fuel oil tanks;
- Cleaning, waxing or polishing furniture, floors or other woodwork with petroleum or oil-based products;
- Using air fresheners, scented candles or odor eliminators;
- Engaging in any hobbies that use materials containing volatile chemicals;
- Using cosmetics including hairspray, nail polish, nail polish removers, perfume/cologne, etc.;
- Lawn mowing, paving with asphalt, or snow blowing;
- Applying pesticides;
- Using building repair or maintenance products, such as caulk or roofing tar; and
- Bringing freshly dry-cleaned clothing or furnishings into the building.

## 2.2 Sampling Locations

The April 2019 SVI investigation samples were collected from the general locations depicted in the NYSDEC-approved RWP. The sub-slab and indoor air sampling locations at 5 University Place were selected on April 4, 2019 following an inspection of the basement space, and were cleared based on a private utility mark-out, physical access and owner approval. As discussed above, sample locations in the on-site building and the

adjoining property at 220 Lakeville Road were determined based on the locations of pre-existing sub-slab vapor probes which were installed in February 2016 in association with the previous SVI investigation and were utilized again for the April 2019 investigation. All sample locations for the April 2019 sampling event are illustrated on **Figure 5**.

New and existing sub-slab vapor sampling points were placed in locations with minimal potential for ambient air infiltration from floor penetrations such as cracks, drains, utility perforations, sumps, etc. All observed penetrations were sealed to the extent practicable prior to sample collection. Photographs taken during the April 2019 sampling event are presented in **Appendix E**.

### *2.2.1 April 2019 On-Site Locations*

Sub-slab vapor and indoor air samples were collected in pairs (at each sub-slab sampling location, a corresponding indoor air sample was collected concurrently) from four (4) locations in the basement of the on-site building at 218 Lakeville Road as follows:

- Beneath the former dry cleaners' space (SS-1 and IA-1)
- Beneath Tobacco Plaza, in the unfinished area on the west side of the basement space (SS-2 and IA-2)
- Two locations beneath the former delicatessen space (this basement area is divided into two sections; one sampling location per section)
    - Southern Section, vacant (SS-3 and IA-3)
    - Northern Section, utilized as storage for CCQ Construction (SS-4 and IA-4)

Additionally, a duplicate sub-slab vapor sample (SS-DUP) was collected from the SS-1 sampling location and a duplicate indoor air sample (IA-DUP) was collected from the IA-4 sampling location.

Two outdoor air samples (AA-1 and AA-2) and one duplicate (AA-DUP) were collected outside the on-site building concurrently with the sub-slab and indoor air samples to obtain samples representative of ambient (background) conditions at the Site. The final outdoor air sampling locations were selected in the field and sited upwind (AA-1 and duplicate AA-DUP) and downwind (AA-2) based upon the prevailing wind direction observed at the time of sampling (west-northwest).

### *2.2.2 April 2019 Off-Site Locations*

The off-site sampling was conducted at the same time as the on-site sampling to achieve contemporaneous analytical results. Pairs of sub-slab vapor and indoor air samples were

collected as per the RWP in the lowest level (i.e., basement) of two (2) off-site properties as follows:

- 220 Lakeville Road (SS-7 and IA-7)
- 5 University Place (SS-10 and IA-10)

## 2.3 Sub-Slab Sample Probe Installation

A permanent recessed sub-slab vapor sampling probe (denoted as SS-10) was installed in the basement of 5 University Place in accordance with SVI Guidance and as described in the RWP. A small (approximately one inch diameter) hole was drilled through the concrete floor slab and into sub-slab material approximately three (3) inches below the bottom of the floor slab. Concrete and soil cuttings were removed from the hole and a stainless-steel sampling screen was installed to a depth of three (3) inches into the sub-slab material. The top of the probe was finished with a recessed brass plug and the implant was sealed to the floor with hydraulic cement. For sampling purposes, a threaded fitting connected to polyethylene tubing was inserted into the sampling port for connection to a Summa® canister.

### *2.3.1 Tracer Gas Monitoring*

Walden performed tracer gas monitoring as per the SVI Guidance to verify the integrity of all sub-slab vapor probe seals prior to sample collection. A shroud was placed around each sampling probe and sealed around the edges to create an adequate surface seal to prevent outdoor air infiltration. Helium tracer gas was introduced into the shroud through a small opening to enrich the atmosphere in the immediate vicinity of the sampling probes with the tracer gas. A portable helium monitoring device, MGD-2002 Helium Leak Detector, was used to analyze the implants for helium tracer gas to confirm the integrity of the probe seals before the vapor samples were collected in 6-liter Summa® canisters.

## 2.4 Sample Collection

Sub-slab vapor, indoor air and outdoor air samples were collected over a 24-hour period in laboratory-provided and individually certified clean 6-liter Summa® canisters with regulators as described in the RWP. The Summa® canisters were placed adjacent to each sub-slab sampling port and at each indoor and outdoor air sampling location. Where sub-slab vapor samples were collected, fittings were used to connect the Summa® canister tubing to the sampling port tubing. The ground surface was sealed in advance to prevent ambient air infiltration during purging and collection of sub-slab vapor samples.

Additionally, weather conditions were noted at the time of sampling (wind speed and direction, precipitation, outdoor temperature, barometric pressure, etc.).

At each sub-slab sampling location, a corresponding indoor air sample was also collected at a height of approximately four to five (4-5) feet above the ground surface to represent typical breathing zones, as per the SVI guidance. Similarly, the outdoor air samples were collected at a height of approximately three (3) feet above the ground surface where possible.

Prior to and immediately after sampling at each point, a pressure gauge was used to check each Summa® canister for vacuum, and the vacuum readings were recorded. A regulator was utilized to maintain flow rates during the 24-hour sampling period below 0.2 liters per minute as specified by the SVI Guidance.

After sampling was completed, the Summa® canisters were labeled with the site name, sample location and identification, date, time, sampler's initials, and the parameter(s) for analysis. The samples were transported to the laboratory in such a manner as to avoid container damage during transportation and to minimize the possibility of cross-contamination. The samples were delivered via courier under appropriate Chain-of-Custody protocols.

## 2.5 Sample Analysis and Reporting

The Summa® canisters were submitted to Phoenix Environmental Laboratories, Inc. of Manchester, CT, a NYSDOH ELAP certified laboratory, for analysis. The sub-slab soil vapor and air samples were analyzed for VOCs in accordance with U.S. Environmental Protection Agency (EPA) Method TO-15 with the analytical detection limits set forth in the SVI Guidance. All sample data packages submitted by the analytical laboratory were reported in conformance with the NYSDEC ASP Superfund-CLP, Category B deliverable requirements applicable to the method utilized.

## 3 EVALUATION OF SVI INVESTIGATION SAMPLING RESULTS

Walden reviewed the SVI results in accordance with SVI Guidance. This guidance document lists the air guideline values (AGVs) that NYSDOH has established for methylene chloride, trichloroethylene (TCE) and PCE. (Although AGVs have also been developed for PCBs and dioxin, these compounds are not contaminants of concern at the Site and were not included in the laboratory analyses conducted for this project.) AGVs only apply to concentrations of these VOCs in indoor and outdoor air.

The State of New York does not have any standards, criteria, or guidance values for concentrations of volatile chemicals in subsurface vapors, so the sub-slab vapor concentrations cannot be compared to any regulatory threshold values. However, the sub-slab vapor concentrations factor into the decision matrices contained in the SVI Guidance. The SVI decision matrices consider the concentrations of PCE, TCE, carbon tetrachloride, 1,1,1-trichloroethane (1,1,1-TCA), 1,1-dichloroethene (1,1-DCE), cis-1,2-dichloroethene (cis-1,2-DCE), methylene chloride, and vinyl chloride detected in indoor air samples and sub-slab vapor samples collected concurrently at the same location. The matrices recommend actions intended to address soil vapor intrusion exposures based on the relationship between the sub-slab vapor and corresponding indoor air concentrations at a given sampling location.

For analytes that do not have AGVs and are not considered in the SVI Guidance decision matrices, the SVI Guidance Appendix C (*Volatile Organic Chemicals in Air – Summary of Background Databases*) was referenced for typical background concentrations of these compounds published in USEPA's 2001 Building Assessment and Survey Evaluation (BASE) database. When developing BASE, USEPA collected indoor and outdoor air samples at randomly selected office and commercial buildings using Summa® canisters.

The analytical data from the February 2016 SVI investigation are summarized in **Table 1** for reference. The April 2019 SVI investigation results are summarized in **Table 2**. The April 2019 PCE, TCE and methylene chloride concentrations detected in the sub-slab vapor and indoor air samples at each location are graphically presented on **Figure 5**. **Table 3** and **Table 4** summarize the SVI data decision matrix comparisons and notes the actions recommended based on the decision matrices contained in the SVI Guidance document for the February 2016 investigation and the April 2019 investigation, respectively. Refer to the *Soil Vapor Intrusion Investigation Summary Report* (Walden, May 2017) presented in **Appendix B** for additional details on the February 2016 SVI investigation and results.

A copy of the April 2019 investigation laboratory analytical report is attached as **Appendix F**. A Data Usability Summary Report (DUSR) for the April 2019 data, which was completed in accordance with DER-10, is provided in **Appendix G**.

## 3.1 Summary of April 2019 SVI Investigation Results

### *3.1.1 General Discussion of Results*

While most of the VOCs detected in the sub-slab and indoor air samples are not included in the SVI Guidance decision matrices and do not have established NYSDOH AGVs, the SVI results for all VOCs are evaluated in this report based on factors including the building-specific product inventories and background databases. These compounds have a number of commercial uses in consumer products, building materials, or furnishings. The majority of the detected concentrations of these compounds fall within or near the range of background concentrations listed in the USEPA BASE database as noted in **Table 2**. For the April 2019 investigation, these analytes were also detected at various concentrations in both the outdoor upwind (AA-1 and duplicate AA-DUP) and downwind (AA-2) air samples.

### *3.1.2 SVI Guidance Decision Matrix Evaluation*

The results discussed below are limited to the compounds included in the SVI Guidance decision matrices. Refer to **Table 4** for the SVI Guidance decision matrix comparison.

<u>Carbon Tetrachloride</u>

- No AGV is established for this compound
- Carbon tetrachloride was not detected at concentrations above laboratory method detection limits (MDLs) in any of the sub-slab vapor samples, and was detected only at low concentrations (less than 0.60 micrograms per cubic meter, or µg/$m^3$) in each of the indoor air samples. This compound was also detected at similar concentrations (maximum 0.52 µg/$m^3$) in the upwind and downwind ambient air samples, so the carbon tetrachloride reported for the indoor air samples can be considered representative of background conditions.
- All reported concentrations of this compound were at the low end of the typical ranges listed in the BASE database for indoor and outdoor air.
- *Based on the carbon tetrachloride concentrations reported for the sub-slab vapor and indoor air samples collected at all locations, SVI Guidance Decision Matrix A recommends "No further action".*

1,1,1-Trichloroethane (1,1,1-TCA)

- No AGV is established for this compound
- None of the sub-slab vapor, indoor air or outdoor air samples contained detectable concentrations of 1,1,1-TCA.
- *Based on the 1,1,1-TCA concentrations reported for sub-slab vapor and indoor air samples collected at all locations, SVI Guidance Decision Matrix B recommends "No further action".*

Trichloroethene (TCE)

- Low concentrations of TCE were detected in several indoor air samples; however, none of the reported concentrations exceeded the AGV of 2 $\mu g/m^3$.
- TCE was not detected in the outdoor ambient air samples.
- Note that NYSDOH lowered the AGV for TCE in August 2015 from 5 $\mu g/m^3$ to 2 $\mu g/m^3$ and developed a recommended immediate action level of 20 $\mu g/m^3$ for this compound.
- *Based on the TCE concentrations reported for sub-slab vapor and indoor air samples, SVI Guidance Decision Matrix A recommends the following:*
  - *"No further action" at 220 Lakeville Road*
  - *"Mitigate" at 5 University Place and all 218 Lakeville Road spaces*

Tetrachloroethene (PCE)

- None of the indoor air samples contained PCE at concentrations above the AGV of 30 $\mu g/m^3$.
- PCE was not detected in the outdoor ambient air samples at concentrations above laboratory method detection limits.
- Note that NYSDOH lowered the AGV for PCE in September 2013 from 100 $\mu g/m^3$ to 30 $\mu g/m^3$. The recommended immediate action level for PCE was also lowered from 1,000 $\mu g/m^3$ to 300 $\mu g/m^3$ at this time.
- *Based on the PCE concentrations reported for sub-slab vapor and indoor air samples, SVI Guidance Decision Matrix B recommends the following:*
  - *"No further action" at 220 Lakeville Road*
  - *"Mitigate" at 5 University Place and all sampling locations at 218 Lakeville Road*

1,1-Dichloroethene (1,1 DCE)

- No AGV is established for this compound
- *1,1-DCE was not detected in any of the sub-slab vapor, indoor air or outdoor air samples at concentrations above laboratory method detection limits. Therefore, SVI*

*Guidance Decision Matrix A recommends "No further action" with respect to this compound.*

Cis-1,2-Dichloroethene (cis-1,2 –DCE)

- No AGV is established for this compound
- A low concentration (0.22 µg/$m^3$) of cis-1,2-DCE was detected in indoor air sample IA-4, collected from the basement space beneath CCQ Construction Inc. at 218 Lakeville Road.
- Cis-1,2-DCE was not detected at concentrations above laboratory method detection limits in any of the remaining indoor air samples or outdoor air samples.
- *Based on the cis-1,2-DCE concentrations reported for sub-slab vapor and indoor air samples collected at all locations, SVI Guidance Decision Matrix A recommends the following:*
  - *"No further action" at 5 University Place and 220 Lakeville Road*
  - *"Mitigate" at all sampling locations at 218 Lakeville Road*

Vinyl Chloride

- No AGV is established for this compound
- Vinyl chloride was not detected in any of the indoor air or outdoor air samples at concentrations above laboratory method detection limits.
- A low concentration (1.25 µg/$m^3$) of vinyl chloride was detected in sub-slab sample SS-4, collected from the basement space beneath CCQ Construction Inc. at 218 Lakeville Road. Vinyl chloride was not detected at concentrations above laboratory method detection limits at any of the other sub-slab soil vapor sample locations.
- *SVI Guidance Decision Matrix C recommends "No further action" with respect to this compound for all sample locations.*

Methylene Chloride

- An AGV of 60 µg/$m^3$ is established for this compound.
- Methylene chloride was not detected in any of the sub-slab vapor or outdoor air samples at concentrations above laboratory method detection limits.
- Methylene chloride was not detected in any of the indoor air samples with the exception of IA-10, collected from within the basement at 5 University Place. Methylene chloride was detected at a concentration of 120 µg/$m^3$ in this sample, which exceeds the AGV of 60 µg/$m^3$. This methylene chloride concentration is attributable to an unknown source within 5 University Place during the sample collection period, as this compound was not detected in the sub-slab vapor or outdoor air samples at this location.

- *Based on the methylene chloride concentrations reported for sub-slab and indoor air samples collected at all locations, SVI Guidance Matrix B recommends the following:*
    - *"Identify sources and resample or mitigate" at 5 University Place*
    - *"No further action" at 218 and 220 Lakeville Road*

### 3.2 Data Usability Summary Report (DUSR)

A Data Usability Summary Report (DUSR) completed in accordance with DER-10 for the April 2019 data is provided in **Appendix G**.

# 4 CONCLUSIONS & RECOMMENDATIONS

## 4.1 Conclusions

The conclusions below are based on the results of the February 2016 and April 2019 SVI sampling investigations.

The SVI sampling results indicate that the indoor air within the basement of 218 Lakeville Road and the lowest levels of the off-site properties located at 216 Lakeville Road (rear cottage), 220 Lakeville Road, 2 University Place, 4 University Place and 5 University Place meets the AGVs established by the NYSDOH as described in **Section 3**, with the following exceptions:

- The methylene chloride concentration detected in indoor air sample IA-10 collected on April 4, 2019 at 5 University Place exceeded the AGV established by the NYSDOH (120 µg/$m^3$ vs 60 µg/$m^3$ AGV). This methylene chloride concentration within 5 University Place is attributable to an unknown source unrelated to the Site, as this compound was not detected in the sub-slab vapor or outdoor air samples at this location.
- The PCE concentration detected in the indoor air sample (IA-6) collected on February 17, 2016 at 4 University Place exceeded the AGV (36 µg/$m^3$ PCE detected in IA-6 vs. 30 µg/$m^3$ AGV). Note that access was not granted to sample this property in April 2019.

The sub-slab sampling results from the February 2016 and April 2019 investigations revealed that vapors (mainly PCE and breakdown products TCE and cis-1,2-DCE) attributable to the historic release of VOCs at the Former Imperial Cleaners Site remain in the subsurface. It is likely that the low permeability clay layer and perched water table located approximately 30 feet below grade in this area, create subsurface conditions which have trapped VOC vapors in the tight pore spaces and possibly on top of the perched water.

A pre-design soil and groundwater investigation was conducted at the Site in May 2019 in accordance with the approved RWP. The soil and groundwater sampling results provide further data to characterize remaining VOC sources at the Site and support source removal actions as appropriate. An additional pre-design subsurface investigation was conducted at the Site in September 2020 to supplement the findings of the May 2019 investigation. The pre-design investigation and additional pre-design soil and

groundwater investigation results and source removal recommendations have been summarized in separate reports and submitted to NYSDEC and NYSDOH.

Based on a comparison of the target compound concentrations reported for the sub-slab and indoor air samples with the concentration ranges compared in the SVI Guidance decision matrices, mitigation is recommended for 218 Lakeville Road, 2 University Place, 4 University Place and 5 University Place to address potential soil vapor intrusion impacts and prevent exposure to VOCs in indoor air. The decision matrix comparisons indicate that no action is recommended at 220 Lakeville Road (based on April 2019 data) and 216 Lakeville Road (rear cottage sampled in February 2016).

## 4.2 Recommendations

The following actions are recommended based on the February 2016 and April 2019 SVI investigation results:

- As discussed in the NYSDEC-approved RWP (February 2019), Walden recommends the installation of a soil vapor extraction (SVE) system at 218 Lakeville Road to capture, extract and treat contaminated vapors from the subsurface and prevent off-site vapor migration.

- On-site source removal actions will be performed as appropriate based on the results of the May 2019 pre-design soil and groundwater investigation and the September 2020 additional pre-design soil and investigation. A report summarizing these pre-design investigation results has been submitted to NSYDEC and NYSDOH under separate cover.

- A separate Remedial Work Plan detailing the proposed on-site source removal and vapor mitigation measures will be developed based on all available investigation data. This Remedial Work Plan will be submitted to NYSDEC and NYSDOH for review and approval.
    - Pilot testing will be conducted prior to the design of the SVE system to determine the effectiveness and efficiency of the proposed system, its optimal extraction rate(s) and radius of influence (ROI).
    - Full-scale SVE system design will incorporate the results of the SVE pilot test and include the completion of engineering design calculations to determine the appropriate number of SVE wells to be utilized, well depths and screen intervals, extraction rates and ROIs, in addition to other system parameters.

    - Design plans/specifications and Operation, Monitoring and Maintenance (OM&M) Plans for the SVE and SSD systems will be developed and submitted to the NYSDEC and NYSDOH under separate cover for review and approval.

- Walden also recommends the installation of sub-slab depressurization (SSD) systems at 2 University Place, 4 University Place and 5 University Place to prevent VOC vapor migration into these residences.

- An Interim Remedial Measure (IRM) Work Plan to mitigate the potential for off-site SVI impacts at 2 University Place, 4 University Place, and 5 University Place will be developed and submitted to NYSDEC and NYSDOH for review and approval.
    - The SSD system designs will specify fans and piping required to draw vapors from beneath the basement slabs as such to create adequate vacuum to prevent sub-slab vapors from entering the buildings and avoid indoor air quality impacts.
    - The SSD systems will be designed and installed to minimize construction/ operating impacts to the extent possible.
    - The design and installation; post-mitigation, or confirmation testing; operation, maintenance, and monitoring; and termination of mitigation system operations will be done in accordance with the October 2006, Final NYSDOH CEH BEEI, Soil Vapor Intrusion Guidance, as amended.

- A Supplemental SVI Work Plan will be prepared to detail the proposed additional outreach and SVI sampling to be conducted during the upcoming 2021/2022 heating season.

# TABLES

**FORMER IMPERIAL CLEANERS SITE**
**218 LAKEVILLE ROAD**
**LAKE SUCCESS, NY**

**VCP SITE #V-00244-1**

**TABLE 1**
**SUMMARY OF FEBRUARY 2016 SVI INVESTIGATION SAMPLING RESULTS**

| | | | | | 218 Lakeville Road (Former Dry Cleaners Space) | | | | | | 218 Lakeville Road (Tobacco Shop) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | CAS # | NYSDOH Air Guideline Value (µg/m3) | USEPA BASE Indoor Air 90th Percentile Conc (µg/m3) | USEPA BASE Outdoor Air 90th Percentile Conc (µg/m3) | Indoor Air Concentration (µg/m3) | | | | Sub-slab Vapor Concentration (µg/m3) | | Indoor Air Concentration (µg/m3) | | Sub-slab Vapor Concentration (µg/m3) | |
| | | | | | IA-1 | Q | IA-9 (Duplicate) | Q | SS-1 | Q | IA-2 | Q | SS-2 | Q |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | | | | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| 1,1,1-Trichloroethane | 71-55-6 | | 20.6 | 2.6 | < 1.00 | U | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | | | | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| 1,1,2-Trichloroethane | 79-00-5 | | <1.5 | <1.6 | < 1.00 | U | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| 1,1-Dichloroethane | 75-34-3 | | <0.7 | <0.6 | < 1.00 | U | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| 1,1-Dichloroethene | 75-35-4 | | <1.4 | <1.4 | < 1.00 | U | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| 1,2,4-Trichlorobenzene | 120-82-1 | | <6.8 | <6.4 | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| 1,2,4-Trimethylbenzene | 95-63-6 | | 9.5 | 5.8 | < 1.00 | U | < 1.00 | U | 13.1 | | < 1.00 | U | 17.7 | |
| 1,2-Dibromoethane(EDB) | 106-93-4 | | <1.5 | <1.6 | < 1.00 | U | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| 1,2-Dichlorobenzene | 95-50-1 | | <1.2 | <1.2 | < 1.00 | U | < 1.00 | U | < 9.97 | U | < 1.00 | U | < 9.97 | U |
| 1,2-Dichloroethane | 107-06-2 | | <0.9 | <0.8 | < 1.00 | U | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| 1,2-Dichloropropane | 78-87-5 | | <1.6 | <1.6 | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | | | | < 1.00 | U | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| 1,3,5-Trimethylbenzene | 108-67-8 | | 3.7 | 2.7 | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| 1,3-Butadiene | 106-99-0 | | <3.0 | <3.4 | < 1.00 | U | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| 1,3-Dichlorobenzene | 541-73-1 | | <2.4 | <2.2 | < 1.00 | U | < 1.00 | U | < 9.97 | U | < 1.00 | U | < 9.97 | U |
| 1,4-Dichlorobenzene | 106-46-7 | | 5.5 | 1.2 | < 1.00 | U | < 1.00 | U | < 9.97 | U | < 1.00 | U | < 9.97 | U |
| 1,4-Dioxane | 123-91-1 | | | | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| 2-Hexanone(MBK) | 591-78-6 | | | | < 1.00 | U | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| 4-Ethyltoluene | 622-96-8 | | 3.6 | 3 | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| 4-Isopropyltoluene | 99-87-6 | | | | < 1.00 | U | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| 4-Methyl-2-pentanone(MIBK) | 108-10-1 | | 6 | 1.9 | < 1.00 | U | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| Acetone | 67-64-1 | | 98.9 | 43.7 | 6.65 | S | 5.6 | S | 70.3 | S | 7.24 | S | 24.9 | S |
| Acrylonitrile | 107-13-1 | | | | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Benzene | 71-43-2 | | 9.4 | 6.6 | < 1.00 | U | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| Benzyl chloride | 100-44-7 | | <6.8 | <6.4 | < 1.00 | U | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| Bromodichloromethane | 75-27-4 | | | | < 1.00 | U | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| Bromoform | 75-25-2 | | | | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Bromomethane | 74-83-9 | | <1.7 | <1.6 | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Carbon Disulfide | 75-15-0 | | 4.2 | 3.7 | < 1.00 | U | < 1.00 | U | 12.6 | | < 1.00 | U | < 9.99 | U |
| Carbon Tetrachloride | 56-23-5 | | <1.3 | 0.7 | 0.5 | | 0.58 | | < 2.50 | U | 0.5 | | < 2.50 | U |
| Chlorobenzene | 108-90-7 | | <0.9 | <0.8 | < 1.00 | U | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| Chloroethane | 75-00-3 | | <1.1 | <1.2 | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Chloroform | 67-66-3 | | 1.1 | 0.6 | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | 46.3 | |
| Chloromethane | 74-87-3 | | 3.7 | 3.7 | 1.21 | | 1.43 | | < 10.0 | U | 1.41 | | < 10.0 | U |
| Cis-1,2-Dichloroethene | 156-59-2 | | <1.9 | <1.8 | < 1.00 | U | < 1.00 | U | 396 | | < 1.00 | U | 244 | |
| cis-1,3-Dichloropropene | 10061-01-5 | | <2.3 | <2.2 | < 1.00 | U | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| Cyclohexane | 110-82-7 | | | | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Dibromochloromethane | 124-48-1 | | | | < 1.00 | U | < 1.00 | U | < 9.96 | U | < 1.00 | U | < 9.96 | U |
| Dichlorodifluoromethane | 75-71-8 | | 16.5 | 8.1 | 2.36 | | 2.62 | | < 9.98 | U | 2.59 | | < 9.98 | U |
| Ethanol | 64-17-5 | | 210 | 57 | 69.1 | | 81.5 | E | 21.5 | S | 25.4 | | < 10.0 | U |
| Ethyl acetate | 141-78-6 | | 5.4 | 1.5 | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Ethylbenzene | 100-41-4 | | 5.7 | 3.5 | < 1.00 | U | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| Heptane | 142-82-5 | | | | < 1.00 | U | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| Hexachlorobutadiene | 87-68-3 | | <6.8 | <6.4 | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Hexane | 110-54-3 | | | | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Isopropylalcohol | 67-63-0 | | | | 1.22 | S | 1.41 | S | < 10.0 | U | 1.96 | S | < 10.0 | U |
| Isopropylbenzene | 98-82-8 | | | | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| m,p-Xylene | 179601-23-1 | | 22.2 | 12.8 | < 1.00 | U | < 1.00 | U | < 9.98 | U | < 1.00 | U | 14.7 | |
| Methyl Ethyl Ketone | 78-93-3 | | 12 | 11.3 | < 1.00 | U | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| Methyl tert-butyl ether(MTBE) | 1634-04-4 | | 11.5 | 6.2 | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Methylene Chloride | 75-09-2 | 60 | 10 | 6.1 | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| n-Butylbenzene | 104-51-8 | | | | < 1.00 | U | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| o-Xylene | 95-47-6 | | 7.9 | 4.6 | < 1.00 | U | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| Propylene | 115-07-1 | | | | 1.01 | | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| sec-Butylbenzene | 135-98-8 | | | | < 1.00 | U | < 1.00 | U | < 9.98 | U | < 1.00 | U | 14.9 | |
| Styrene | 100-42-5 | | 1.9 | 1.3 | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Tetrachloroethene | 127-18-4 | 30 | 15.9 | 6.5 | 5.65 | | 5.98 | | 5,090 | | 4.64 | | 18,600 | |
| Tetrahydrofuran | 109-99-9 | | | | < 1.00 | U | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| Toluene | 108-88-3 | | 43 | 33.7 | 1.05 | | 1.07 | | < 10.0 | U | 1.12 | | 12 | |
| Trans-1,2-Dichloroethene | 156-60-5 | | | | < 1.00 | U | < 1.00 | U | 15.6 | | < 1.00 | U | 13.8 | |
| trans-1,3-Dichloropropene | 10061-02-6 | | <1.3 | <1.4 | < 1.00 | U | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| Trichloroethene | 79-01-6 | 2 | 4.2 | 1.3 | < 0.25 | U | < 0.25 | U | 168 | | 0.28 | | 191 | |
| Trichlorofluoromethane | 75-69-4 | | 18.1 | 4.3 | 1.33 | | 1.35 | | < 9.99 | U | 1.29 | | < 9.99 | U |
| Trichlorotrifluoroethane | 76-13-1 | | 3.5 | 1.6 | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Vinyl Chloride | 75-01-4 | | <1.9 | <1.8 | < 0.25 | U | < 0.25 | U | < 2.50 | U | < 0.25 | U | < 2.50 | U |

Highlighted analytes are included in the NYSDOH Decision Matrices

Qualifiers

U - The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.

S - This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.

E - The reported value is estimated because the concentration exceeded the calibration range.

**FORMER IMPERIAL CLEANERS SITE**
**218 LAKEVILLE ROAD**
**LAKE SUCCESS, NY**

**VCP SITE #V-00244-1**

**TABLE 1**
**SUMMARY OF FEBRUARY 2016 SVI INVESTIGATION SAMPLING RESULTS**

| | | | | | 218 Lakeville Road (Deli South) | | | | 218 Lakeville Road (Deli North) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | CAS # | NYSDOH Air Guideline Value (µg/m3) | USEPA BASE Indoor Air 90th Percentile Conc (µg/m3) | USEPA BASE Outdoor Air 90th Percentile Conc (µg/m3) | Indoor Air Concentration (µg/m3) | | Sub-slab Vapor Concentration (µg/m3) | | Indoor Air Concentration (µg/m3) | | Sub-slab Vapor Concentration (µg/m3) | | | |
| | | | | | IA-3 | Q | SS-3 | Q | IA-4 | Q | SS-4 | Q | SS-9 (Duplicate) | Q |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | | | | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| 1,1,1-Trichloroethane | 71-55-6 | | 20.6 | 2.6 | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U | < 9.98 | U |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | | | | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| 1,1,2-Trichloroethane | 79-00-5 | | <1.5 | <1.6 | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U | < 9.98 | U |
| 1,1-Dichloroethane | 75-34-3 | | <0.7 | <0.6 | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U | < 9.99 | U |
| 1,1-Dichloroethene | 75-35-4 | | <1.4 | <1.4 | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U | < 9.99 | U |
| 1,2,4-Trichlorobenzene | 120-82-1 | | <6.8 | <6.4 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| 1,2,4-Trimethylbenzene | 95-63-6 | | 9.5 | 5.8 | < 1.00 | U | < 10.0 | U | < 1.00 | U | 21.1 | | 19.2 | |
| 1,2-Dibromoethane(EDB) | 106-93-4 | | <1.5 | <1.6 | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U | < 9.98 | U |
| 1,2-Dichlorobenzene | 95-50-1 | | <1.2 | <1.2 | < 1.00 | U | < 9.97 | U | < 1.00 | U | < 9.97 | U | < 9.97 | U |
| 1,2-Dichloroethane | 107-06-2 | | <0.9 | <0.8 | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U | < 9.99 | U |
| 1,2-Dichloropropane | 78-87-5 | | <1.6 | <1.6 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | | | | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U | < 9.99 | U |
| 1,3,5-Trimethylbenzene | 108-67-8 | | 3.7 | 2.7 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| 1,3-Butadiene | 106-99-0 | | <3.0 | <3.4 | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U | < 9.99 | U |
| 1,3-Dichlorobenzene | 541-73-1 | | <2.4 | <2.2 | < 1.00 | U | < 9.97 | U | < 1.00 | U | < 9.97 | U | < 9.97 | U |
| 1,4-Dichlorobenzene | 106-46-7 | | 5.5 | 1.2 | < 1.00 | U | < 9.97 | U | < 1.00 | U | < 9.97 | U | < 9.97 | U |
| 1,4-Dioxane | 123-91-1 | | | | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| 2-Hexanone(MBK) | 591-78-6 | | | | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U | < 9.99 | U |
| 4-Ethyltoluene | 622-96-8 | | 3.6 | 3 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| 4-Isopropyltoluene | 99-87-6 | | | | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U | < 9.98 | U |
| 4-Methyl-2-pentanone(MIBK) | 108-10-1 | | 6 | 1.9 | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U | < 9.99 | U |
| Acetone | 67-64-1 | | 98.9 | 43.7 | 4.06 | S | 26.1 | S | 4.75 | S | 39.4 | S | 38 | S |
| Acrylonitrile | 107-13-1 | | | | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| Benzene | 71-43-2 | | 9.4 | 6.6 | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U | < 9.99 | U |
| Benzyl chloride | 100-44-7 | | <6.8 | <6.4 | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U | < 9.99 | U |
| Bromodichloromethane | 75-27-4 | | | | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U | < 9.98 | U |
| Bromoform | 75-25-2 | | | | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| Bromomethane | 74-83-9 | | <1.7 | <1.6 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| Carbon Disulfide | 75-15-0 | | 4.2 | 3.7 | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U | < 9.99 | U |
| Carbon Tetrachloride | 56-23-5 | | <1.3 | 0.7 | 0.51 | | < 2.50 | U | 0.49 | | < 2.50 | U | < 2.50 | U |
| Chlorobenzene | 108-90-7 | | <0.9 | <0.8 | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U | < 9.98 | U |
| Chloroethane | 75-00-3 | | <1.1 | <1.2 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| Chloroform | 67-66-3 | | 1.1 | 0.6 | < 1.00 | U | < 10.0 | U | < 1.00 | U | 11.8 | | 12.3 | |
| Chloromethane | 74-87-3 | | 3.7 | 3.7 | 1.51 | | < 10.0 | U | 1.28 | | < 10.0 | U | < 10.0 | U |
| Cis-1,2-Dichloroethene | 156-59-2 | | <1.9 | <1.8 | < 1.00 | U | 282 | | < 1.00 | U | 630 | | 654 | |
| cis-1,3-Dichloropropene | 10061-01-5 | | <2.3 | <2.2 | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U | < 9.98 | U |
| Cyclohexane | 110-82-7 | | | | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| Dibromochloromethane | 124-48-1 | | | | < 1.00 | U | < 9.96 | U | < 1.00 | U | < 9.96 | U | < 9.96 | U |
| Dichlorodifluoromethane | 75-71-8 | | 16.5 | 8.1 | 2.68 | | 14.8 | | 2.47 | | < 9.98 | U | < 9.98 | U |
| Ethanol | 64-17-5 | | 210 | 57 | 9.23 | S | < 10.0 | U | 5.44 | S | < 10.0 | U | 11.8 | S |
| Ethyl acetate | 141-78-6 | | 5.4 | 1.5 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| Ethylbenzene | 100-41-4 | | 5.7 | 3.5 | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U | < 9.98 | U |
| Heptane | 142-82-5 | | | | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U | < 9.99 | U |
| Hexachlorobutadiene | 87-68-3 | | <6.8 | <6.4 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| Hexane | 110-54-3 | | | | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| Isopropylalcohol | 67-63-0 | | | | 1.8 | S | < 10.0 | U | 1.27 | S | < 10.0 | U | < 10.0 | U |
| Isopropylbenzene | 98-82-8 | | | | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| m,p-Xylene | 179601-23-1 | | 22.2 | 12.8 | < 1.00 | U | < 9.98 | U | < 1.00 | U | 15.6 | | 16 | |
| Methyl Ethyl Ketone | 78-93-3 | | 12 | 11.3 | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U | < 9.99 | U |
| Methyl tert-butyl ether(MTBE) | 1634-04-4 | | 11.5 | 6.2 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| Methylene Chloride | 75-09-2 | 60 | 10 | 6.1 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| n-Butylbenzene | 104-51-8 | | | | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U | < 9.98 | U |
| o-Xylene | 95-47-6 | | 7.9 | 4.6 | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U | < 9.98 | U |
| Propylene | 115-07-1 | | | | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U | < 9.99 | U |
| sec-Butylbenzene | 135-98-8 | | | | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U | 16.1 | |
| Styrene | 100-42-5 | | 1.9 | 1.3 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| Tetrachloroethene | 127-18-4 | 30 | 15.9 | 6.5 | 1.92 | | 2,760 | | 1.58 | | 3,630 | | 3,550 | |
| Tetrahydrofuran | 109-99-9 | | | | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U | < 9.99 | U |
| Toluene | 108-88-3 | | 43 | 33.7 | < 1.00 | U | < 10.0 | U | < 1.00 | U | 13.3 | | 14.5 | |
| Trans-1,2-Dichloroethene | 156-60-5 | | | | < 1.00 | U | 24.8 | | < 1.00 | U | 34.9 | | 36.2 | |
| trans-1,3-Dichloropropene | 10061-02-6 | | <1.3 | <1.4 | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U | < 9.98 | U |
| Trichloroethene | 79-01-6 | 2 | 4.2 | 1.3 | 0.27 | | 459 | | < 0.25 | U | 564 | | 607 | |
| Trichlorofluoromethane | 75-69-4 | | 18.1 | 4.3 | 1.39 | | < 9.99 | U | 1.25 | | < 9.99 | U | < 9.99 | U |
| Trichlorotrifluoroethane | 76-13-1 | | 3.5 | 1.6 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| Vinyl Chloride | 75-01-4 | | <1.9 | <1.8 | < 0.25 | U | < 2.50 | U | < 0.25 | U | < 2.50 | U | < 2.50 | U |

Highlighted analytes are included in the NYSDOH Decision Matrices

Qualifiers

U - The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.

S - This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.

E - The reported value is estimated because the concentration exceeded the calibration range.

**FORMER IMPERIAL CLEANERS SITE**
**218 LAKEVILLE ROAD**
**LAKE SUCCESS, NY**

**VCP SITE #V-00244-1**

**TABLE 1**
**SUMMARY OF FEBRUARY 2016 SVI INVESTIGATION SAMPLING RESULTS**

| | | | | | 2 University Place | | | | 4 University Place | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | CAS # | NYSDOH Air Guideline Value (µg/m3) | USEPA BASE Indoor Air 90th Percentile Conc (µg/m3) | USEPA BASE Outdoor Air 90th Percentile Conc (µg/m3) | Indoor Air Concentration (µg/m3) | | Sub-slab Vapor Concentration (µg/m3) | | Indoor Air Concentration (µg/m3) | | Sub-slab Vapor Concentration (µg/m3) | |
| | | | | | IA-5 | Q | SS-5 | Q | IA-6 | Q | SS-6 | Q |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | | | | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| 1,1,1-Trichloroethane | 71-55-6 | | 20.6 | 2.6 | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | | | | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| 1,1,2-Trichloroethane | 79-00-5 | | <1.5 | <1.6 | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| 1,1-Dichloroethane | 75-34-3 | | <0.7 | <0.6 | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| 1,1-Dichloroethene | 75-35-4 | | <1.4 | <1.4 | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| 1,2,4-Trichlorobenzene | 120-82-1 | | <6.8 | <6.4 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| 1,2,4-Trimethylbenzene | 95-63-6 | | 9.5 | 5.8 | < 1.00 | U | 76.6 | | < 1.00 | U | 53.6 | |
| 1,2-Dibromoethane(EDB) | 106-93-4 | | <1.5 | <1.6 | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| 1,2-Dichlorobenzene | 95-50-1 | | <1.2 | <1.2 | < 1.00 | U | < 9.97 | U | < 1.00 | U | < 9.97 | U |
| 1,2-Dichloroethane | 107-06-2 | | <0.9 | <0.8 | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| 1,2-Dichloropropane | 78-87-5 | | <1.6 | <1.6 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | | | | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| 1,3,5-Trimethylbenzene | 108-67-8 | | 3.7 | 2.7 | < 1.00 | U | 22.7 | | < 1.00 | U | 13.8 | |
| 1,3-Butadiene | 106-99-0 | | <3.0 | <3.4 | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| 1,3-Dichlorobenzene | 541-73-1 | | <2.4 | <2.2 | < 1.00 | U | < 9.97 | U | < 1.00 | U | < 9.97 | U |
| 1,4-Dichlorobenzene | 106-46-7 | | 5.5 | 1.2 | < 1.00 | U | < 9.97 | U | < 1.00 | U | < 9.97 | U |
| 1,4-Dioxane | 123-91-1 | | | | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| 2-Hexanone(MBK) | 591-78-6 | | | | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| 4-Ethyltoluene | 622-96-8 | | 3.6 | 3 | < 1.00 | U | 12.7 | | < 1.00 | U | < 10.0 | U |
| 4-Isopropyltoluene | 99-87-6 | | | | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| 4-Methyl-2-pentanone(MIBK) | 108-10-1 | | 6 | 1.9 | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| Acetone | 67-64-1 | | 98.9 | 43.7 | 14.9 | | 82.6 | S | 48.2 | | 37.3 | S |
| Acrylonitrile | 107-13-1 | | | | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Benzene | 71-43-2 | | 9.4 | 6.6 | 1.56 | | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| Benzyl chloride | 100-44-7 | | <6.8 | <6.4 | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| Bromodichloromethane | 75-27-4 | | | | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| Bromoform | 75-25-2 | | | | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Bromomethane | 74-83-9 | | <1.7 | <1.6 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Carbon Disulfide | 75-15-0 | | 4.2 | 3.7 | < 1.00 | U | 13.9 | | < 1.00 | U | < 9.99 | U |
| Carbon Tetrachloride | 56-23-5 | | <1.3 | 0.7 | 0.57 | | < 2.50 | U | 0.55 | | < 2.50 | U |
| Chlorobenzene | 108-90-7 | | <0.9 | <0.8 | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| Chloroethane | 75-00-3 | | <1.1 | <1.2 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Chloroform | 67-66-3 | | 1.1 | 0.6 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Chloromethane | 74-87-3 | | 3.7 | 3.7 | 2.17 | | < 10.0 | U | 1.5 | | < 10.0 | U |
| Cis-1,2-Dichloroethene | 156-59-2 | | <1.9 | <1.8 | < 1.00 | U | < 9.99 | U | < 1.00 | U | 134 | |
| cis-1,3-Dichloropropene | 10061-01-5 | | <2.3 | <2.2 | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| Cyclohexane | 110-82-7 | | | | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Dibromochloromethane | 124-48-1 | | | | < 1.00 | U | < 9.96 | U | < 1.00 | U | < 9.96 | U |
| Dichlorodifluoromethane | 75-71-8 | | 16.5 | 8.1 | 2.71 | | < 9.98 | U | 2.61 | | < 9.98 | U |
| Ethanol | 64-17-5 | | 210 | 57 | 23.2 | | 23.5 | S | 57.6 | | 13.6 | S |
| Ethyl acetate | 141-78-6 | | 5.4 | 1.5 | 1.06 | | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Ethylbenzene | 100-41-4 | | 5.7 | 3.5 | 1.05 | | 14.5 | | < 1.00 | U | < 9.98 | U |
| Heptane | 142-82-5 | | | | 1.45 | | 13 | | < 1.00 | U | < 9.99 | U |
| Hexachlorobutadiene | 87-68-3 | | <6.8 | <6.4 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Hexane | 110-54-3 | | | | 2.03 | S | 11.1 | S | < 1.00 | U | < 10.0 | U |
| Isopropylalcohol | 67-63-0 | | | | 1.64 | S | < 10.0 | U | 6.19 | S | < 10.0 | U |
| Isopropylbenzene | 98-82-8 | | | | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| m,p-Xylene | 179601-23-1 | | 22.2 | 12.8 | 4.13 | | 57.7 | | 2.2 | | 35.7 | |
| Methyl Ethyl Ketone | 78-93-3 | | 12 | 11.3 | 1.81 | | < 9.99 | U | 1.29 | | < 9.99 | U |
| Methyl tert-butyl ether(MTBE) | 1634-04-4 | | 11.5 | 6.2 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Methylene Chloride | 75-09-2 | 60 | 10 | 6.1 | 2.35 | S | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| n-Butylbenzene | 104-51-8 | | | | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| o-Xylene | 95-47-6 | | 7.9 | 4.6 | 1.29 | | 28.3 | | < 1.00 | U | 17.3 | |
| Propylene | 115-07-1 | | | | < 1.00 | U | 28.6 | | < 1.00 | U | < 9.99 | U |
| sec-Butylbenzene | 135-98-8 | | | | < 1.00 | U | 64.7 | | < 1.00 | U | 44.9 | |
| Styrene | 100-42-5 | | 1.9 | 1.3 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Tetrachloroethene | 127-18-4 | 30 | 15.9 | 6.5 | 1.82 | | 3,590 | | 36.2 | | 20,100 | |
| Tetrahydrofuran | 109-99-9 | | | | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| Toluene | 108-88-3 | | 43 | 33.7 | 9.83 | | 31.4 | | 3.17 | | 20.4 | |
| Trans-1,2-Dichloroethene | 156-60-5 | | | | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| trans-1,3-Dichloropropene | 10061-02-6 | | <1.3 | <1.4 | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| Trichloroethene | 79-01-6 | 2 | 4.2 | 1.3 | 1.01 | | 47 | | 0.6 | | 655 | |
| Trichlorofluoromethane | 75-69-4 | | 18.1 | 4.3 | 1.35 | | < 9.99 | U | 1.33 | | < 9.99 | U |
| Trichlorotrifluoroethane | 76-13-1 | | 3.5 | 1.6 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Vinyl Chloride | 75-01-4 | | <1.9 | <1.8 | < 0.25 | U | < 2.50 | U | < 0.25 | U | < 2.50 | U |

Highlighted analytes are included in the NYSDOH Decision Matrices

Qualifiers

U - The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.

S - This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.

E - The reported value is estimated because the concentration exceeded the calibration range.

**FORMER IMPERIAL CLEANERS SITE**
**218 LAKEVILLE ROAD**
**LAKE SUCCESS, NY**

**VCP SITE #V-00244-1**

**TABLE 1**
**SUMMARY OF FEBRUARY 2016 SVI INVESTIGATION SAMPLING RESULTS**

| | | | | | 220 Lakeville Road | | | | 216 Lakeville Road (Cottage) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | CAS # | NYSDOH Air Guideline Value (µg/m3) | USEPA BASE Indoor Air 90th Percentile Conc (µg/m3) | USEPA BASE Outdoor Air 90th Percentile Conc (µg/m3) | Indoor Air Concentration (µg/m3) | | Sub-slab Vapor Concentration (µg/m3) | | Indoor Air Concentration (µg/m3) | | Soil Vapor Concentration (µg/m3) | |
| | | | | | IA-7 | Q | SS-7 | Q | IA-8 | Q | SS-8 | Q |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,1,1-Trichloroethane | 71-55-6 | | 20.6 | 2.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U | 8.34 | |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,1,2-Trichloroethane | 79-00-5 | | <1.5 | <1.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,1-Dichloroethane | 75-34-3 | | <0.7 | <0.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,1-Dichloroethene | 75-35-4 | | <1.4 | <1.4 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,2,4-Trichlorobenzene | 120-82-1 | | <6.8 | <6.4 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,2,4-Trimethylbenzene | 95-63-6 | | 9.5 | 5.8 | < 1.00 | U | 20.6 | | < 1.00 | U | 14.1 | |
| 1,2-Dibromoethane(EDB) | 106-93-4 | | <1.5 | <1.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,2-Dichlorobenzene | 95-50-1 | | <1.2 | <1.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,2-Dichloroethane | 107-06-2 | | <0.9 | <0.8 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,2-Dichloropropane | 78-87-5 | | <1.6 | <1.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,3,5-Trimethylbenzene | 108-67-8 | | 3.7 | 2.7 | < 1.00 | U | 5.4 | | < 1.00 | U | 4.05 | |
| 1,3-Butadiene | 106-99-0 | | <3.0 | <3.4 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,3-Dichlorobenzene | 541-73-1 | | <2.4 | <2.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,4-Dichlorobenzene | 106-46-7 | | 5.5 | 1.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,4-Dioxane | 123-91-1 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 2-Hexanone(MBK) | 591-78-6 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 4-Ethyltoluene | 622-96-8 | | 3.6 | 3 | < 1.00 | U | 3.23 | | < 1.00 | U | 2.37 | |
| 4-Isopropyltoluene | 99-87-6 | | | | < 1.00 | U | 1.65 | | < 1.00 | U | 1.01 | |
| 4-Methyl-2-pentanone(MIBK) | 108-10-1 | | 6 | 1.9 | < 1.00 | U | < 1.00 | U | < 1.00 | U | 1.05 | |
| Acetone | 67-64-1 | | 98.9 | 43.7 | 6.62 | S | 143 | | 69.6 | | 98.8 | |
| Acrylonitrile | 107-13-1 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Benzene | 71-43-2 | | 9.4 | 6.6 | < 1.00 | U | 1.1 | | < 1.00 | U | 4.95 | |
| Benzyl chloride | 100-44-7 | | <6.8 | <6.4 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Bromodichloromethane | 75-27-4 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Bromoform | 75-25-2 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Bromomethane | 74-83-9 | | <1.7 | <1.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Carbon Disulfide | 75-15-0 | | 4.2 | 3.7 | < 1.00 | U | 29.6 | | < 1.00 | U | 5.1 | |
| Carbon Tetrachloride | 56-23-5 | | <1.3 | 0.7 | 0.58 | | < 0.25 | U | 0.46 | | 0.46 | |
| Chlorobenzene | 108-90-7 | | <0.9 | <0.8 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Chloroethane | 75-00-3 | | <1.1 | <1.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Chloroform | 67-66-3 | | 1.1 | 0.6 | < 1.00 | U | 4.62 | | < 1.00 | U | < 1.00 | U |
| Chloromethane | 74-87-3 | | 3.7 | 3.7 | 1.19 | | < 1.00 | U | 1.22 | | 1.57 | |
| Cis-1,2-Dichloroethene | 156-59-2 | | <1.9 | <1.8 | < 1.00 | U | 3.8 | | < 1.00 | U | < 1.00 | U |
| cis-1,3-Dichloropropene | 10061-01-5 | | <2.3 | <2.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Cyclohexane | 110-82-7 | | | | < 1.00 | U | 1.42 | | < 1.00 | U | < 1.00 | U |
| Dibromochloromethane | 124-48-1 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Dichlorodifluoromethane | 75-71-8 | | 16.5 | 8.1 | 2.81 | | 2.96 | | 2.49 | | 2.92 | |
| Ethanol | 64-17-5 | | 210 | 57 | 6.76 | S | 14.9 | | 130 | E | 29.2 | |
| Ethyl acetate | 141-78-6 | | 5.4 | 1.5 | < 1.00 | U | < 1.00 | U | 1.47 | | < 1.00 | U |
| Ethylbenzene | 100-41-4 | | 5.7 | 3.5 | < 1.00 | U | 3.54 | | < 1.00 | U | 3.94 | |
| Heptane | 142-82-5 | | | | < 1.00 | U | 3.43 | | < 1.00 | U | 6.59 | |
| Hexachlorobutadiene | 87-68-3 | | <6.8 | <6.4 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Hexane | 110-54-3 | | | | < 1.00 | U | 7.12 | S | < 1.00 | U | 9.09 | S |
| Isopropylalcohol | 67-63-0 | | | | 1.15 | S | 1.8 | S | 35.4 | | 2.85 | S |
| Isopropylbenzene | 98-82-8 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| m,p-Xylene | 179601-23-1 | | 22.2 | 12.8 | < 1.00 | U | 14.3 | | < 1.00 | U | 14.1 | |
| Methyl Ethyl Ketone | 78-93-3 | | 12 | 11.3 | < 1.00 | U | 6.69 | | < 1.00 | U | 9.84 | |
| Methyl tert-butyl ether(MTBE) | 1634-04-4 | | 11.5 | 6.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Methylene Chloride | 75-09-2 | 60 | 10 | 6.1 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| n-Butylbenzene | 104-51-8 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| o-Xylene | 95-47-6 | | 7.9 | 4.6 | < 1.00 | U | 6.94 | | < 1.00 | U | 6.77 | |
| Propylene | 115-07-1 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | 22.2 | |
| sec-Butylbenzene | 135-98-8 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | 11.8 | |
| Styrene | 100-42-5 | | 1.9 | 1.3 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Tetrachloroethene | 127-18-4 | 30 | 15.9 | 6.5 | 0.67 | | 854 | | 0.79 | | 3.2 | |
| Tetrahydrofuran | 109-99-9 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Toluene | 108-88-3 | | 43 | 33.7 | 1.71 | | 9.45 | | 2.05 | | 14.6 | |
| Trans-1,2-Dichloroethene | 156-60-5 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| trans-1,3-Dichloropropene | 10061-02-6 | | <1.3 | <1.4 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Trichloroethene | 79-01-6 | 2 | 4.2 | 1.3 | < 0.25 | U | 14.1 | | < 0.25 | U | 0.39 | |
| Trichlorofluoromethane | 75-69-4 | | 18.1 | 4.3 | 1.47 | | 1.52 | | 1.33 | | 1.77 | |
| Trichlorotrifluoroethane | 76-13-1 | | 3.5 | 1.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Vinyl Chloride | 75-01-4 | | <1.9 | <1.8 | < 0.25 | U | < 0.25 | U | < 0.25 | U | < 0.25 | U |

Highlighted analytes are included in the NYSDOH Decision Matrices

Qualifiers

U - The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.

S - This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.

E - The reported value is estimated because the concentration exceeded the calibration range.

**FORMER IMPERIAL CLEANERS SITE**
**218 LAKEVILLE ROAD**
**LAKE SUCCESS, NY**

**VCP SITE #V-00244-1**

**TABLE 1**
**SUMMARY OF FEBRUARY 2016 SVI INVESTIGATION SAMPLING RESULTS**

| | | | | | Outdoor Ambient Air Samples | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | CAS # | NYSDOH Air Guideline Value (µg/m3) | USEPA BASE Indoor Air 90th Percentile Conc (µg/m3) | USEPA BASE Outdoor Air 90th Percentile Conc (µg/m3) | Upwind Concentration (µg/m3) | | Downwind Concentration (µg/m3) | | | |
| | | | | | AA-1 | Q | AA-2 | Q | AA-3 (Duplicate) | Q |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,1,1-Trichloroethane | 71-55-6 | | 20.6 | 2.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,1,2-Trichloroethane | 79-00-5 | | <1.5 | <1.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,1-Dichloroethane | 75-34-3 | | <0.7 | <0.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,1-Dichloroethene | 75-35-4 | | <1.4 | <1.4 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,2,4-Trichlorobenzene | 120-82-1 | | <6.8 | <6.4 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,2,4-Trimethylbenzene | 95-63-6 | | 9.5 | 5.8 | 11.3 | | 12.6 | | 14.3 | |
| 1,2-Dibromoethane(EDB) | 106-93-4 | | <1.5 | <1.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,2-Dichlorobenzene | 95-50-1 | | <1.2 | <1.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,2-Dichloroethane | 107-06-2 | | <0.9 | <0.8 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,2-Dichloropropane | 78-87-5 | | <1.6 | <1.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,3,5-Trimethylbenzene | 108-67-8 | | 3.7 | 2.7 | 4.31 | | 4.32 | | 4.2 | |
| 1,3-Butadiene | 106-99-0 | | <3.0 | <3.4 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,3-Dichlorobenzene | 541-73-1 | | <2.4 | <2.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,4-Dichlorobenzene | 106-46-7 | | 5.5 | 1.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,4-Dioxane | 123-91-1 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 2-Hexanone(MBK) | 591-78-6 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 4-Ethyltoluene | 622-96-8 | | 3.6 | 3 | 2.11 | | 2.84 | | 2.6 | |
| 4-Isopropyltoluene | 99-87-6 | | | | 1.03 | | 1.08 | | 1.31 | |
| 4-Methyl-2-pentanone(MIBK) | 108-10-1 | | 6 | 1.9 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Acetone | 67-64-1 | | 98.9 | 43.7 | 18.8 | | 28 | | 22.1 | |
| Acrylonitrile | 107-13-1 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Benzene | 71-43-2 | | 9.4 | 6.6 | 4.12 | | 3.19 | | 2.96 | |
| Benzyl chloride | 100-44-7 | | <6.8 | <6.4 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Bromodichloromethane | 75-27-4 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Bromoform | 75-25-2 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Bromomethane | 74-83-9 | | <1.7 | <1.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Carbon Disulfide | 75-15-0 | | 4.2 | 3.7 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Carbon Tetrachloride | 56-23-5 | | <1.3 | 0.7 | 0.38 | | 0.41 | | 0.43 | |
| Chlorobenzene | 108-90-7 | | <0.9 | <0.8 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Chloroethane | 75-00-3 | | <1.1 | <1.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Chloroform | 67-66-3 | | 1.1 | 0.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Chloromethane | 74-87-3 | | 3.7 | 3.7 | 1.53 | | 1.63 | | < 1.00 | U |
| Cis-1,2-Dichloroethene | 156-59-2 | | <1.9 | <1.8 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| cis-1,3-Dichloropropene | 10061-01-5 | | <2.3 | <2.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Cyclohexane | 110-82-7 | | | | 6.47 | | 4.54 | | 3.96 | |
| Dibromochloromethane | 124-48-1 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Dichlorodifluoromethane | 75-71-8 | | 16.5 | 8.1 | 2.51 | | 2.45 | | 2.47 | |
| Ethanol | 64-17-5 | | 210 | 57 | 17.5 | | 13.6 | | 13.8 | |
| Ethyl acetate | 141-78-6 | | 5.4 | 1.5 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Ethylbenzene | 100-41-4 | | 5.7 | 3.5 | 4.73 | | 4.6 | | 4.69 | |
| Heptane | 142-82-5 | | | | 8.27 | | 6.47 | | 5.73 | |
| Hexachlorobutadiene | 87-68-3 | | <6.8 | <6.4 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Hexane | 110-54-3 | | | | 10.8 | | 7.82 | S | 6.76 | S |
| Isopropylalcohol | 67-63-0 | | | | 1.67 | S | 2.44 | S | 1.28 | S |
| Isopropylbenzene | 98-82-8 | | | | 1.07 | | 1.11 | | < 1.00 | U |
| m,p-Xylene | 179601-23-1 | | 22.2 | 12.8 | 15.9 | | 15.3 | | 15.4 | |
| Methyl Ethyl Ketone | 78-93-3 | | 12 | 11.3 | 1.71 | | 1.09 | | 1.06 | |
| Methyl tert-butyl ether(MTBE) | 1634-04-4 | | 11.5 | 6.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Methylene Chloride | 75-09-2 | 60 | 10 | 6.1 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| n-Butylbenzene | 104-51-8 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| o-Xylene | 95-47-6 | | 7.9 | 4.6 | 7.59 | | 7.38 | | 7.33 | |
| Propylene | 115-07-1 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| sec-Butylbenzene | 135-98-8 | | | | 9.49 | | < 1.00 | U | 12.1 | |
| Styrene | 100-42-5 | | 1.9 | 1.3 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Tetrachloroethene | 127-18-4 | 30 | 15.9 | 6.5 | 0.33 | | 0.47 | | 0.39 | |
| Tetrahydrofuran | 109-99-9 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Toluene | 108-88-3 | | 43 | 33.7 | 21.9 | | 18.8 | | 18.3 | |
| Trans-1,2-Dichloroethene | 156-60-5 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| trans-1,3-Dichloropropene | 10061-02-6 | | <1.3 | <1.4 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Trichloroethene | 79-01-6 | 2 | 4.2 | 1.3 | < 0.25 | U | < 0.25 | U | < 0.25 | U |
| Trichlorofluoromethane | 75-69-4 | | 18.1 | 4.3 | 2.76 | | 2.3 | | 2.17 | |
| Trichlorotrifluoroethane | 76-13-1 | | 3.5 | 1.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Vinyl Chloride | 75-01-4 | | <1.9 | <1.8 | < 0.25 | U | < 0.25 | U | < 0.25 | U |

Highlighted analytes are included in the NYSDOH Decision Matrices

Qualifiers

U - The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.

S - This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.

E - The reported value is estimated because the concentration exceeded the calibration range.

**FORMER IMPERIAL CLEANERS SITE**
**218 LAKEVILLE ROAD**
**LAKE SUCCESS, NY**
**BCP SITE #C130225**

**TABLE 2**
**SUMMARY OF APRIL 2019 SVI INVESTIGATION SAMPLING RESULTS**

| | | | | | 218 Lakeville Road (Former Dry Cleaners Space) | | | | | | 218 Lakeville Road (Tobacco Shop) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | CAS # | NYSDOH Air Guideline Value (µg/m³) | USEPA BASE Indoor Air 90th Percentile Conc (µg/m³) | USEPA BASE Outdoor Air 90th Percentile Conc (µg/m³) | Indoor Air Concentration (µg/m³) | | Sub-Slab Vapor Concentration (µg/m³) | | | | Indoor Air Concentration (µg/m³) | | Sub-Slab Vapor Concentration (µg/m³) | |
| | | | | | IA-1 | | SS-1 | | SS-DUP (SS-1) | | IA-2 | | SS-2 | |
| | | | | | 4/4/2019 | Q | 4/4/2019 | Q | 4/4/2019 | Q | 4/4/2019 | Q | 4/4/2019 | Q |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | | | | < 1.00 | U | < 5.00 | U | < 5.00 | U | < 1.00 | U | < 5.00 | U |
| 1,1,1-Trichloroethane | 71-55-6 | | 20.6 | 2.6 | < 1.00 | U | < 5.00 | U | < 5.00 | U | < 1.00 | U | < 5.00 | U |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | | | | < 1.00 | U | < 5.00 | U | < 5.00 | U | < 1.00 | U | < 5.00 | U |
| 1,1,2-Trichloroethane | 79-00-5 | | <1.5 | <1.6 | < 1.00 | U | < 5.00 | U | < 5.00 | U | < 1.00 | U | < 5.00 | U |
| 1,1-Dichloroethane | 75-34-3 | | <0.7 | <0.6 | < 1.00 | U | < 5.02 | U | < 5.02 | U | < 1.00 | U | < 5.02 | U |
| 1,1-Dichloroethene | 75-35-4 | | <1.4 | <1.4 | < 0.20 | U | < 1.00 | U | < 1.00 | U | < 0.20 | U | < 1.00 | U |
| 1,2,4-Trichlorobenzene | 120-82-1 | | <6.8 | <6.4 | < 1.00 | U | < 5.00 | U | < 5.00 | U | < 1.00 | U | < 5.00 | U |
| 1,2,4-Trimethylbenzene | 95-63-6 | | 9.5 | 5.8 | < 1.00 | U | < 5.01 | U | < 5.01 | U | **1.72** | | < 5.01 | U |
| 1,2-Dibromoethane (EDB) | 106-93-4 | | <1.5 | <1.6 | < 1.00 | U | < 5.00 | U | < 5.00 | U | < 1.00 | U | < 5.00 | U |
| 1,2-Dichlorobenzene | 95-50-1 | | <1.2 | <1.2 | < 1.00 | U | < 5.00 | U | < 5.00 | U | < 1.00 | U | < 5.00 | U |
| 1,2-Dichloroethane | 107-06-2 | | <0.9 | <0.8 | < 1.00 | U | < 5.02 | U | < 5.02 | U | < 1.00 | U | < 5.02 | U |
| 1,2-Dichloropropane | 78-87-5 | | <1.6 | <1.6 | < 1.00 | U | < 4.99 | U | < 4.99 | U | < 1.00 | U | < 4.99 | U |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | | | | < 1.00 | U | < 5.00 | U | < 5.00 | U | < 1.00 | U | < 5.00 | U |
| 1,3,5-Trimethylbenzene | 108-67-8 | | 3.7 | 2.7 | < 1.00 | U | < 5.01 | U | < 5.01 | U | < 1.00 | U | < 5.01 | U |
| 1,3-Butadiene | 106-99-0 | | <3.0 | <3.4 | < 1.00 | U | < 5.00 | U | < 5.00 | U | < 1.00 | U | < 5.00 | U |
| 1,3-Dichlorobenzene | 541-73-1 | | <2.4 | <2.2 | < 1.00 | U | < 5.00 | U | < 5.00 | U | < 1.00 | U | < 5.00 | U |
| 1,4-Dichlorobenzene | 106-46-7 | | 5.5 | 1.2 | < 1.00 | U | < 5.00 | U | < 5.00 | U | < 1.00 | U | < 5.00 | U |
| 1,4-Dioxane | 123-91-1 | | | | < 1.00 | U | < 5.01 | U | < 5.01 | U | < 1.00 | U | < 5.01 | U |
| 2-Hexanone (MBK) | 591-78-6 | | | | < 1.00 | U | < 4.99 | U | < 4.99 | U | < 1.00 | U | < 4.99 | U |
| 4-Ethyltoluene | 622-96-8 | | 3.6 | 3 | < 1.00 | U | < 5.01 | U | < 5.01 | U | < 1.00 | U | < 5.01 | U |
| 4-Isopropyltoluene | 99-87-6 | | | | < 1.00 | U | < 5.00 | U | < 5.00 | U | < 1.00 | U | < 5.00 | U |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | | 6 | 1.9 | < 1.00 | U | < 4.99 | U | < 4.99 | U | < 1.00 | U | < 4.99 | U |
| Acetone | 67-64-1 | | 98.9 | 43.7 | **5.56** | | **8.5** | | **8.52** | | **8.38** | | **5.27** | |
| Acrylonitrile | 107-13-1 | | | | < 1.00 | U | < 5.01 | U | < 5.01 | U | < 1.00 | U | < 5.01 | U |
| Benzene | 71-43-2 | | 9.4 | 6.6 | < 1.00 | U | < 5.01 | U | < 5.01 | U | < 1.00 | U | < 5.01 | U |
| Benzyl chloride | 100-44-7 | | <6.8 | <6.4 | < 1.00 | U | < 5.00 | U | < 5.00 | U | < 1.00 | U | < 5.00 | U |
| Bromodichloromethane | 75-27-4 | | | | < 1.00 | U | < 5.00 | U | < 5.00 | U | < 1.00 | U | < 5.00 | U |
| Bromoform | 75-25-2 | | | | < 1.00 | U | < 5.00 | U | < 5.00 | U | < 1.00 | U | < 5.00 | U |
| Bromomethane | 74-83-9 | | <1.7 | <1.6 | < 1.00 | U | < 5.01 | U | < 5.01 | U | < 1.00 | U | < 5.01 | U |
| Carbon Disulfide | 75-15-0 | | 4.2 | 3.7 | < 1.00 | U | < 5.01 | U | < 5.01 | U | < 1.00 | U | < 5.01 | U |
| Carbon Tetrachloride | 56-23-5 | | <1.3 | 0.7 | **0.53** | | < 1.00 | U | < 1.00 | U | **0.53** | | < 1.00 | U |
| Chlorobenzene | 108-90-7 | | <0.9 | <0.8 | < 1.00 | U | < 5.01 | U | < 5.01 | U | < 1.00 | U | < 5.01 | U |
| Chloroethane | 75-00-3 | | <1.1 | <1.2 | < 1.00 | U | < 5.01 | U | < 5.01 | U | < 1.00 | U | < 5.01 | U |
| Chloroform | 67-66-3 | | 1.1 | 0.6 | < 1.00 | U | **7.81** | | **7.76** | | < 1.00 | U | **83.9** | |
| Chloromethane | 74-87-3 | | 3.7 | 3.7 | **1.25** | | < 4.99 | U | < 4.99 | U | **1.3** | | < 4.99 | U |
| Cis-1,2-Dichloroethene | 156-59-2 | | <1.9 | <1.8 | < 0.20 | U | **340** | | **336** | | < 0.20 | U | **303** | |
| cis-1,3-Dichloropropene | 10061-01-5 | | <2.3 | <2.2 | < 1.00 | U | < 4.99 | U | < 4.99 | U | < 1.00 | U | < 4.99 | U |
| Cyclohexane | 110-82-7 | | | | < 1.00 | U | < 4.99 | U | < 4.99 | U | < 1.00 | U | < 4.99 | U |
| Dibromochloromethane | 124-48-1 | | | | < 1.00 | U | < 5.00 | U | < 5.00 | U | < 1.00 | U | < 5.00 | U |
| Dichlorodifluoromethane | 75-71-8 | | 16.5 | 8.1 | **2.38** | | < 4.99 | U | < 4.99 | U | **2.34** | | < 4.99 | U |
| Ethanol | 64-17-5 | | 210 | 57 | **10.5** | | **5.1** | | < 5.01 | U | **10** | | **5.44** | |
| Ethyl acetate | 141-78-6 | | 5.4 | 1.5 | < 1.00 | U | < 5.01 | U | < 5.01 | U | < 1.00 | U | < 5.01 | U |
| Ethylbenzene | 100-41-4 | | 5.7 | 3.5 | < 1.00 | U | < 4.99 | U | < 4.99 | U | < 1.00 | U | < 4.99 | U |
| Heptane | 142-82-5 | | | | < 1.00 | U | < 5.00 | U | < 5.00 | U | < 1.00 | U | < 5.00 | U |
| Hexachlorobutadiene | 87-68-3 | | <6.8 | <6.4 | < 1.00 | U | < 5.00 | U | < 5.00 | U | < 1.00 | U | < 5.00 | U |
| Hexane | 110-54-3 | | | | < 1.00 | U | < 5.00 | U | < 5.00 | U | < 1.00 | U | < 5.00 | U |
| Isopropylalcohol | 67-63-0 | | | | **2.34** | | < 5.01 | U | < 5.01 | U | **2.83** | | < 5.01 | U |
| Isopropylbenzene | 98-82-8 | | | | < 1.00 | U | < 5.01 | U | < 5.01 | U | < 1.00 | U | < 5.01 | U |
| m,p-Xylene | 179601-23-1 | | 22.2 | 12.8 | < 1.00 | U | **7.51** | | **7.81** | | < 1.00 | U | < 4.99 | U |
| Methyl Ethyl Ketone | 78-93-3 | | 12 | 11.3 | < 1.00 | U | < 5.01 | U | < 5.01 | U | < 1.00 | U | < 5.01 | U |
| Methyl tert-butyl ether (MTBE) | 1634-04-4 | | 11.5 | 6.2 | < 1.00 | U | < 5.01 | U | < 5.01 | U | < 1.00 | U | < 5.01 | U |
| Methylene Chloride | 75-09-2 | 60 | 10 | 6.1 | < 3.00 | U | < 15.0 | U | < 15.0 | U | < 3.00 | U | < 15.0 | U |
| n-Butylbenzene | 104-51-8 | | | | < 1.00 | U | < 5.00 | U | < 5.00 | U | < 1.00 | U | < 5.00 | U |
| o-Xylene | 95-47-6 | | 7.9 | 4.6 | < 1.00 | U | < 4.99 | U | < 4.99 | U | < 1.00 | U | < 4.99 | U |
| Propylene | 115-07-1 | | | | < 1.00 | U | < 5.01 | U | < 5.01 | U | < 1.00 | U | < 5.01 | U |
| sec-Butylbenzene | 135-98-8 | | | | < 1.00 | U | < 5.00 | U | < 5.00 | U | < 1.00 | U | < 5.00 | U |
| Styrene | 100-42-5 | | 1.9 | 1.3 | < 1.00 | U | < 4.98 | U | < 4.98 | U | < 1.00 | U | < 4.98 | U |
| Tetrachloroethene | 127-18-4 | 30 | 15.9 | 6.5 | **2.65** | | **12,500** | | **13,100** | | **6.78** | | **43,400** | |
| Tetrahydrofuran | 109-99-9 | | | | < 1.00 | U | < 5.01 | U | < 5.01 | U | < 1.00 | U | < 5.01 | U |
| Toluene | 108-88-3 | | 43 | 33.7 | < 1.00 | U | **10** | | **10.7** | | **1.3** | | < 5.01 | U |
| Trans-1,2-Dichloroethene | 156-60-5 | | | | < 1.00 | U | **17.1** | | **16.5** | | < 1.00 | U | **17.6** | |
| trans-1,3-Dichloropropene | 10061-02-6 | | <1.3 | <1.4 | < 1.00 | U | < 4.99 | U | < 4.99 | U | < 1.00 | U | < 4.99 | U |
| Trichloroethene | 79-01-6 | 2 | 4.2 | 1.3 | < 0.20 | U | **266** | | **265** | | < 0.20 | U | **370** | |
| Trichlorofluoromethane | 75-69-4 | | 18.1 | 4.3 | **1.5** | | < 5.00 | U | < 5.00 | U | **1.44** | | < 5.00 | U |
| Trichlorotrifluoroethane | 76-13-1 | | 3.5 | 1.6 | < 1.00 | U | < 5.00 | U | < 5.00 | U | < 1.00 | U | < 5.00 | U |
| Vinyl Chloride | 75-01-4 | | <1.9 | <1.8 | < 0.20 | U | < 1.00 | U | < 1.00 | U | < 0.20 | U | < 1.00 | U |

Highlighted analytes are included in the SVI Guidance Decision Matrices

Qualifiers

U - The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.

E - The reported value is estimated because the concentration exceeded the calibration range.

**FORMER IMPERIAL CLEANERS SITE**
**218 LAKEVILLE ROAD**
**LAKE SUCCESS, NY**
**BCP SITE #C130225**

**TABLE 2**
**SUMMARY OF APRIL 2019 SVI INVESTIGATION SAMPLING RESULTS**

| | | | | | 218 Lakeville Road (Former Deli, South) | | | | 218 Lakeville Road (CCQ Construction Inc.) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | CAS # | NYSDOH Air Guideline Value (µg/m$^3$) | USEPA BASE Indoor Air 90th Percentile Conc (µg/m$^3$) | USEPA BASE Outdoor Air 90th Percentile Conc (µg/m$^3$) | Indoor Air Concentration (µg/m$^3$) | | Sub-Slab Vapor Concentration (µg/m$^3$) | | Indoor Air Concentration (µg/m$^3$) | | | | Sub-Slab Vapor Concentration (µg/m$^3$) | |
| | | | | | IA-3 | | SS-3 | | IA-4 | | IA-DUP (IA-4) | | SS-4 | |
| | | | | | 4/4/2019 | Q | 4/4/2019 | Q | 4/4/2019 | Q | 4/4/2019 | Q | 4/4/2019 | Q |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | | | | < 1.00 | U | < 5.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| 1,1,1-Trichloroethane | 71-55-6 | | 20.6 | 2.6 | < 1.00 | U | < 5.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | | | | < 1.00 | U | < 5.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| 1,1,2-Trichloroethane | 79-00-5 | | <1.5 | <1.6 | < 1.00 | U | < 5.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| 1,1-Dichloroethane | 75-34-3 | | <0.7 | <0.6 | < 1.00 | U | < 5.02 | U | < 1.00 | U | < 1.00 | U | < 5.02 | U |
| 1,1-Dichloroethene | 75-35-4 | | <1.4 | <1.4 | < 0.20 | U | < 1.00 | U | < 0.20 | U | < 0.20 | U | < 1.00 | U |
| 1,2,4-Trichlorobenzene | 120-82-1 | | <6.8 | <6.4 | < 1.00 | U | < 5.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| 1,2,4-Trimethylbenzene | 95-63-6 | | 9.5 | 5.8 | **12.8** | | < 5.01 | U | **18.5** | | **16.9** | | < 5.01 | U |
| 1,2-Dibromoethane (EDB) | 106-93-4 | | <1.5 | <1.6 | < 1.00 | U | < 5.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| 1,2-Dichlorobenzene | 95-50-1 | | <1.2 | <1.2 | < 1.00 | U | < 5.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| 1,2-Dichloroethane | 107-06-2 | | <0.9 | <0.8 | < 1.00 | U | < 5.02 | U | < 1.00 | U | < 1.00 | U | < 5.02 | U |
| 1,2-Dichloropropane | 78-87-5 | | <1.6 | <1.6 | < 1.00 | U | < 4.99 | U | < 1.00 | U | < 1.00 | U | < 4.99 | U |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | | | | < 1.00 | U | < 5.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| 1,3,5-Trimethylbenzene | 108-67-8 | | 3.7 | 2.7 | **3.69** | | < 5.01 | U | **5.16** | | **4.96** | | < 5.01 | U |
| 1,3-Butadiene | 106-99-0 | | <3.0 | <3.4 | < 1.00 | U | < 5.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| 1,3-Dichlorobenzene | 541-73-1 | | <2.4 | <2.2 | < 1.00 | U | < 5.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| 1,4-Dichlorobenzene | 106-46-7 | | 5.5 | 1.2 | < 1.00 | U | < 5.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| 1,4-Dioxane | 123-91-1 | | | | < 1.00 | U | < 5.01 | U | < 1.00 | U | < 1.00 | U | < 5.01 | U |
| 2-Hexanone (MBK) | 591-78-6 | | | | < 1.00 | U | < 4.99 | U | < 1.00 | U | < 1.00 | U | < 4.99 | U |
| 4-Ethyltoluene | 622-96-8 | | 3.6 | 3 | **3.5** | | < 5.01 | U | **4.96** | | **6.34** | | < 5.01 | U |
| 4-Isopropyltoluene | 99-87-6 | | | | < 1.00 | U | < 5.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | | 6 | 1.9 | < 1.00 | U | < 4.99 | U | < 1.00 | U | < 1.00 | U | < 4.99 | U |
| Acetone | 67-64-1 | | 98.9 | 43.7 | **14.2** | | < 5.01 | U | **17.6** | | **20.2** | | **5.67** | |
| Acrylonitrile | 107-13-1 | | | | < 1.00 | U | < 5.01 | U | < 1.00 | U | < 1.00 | U | < 5.01 | U |
| Benzene | 71-43-2 | | 9.4 | 6.6 | < 1.00 | U | < 5.01 | U | **1.57** | | **1.65** | | < 5.01 | U |
| Benzyl chloride | 100-44-7 | | <6.8 | <6.4 | < 1.00 | U | < 5.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| Bromodichloromethane | 75-27-4 | | | | < 1.00 | U | < 5.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| Bromoform | 75-25-2 | | | | < 1.00 | U | < 5.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| Bromomethane | 74-83-9 | | <1.7 | <1.6 | < 1.00 | U | < 5.01 | U | < 1.00 | U | < 1.00 | U | < 5.01 | U |
| Carbon Disulfide | 75-15-0 | | 4.2 | 3.7 | < 1.00 | U | < 5.01 | U | < 1.00 | U | < 1.00 | U | < 5.01 | U |
| Carbon Tetrachloride | 56-23-5 | | <1.3 | 0.7 | **0.48** | | < 1.00 | U | **0.52** | | **0.47** | | < 1.00 | U |
| Chlorobenzene | 108-90-7 | | <0.9 | <0.8 | < 1.00 | U | < 5.01 | U | < 1.00 | U | < 1.00 | U | < 5.01 | U |
| Chloroethane | 75-00-3 | | <1.1 | <1.2 | < 1.00 | U | < 5.01 | U | < 1.00 | U | < 1.00 | U | < 5.01 | U |
| Chloroform | 67-66-3 | | 1.1 | 0.6 | < 1.00 | U | < 4.98 | U | < 1.00 | U | < 1.00 | U | **10.3** | |
| Chloromethane | 74-87-3 | | 3.7 | 3.7 | **1.29** | | < 4.99 | U | **1.29** | | **1.2** | | < 4.99 | U |
| Cis-1,2-Dichloroethene | 156-59-2 | | <1.9 | <1.8 | < 0.20 | U | **654** | | **0.22** | | **0.23** | | **1,550** | |
| cis-1,3-Dichloropropene | 10061-01-5 | | <2.3 | <2.2 | < 1.00 | U | < 4.99 | U | < 1.00 | U | < 1.00 | U | < 4.99 | U |
| Cyclohexane | 110-82-7 | | | | < 1.00 | U | < 4.99 | U | **2.17** | | **3.1** | | < 4.99 | U |
| Dibromochloromethane | 124-48-1 | | | | < 1.00 | U | < 5.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| Dichlorodifluoromethane | 75-71-8 | | 16.5 | 8.1 | **2.29** | | **8.6** | | **2.36** | | **2.35** | | < 4.99 | U |
| Ethanol | 64-17-5 | | 210 | 57 | **16.6** | | < 5.01 | U | **27.5** | | **33.7** | | < 5.01 | U |
| Ethyl acetate | 141-78-6 | | 5.4 | 1.5 | < 1.00 | U | < 5.01 | U | < 1.00 | U | < 1.00 | U | < 5.01 | U |
| Ethylbenzene | 100-41-4 | | 5.7 | 3.5 | < 1.00 | U | < 4.99 | U | **2.23** | | **2.52** | | < 4.99 | U |
| Heptane | 142-82-5 | | | | **1.37** | | < 5.00 | U | **3.37** | | **4.3** | | < 5.00 | U |
| Hexachlorobutadiene | 87-68-3 | | <6.8 | <6.4 | < 1.00 | U | < 5.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| Hexane | 110-54-3 | | | | **2.35** | | < 5.00 | U | **6.73** | | **8.28** | | < 5.00 | U |
| Isopropylalcohol | 67-63-0 | | | | **2.51** | | < 5.01 | U | **1.88** | | **1.84** | | < 5.01 | U |
| Isopropylbenzene | 98-82-8 | | | | < 1.00 | U | < 5.01 | U | **1.12** | | **1.17** | | < 5.01 | U |
| m,p-Xylene | 179601-23-1 | | 22.2 | 12.8 | **3.78** | | **6.25** | | **8.94** | | **10.2** | | **7.59** | |
| Methyl Ethyl Ketone | 78-93-3 | | 12 | 11.3 | **2.02** | | < 5.01 | U | **3.01** | | **2.54** | | < 5.01 | U |
| Methyl tert-butyl ether (MTBE) | 1634-04-4 | | 11.5 | 6.2 | < 1.00 | U | < 5.01 | U | < 1.00 | U | < 1.00 | U | < 5.01 | U |
| Methylene Chloride | 75-09-2 | 60 | 10 | 6.1 | < 3.00 | U | < 15.0 | U | < 3.00 | U | < 3.00 | U | < 15.0 | U |
| n-Butylbenzene | 104-51-8 | | | | < 1.00 | U | < 5.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| o-Xylene | 95-47-6 | | 7.9 | 4.6 | **1.68** | | < 4.99 | U | **3.87** | | **4.24** | | < 4.99 | U |
| Propylene | 115-07-1 | | | | < 1.00 | U | < 5.01 | U | < 1.00 | U | < 1.00 | U | < 5.01 | U |
| sec-Butylbenzene | 135-98-8 | | | | < 1.00 | U | < 5.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| Styrene | 100-42-5 | | 1.9 | 1.3 | **1.06** | | < 4.98 | U | < 1.00 | U | < 1.00 | U | < 4.98 | U |
| Tetrachloroethene | 127-18-4 | 30 | 15.9 | 6.5 | **7.73** | | **4,570** | | **16.9** | | **9.08** | | **14,600** | |
| Tetrahydrofuran | 109-99-9 | | | | **3.65** | | < 5.01 | U | **5.13** | | **5.75** | | < 5.01 | U |
| Toluene | 108-88-3 | | 43 | 33.7 | **3.25** | | **5.57** | | **9.26** | | **10.9** | | **10.4** | |
| Trans-1,2-Dichloroethene | 156-60-5 | | | | < 1.00 | U | **40** | | < 1.00 | U | < 1.00 | U | **80** | |
| trans-1,3-Dichloropropene | 10061-02-6 | | <1.3 | <1.4 | < 1.00 | U | < 4.99 | U | < 1.00 | U | < 1.00 | U | < 4.99 | U |
| Trichloroethene | 79-01-6 | 2 | 4.2 | 1.3 | **0.22** | | **843** | | **0.23** | | **0.25** | | **1,170** | |
| Trichlorofluoromethane | 75-69-4 | | 18.1 | 4.3 | **1.48** | | < 5.00 | U | **1.38** | | **1.48** | | < 5.00 | U |
| Trichlorotrifluoroethane | 76-13-1 | | 3.5 | 1.6 | < 1.00 | U | < 5.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| Vinyl Chloride | 75-01-4 | | <1.9 | <1.8 | < 0.20 | U | < 1.00 | U | < 0.20 | U | < 0.20 | U | **1.25** | |

Highlighted analytes are included in the SVI Guidance Decision Matrices

Qualifiers

U - The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.

E - The reported value is estimated because the concentration exceeded the calibration range.

**FORMER IMPERIAL CLEANERS SITE**
**218 LAKEVILLE ROAD**
**LAKE SUCCESS, NY**
**BCP SITE #C130225**

**TABLE 2**
**SUMMARY OF APRIL 2019 SVI INVESTIGATION SAMPLING RESULTS**

| | | | | | 220 Lakeville Road | | | | 5 University Place | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | CAS # | NYSDOH Air Guideline Value ($\mu g/m^3$) | USEPA BASE Indoor Air 90th Percentile Conc ($\mu g/m^3$) | USEPA BASE Outdoor Air 90th Percentile Conc ($\mu g/m^3$) | Indoor Air Concentration ($\mu g/m^3$) | | Sub-slab Vapor Concentration ($\mu g/m^3$) | | Indoor Air Concentration ($\mu g/m^3$) | | Sub-slab Vapor Concentration ($\mu g/m^3$) | |
| | | | | | IA-7 | | SS-7 | | IA-10 | | SS-10 | |
| | | | | | 4/4/2019 | Q | 4/4/2019 | Q | 4/4/2019 | Q | 4/4/2019 | Q |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| 1,1,1-Trichloroethane | 71-55-6 | | 20.6 | 2.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| 1,1,2-Trichloroethane | 79-00-5 | | <1.5 | <1.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| 1,1-Dichloroethane | 75-34-3 | | <0.7 | <0.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 5.02 | U |
| 1,1-Dichloroethene | 75-35-4 | | <1.4 | <1.4 | < 0.20 | U | < 0.20 | U | < 0.20 | U | < 1.00 | U |
| 1,2,4-Trichlorobenzene | 120-82-1 | | <6.8 | <6.4 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| 1,2,4-Trimethylbenzene | 95-63-6 | | 9.5 | 5.8 | **1.06** | | **1.98** | | **7.76** | | **24.4** | |
| 1,2-Dibromoethane (EDB) | 106-93-4 | | <1.5 | <1.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| 1,2-Dichlorobenzene | 95-50-1 | | <1.2 | <1.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| 1,2-Dichloroethane | 107-06-2 | | <0.9 | <0.8 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 5.02 | U |
| 1,2-Dichloropropane | 78-87-5 | | <1.6 | <1.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 4.99 | U |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| 1,3,5-Trimethylbenzene | 108-67-8 | | 3.7 | 2.7 | < 1.00 | U | < 1.00 | U | **1.84** | | **5.45** | |
| 1,3-Butadiene | 106-99-0 | | <3.0 | <3.4 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| 1,3-Dichlorobenzene | 541-73-1 | | <2.4 | <2.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| 1,4-Dichlorobenzene | 106-46-7 | | 5.5 | 1.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| 1,4-Dioxane | 123-91-1 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 5.01 | U |
| 2-Hexanone (MBK) | 591-78-6 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 4.99 | U |
| 4-Ethyltoluene | 622-96-8 | | 3.6 | 3 | < 1.00 | U | < 1.00 | U | **2.06** | | **7.57** | |
| 4-Isopropyltoluene | 99-87-6 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | | 6 | 1.9 | **1.24** | | < 1.00 | U | < 1.00 | U | < 4.99 | U |
| Acetone | 67-64-1 | | 98.9 | 43.7 | **15.4** | | **6.03** | | **41.1** | | **186** | |
| Acrylonitrile | 107-13-1 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 5.01 | U |
| Benzene | 71-43-2 | | 9.4 | 6.6 | **1.18** | | < 1.00 | U | **3.29** | | **6.64** | |
| Benzyl chloride | 100-44-7 | | <6.8 | <6.4 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| Bromodichloromethane | 75-27-4 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| Bromoform | 75-25-2 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| Bromomethane | 74-83-9 | | <1.7 | <1.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 5.01 | U |
| Carbon Disulfide | 75-15-0 | | 4.2 | 3.7 | < 1.00 | U | < 1.00 | U | < 1.00 | U | **5.17** | |
| Carbon Tetrachloride | 56-23-5 | | <1.3 | 0.7 | **0.55** | | < 0.20 | U | **0.46** | | < 1.00 | U |
| Chlorobenzene | 108-90-7 | | <0.9 | <0.8 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 5.01 | U |
| Chloroethane | 75-00-3 | | <1.1 | <1.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 5.01 | U |
| Chloroform | 67-66-3 | | 1.1 | 0.6 | < 1.00 | U | **1.47** | | < 1.00 | U | **26.6** | |
| Chloromethane | 74-87-3 | | 3.7 | 3.7 | **1.14** | | < 1.00 | U | **1.35** | | < 4.99 | U |
| Cis-1,2-Dichloroethene | 156-59-2 | | <1.9 | <1.8 | < 0.20 | U | < 0.20 | U | < 0.20 | U | < 1.00 | U |
| cis-1,3-Dichloropropene | 10061-01-5 | | <2.3 | <2.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 4.99 | U |
| Cyclohexane | 110-82-7 | | | | < 1.00 | U | < 1.00 | U | **5.06** | | < 4.99 | U |
| Dibromochloromethane | 124-48-1 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| Dichlorodifluoromethane | 75-71-8 | | 16.5 | 8.1 | **2.38** | | **2.34** | | **3.04** | | < 4.99 | U |
| Ethanol | 64-17-5 | | 210 | 57 | **15.2** | | **3.99** | | **102** | E | **18.8** | |
| Ethyl acetate | 141-78-6 | | 5.4 | 1.5 | < 1.00 | U | < 1.00 | U | **4.75** | | < 5.01 | U |
| Ethylbenzene | 100-41-4 | | 5.7 | 3.5 | < 1.00 | U | **1.96** | | **7.25** | | **10.2** | |
| Heptane | 142-82-5 | | | | < 1.00 | U | **1.18** | | **13.1** | | **10.6** | |
| Hexachlorobutadiene | 87-68-3 | | <6.8 | <6.4 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| Hexane | 110-54-3 | | | | **1.68** | | < 1.00 | U | **16.3** | | **6.69** | |
| Isopropylalcohol | 67-63-0 | | | | < 1.00 | U | < 1.00 | U | **4.32** | | < 5.01 | U |
| Isopropylbenzene | 98-82-8 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 5.01 | U |
| m,p-Xylene | 179601-23-1 | | 22.2 | 12.8 | **3.68** | | **8.25** | | **27.5** | | **48.6** | |
| Methyl Ethyl Ketone | 78-93-3 | | 12 | 11.3 | < 1.00 | U | **1.16** | | **3.86** | | **19.8** | |
| Methyl tert-butyl ether (MTBE) | 1634-04-4 | | 11.5 | 6.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 5.01 | U |
| Methylene Chloride | 75-09-2 | 60 | 10 | 6.1 | < 3.00 | U | < 3.00 | U | **120** | | < 15.0 | U |
| n-Butylbenzene | 104-51-8 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| o-Xylene | 95-47-6 | | 7.9 | 4.6 | **1.06** | | **1.91** | | **8.94** | | **13.5** | |
| Propylene | 115-07-1 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 5.01 | U |
| sec-Butylbenzene | 135-98-8 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| Styrene | 100-42-5 | | 1.9 | 1.3 | < 1.00 | U | **1.88** | | < 1.00 | U | < 4.98 | U |
| Tetrachloroethene | 127-18-4 | 30 | 15.9 | 6.5 | **0.58** | | < 0.25 | U | **11.5** | | **7,120** | |
| Tetrahydrofuran | 109-99-9 | | | | < 1.00 | U | < 1.00 | U | **2.73** | | < 5.01 | U |
| Toluene | 108-88-3 | | 43 | 33.7 | **7.04** | | **10.4** | | **38.4** | | **35.5** | |
| Trans-1,2-Dichloroethene | 156-60-5 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 4.99 | U |
| trans-1,3-Dichloropropene | 10061-02-6 | | <1.3 | <1.4 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 4.99 | U |
| Trichloroethene | 79-01-6 | 2 | 4.2 | 1.3 | < 0.20 | U | < 0.20 | U | **0.78** | | **82.2** | |
| Trichlorofluoromethane | 75-69-4 | | 18.1 | 4.3 | **1.41** | | **1.49** | | **1.79** | | < 5.00 | U |
| Trichlorotrifluoroethane | 76-13-1 | | 3.5 | 1.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 5.00 | U |
| Vinyl Chloride | 75-01-4 | | <1.9 | <1.8 | < 0.20 | U | < 0.20 | U | < 0.20 | U | < 1.00 | U |

Highlighted analytes are included in the SVI Guidance Decision Matrices

Qualifiers

U - The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.

E - The reported value is estimated because the concentration exceeded the calibration range.

**FORMER IMPERIAL CLEANERS SITE**
**218 LAKEVILLE ROAD**
**LAKE SUCCESS, NY**
**BCP SITE #C130225**

**TABLE 2**
**SUMMARY OF APRIL 2019 SVI INVESTIGATION SAMPLING RESULTS**

| | | | | | Outdoor Ambient Air Samples | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | CAS # | NYSDOH Air Guideline Value (µg/m$^3$) | USEPA BASE Indoor Air 90th Percentile Conc (µg/m$^3$) | USEPA BASE Outdoor Air 90th Percentile Conc (µg/m$^3$) | Upwind Concentration (µg/m$^3$) | | | | Downwind Concentration (µg/m$^3$) | |
| | | | | | AA-1 | | AA-DUP (AA-1) | | AA-2 | |
| | | | | | 4/4/2019 | Q | 4/4/2019 | Q | 4/4/2019 | Q |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,1,1-Trichloroethane | 71-55-6 | | 20.6 | 2.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,1,2-Trichloroethane | 79-00-5 | | <1.5 | <1.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,1-Dichloroethane | 75-34-3 | | <0.7 | <0.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,1-Dichloroethene | 75-35-4 | | <1.4 | <1.4 | < 0.20 | U | < 0.20 | U | < 0.20 | U |
| 1,2,4-Trichlorobenzene | 120-82-1 | | <6.8 | <6.4 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,2,4-Trimethylbenzene | 95-63-6 | | 9.5 | 5.8 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,2-Dibromoethane (EDB) | 106-93-4 | | <1.5 | <1.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,2-Dichlorobenzene | 95-50-1 | | <1.2 | <1.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,2-Dichloroethane | 107-06-2 | | <0.9 | <0.8 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,2-Dichloropropane | 78-87-5 | | <1.6 | <1.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,3,5-Trimethylbenzene | 108-67-8 | | 3.7 | 2.7 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,3-Butadiene | 106-99-0 | | <3.0 | <3.4 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,3-Dichlorobenzene | 541-73-1 | | <2.4 | <2.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,4-Dichlorobenzene | 106-46-7 | | 5.5 | 1.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,4-Dioxane | 123-91-1 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 2-Hexanone (MBK) | 591-78-6 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 4-Ethyltoluene | 622-96-8 | | 3.6 | 3 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 4-Isopropyltoluene | 99-87-6 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | | 6 | 1.9 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Acetone | 67-64-1 | | 98.9 | 43.7 | **4.25** | | **6.91** | | **3.96** | |
| Acrylonitrile | 107-13-1 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Benzene | 71-43-2 | | 9.4 | 6.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Benzyl chloride | 100-44-7 | | <6.8 | <6.4 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Bromodichloromethane | 75-27-4 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Bromoform | 75-25-2 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Bromomethane | 74-83-9 | | <1.7 | <1.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Carbon Disulfide | 75-15-0 | | 4.2 | 3.7 | **1.47** | | < 1.00 | U | < 1.00 | U |
| Carbon Tetrachloride | 56-23-5 | | <1.3 | 0.7 | **0.52** | | **0.5** | | **0.5** | |
| Chlorobenzene | 108-90-7 | | <0.9 | <0.8 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Chloroethane | 75-00-3 | | <1.1 | <1.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Chloroform | 67-66-3 | | 1.1 | 0.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Chloromethane | 74-87-3 | | 3.7 | 3.7 | **1.32** | | **1.32** | | **1.23** | |
| Cis-1,2-Dichloroethene | 156-59-2 | | <1.9 | <1.8 | < 0.20 | U | < 0.20 | U | < 0.20 | U |
| cis-1,3-Dichloropropene | 10061-01-5 | | <2.3 | <2.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Cyclohexane | 110-82-7 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Dibromochloromethane | 124-48-1 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Dichlorodifluoromethane | 75-71-8 | | 16.5 | 8.1 | **2.33** | | **2.42** | | **2.38** | |
| Ethanol | 64-17-5 | | 210 | 57 | **4.59** | | **4.07** | | **4.18** | |
| Ethyl acetate | 141-78-6 | | 5.4 | 1.5 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Ethylbenzene | 100-41-4 | | 5.7 | 3.5 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Heptane | 142-82-5 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Hexachlorobutadiene | 87-68-3 | | <6.8 | <6.4 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Hexane | 110-54-3 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Isopropylalcohol | 67-63-0 | | | | **1.41** | | **1.27** | | **1.66** | |
| Isopropylbenzene | 98-82-8 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| m,p-Xylene | 179601-23-1 | | 22.2 | 12.8 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Methyl Ethyl Ketone | 78-93-3 | | 12 | 11.3 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Methyl tert-butyl ether (MTBE) | 1634-04-4 | | 11.5 | 6.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Methylene Chloride | 75-09-2 | 60 | 10 | 6.1 | < 3.00 | U | < 3.00 | U | < 3.00 | U |
| n-Butylbenzene | 104-51-8 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| o-Xylene | 95-47-6 | | 7.9 | 4.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Propylene | 115-07-1 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| sec-Butylbenzene | 135-98-8 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Styrene | 100-42-5 | | 1.9 | 1.3 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Tetrachloroethene | 127-18-4 | 30 | 15.9 | 6.5 | < 0.25 | U | < 0.25 | U | < 0.25 | U |
| Tetrahydrofuran | 109-99-9 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Toluene | 108-88-3 | | 43 | 33.7 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Trans-1,2-Dichloroethene | 156-60-5 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| trans-1,3-Dichloropropene | 10061-02-6 | | <1.3 | <1.4 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Trichloroethene | 79-01-6 | 2 | 4.2 | 1.3 | < 0.20 | U | < 0.20 | U | < 0.20 | U |
| Trichlorofluoromethane | 75-69-4 | | 18.1 | 4.3 | **1.42** | | **1.48** | | **1.4** | |
| Trichlorotrifluoroethane | 76-13-1 | | 3.5 | 1.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Vinyl Chloride | 75-01-4 | | <1.9 | <1.8 | < 0.20 | U | < 0.20 | U | < 0.20 | U |

Highlighted analytes are included in the SVI Guidance Decision Matrices

Qualifiers

U - The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.

E - The reported value is estimated because the concentration exceeded the calibration range.

**FORMER IMPERIAL CLEANERS SITE**
**218 LAKEVILLE ROAD**
**LAKE SUCCESS, NY**
**VCP SITE #V-00244-1**

**TABLE 3**
**SVI INVESTIGATION SAMPLING RESULTS (FEBRUARY 17, 2016) NYSDOH DECISION MATRIX COMPARISON**

| Location | NYSDEC DECISION MATRIX 1 | | | NYSDEC DECISION MATRIX 2 | | | |
|---|---|---|---|---|---|---|---|
| | **Carbon Tetrachloride µg/m³** | **Trichloroethene µg/m³** | **Vinyl Chloride µg/m³** | **1,1-Dichloroethene µg/m³** | **cis-1,2-Dichloroethene µg/m³** | **1,1,1-Trichloroethane µg/m³** | **Tetrachloroethene µg/m³** |
| **218 Lakeville Road** | | | | | | | |
| **Former Cleaners** | | | | | | | |
| IA-1/Duplicate IA-9 Result | 0.5/0.58 | <0.25/<0.25 | <0.25/<0.25 | <1.0/<1.0 | <1.0/<1.0 | <1.0/<1.0 | 5.65/5.98 |
| Matrix Range Indoor Air | 0.25 to <1 | <0.25 | <0.25 | <3 | <3 | <3 | <3 |
| SS-1 Result | <2.50 | 168 | <2.50 | <9.99 | 396 | <9.98 | 5090 |
| Matrix Range Sub-Slab Vapor | <5 | 50 to <250 | <5 | <100 | 100 to <1000 | <100 | 1,000 and above |
| *Recommended Action* | *Take Reasonable/Practical Action* | *Monitor* | *NoFurther Action* | *No Further Action* | *No Further Action* | *No Further Action* | *Mitigate* |
| **Tobacco Shop** | | | | | | | |
| IA-2 Result | 0.5 | 0.28 | <0.25 | <1.0 | <1.0 | <1.0 | 4.64 |
| Matrix Range Indoor Air | 0.25 to <1 | 0.25 to <1 | <0.25 | <3 | <3 | <3 | 3 to <30 |
| SS-2 Result | <2.50 | 191 | <2.50 | <9.99 | 244 | <9.98 | 18600 |
| Matrix Range Sub-Slab Vapor | <5 | 50 to <250 | <5 | <100 | 100 to <1000 | <100 | 1,000 and above |
| *Recommended Action* | *Take Reasonable/Practical Action* | *Monitor/Mitigate* | *NoFurther Action* | *No Further Action* | *No Further Action* | *No Further Action* | *Mitigate* |
| **Deli South** | | | | | | | |
| IA-3 Result | 0.51 | 0.27 | <0.25 | <1.0 | <1.0 | <1.0 | 1.92 |
| Matrix Range Indoor Air | 0.25 to <1 | 0.25 to <1 | <0.25 | <3 | <3 | <3 | <3 |
| SS-3 Result | <2.50 | 459 | <2.50 | <9.99 | 282 | <9.98 | 2760 |
| Matrix Range Sub-Slab Vapor | <5 | 250 and above | <5 | <100 | 100 to <1000 | <100 | 1,000 and above |
| *Recommended Action* | *Take Reasonable/Practical Action* | *Mitigate* | *NoFurther Action* | *No Further Action* | *Monitor* | *No Further Action* | *Mitigate* |
| **Deli North** | | | | | | | |
| IA-4 Result | 0.49 | <0.25 | <0.25 | <1.0 | <1.0 | <1.0 | 1.58 |
| Matrix Range Indoor Air | 0.25 to <1 | <0.25 | <0.25 | <3 | <3 | <3 | <3 |
| SS-4/Duplicate SS-9 Result | <2.50/<2.50 | 564/607 | <2.50/<2.50 | <9.99/<9.99 | 630/654 | <9.98/<9.98 | 3630/3550 |
| Matrix Range Sub-Slab Vapor | <5 | 250 and above | <5 | <100 | 100 to <1000 | <100 | 1,000 and above |
| *Recommended Action* | *Take Reasonable/Practical Action* | *Mitigate* | *NoFurther Action* | *No Further Action* | *Monitor* | *No Further Action* | *Mitigate* |
| **2 University Place** | | | | | | | |
| IA-5 Result | 0.57 | 1.01 | <0.25 | <1.0 | <1.0 | <1.0 | 1.82 |
| Matrix Range Indoor Air | 0.25 to <1 | 1 to <5.0 | <0.25 | <3 | <3 | <3 | <3 |
| SS-5 Result | <2.50 | 47 | <2.50 | <9.99 | <9.99 | <9.98 | 3590 |
| Matrix Range Sub-Slab Vapor | <5 | 5 to <50 | <5 | <100 | <100 | <100 | 1,000 and above |
| *Recommended Action* | *Take Reasonable/Practical Action* | *Monitor* | *NoFurther Action* | *No Further Action* | *No Further Action* | *No Further Action* | *Mitigate* |
| **4 University Place** | | | | | | | |
| IA-6 Result | 0.55 | 0.6 | <0.25 | <1.0 | <1.0 | <1.0 | 36.2 |
| Matrix Range Indoor Air | 0.25 to <1 | 0.25 to <1 | <0.25 | <3 | <3 | <3 | 30 to <100 |
| SS-6 Result | <2.50 | 655 | <2.50 | <9.99 | 134 | <9.98 | 20100 |
| Matrix Range Sub-Slab Vapor | <5 | 250 and above | <5 | <100 | 100 to <1000 | <100 | 1,000 and above |
| *Recommended Action* | *Take Reasonable/Practical Action* | *Mitigate* | *NoFurther Action* | *No Further Action* | *Monitor* | *No Further Action* | *Mitigate* |
| **220 Lakeville Road** | | | | | | | |
| IA-7 Result | 0.58 | <0.25 | <0.25 | <1.0 | <1.0 | <1.0 | 0.67 |
| Matrix Range Indoor Air | 0.25 to <1 | <0.25 | <0.25 | <3 | <3 | <3 | <3 |
| SS-7 Result | <2.50 | 14.1 | <0.25 | <1.0 | 3.8 | <1.0 | 854 |
| Matrix Range Sub-Slab Vapor | <5 | 5 to <50 | <5 | <100 | <100 | <100 | 100 to <1,000 |
| *Recommended Action* | *Take Reasonable/Practical Action* | *No Further Action* | *NoFurther Action* | *No Further Action* | *No Further Action* | *No Further Action* | *Monitor* |
| **216 Lakeville Road** | | | | | | | |
| IA-8 Result | 0.46 | <0.25 | <0.25 | <1.0 | <1.0 | <1.0 | 0.79 |
| Matrix Range Indoor Air | 0.25 to <1 | <0.25 | <0.25 | <3 | <3 | <3 | <3 |
| SS-8 Result | 0.46 | 0.39 | <0.25 | <1.0 | <1.0 | 8.34 | 3.2 |
| Matrix Range Sub-Slab Vapor | <5 | <5 | <5 | <100 | <100 | <100 | <100 |
| *Recommended Action* | *Take Reasonable/Practical Action* | *No Further Action* | *No Further Action* | *No Further Action* | *No Further Action* | *No Further Action* | *No Further Action* |

Decision Matrices in tables referenced from NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York. The recommendations indicated in the decision matrices are described below.

No Further Action: Given that the compound was not detected in the indoor air sample and that the concentration detected in the sub-slab vapor sample is not expected to significantly affect indoor air quality, no additional actions are needed to address human exposures.

TAKE REASONABLE AND PRACTICAL ACTIONS TO IDENTIFY SOURCE(S) AND REDUCE EXPOSURE: The concentration detected in the indoor air sample is likely due to indoor and/or outdoor sources rather than soil vapor intrusion given the concentration detected in the sub-slab vapor sample. Therefore, steps should be taken to identify potential source(s) and to reduce exposure accordingly (e.g., by keeping containers tightly capped or by storing volatile organic compound-containing products in places where people do not spend much time, such as a garage or outdoor shed). Resampling may be recommended to demonstrate the effectiveness of actions taken to reduce exposures.

MITIGATE: Take reasonable and practical actions to identify source(s) and reduce exposure: The concentration detected in the indoor air sample is likely due to indoor and/or outdoor sources rather than soil vapor intrusion given the concentration detected in the sub-slab vapor sample. Therefore, steps should be taken to identify potential source(s) and to reduce exposures accordingly (e.g., by keeping containers tightly capped or by storing volatile chemical-containing products in places where people do not spend much time, such as a garage or shed). Resampling may also be recommended to demonstrate the effectiveness of actions taken to reduce exposures.

MONITOR: Monitoring, including sub-slab vapor, basement air, lowest occupied living space air, and outdoor air sampling, is needed to determine whether concentrations in the indoor air or sub-slab vapor have changed. Monitoring may also be needed to determine whether existing building conditions (e.g., positive pressure heating, ventilation and air-conditioning systems) are maintaining the desired mitigation endpoint and to determine whether changes are needed. The type and frequency of monitoring is determined on a site-specific and building-specific basis, taking into account applicable environmental data and building operating conditions. Monitoring is an interim measure required to evaluate exposures related to soil vapor intrusion until contaminated environmental media are remediated.

MONITOR/MITIGATE: Monitoring or mitigation may be recommended after considering the magnitude of sub-slab vapor and indoor air concentrations along with building and site specific conditions.

**FORMER IMPERIAL CLEANERS SITE**
**218 LAKEVILLE ROAD**
**LAKE SUCCESS, NY**
**BCP SITE #C130225**

**TABLE 4**
**SVI INVESTIGATION SAMPLING RESULTS (APRIL 4-5, 2019) SVI GUIDANCE DECISION MATRIX COMPARISON**

| Location | SVI GUIDANCE DECISION MATRIX A | | | | SVI GUIDANCE DECISION MATRIX B | | | SVI GUIDANCE DECISION MTRX C |
|---|---|---|---|---|---|---|---|---|
| | Carbon Tetrachloride µg/m³ | Trichloroethene µg/m³ | 1,1-Dichloroethene µg/m³ | cis-1,2-Dichloroethene µg/m³ | Methylene Chloride µg/m³ | 1,1,1-Trichloroethane µg/m³ | Tetrachloroethene µg/m³ | Vinyl Chloride µg/m³ |
| **218 Lakeville Road** | | | | | | | | |
| **Former Cleaners (Vacant)** | | | | | | | | |
| IA-1 | 0.53 | <0.20 | <0.20 | <0.20 | < 3.00 | <1.00 | 2.65 | <0.20 |
| Matrix Range Indoor Air | 0.2 to < 1 | < 0.2 | < 0.2 | < 0.2 | < 3 | < 3 | < 3 | < 0.2 |
| SS-1 Result/Duplicate SS-DUP | <1.00/<1.00 | 266/265 | <1.00/<1.00 | 340/336 | < 15.0/< 15.0 | <5.00/<5.00 | 12,500/13,100 | <1.00/<1.00 |
| Matrix Range Sub-Slab Vapor | < 6 | 60 and above | < 6 | 60 and above | < 100 | < 100 | 1,000 and above | < 6 |
| *Recommended Action* | *No Further Action* | *Mitigate* | *No Further Action* | *Mitigate* | *No Further Action* | *No Further Action* | *Mitigate* | *No Further Action* |
| **Tobacco Shop** | | | | | | | | |
| IA-2 Result | 0.53 | <0.20 | <0.20 | <0.20 | < 3.00 | <1.00 | 6.78 | <0.20 |
| Matrix Range Indoor Air | 0.2 to < 1 | < 0.2 | < 0.2 | < 0.2 | < 3 | < 3 | 3 to < 10 | < 0.2 |
| SS-2 Result | <1.00 | 370 | <1.00 | 303 | < 15.0 | <5.00 | 43,400 | <1.00 |
| Matrix Range Sub-Slab Vapor | < 6 | 60 and above | < 6 | 60 and above | < 100 | < 100 | 1,000 and above | < 6 |
| *Recommended Action* | *No Further Action* | *Mitigate* | *No Further Action* | *Mitigate* | *No Further Action* | *No Further Action* | *Mitigate* | *No Further Action* |
| **Former Deli South (Vacant)** | | | | | | | | |
| IA-3 Result | 0.48 | 0.22 | <0.20 | <0.20 | < 3.00 | <1.00 | 7.73 | <0.20 |
| Matrix Range Indoor Air | 0.2 to < 1 | 0.2 to < 1 | < 0.2 | < 0.2 | < 3 | < 3 | 3 to < 10 | < 0.2 |
| SS-3 Result | <1.00 | 843 | <1.00 | 654 | <15.0 | <5.00 | 4,570 | <1.00 |
| Matrix Range Sub-Slab Vapor | < 6 | 60 and above | < 6 | 60 and above | < 100 | < 100 | 1,000 and above | < 6 |
| *Recommended Action* | *No Further Action* | *Mitigate* | *No Further Action* | *Mitigate* | *No Further Action* | *No Further Action* | *Mitigate* | *No Further Action* |
| **CCQ Construction Inc.** | | | | | | | | |
| IA-4/IA-DUP Result | 0.52/0.47 | 0.23/0.25 | <0.20/<0.20 | 0.22/0.23 | < 3.00/<3.00 | <1.00/<1.00 | 16.9/9.08 | <0.20/<0.20 |
| Matrix Range Indoor Air | 0.2 to < 1 | 0.2 to < 1 | < 0.2 | 0.2 to < 1 | < 3 | < 3 | 10 and above | < 0.2 |
| SS-4 | <1.00 | 1,170 | <1.00 | 1,550 | < 15.0 | <5.00 | 14,600 | 1.25 |
| Matrix Range Sub-Slab Vapor | < 6 | 60 and above | < 6 | 60 and above | < 100 | < 100 | 1,000 and above | < 6 |
| *Recommended Action* | *No Further Action* | *Mitigate* | *No Further Action* | *Mitigate* | *No Further Action* | *No Further Action* | *Mitigate* | *No Further Action* |
| **220 Lakeville Road** | | | | | | | | |
| IA-7 Result | 0.55 | <0.20 | <0.20 | <0.20 | < 3.00 | <1.00 | 0.58 | <0.20 |
| Matrix Range Indoor Air | 0.2 to < 1 | < 0.2 | < 0.2 | < 0.2 | < 3 | < 3 | < 3 | < 0.2 |
| SS-7 Result | <0.20 | <0.20 | <0.20 | <0.20 | < 3.00 | <1.00 | <0.25 | <0.20 |
| Matrix Range Sub-Slab Vapor | < 6 | < 6 | < 6 | < 6 | < 100 | < 100 | < 100 | < 6 |
| *Recommended Action* | *No Further Action* | *No Further Action* | *No Further Action* | *No Further Action* | *No Further Action* | *No Further Action* | *No Further Action* | *No Further Action* |
| **5 University Place** | | | | | | | | |
| IA-10 Result | 0.46 | 0.78 | <0.20 | <0.20 | 120 | <1.00 | 11.5 | <0.20 |
| Matrix Range Indoor Air | 0.2 to < 1 | 0.2 to < 1 | < 0.2 | < 0.2 | 10 and above | < 3 | 10 and above | < 0.2 |
| SS-10 Result | <1.00 | 82.2 | <1.00 | <1.00 | < 15.0 | <5.00 | 7,120 | <1.00 |
| Matrix Range Sub-Slab Vapor | < 6 | 60 and above | < 6 | < 6 | < 100 | < 100 | 1,000 and above | < 6 |
| *Recommended Action* | *No Further Action* | *Mitigate* | *No Further Action* | *No Further Action* | *Identify Source, Resample or Mitigate* | *No Further Action* | *Mitigate* | *No Further Action* |

Decision Matrices in tables referenced from SVI Guidance. The recommendations indicated in the decision matrices are described below.

No Further Action: Given that the compound was not detected in the indoor air sample and that the concentration detected in the sub-slab vapor sample is not expected to significantly affect indoor air quality, no additional actions are needed to address human exposures.

IDENTIFY SOURCE(S) AND RESAMPLE OR MITIGATE: NYSDOH recommends that reasonable and practical actions be taken to identify the source(s) affecting the indoor air quality and that actions be implemented to reduce indoor air concentrations to within background ranges. For example, if an indoor or outdoor air source is identified, NYSDOH recommends the appropriate party implement actions to reduce the levels. In the event that indoor or outdoor sources are not readily identified or confirmed, resampling (which might include additional sub-slab vapor and indoor air sampling locations) is recommended to demonstrate that SVI mitigation actions are not needed. Based on the information available, mitigation might also be recommended when soil vapor intrusion cannot be ruled out.

MITIGATE: NYSDOH recommends mitigation to minimize current or potential exposures associated with soil vapor intrusion. The most common mitigation methods are sealing preferential pathways in conjunction with installing a sub-slab depressurization system and changing the pressurization of the building in conjunction with monitoring. The type, or combination of types, of mitigation is determined on a building-specific basis, taking into account building construction and operating conditions. Mitigation is considered a temporary measure implemented to address exposures related to soil vapor intrusion until contaminated environmental media are remediated.

MONITOR: NYSDOH recommends monitoring (sampling on a recurring basis), including but not necessarily limited to sub-slab vapor, basement air and outdoor air sampling, to determine whether concentrations in the indoor air or sub-slab vapor have changed and/or to evaluate temporal influences. Monitoring might also be recommended to determine whether existing building conditions (e.g., positive pressure heating, ventilation and air-conditioning systems) are maintaining the desired mitigation endpoint and to determine whether changes are needed. The type and frequency of monitoring is determined based on site-, building- and analyte-specific information, taking into account applicable environmental data and building operating conditions. Monitoring is an interim measure required to evaluate exposures related to soil vapor intrusion until contaminated environmental media are remediated.

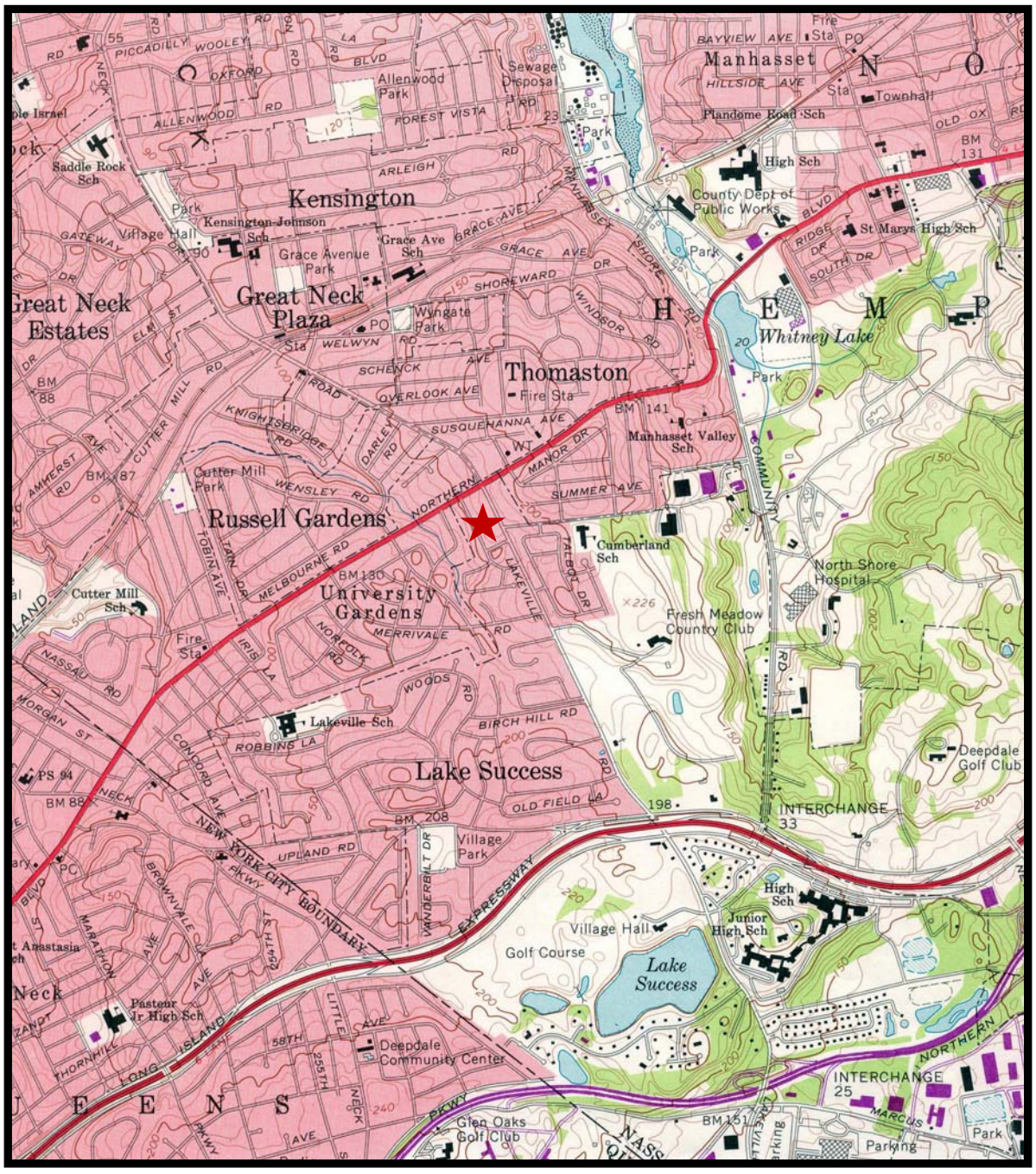
# FIGURES

**Former Imperial Cleaners Site**
**BCP Site #C130225**
**218 Lakeville Road**
**Lake Success, New York**

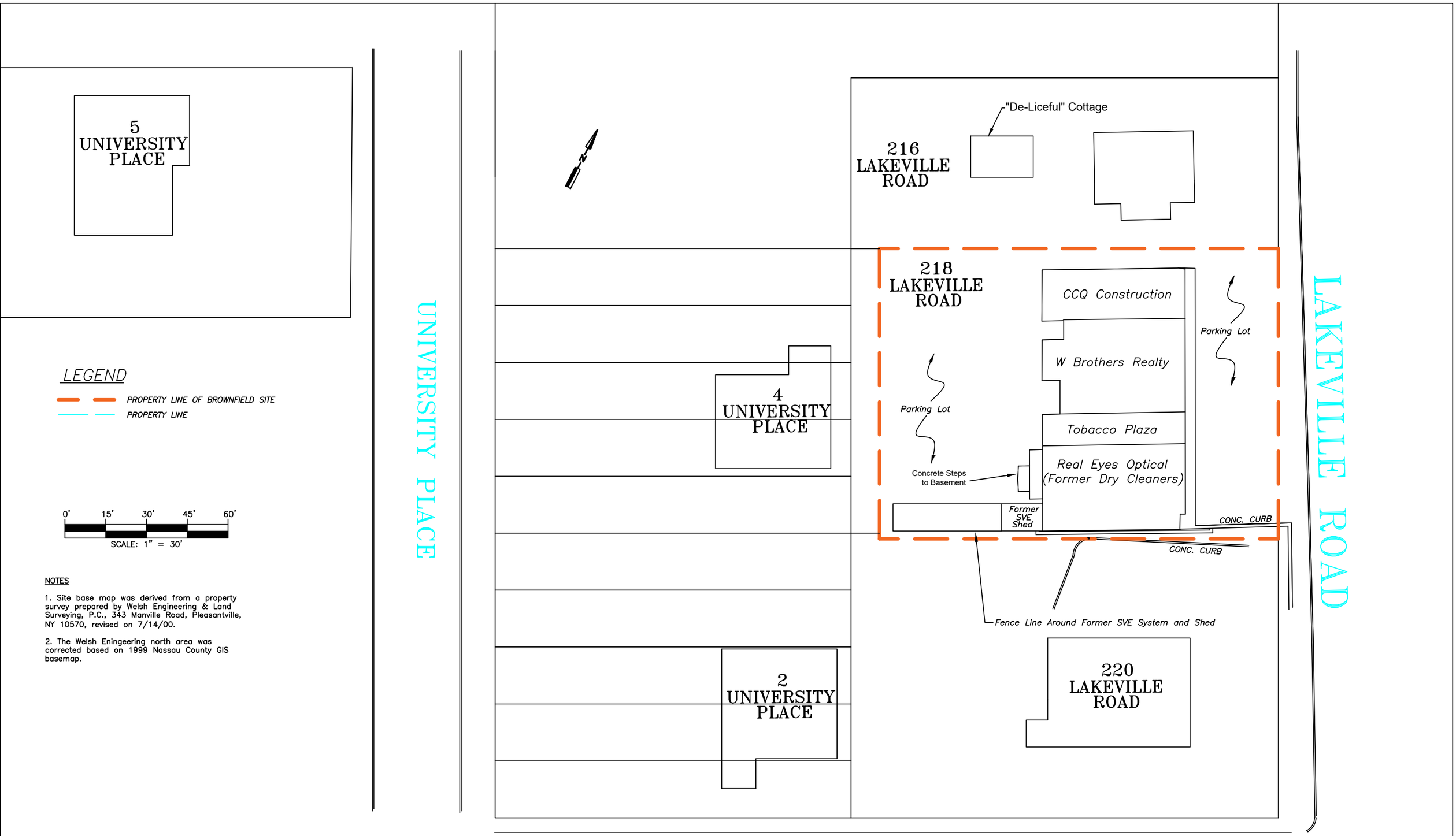
## FIGURE 1

## SITE LOCATION MAP

N




(USGS QUAD Sea Cliff, New York) (Scale 1:24000)





Walden Associates

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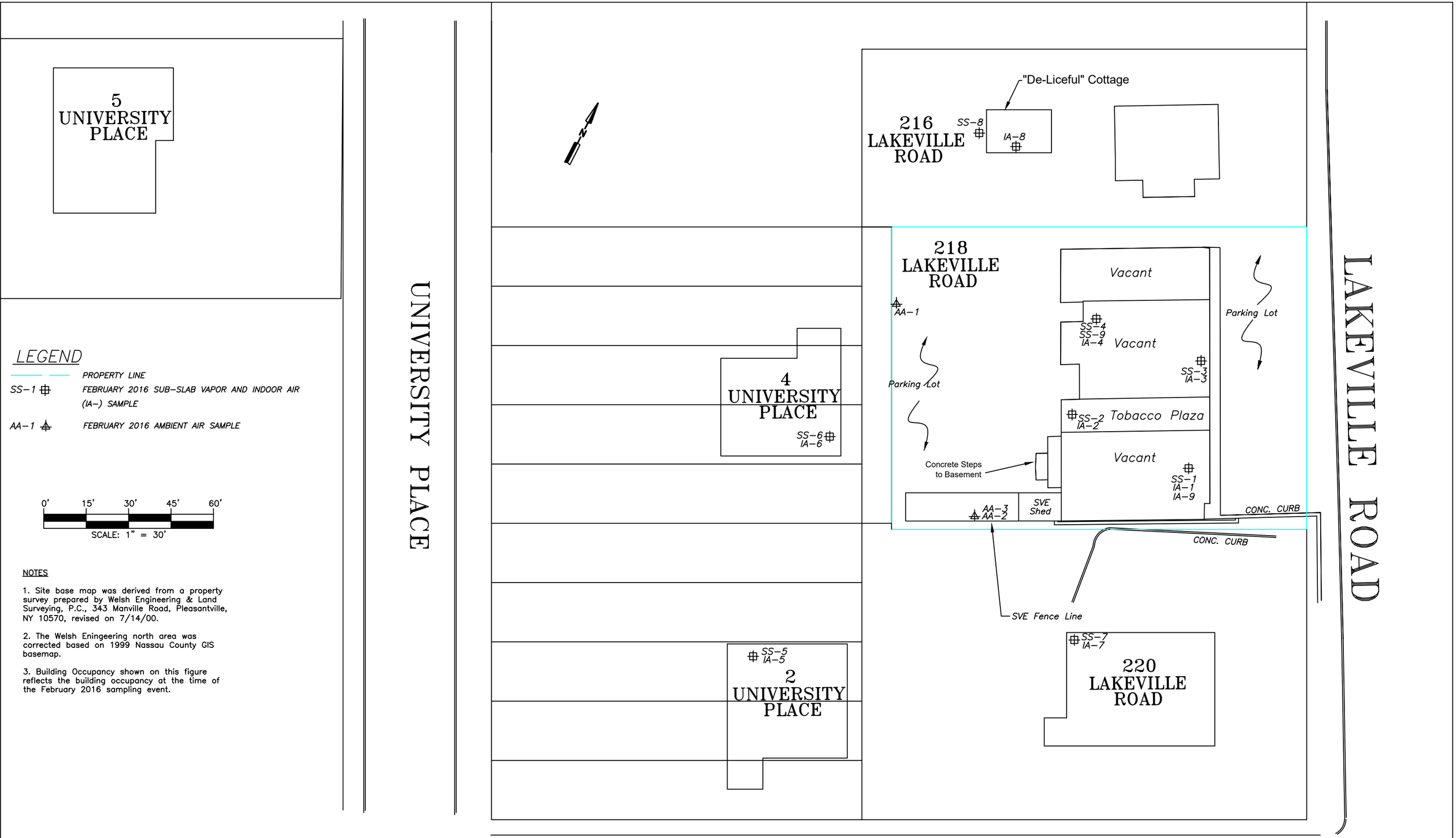

FOR:
Former Imperial Cleaners Site
Site No. C130225
218 Lakeville Road
Lake Success, New York 11020

DRAWING TITLE:
SITE PLAN
218 LAKEVILLE ROAD,
LAKE SUCCESS, NEW YORK

FIGURE
2

JOB NO: IMPL0115.5
DATE: March 16, 2021

CAD FILE NAME: Z:\IMPL0115 (Imperial Cleaners)\IMPL0115.6 - 2019 Pre-Design Investigation\IMPL0115.6 Figures.dwg




## LEGEND

PROPERTY LINE

SS-1 — FEBRUARY 2016 SUB-SLAB VAPOR AND INDOOR AIR (IA-) SAMPLE

AA-1 — FEBRUARY 2016 AMBIENT AIR SAMPLE

0' 15' 30' 45' 60'

SCALE: 1" = 30'

NOTES

1. Site base map was derived from a property survey prepared by Welsh Engineering & Land Surveying, P.C., 343 Manville Road, Pleasantville, NY 10570, revised on 7/14/00.

2. The Welsh Eningeering north area was corrected based on 1999 Nassau County GIS basemap.

3. Building Occupancy shown on this figure reflects the building occupancy at the time of the February 2016 sampling event.


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NYSDEC
625 Broadway, 11th Floor,
Albany, New York 12233

DRAWING TITLE: SITE MAP WITH FEBRUARY 2016 SAMPLE LOCATIONS
218 LAKEVILLE ROAD,
LAKE SUCCESS, NEW YORK

DRAWING NO: 3

JOB NO: IMPL0115.4

DATE: March 24, 2016

CAD FILE NAME: Z:\IMPL0115 (Imperial Cleaners)\IMPL0115.6 - 2019 Pre-Design Investigation\IMPL0115.6 Figures.dwg




Notes: Aerial photos obtained from the New York State GIS Clearinghouse

| | |
|---|---|
| Creation Date: March 9, 2018 | Print Date: April 11, 2018 |
| Author: MCT | Job No: IMPL0115.4 |
| PDF: Z:\IMPL0115 (Imperial Cleaners)\IMPL0115.5 BCP Application\Remedial Work Plan APRIL 2018 \Figures\Figure 4 Proposed Soil Vapour Intrusion Sampling Locations.pdf | |
| Map: Y:\IMPL0115.4\IMPL0115.4 Proposed Soil Vapor Sample Locations 11x17.mxd | |


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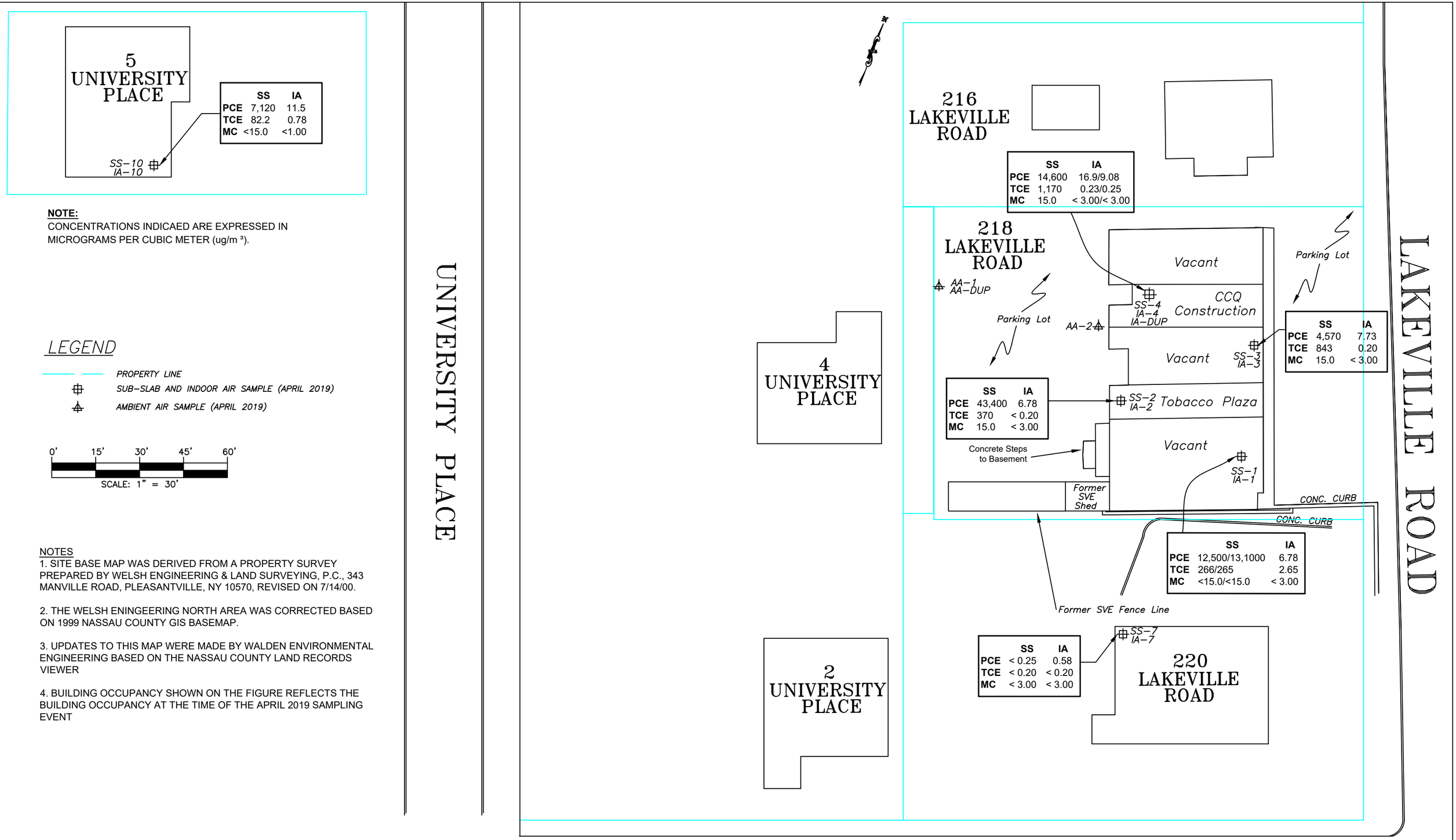

# Figure 4
# Proposed 2019 Soil Vapor Intrusion Sampling Locations

Former Imperial Cleaners Site
Site No. C130225

218 Lakeville Road
Lake Success, New York 11020

**Legend**

- Additional Offsite Sampling Location (Not Sampled Previously)
- Offsite Sampling Location (Feb. 2016)
- Onsite Sampling Location (Feb. 2016)
- Onsite Drywell (Suspected Contamination Source)
- Stream




**NOTE:**
CONCENTRATIONS INDICAED ARE EXPRESSED IN MICROGRAMS PER CUBIC METER (ug/m ³).

## LEGEND

- PROPERTY LINE
- SUB–SLAB AND INDOOR AIR SAMPLE (APRIL 2019)
- AMBIENT AIR SAMPLE (APRIL 2019)

0' 15' 30' 45' 60'
SCALE: 1" = 30'

NOTES
1. SITE BASE MAP WAS DERIVED FROM A PROPERTY SURVEY PREPARED BY WELSH ENGINEERING & LAND SURVEYING, P.C., 343 MANVILLE ROAD, PLEASANTVILLE, NY 10570, REVISED ON 7/14/00.

2. THE WELSH ENINGEERING NORTH AREA WAS CORRECTED BASED ON 1999 NASSAU COUNTY GIS BASEMAP.

3. UPDATES TO THIS MAP WERE MADE BY WALDEN ENVIRONMENTAL ENGINEERING BASED ON THE NASSAU COUNTY LAND RECORDS VIEWER

4. BUILDING OCCUPANCY SHOWN ON THE FIGURE REFLECTS THE BUILDING OCCUPANCY AT THE TIME OF THE APRIL 2019 SAMPLING EVENT


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PREPARED FOR:
NYSDEC
REMEDIAL BUREAU A
625 BROADWAY, 11TH FLOOR
ALBANY, NEW YORK 12233

DRAWING TITLE:
APRIL 2019 SVI INVESTIGATION
SAMPLE LOCATIONS
218 LAKEVILLE ROAD
LAKE SUCCESS, NEW YORK

Figure: 5

JOB NO: IMPL0115.6
DATE: May 13, 2019

CAD FILE NAME: Z:\IMPL0115 (Imperial Cleaners)\IMPL0115.6 - 2019 Pre-Design Investigation\ACAD\IMPL0115.6_April Sample Locations (2-5-20).dwg

# APPENDICES

**APPENDIX A**

**July 23, 2021 NYSDEC Comment Letter**

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

**Division of Environmental Remediation, Remedial Bureau A**
625 Broadway, 12th Floor, Albany, NY 12233-7015
P: (518) 402-9625 I F: (518) 402-9627
www.dec.ny.gov

July 23, 2021

218 Lakeville Acquisition, LLC
c/o Mr. Norman Weisfeld
112 Windsor Gate
Great Neck NY, 11020

RE: Imperial Cleaners, Site No.: C130225, March 2020 Soil Vapor Intrusion Investigation Report (revised).

Dear Mr. Weisfeld:

The New York State Department of Environmental Conservation (the "Department") and the New York State Department of Health (the "NYSDOH") have reviewed the March 2020 Soil Vapor Intrusion Investigation Report (revised) certified by Nora Brew and submitted by Walden Environmental Engineering on behalf of 218 Lakeville Acquisition.

The Department disapproves the Report and requires the modifications discussed below:

1. Based on the May 2017 *Soil Vapor Intrusion Investigation Summary Report,* mitigation via SSDS was recommended for both 2 University Place and particularly, 4 University Place, due to elevated levels of PCE (and TCE for 4 University Place) in sub-slab vapor. Please update the 2020 Soil Vapor Intrusion Investigation Report to incorporate the May 2017 report data and recommendations, descriptions of the off-site properties sampled in 2016, a figure showing the locations of the off-site properties sampled and the 7 properties targeted for sampling in the 2016 sampling event.

2. Please summarize past SVI data into all future SVI reports.

3. Outreach documentation should be included in this report. Please revise.

4. Section1.2 April 2019 SVI Sampling Objectives: To protect privacy, all addresses of off-site properties (including 5 University Place and 220 Lakeville Road) should be given a generic numbering scheme before this document is placed in a public repository. An identifier key will need to be provided to DEC/DOH. Please revise and confirm.

5. Section 4.2 Recommendations (2nd bullet): The Department accepts the mitigation recommendations for 2 University Place, 4 University Place and 5 University Place and is requesting that this work be expedited as an interim remedial measure (IRM). Please submit a separate IRM work plan for the expedited mitigation of these three structures.

6. Please submit a separate, supplemental SVI workplan, including additional outreach and sampling to evaluate targeted structures not yet sampled and determine if actions are needed to address potential exposure via SVI. This would include 1 University Place, 3 University Place and 2 Rivers Drive. This work should be scheduled to be conducted during the upcoming 2021/2022 heating season. The work plan should include a provision for sampling of additional off-site properties should results warrant

Please notify me within 10 business days of your election to make the required changes in the document and provide the Department with a revised SVI Report within 30 days.

If you have any questions, please call me at 518-402-9621.

Sincerely,

Joseph Jones
Project Manager

ec: A. Tamuno, OGC
R. Corcoran, NYSDEC
A. Martin, NYSDOH
C. Bethoney, NYSDOH
C. Engelhardt, DEC Region 1
G. Bowitch, Bowitch & Coffey LLC
N. Brew, Walden Associates

**APPENDIX B**

***Soil Vapor Intrusion Investigation Summary Report*** **(Walden, May 2017)**

# Soil Vapor Intrusion Investigation
# Summary Report

at

## Former Imperial Cleaners Site
## 218 Lakeville Road
## Lake Success, New York 11042

## NYSDEC VCP Site #V-00244-1

May 2017

**Prepared for:**

Mr. Joseph Jones
Project Manager
NYSDEC
Remedial Bureau A, 11th Floor
625 Broadway
Albany, New York 12233

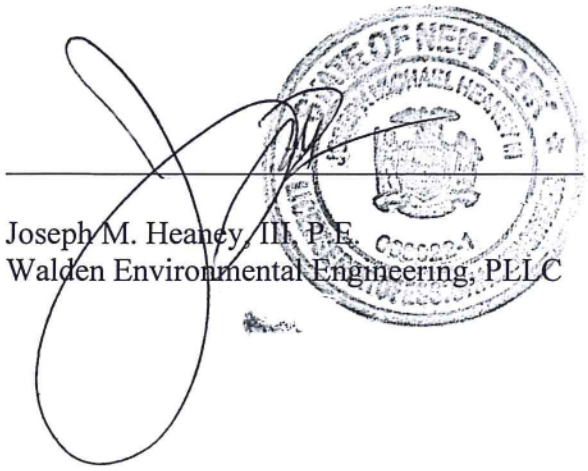
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Walden Environmental Engineering

## Professional Engineer Certification

I certify that I am a professional engineer licensed to practice in New York State in accordance with New York State Education Law, Article 145, Section 7200 et seq. I have completed accredited university courses and degrees in engineering and have sufficient training and experience in remediation, groundwater hydrology, and related fields that enable me to make sound professional judgments with regards to engineering design.

I further certify that this submittal, *Soil Vapor Intrusion Investigation Summary Report*, dated May 4, 2017, was prepared under my direction.



Joseph M. Heaney, III, P.E.
Walden Environmental Engineering, PLLC

5/5/17

Date

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2 SVI Investigation Sampling Results NYSDOH Decision Matrix Comparison


## FIGURES


1 Location Map

2 Site Map with SVI Sampling Locations


## APPENDICES


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APPENDIX B Completed NYSDOH Indoor Air Quality Questionnaire/Building Inventory Sheets

APPENDIX C Laboratory Analytical Report

APPENDIX D Data Usability Summary Report

# 1 INTRODUCTION

Walden Environmental Engineering, PLLC (Walden) has prepared this report to summarize the results of the February 2016 soil vapor intrusion (SVI) investigation conducted for the Former Imperial Cleaners site located at 218 Lakeville Road, Lake Success, New York (the "Site"). The Site is currently managed under the New York State Voluntary Cleanup Program (VCP) as VCP #V-00244-1 subject to New York State Department of Environmental Conservation (NYSDEC) Voluntary Cleanup Agreement #D1-0001-01-03. This agreement was amended on July 28, 2015 to reflect a change in property ownership, establishing 218 Lakeville Acquisition LLC as the Site Owner and remedial party.

The SVI investigation was conducted to address the potential for vapor intrusion from contaminated soil vapor and potential impacts on indoor air quality at the Site and neighboring off-site properties. The SVI investigation was completed in accordance with the NYSDEC approved *Soil Vapor Intrusion Investigation Work Plan* (Work Plan; Walden, December 2015) which was developed in accordance with the guidelines set forth in NYSDEC *DER-13: Strategy for Evaluating Soil Vapor Intrusion at Remedial Sites in New York* (issued October 18, 2006) and *NYSDOH: Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York* (dated October 2006). The field work included the collection of sub-slab vapor, indoor air, and outdoor air samples.

A brief site description and the objectives of the SVI investigation are presented below. Section 2 describes the SVI investigation field work conducted at the Site and neighboring properties. Section 3 summarizes the SVI investigation sampling results. Section 4 presents conclusions and recommendations based on the SVI investigation results.

## 1.1 Site History and Previous Investigations/Remediation

The Site location is illustrated on Figure 1. The Site is a commercial center with a one-story building occupying approximately 4,250 square feet, with one active tenant (Tobacco Plaza, Ltd.) and three vacant spaces as shown on Figure 2. The basement of the on-site building has concrete block walls and a poured concrete floor slab. Note that there is a perched water table underlying the site at approximately 30 feet below grade, while the water table is located approximately 150 feet below land surface.

A release of tetrachloroethylene (PCE) at the Site was first noted in 1995. The PCE contamination was suspected to originate from floor drains within the space occupied by a dry cleaner (Imperial Cleaners) at that time and from leaching pools and drywells around the property. The site investigation and remediation work described below was

conducted by the previous owners of the Site as required by NYSDEC and NYSDOH under the VCP.

A site investigation was conducted to identify source areas and determine the extent of contaminated soil and groundwater at the Site. Contaminated sediments were removed from the source areas (dry wells, an interior floor drain and leaching pools) to the extent possible without undermining the structures. Post-excavation soil sampling results indicated that volatile organic compounds (VOCs) remained in the subsurface following the source area removal actions. A soil vapor extraction (SVE) system was installed to remove VOC vapors remaining in the soil and improve soil and groundwater quality. The SVE system began operating in 2001(refer to Appendix A for details on the SVE system). A soil, soil gas, groundwater and indoor air monitoring program was implemented to track the reductions in VOC concentrations achieved by operation of the SVE system. The SVE system was shut down several years ago when on-site soil sampling results indicated that the SVE system had successfully reduced soil contaminant concentrations to below the NYSDEC TAGM 4046 Recommended Cleanup Objectives.

## 1.2 SVI Sampling Objectives

Representatives from NYSDEC, 218 Lakeville Acquisition LLC (the new property owner) and Walden met on-site on September 17, 2015 to evaluate Site conditions and discuss previous sampling investigations, potential redevelopment of the Site and the work required to achieve VCP site closure. Based on this meeting and subsequent discussions, the Work Plan was developed detailing the additional on-site and off-site sampling to be conducted to evaluate potential indoor air quality impacts related to SVI and support development of appropriate site closure/management recommendations for NYSDEC and NYSDOH review and approval.

The SVI sampling was conducted during the 2015-2016 heating season in accordance with the NYSDEC-approved Work Plan as discussed in Section 2.

## 2 SVI INVESTIGATION FIELD WORK

The SVI sub-slab sampling point installation was conducted on February 16-17, 2016. Sub-slab vapor, indoor air and outdoor air samples were collected over a 24-hour sampling period from February 17-18, 2016. The field work and sampling activities are described below.

### 2.1 Interior Inspection

Pre-sampling interior inspections were performed to identify potential vapor intrusion pathways and to determine appropriate sub-slab and indoor air sampling locations. The Site and off-site properties were inspected to evaluate the physical layout and to identify conditions or materials stored and/or used that may affect or interfere with the sampling or interpretation of the sampling results. Consideration was given to factors such as access for installation/sampling purposes, interior uses at the Site, foundation/floor slab installation and conditions, heating/ventilation/mechanical system operation, and utility layout/breaches.

The indoor air quality questionnaire and building inventory sheet provided in the NYSDOH SVI guidance was completed prior to sampling. Copies of the completed questionnaire for the on-site building and off-site properties are provided in Appendix B of this report.

To reduce the potential for interference and dilution effects of samples, the Site tenants and off-site property owners were notified in advance of sampling to ensure that the occupants avoided the following activities within 24 hours prior to sampling wherever possible (per NYSDOH *Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York*, October 2006, p. 33):

- Opening any windows, fireplace dampers, openings or vents;
- Operating ventilation fans unless special arrangements are made;
- Smoking in the building;
- Painting;
- Using a wood stove, fireplace or other auxiliary heating equipment (e.g., kerosene heater);
- Operating or storing automobile in an attached garage;
- Allowing containers of gasoline or oil to remain within the house or garage area, except for fuel oil tanks;
- Cleaning, waxing or polishing furniture, floors or other woodwork with petroleum or oil-based products;

- Using air fresheners, scented candles or odor eliminators;
- Engaging in any hobbies that use materials containing volatile chemicals;
- Using cosmetics including hairspray, nail polish, nail polish removers, perfume/cologne, etc.;
- Lawn mowing, paving with asphalt, or snow blowing;
- Applying pesticides;
- Using building repair or maintenance products, such as caulk or roofing tar; and
- Bringing freshly dry-cleaned clothing or furnishings into the building.

## 2.2 Sampling Locations

The SVI investigation samples were collected from the general locations defined in the NYSDEC-approved work plan. The sampling locations were selected on February 11, 2016 following an inspection of each space and cleared based on a private utility mark-out, physical access and tenant/owner approval. Refer to Figure 2 for the sampling locations.

Sub-slab vapor sampling points were placed in locations with a minimal potential for ambient air infiltration from floor penetrations such as cracks, floor drains, utility perforations, sumps, etc. All penetrations observed were sealed prior to sample collection.

### *2.2.1 On-site Locations*

Sub-slab vapor and indoor air samples were collected in pairs (at each sub-slab sampling location, a corresponding indoor air sample was collected concurrently) from four locations in the basement of the on-site building at 218 Lakeville Road as follows:

- Beneath the former dry cleaners space (SS-1 and IA-1)
- Beneath Tobacco Plaza (in the unfinished area on the west side of the space) (SS-2 and IA-2)
- Two locations beneath the former delicatessen space (this basement area is divided into two sections; one sampling location in each section) (SS-3 and IA-3; SS-4 and IA-4)

A duplicate sub-slab vapor sample (SS-9) was collected from one of the on-site basement sampling locations. Similarly, a duplicate indoor air sample (IA-9) was also collected from an on-site basement location.

Two outdoor air samples (AA-1 and AA-2) and one duplicate (AA-3) were collected outside the on-site building concurrently with the sub-slab and indoor air samples to obtain samples representative of ambient (background) conditions at the site. The final

outdoor air sampling locations were selected in the field and sited upwind (AA-1) and downwind (AA-2 and duplicate AA-3) of the on-site sampling locations (dependent upon the wind direction observed at the time of sampling).

### *2.2.2 Off-site Locations*

The off-site sampling was conducted at the same time as the on-site sampling to achieve contemporaneous analytical results. Pairs of sub-slab vapor and indoor air samples were collected per the Work Plan in the lowest level of three off-site properties as follows:

- 2 University Place (SS-5 and IA-5)
- 4 University Place (SS-6 and IA-6)
- 220 Lakeville Road (SS-7 and IA-7)

The owner of 216 Lakeville Road ("De-Liceful" rear cottage) would not allow a sub-slab vapor sampling probe to be installed inside this building because there was no way to avoid damaging the floors by installing a sub-slab vapor sampling probe as specified in the approved Work Plan. Walden contacted NYSDEC and NYSDOH on February 11, 2016 regarding this issue and the State approved the following modification to the sampling locations at this off-site property:

- A surrogate soil vapor sample (SS-8) was collected outside the 216 Lakeville Road cottage in the asphalt paved area on the west side of the building. A hole was drilled through the pavement adjacent to the cottage and a sampling probe was installed to collect a vapor sample from the soil below using the same setup specified in the Work Plan for indoor sub-slab vapor sample collection.

- The indoor air sample (IA-8) was collected inside the 216 Lakeville Road cottage from a location near the outdoor surrogate soil vapor sampling location.

## 2.3 Sub-slab Sampling Probe Installation

Permanent recessed sub-slab vapor sampling probes were installed in accordance with NYSDOH SVI guidance and as described in the Work Plan. At each location, a small diameter hole (approximately one inch) was drilled through the concrete floor slab and into sub-slab material approximately two (2) inches below the bottom of the floor slab. Concrete and soil cuttings were removed from the hole. A stainless steel sampling probe was installed to no greater than two (2) inches into the sub-slab material. The top of the probe was finished with a recessed brass plug and the implant was sealed with cement. For sampling purposes, a threaded fitting connected to Teflon-lined tubing were inserted

into the sampling port for connection to a Summa® canister. The sub-slab sampling probes in the on-site building (SS-1, SS-2, SS-3, SS-4 and SS-9) and the surrogate soil vapor probe outside the 216 Lakeville Road cottage (SS-8) were finished at the surface with 4-inch steel manhole covers. The sub-slab probes in the other three off-site properties (SS-5, SS-6 and SS-7) were finished with brass fittings and sealed to the surface with hydraulic cement.

### *2.3.1 Tracer Gas Monitoring*

Walden performed tracer gas monitoring per the NYSDOH SVI guidance to verify the integrity of the sub-slab vapor probe seals prior to sample collection. Plastic sheeting was placed around the sampling probes and sealed around the edges to create an adequate surface seal to prevent outdoor air infiltration. Helium tracer gas was introduced under the plastic sheeting through a small opening to enrich the atmosphere in the immediate vicinity of the sampling probes with the tracer gas. A portable helium monitoring device, MGD-2002 Helium Leak Detector, was used to analyze a soil vapor sample for the helium tracer gas to confirm the integrity of the probe seals before vapor samples were collected in 6-liter Summa® canisters.

## 2.4 Sample Collection

Sub-slab vapor, indoor air and outdoor air samples were collected over a 24 hour period in laboratory provided and individually certified clean 6-liter Summa® canisters with regulators as described in the Work Plan. The Summa® canisters were placed adjacent to each sub-slab sampling port and at each indoor and outdoor air sampling location. Where sub-slab vapor samples were collected, tee fittings were used to connect the Summa® canister tubing to the sampling port tubing, with the third leg of the tee connected to a purge pump. In addition, the ground surface was sealed in advance to prevent ambient air infiltration during purging and collection of sub-slab vapor samples. The weather conditions were noted at the time of sampling (wind speed and direction, precipitation, outdoor temperature, barometric pressure, etc.).

At each sub-slab sampling location, a corresponding indoor air sample was also collected. The indoor air samples were collected at approximately the same sampling locations as the sub-slab sampling locations and at a height of approximately three (3) feet above the floor to represent breathing zones, per NYSDOH Guidance. Similarly, the upwind and downwind outdoor air samples were collected at a height of approximately three (3) to five (5) feet above the ground.

Prior to and immediately after sampling at each point, a pressure gauge was used to check each Summa® canister for vacuum, and the vacuum pressure was recorded. A regulator was used to keep flow rates during purging and sampling during the 24-hour sampling period below 0.2 liters per minute as specified by the NYSDOH SVI guidance.

After the sampling was completed, the Summa® canisters were labeled with the site name, the Walden job number, sample location and identification, date, time, sampler's initials, and the parameter(s) for analysis. The samples were transported to the laboratory in such a manner as to avoid container damage during transportation and to minimize the possibility of cross-contamination. The samples were delivered via courier under the appropriate Chain-of-Custody protocol.

## 2.5 Sample Analysis and Reporting

The Summa® canisters were submitted to Phoenix Environmental Laboratories, Inc. of Manchester, CT, a NYSDOH ELAP certified laboratory, for analysis. The soil vapor and air samples were analyzed for VOCs in accordance with USEPA Method TO-15 with the analytical detection limits set forth in the NYSDOH guidance document. All sample data packages submitted by the analytical laboratory were reported in conformance with the NYSDEC ASP Superfund-CLP, Category B deliverable requirements applicable to the method utilized.

# 3 EVALUATION OF SVI INVESTIGATION SAMPLING RESULTS

Walden reviewed the SVI results in accordance with the NYSDOH SVI Guidance. This guidance document lists the air guideline values (AGVs) that NYSDOH has established for methylene chloride, trichloroethylene (TCE) and PCE. (Although AGVs have also been developed for PCBs and dioxin, these compounds are not contaminants of concern at the Site and were not included in the laboratory analyses conducted for this project.) AGVs only apply to concentrations of these VOCs in indoor and outdoor air.

The State of New York does not have any standards, criteria or guidance values for concentrations of volatile chemicals in subsurface vapors, so the sub-slab vapor concentrations cannot be compared to any regulatory threshold values. However, the sub-slab vapor concentrations factor into the decision matrices contained in the NYSDOH SVI guidance. The SVI decision matrices consider the concentrations of PCE, TCE, carbon tetrachloride, 1,1,1-trichloroethane (1,1,1-TCA), 1,1-dichloroethene (1,1-DCE), cis-1,2-dichloroethene (cis-1,2-DCE) and vinyl chloride detected in indoor air samples and sub-slab vapor samples collected concurrently at the same location. The matrices recommend actions intended to address soil vapor intrusion exposures based on the relationship between the sub-slab vapor and corresponding indoor air concentrations at a given sampling location.

For analytes that do not have AGVs and are not considered in the NYSDOH SVI decision matrices, the NYSDOH SVI guidance Appendix C (*Volatile Organic Chemicals in Air – Summary of Background Databases*) was referenced for typical background concentrations of these compounds published in USEPA's 2001 Building Assessment and Survey Evaluation (BASE) database. When developing BASE, USEPA collected indoor and outdoor air samples at randomly selected office and commercial buildings using Summa® canisters.

The analytical data from the February 2016 SVI investigation are summarized in Table 1. Table 2 summarizes the SVI data decision matrix comparison and notes the actions recommended based on the decision matrices contained in the NYSDOH SVI guidance document. A copy of the laboratory analytical report is attached as Appendix C. A Data Usability Summary Report (DUSR), which was completed in accordance with DER-10, is provided in Appendix D.

## 3.1 Summary of Results

### *3.1.1 General Discussion of Results*

Most of the VOCs detected in the sub-slab samples, soil vapor samples, indoor air samples, and outdoor air samples are not considered by the NYSDOH decision matrices and do not have NYSDOH AGVs. These compounds have a number of commercial uses

in consumer products, building materials, or furnishings. The majority of the detected concentrations of these compounds fall within or near the range of background concentrations listed in the USEPA BASE database as noted in Table 1. These analytes were also detected at various concentrations in both the outdoor upwind (AA-1) and downwind (AA-2 and duplicate AA-3) air samples. Because there are no health based standards or decision criteria for these VOCs, they are not evaluated further in this report.

### *3.1.2 NYSDOH Decision Matrix Evaluation*

The results discussed below are limited to the compounds included in the NYSDOH SVI decision matrices. Refer to Table 2 for the NYSDOH decision matrix comparison.

Carbon Tetrachloride

- No AGV established for this compound
- Carbon tetrachloride was detected at low concentrations (less than 0.60 $\mu g/m^3$) in each of the indoor air samples and one of the vapor samples (the surrogate sub-slab sample, SS-8 at 216 Lakeville Road). This compound was also detected at similar concentrations in the upwind and downwind ambient air samples, so the carbon tetrachloride reported for the indoor air samples can be considered representative of background conditions.
- All reported concentrations of this compound were the low end of the typical ranges listed in the BASE database for indoor and outdoor air.
- Based on the carbon tetrachloride concentrations reported for the sub-slab vapor and indoor air samples collected at all locations, NYSDOH Decision Matrix 1 recommends *"Take reasonable and practical actions to identify source and reduce exposures."*

1,1,1-Trichloroethane

- No AGV established for this compound
- 1,1,1-TCA was only detected in the surrogate soil vapor sample (SS-8) collected outside the cottage at 216 Lakeville Road.
- None of the other sub-slab vapor, indoor air or outdoor air samples contained detectable concentrations of 1,1,1-TCA.
- Based on the 1,1,1-TCA concentrations reported for sub-slab vapor and indoor air samples collected at all locations, NYSDOH Decision Matrix 2 recommends *"No further action."*

Trichloroethene

- None of the indoor air samples contained TCE concentrations above the 2 $\mu g/m^3$ AGV for this compound. Note that NYSDOH lowered the AGV for TCE in August 2015 from 5 $\mu g/m^3$ to 2 $\mu g/m^3$ and developed a recommended immediate action level of 20 $\mu g/m^3$ for this compound.
- TCE was not detected in the outdoor ambient air samples.
- Based on the TCE concentrations reported for sub-slab vapor and indoor air samples, NYSDOH Decision Matrix 1 recommends the following:
  - At 216 Lakeville Road and 220 Lakeville Road: *"No further action"*
  - At 2 University Place and the former dry cleaners space at 218 Lakeville Road: *"Monitor"*
  - At the 218 Lakeville Road tobacco shop: *"Monitor/Mitigate"*
  - At 4 University Place and the former deli at 218 Lakeville Road: *"Mitigate"*

Tetrachloroethene

- Note that NYSDOH lowered the AGV for PCE in September 2013 from 100 $\mu g/m^3$ to 30 $\mu g/m^3$. The recommended immediate action level for PCE was also lowered from 1,000 $\mu g/m^3$ to 300 $\mu g/m^3$ at this time.
- None of the indoor air samples contained PCE concentrations above the 300 $\mu g/m^3$ recommended immediate action level for this compound. The PCE concentration reported for the indoor air sample collected at 4 University Place (IA-6) was slightly above the AGV for this compound (36 $\mu g/m^3$ PCE detected in IA-6 vs. 30 $\mu g/m^3$ AGV).
- Minimal concentrations of PCE (less than 0.5 $\mu g/m^3$) were detected in the outdoor ambient air samples.
- Based on the PCE concentrations reported for sub-slab vapor and indoor air samples, NYSDOH Decision Matrix 2 recommends the following:
  - At 216 Lakeville Road: *"No further action"*
  - At 220 Lakeville Road: *"Monitor"*
  - At 2 University Place, 4 University Place and all sampling locations at 218 Lakeville Road: *"Mitigate"*

1,1-Dichloroethene

- No AGV established for this compound
- 1,1-DCE was not detected in any of the sub-slab vapor, indoor air or outdoor air samples, therefore NYSDOH Decision Matrix 2 recommends *"No further action"* with respect to this compound.

Cis-1,2-Dichloroethene

- No AGV established for this compound
- Cis-1,2-DCE was not detected in any of the indoor air or outdoor air samples.
- This compound was detected in sub-slab vapor samples collected at 218 Lakeville Road and 4 University Place.
- Based on the cis-1,2-DCE concentrations reported for sub-slab vapor and indoor air samples collected at all locations, NYSDOH Decision Matrix 2 recommends the following:
    - At 2 University Place, 216 Lakeville Road, 220 Lakeville Road and the former dry cleaners space and tobacco shop at 218 Lakeville Road: *"No further action"*
    - At 4 University Place and the former deli at 218 Lakeville Road: *"Monitor"*

Vinyl Chloride

- No AGV established for this compound
- Vinyl chloride was not detected in any of the sub-slab vapor, indoor air or outdoor air samples, therefore NYSDOH Decision Matrix 1 recommends *"No further action"* with respect to this compound.

## 3.2 Data Usability Summary Report (DUSR)

A Data Usability Summary Report (DUSR) completed in accordance with DER-10 is provided in Appendix D.

# 4 CONCLUSIONS & RECOMMENDATIONS

## 4.1 Conclusions

The SVI sampling results show that the indoor air within the basement of 218 Lakeville Road and the lowest levels of the neighboring off-site properties located at 216 Lakeville Road, 220 Lakeville Road, and 2 University Place meets the AGVs established by NYSDOH as described in Section 3. The PCE concentration detected in the indoor air sample (IA-6) at 4 University Place exceeded the lower AGV established in September 2013 (36 $\mu g/m^3$ PCE detected in IA-6 vs. 30 $\mu g/m^3$ AGV).

The sub-slab sampling results revealed that vapors (mainly PCE and breakdown products TCE and cis-1,2-DCE) attributable to the historic release of VOCs at the Former Imperial Cleaners Site remain in the subsurface. While the SVE remedial system at 218 Lakeville Road removed VOCs and reduced concentrations to levels acceptable to NYSDEC and NYSDOH, the current SVI sampling results show that VOC concentrations have rebounded since the SVE system was shut down. This rebound is likely due to the low permeability clay layer and perched water table located approximately 30 feet below grade in this area, creating subsurface conditions which have trapped VOC vapors in the tight pore spaces and possibly on top of the perched water.

Based on a comparison of the target compound concentrations reported for the sub-slab and indoor air samples to the concentration ranges compared in the NYSDOH decision matrices, mitigation is recommended for 218 Lakeville Road, 2 University Place and 4 University Place to address potential soil vapor intrusion impacts and prevent exposure to VOCs in indoor air. The decision matrix comparison indicates that monitoring is recommended to ensure that residual VOCs do not impact indoor air at 220 Lakeville Road; no action is recommended at 216 Lakeville Road.

## 4.2 Recommendations

The following actions are recommended based on the SVI investigation results:

- Install sub-slab depressurization (SSD) systems at 218 Lakeville Road, 2 University Place and 4 University Place to prevent VOC vapor migration into the buildings.
    - The SSD system design will specify fans and piping required to draw vapors from beneath the building slabs at each property to create an adequate vacuum to control the sub-slab VOC vapors and prevent vapors from entering the buildings to avoid indoor air quality impacts.

- SSD systems will be designed and installed to minimize construction/operating impacts on off-site properties to the extent possible.
- The design and installation; post-mitigation, or confirmation testing; operation, maintenance, and monitoring; and termination of mitigation system operations will be done in accordance with the October 2006, Final NYSDOH CEH BEEI, Soil Vapor Intrusion Guidance, as amended.

- Monitoring is recommended for 220 Lakeville Road in each subsequent heating season in accordance with the October 2006, Final NYSDOH CEH BEEI, Soil Vapor Intrusion Guidance, as amended.

Design plans/specifications and an operation/monitoring plan for the SSD systems will be developed and submitted to NYSDEC and NYSDOH under separate cover for review and approval if the State concurs with this recommendation.

# TABLES

**FORMER IMPERIAL CLEANERS SITE**
**218 LAKEVILLE ROAD**
**LAKE SUCCESS, NY**

**VCP SITE #V-00244-1**

**TABLE 1**
**SUMMARY OF SVI INVESTIGATION SAMPLING RESULTS**

| | | | | | 218 Lakeville Road (Former Dry Cleaners Space) | | | | | | 218 Lakeville Road (Tobacco Shop) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Indoor Air Concentration (µg/m3) | | | | Sub-slab Vapor Concentration (µg/m3) | | Indoor Air Concentration (µg/m3) | | Sub-slab Vapor Concentration (µg/m3) | |
| Analyte | CAS # | NYSDOH Air Guideline Value (µg/m3) | USEPA BASE Indoor Air 90th Percentile Conc (µg/m3) | USEPA BASE Outdoor Air 90th Percentile Conc (µg/m3) | IA-1 | Q | IA-9 (Duplicate) | Q | SS-1 | Q | IA-2 | Q | SS-2 | Q |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | | | | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| 1,1,1-Trichloroethane | 71-55-6 | | 20.6 | 2.6 | < 1.00 | U | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | | | | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| 1,1,2-Trichloroethane | 79-00-5 | | <1.5 | <1.6 | < 1.00 | U | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| 1,1-Dichloroethane | 75-34-3 | | <0.7 | <0.6 | < 1.00 | U | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| 1,1-Dichloroethene | 75-35-4 | | <1.4 | <1.4 | < 1.00 | U | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| 1,2,4-Trichlorobenzene | 120-82-1 | | <6.8 | <6.4 | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| 1,2,4-Trimethylbenzene | 95-63-6 | | 9.5 | 5.8 | < 1.00 | U | < 1.00 | U | 13.1 | | < 1.00 | U | 17.7 | |
| 1,2-Dibromoethane(EDB) | 106-93-4 | | <1.5 | <1.6 | < 1.00 | U | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| 1,2-Dichlorobenzene | 95-50-1 | | <1.2 | <1.2 | < 1.00 | U | < 1.00 | U | < 9.97 | U | < 1.00 | U | < 9.97 | U |
| 1,2-Dichloroethane | 107-06-2 | | <0.9 | <0.8 | < 1.00 | U | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| 1,2-Dichloropropane | 78-87-5 | | <1.6 | <1.6 | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | | | | < 1.00 | U | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| 1,3,5-Trimethylbenzene | 108-67-8 | | 3.7 | 2.7 | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| 1,3-Butadiene | 106-99-0 | | <3.0 | <3.4 | < 1.00 | U | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| 1,3-Dichlorobenzene | 541-73-1 | | <2.4 | <2.2 | < 1.00 | U | < 1.00 | U | < 9.97 | U | < 1.00 | U | < 9.97 | U |
| 1,4-Dichlorobenzene | 106-46-7 | | 5.5 | 1.2 | < 1.00 | U | < 1.00 | U | < 9.97 | U | < 1.00 | U | < 9.97 | U |
| 1,4-Dioxane | 123-91-1 | | | | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| 2-Hexanone(MBK) | 591-78-6 | | | | < 1.00 | U | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| 4-Ethyltoluene | 622-96-8 | | 3.6 | 3 | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| 4-Isopropyltoluene | 99-87-6 | | | | < 1.00 | U | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| 4-Methyl-2-pentanone(MIBK) | 108-10-1 | | 6 | 1.9 | < 1.00 | U | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| Acetone | 67-64-1 | | 98.9 | 43.7 | 6.65 | S | 5.6 | S | 70.3 | S | 7.24 | S | 24.9 | S |
| Acrylonitrile | 107-13-1 | | | | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Benzene | 71-43-2 | | 9.4 | 6.6 | < 1.00 | U | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| Benzyl chloride | 100-44-7 | | <6.8 | <6.4 | < 1.00 | U | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| Bromodichloromethane | 75-27-4 | | | | < 1.00 | U | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| Bromoform | 75-25-2 | | | | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Bromomethane | 74-83-9 | | <1.7 | <1.6 | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Carbon Disulfide | 75-15-0 | | 4.2 | 3.7 | < 1.00 | U | < 1.00 | U | 12.6 | | < 1.00 | U | < 9.99 | U |
| Carbon Tetrachloride | 56-23-5 | | <1.3 | 0.7 | 0.5 | | 0.58 | | < 2.50 | U | 0.5 | | < 2.50 | U |
| Chlorobenzene | 108-90-7 | | <0.9 | <0.8 | < 1.00 | U | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| Chloroethane | 75-00-3 | | <1.1 | <1.2 | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Chloroform | 67-66-3 | | 1.1 | 0.6 | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | 46.3 | |
| Chloromethane | 74-87-3 | | 3.7 | 3.7 | 1.21 | | 1.43 | | < 10.0 | U | 1.41 | | < 10.0 | U |
| Cis-1,2-Dichloroethene | 156-59-2 | | <1.9 | <1.8 | < 1.00 | U | < 1.00 | U | 396 | | < 1.00 | U | 244 | |
| cis-1,3-Dichloropropene | 10061-01-5 | | <2.3 | <2.2 | < 1.00 | U | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| Cyclohexane | 110-82-7 | | | | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Dibromochloromethane | 124-48-1 | | | | < 1.00 | U | < 1.00 | U | < 9.96 | U | < 1.00 | U | < 9.96 | U |
| Dichlorodifluoromethane | 75-71-8 | | 16.5 | 8.1 | 2.36 | | 2.62 | | < 9.98 | U | 2.59 | | < 9.98 | U |
| Ethanol | 64-17-5 | | 210 | 57 | 69.1 | | 81.5 | E | 21.5 | S | 25.4 | | < 10.0 | U |
| Ethyl acetate | 141-78-6 | | 5.4 | 1.5 | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Ethylbenzene | 100-41-4 | | 5.7 | 3.5 | < 1.00 | U | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| Heptane | 142-82-5 | | | | < 1.00 | U | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| Hexachlorobutadiene | 87-68-3 | | <6.8 | <6.4 | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Hexane | 110-54-3 | | | | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Isopropylalcohol | 67-63-0 | | | | 1.22 | S | 1.41 | S | < 10.0 | U | 1.96 | S | < 10.0 | U |
| Isopropylbenzene | 98-82-8 | | | | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| m,p-Xylene | 179601-23-1 | | 22.2 | 12.8 | < 1.00 | U | < 1.00 | U | < 9.98 | U | < 1.00 | U | 14.7 | |
| Methyl Ethyl Ketone | 78-93-3 | | 12 | 11.3 | < 1.00 | U | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| Methyl tert-butyl ether(MTBE) | 1634-04-4 | | 11.5 | 6.2 | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Methylene Chloride | 75-09-2 | 60 | 10 | 6.1 | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| n-Butylbenzene | 104-51-8 | | | | < 1.00 | U | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| o-Xylene | 95-47-6 | | 7.9 | 4.6 | < 1.00 | U | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| Propylene | 115-07-1 | | | | 1.01 | | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| sec-Butylbenzene | 135-98-8 | | | | < 1.00 | U | < 1.00 | U | < 9.98 | U | < 1.00 | U | 14.9 | |
| Styrene | 100-42-5 | | 1.9 | 1.3 | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Tetrachloroethene | 127-18-4 | 30 | 15.9 | 6.5 | 5.65 | | 5.98 | | 5,090 | | 4.64 | | 18,600 | |
| Tetrahydrofuran | 109-99-9 | | | | < 1.00 | U | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| Toluene | 108-88-3 | | 43 | 33.7 | 1.05 | | 1.07 | | < 10.0 | U | 1.12 | | 12 | |
| Trans-1,2-Dichloroethene | 156-60-5 | | | | < 1.00 | U | < 1.00 | U | 15.6 | | < 1.00 | U | 13.8 | |
| trans-1,3-Dichloropropene | 10061-02-6 | | <1.3 | <1.4 | < 1.00 | U | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| Trichloroethene | 79-01-6 | 2 | 4.2 | 1.3 | < 0.25 | U | < 0.25 | U | 168 | | 0.28 | | 191 | |
| Trichlorofluoromethane | 75-69-4 | | 18.1 | 4.3 | 1.33 | | 1.35 | | < 9.99 | U | 1.29 | | < 9.99 | U |
| Trichlorotrifluoroethane | 76-13-1 | | 3.5 | 1.6 | < 1.00 | U | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Vinyl Chloride | 75-01-4 | | <1.9 | <1.8 | < 0.25 | U | < 0.25 | U | < 2.50 | U | < 0.25 | U | < 2.50 | U |

Highlighted analytes are included in the NYSDOH Decision Matrices

Qualifiers

U - The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.

S - This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.

E - The reported value is estimated because the concentration exceeded the calibration range.

**FORMER IMPERIAL CLEANERS SITE**
**218 LAKEVILLE ROAD**
**LAKE SUCCESS, NY**

**VCP SITE #V-00244-1**

**TABLE 1**
**SUMMARY OF SVI INVESTIGATION SAMPLING RESULTS**

| | | | | | 218 Lakeville Road (Deli South) | | | | 218 Lakeville Road (Deli North) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | CAS # | NYSDOH Air Guideline Value (µg/m3) | USEPA BASE Indoor Air 90th Percentile Conc (µg/m3) | USEPA BASE Outdoor Air 90th Percentile Conc (µg/m3) | Indoor Air Concentration (µg/m3) | | Sub-slab Vapor Concentration (µg/m3) | | Indoor Air Concentration (µg/m3) | | Sub-slab Vapor Concentration (µg/m3) | | | |
| | | | | | IA-3 | Q | SS-3 | Q | IA-4 | Q | SS-4 | Q | SS-9 (Duplicate) | Q |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | | | | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| 1,1,1-Trichloroethane | 71-55-6 | | 20.6 | 2.6 | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U | < 9.98 | U |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | | | | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| 1,1,2-Trichloroethane | 79-00-5 | | <1.5 | <1.6 | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U | < 9.98 | U |
| 1,1-Dichloroethane | 75-34-3 | | <0.7 | <0.6 | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U | < 9.99 | U |
| 1,1-Dichloroethene | 75-35-4 | | <1.4 | <1.4 | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U | < 9.99 | U |
| 1,2,4-Trichlorobenzene | 120-82-1 | | <6.8 | <6.4 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| 1,2,4-Trimethylbenzene | 95-63-6 | | 9.5 | 5.8 | < 1.00 | U | < 10.0 | U | < 1.00 | U | 21.1 | | 19.2 | |
| 1,2-Dibromoethane(EDB) | 106-93-4 | | <1.5 | <1.6 | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U | < 9.98 | U |
| 1,2-Dichlorobenzene | 95-50-1 | | <1.2 | <1.2 | < 1.00 | U | < 9.97 | U | < 1.00 | U | < 9.97 | U | < 9.97 | U |
| 1,2-Dichloroethane | 107-06-2 | | <0.9 | <0.8 | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U | < 9.99 | U |
| 1,2-Dichloropropane | 78-87-5 | | <1.6 | <1.6 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | | | | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U | < 9.99 | U |
| 1,3,5-Trimethylbenzene | 108-67-8 | | 3.7 | 2.7 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| 1,3-Butadiene | 106-99-0 | | <3.0 | <3.4 | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U | < 9.99 | U |
| 1,3-Dichlorobenzene | 541-73-1 | | <2.4 | <2.2 | < 1.00 | U | < 9.97 | U | < 1.00 | U | < 9.97 | U | < 9.97 | U |
| 1,4-Dichlorobenzene | 106-46-7 | | 5.5 | 1.2 | < 1.00 | U | < 9.97 | U | < 1.00 | U | < 9.97 | U | < 9.97 | U |
| 1,4-Dioxane | 123-91-1 | | | | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| 2-Hexanone(MBK) | 591-78-6 | | | | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U | < 9.99 | U |
| 4-Ethyltoluene | 622-96-8 | | 3.6 | 3 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| 4-Isopropyltoluene | 99-87-6 | | | | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U | < 9.98 | U |
| 4-Methyl-2-pentanone(MIBK) | 108-10-1 | | 6 | 1.9 | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U | < 9.99 | U |
| Acetone | 67-64-1 | | 98.9 | 43.7 | 4.06 | S | 26.1 | S | 4.75 | S | 39.4 | S | 38 | S |
| Acrylonitrile | 107-13-1 | | | | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| Benzene | 71-43-2 | | 9.4 | 6.6 | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U | < 9.99 | U |
| Benzyl chloride | 100-44-7 | | <6.8 | <6.4 | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U | < 9.99 | U |
| Bromodichloromethane | 75-27-4 | | | | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U | < 9.98 | U |
| Bromoform | 75-25-2 | | | | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| Bromomethane | 74-83-9 | | <1.7 | <1.6 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| Carbon Disulfide | 75-15-0 | | 4.2 | 3.7 | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U | < 9.99 | U |
| Carbon Tetrachloride | 56-23-5 | | <1.3 | 0.7 | 0.51 | | < 2.50 | U | 0.49 | | < 2.50 | U | < 2.50 | U |
| Chlorobenzene | 108-90-7 | | <0.9 | <0.8 | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U | < 9.98 | U |
| Chloroethane | 75-00-3 | | <1.1 | <1.2 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| Chloroform | 67-66-3 | | 1.1 | 0.6 | < 1.00 | U | < 10.0 | U | < 1.00 | U | 11.8 | | 12.3 | |
| Chloromethane | 74-87-3 | | 3.7 | 3.7 | 1.51 | | < 10.0 | U | 1.28 | | < 10.0 | U | < 10.0 | U |
| Cis-1,2-Dichloroethene | 156-59-2 | | <1.9 | <1.8 | < 1.00 | U | 282 | | < 1.00 | U | 630 | | 654 | |
| cis-1,3-Dichloropropene | 10061-01-5 | | <2.3 | <2.2 | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U | < 9.98 | U |
| Cyclohexane | 110-82-7 | | | | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| Dibromochloromethane | 124-48-1 | | | | < 1.00 | U | < 9.96 | U | < 1.00 | U | < 9.96 | U | < 9.96 | U |
| Dichlorodifluoromethane | 75-71-8 | | 16.5 | 8.1 | 2.68 | | 14.8 | | 2.47 | | < 9.98 | U | < 9.98 | U |
| Ethanol | 64-17-5 | | 210 | 57 | 9.23 | S | < 10.0 | U | 5.44 | S | < 10.0 | U | 11.8 | S |
| Ethyl acetate | 141-78-6 | | 5.4 | 1.5 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| Ethylbenzene | 100-41-4 | | 5.7 | 3.5 | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U | < 9.98 | U |
| Heptane | 142-82-5 | | | | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U | < 9.99 | U |
| Hexachlorobutadiene | 87-68-3 | | <6.8 | <6.4 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| Hexane | 110-54-3 | | | | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| Isopropylalcohol | 67-63-0 | | | | 1.8 | S | < 10.0 | U | 1.27 | S | < 10.0 | U | < 10.0 | U |
| Isopropylbenzene | 98-82-8 | | | | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| m,p-Xylene | 179601-23-1 | | 22.2 | 12.8 | < 1.00 | U | < 9.98 | U | < 1.00 | U | 15.6 | | 16 | |
| Methyl Ethyl Ketone | 78-93-3 | | 12 | 11.3 | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U | < 9.99 | U |
| Methyl tert-butyl ether(MTBE) | 1634-04-4 | | 11.5 | 6.2 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| Methylene Chloride | 75-09-2 | 60 | 10 | 6.1 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| n-Butylbenzene | 104-51-8 | | | | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U | < 9.98 | U |
| o-Xylene | 95-47-6 | | 7.9 | 4.6 | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U | < 9.98 | U |
| Propylene | 115-07-1 | | | | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U | < 9.99 | U |
| sec-Butylbenzene | 135-98-8 | | | | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U | 16.1 | |
| Styrene | 100-42-5 | | 1.9 | 1.3 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| Tetrachloroethene | 127-18-4 | 30 | 15.9 | 6.5 | 1.92 | | 2,760 | | 1.58 | | 3,630 | | 3,550 | |
| Tetrahydrofuran | 109-99-9 | | | | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U | < 9.99 | U |
| Toluene | 108-88-3 | | 43 | 33.7 | < 1.00 | U | < 10.0 | U | < 1.00 | U | 13.3 | | 14.5 | |
| Trans-1,2-Dichloroethene | 156-60-5 | | | | < 1.00 | U | 24.8 | | < 1.00 | U | 34.9 | | 36.2 | |
| trans-1,3-Dichloropropene | 10061-02-6 | | <1.3 | <1.4 | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U | < 9.98 | U |
| Trichloroethene | 79-01-6 | 2 | 4.2 | 1.3 | 0.27 | | 459 | | < 0.25 | U | 564 | | 607 | |
| Trichlorofluoromethane | 75-69-4 | | 18.1 | 4.3 | 1.39 | | < 9.99 | U | 1.25 | | < 9.99 | U | < 9.99 | U |
| Trichlorotrifluoroethane | 76-13-1 | | 3.5 | 1.6 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U | < 10.0 | U |
| Vinyl Chloride | 75-01-4 | | <1.9 | <1.8 | < 0.25 | U | < 2.50 | U | < 0.25 | U | < 2.50 | U | < 2.50 | U |

Highlighted analytes are included in the NYSDOH Decision Matrices

Qualifiers

U - The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.

S - This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.

E - The reported value is estimated because the concentration exceeded the calibration range.

**FORMER IMPERIAL CLEANERS SITE**
**218 LAKEVILLE ROAD**
**LAKE SUCCESS, NY**

**VCP SITE #V-00244-1**

**TABLE 1**
**SUMMARY OF SVI INVESTIGATION SAMPLING RESULTS**

| | | | | | 2 University Place | | | | 4 University Place | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | CAS # | NYSDOH Air Guideline Value (µg/m3) | USEPA BASE Indoor Air 90th Percentile Conc (µg/m3) | USEPA BASE Outdoor Air 90th Percentile Conc (µg/m3) | Indoor Air Concentration (µg/m3) | | Sub-slab Vapor Concentration (µg/m3) | | Indoor Air Concentration (µg/m3) | | Sub-slab Vapor Concentration (µg/m3) | |
| | | | | | IA-5 | Q | SS-5 | Q | IA-6 | Q | SS-6 | Q |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | | | | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| 1,1,1-Trichloroethane | 71-55-6 | | 20.6 | 2.6 | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | | | | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| 1,1,2-Trichloroethane | 79-00-5 | | <1.5 | <1.6 | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| 1,1-Dichloroethane | 75-34-3 | | <0.7 | <0.6 | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| 1,1-Dichloroethene | 75-35-4 | | <1.4 | <1.4 | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| 1,2,4-Trichlorobenzene | 120-82-1 | | <6.8 | <6.4 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| 1,2,4-Trimethylbenzene | 95-63-6 | | 9.5 | 5.8 | < 1.00 | U | 76.6 | | < 1.00 | U | 53.6 | |
| 1,2-Dibromoethane(EDB) | 106-93-4 | | <1.5 | <1.6 | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| 1,2-Dichlorobenzene | 95-50-1 | | <1.2 | <1.2 | < 1.00 | U | < 9.97 | U | < 1.00 | U | < 9.97 | U |
| 1,2-Dichloroethane | 107-06-2 | | <0.9 | <0.8 | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| 1,2-Dichloropropane | 78-87-5 | | <1.6 | <1.6 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | | | | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| 1,3,5-Trimethylbenzene | 108-67-8 | | 3.7 | 2.7 | < 1.00 | U | 22.7 | | < 1.00 | U | 13.8 | |
| 1,3-Butadiene | 106-99-0 | | <3.0 | <3.4 | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| 1,3-Dichlorobenzene | 541-73-1 | | <2.4 | <2.2 | < 1.00 | U | < 9.97 | U | < 1.00 | U | < 9.97 | U |
| 1,4-Dichlorobenzene | 106-46-7 | | 5.5 | 1.2 | < 1.00 | U | < 9.97 | U | < 1.00 | U | < 9.97 | U |
| 1,4-Dioxane | 123-91-1 | | | | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| 2-Hexanone(MBK) | 591-78-6 | | | | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| 4-Ethyltoluene | 622-96-8 | | 3.6 | 3 | < 1.00 | U | 12.7 | | < 1.00 | U | < 10.0 | U |
| 4-Isopropyltoluene | 99-87-6 | | | | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| 4-Methyl-2-pentanone(MIBK) | 108-10-1 | | 6 | 1.9 | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| Acetone | 67-64-1 | | 98.9 | 43.7 | 14.9 | | 82.6 | S | 48.2 | | 37.3 | S |
| Acrylonitrile | 107-13-1 | | | | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Benzene | 71-43-2 | | 9.4 | 6.6 | 1.56 | | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| Benzyl chloride | 100-44-7 | | <6.8 | <6.4 | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| Bromodichloromethane | 75-27-4 | | | | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| Bromoform | 75-25-2 | | | | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Bromomethane | 74-83-9 | | <1.7 | <1.6 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Carbon Disulfide | 75-15-0 | | 4.2 | 3.7 | < 1.00 | U | 13.9 | | < 1.00 | U | < 9.99 | U |
| Carbon Tetrachloride | 56-23-5 | | <1.3 | 0.7 | 0.57 | | < 2.50 | U | 0.55 | | < 2.50 | U |
| Chlorobenzene | 108-90-7 | | <0.9 | <0.8 | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| Chloroethane | 75-00-3 | | <1.1 | <1.2 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Chloroform | 67-66-3 | | 1.1 | 0.6 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Chloromethane | 74-87-3 | | 3.7 | 3.7 | 2.17 | | < 10.0 | U | 1.5 | | < 10.0 | U |
| Cis-1,2-Dichloroethene | 156-59-2 | | <1.9 | <1.8 | < 1.00 | U | < 9.99 | U | < 1.00 | U | 134 | |
| cis-1,3-Dichloropropene | 10061-01-5 | | <2.3 | <2.2 | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| Cyclohexane | 110-82-7 | | | | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Dibromochloromethane | 124-48-1 | | | | < 1.00 | U | < 9.96 | U | < 1.00 | U | < 9.96 | U |
| Dichlorodifluoromethane | 75-71-8 | | 16.5 | 8.1 | 2.71 | | < 9.98 | U | 2.61 | | < 9.98 | U |
| Ethanol | 64-17-5 | | 210 | 57 | 23.2 | | 23.5 | S | 57.6 | | 13.6 | S |
| Ethyl acetate | 141-78-6 | | 5.4 | 1.5 | 1.06 | | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Ethylbenzene | 100-41-4 | | 5.7 | 3.5 | 1.05 | | 14.5 | | < 1.00 | U | < 9.98 | U |
| Heptane | 142-82-5 | | | | 1.45 | | 13 | | < 1.00 | U | < 9.99 | U |
| Hexachlorobutadiene | 87-68-3 | | <6.8 | <6.4 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Hexane | 110-54-3 | | | | 2.03 | S | 11.1 | S | < 1.00 | U | < 10.0 | U |
| Isopropylalcohol | 67-63-0 | | | | 1.64 | S | < 10.0 | U | 6.19 | S | < 10.0 | U |
| Isopropylbenzene | 98-82-8 | | | | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| m,p-Xylene | 179601-23-1 | | 22.2 | 12.8 | 4.13 | | 57.7 | | 2.2 | | 35.7 | |
| Methyl Ethyl Ketone | 78-93-3 | | 12 | 11.3 | 1.81 | | < 9.99 | U | 1.29 | | < 9.99 | U |
| Methyl tert-butyl ether(MTBE) | 1634-04-4 | | 11.5 | 6.2 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Methylene Chloride | 75-09-2 | 60 | 10 | 6.1 | 2.35 | S | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| n-Butylbenzene | 104-51-8 | | | | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| o-Xylene | 95-47-6 | | 7.9 | 4.6 | 1.29 | | 28.3 | | < 1.00 | U | 17.3 | |
| Propylene | 115-07-1 | | | | < 1.00 | U | 28.6 | | < 1.00 | U | < 9.99 | U |
| sec-Butylbenzene | 135-98-8 | | | | < 1.00 | U | 64.7 | | < 1.00 | U | 44.9 | |
| Styrene | 100-42-5 | | 1.9 | 1.3 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Tetrachloroethene | 127-18-4 | 30 | 15.9 | 6.5 | 1.82 | | 3,590 | | 36.2 | | 20,100 | |
| Tetrahydrofuran | 109-99-9 | | | | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| Toluene | 108-88-3 | | 43 | 33.7 | 9.83 | | 31.4 | | 3.17 | | 20.4 | |
| Trans-1,2-Dichloroethene | 156-60-5 | | | | < 1.00 | U | < 9.99 | U | < 1.00 | U | < 9.99 | U |
| trans-1,3-Dichloropropene | 10061-02-6 | | <1.3 | <1.4 | < 1.00 | U | < 9.98 | U | < 1.00 | U | < 9.98 | U |
| Trichloroethene | 79-01-6 | 2 | 4.2 | 1.3 | 1.01 | | 47 | | 0.6 | | 655 | |
| Trichlorofluoromethane | 75-69-4 | | 18.1 | 4.3 | 1.35 | | < 9.99 | U | 1.33 | | < 9.99 | U |
| Trichlorotrifluoroethane | 76-13-1 | | 3.5 | 1.6 | < 1.00 | U | < 10.0 | U | < 1.00 | U | < 10.0 | U |
| Vinyl Chloride | 75-01-4 | | <1.9 | <1.8 | < 0.25 | U | < 2.50 | U | < 0.25 | U | < 2.50 | U |

Highlighted analytes are included in the NYSDOH Decision Matrices

Qualifiers

U - The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.

S - This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.

E - The reported value is estimated because the concentration exceeded the calibration range.

**FORMER IMPERIAL CLEANERS SITE**
**218 LAKEVILLE ROAD**
**LAKE SUCCESS, NY**

**VCP SITE #V-00244-1**

**TABLE 1**
**SUMMARY OF SVI INVESTIGATION SAMPLING RESULTS**

| | | | | | 220 Lakeville Road | | | | 216 Lakeville Road (Cottage) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | CAS # | NYSDOH Air Guideline Value (µg/m3) | USEPA BASE Indoor Air 90th Percentile Conc (µg/m3) | USEPA BASE Outdoor Air 90th Percentile Conc (µg/m3) | Indoor Air Concentration (µg/m3) | | Sub-slab Vapor Concentration (µg/m3) | | Indoor Air Concentration (µg/m3) | | Soil Vapor Concentration (µg/m3) | |
| | | | | | IA-7 | Q | SS-7 | Q | IA-8 | Q | SS-8 | Q |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,1,1-Trichloroethane | 71-55-6 | | 20.6 | 2.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U | 8.34 | |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,1,2-Trichloroethane | 79-00-5 | | <1.5 | <1.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,1-Dichloroethane | 75-34-3 | | <0.7 | <0.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,1-Dichloroethene | 75-35-4 | | <1.4 | <1.4 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,2,4-Trichlorobenzene | 120-82-1 | | <6.8 | <6.4 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,2,4-Trimethylbenzene | 95-63-6 | | 9.5 | 5.8 | < 1.00 | U | 20.6 | | < 1.00 | U | 14.1 | |
| 1,2-Dibromoethane(EDB) | 106-93-4 | | <1.5 | <1.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,2-Dichlorobenzene | 95-50-1 | | <1.2 | <1.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,2-Dichloroethane | 107-06-2 | | <0.9 | <0.8 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,2-Dichloropropane | 78-87-5 | | <1.6 | <1.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,3,5-Trimethylbenzene | 108-67-8 | | 3.7 | 2.7 | < 1.00 | U | 5.4 | | < 1.00 | U | 4.05 | |
| 1,3-Butadiene | 106-99-0 | | <3.0 | <3.4 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,3-Dichlorobenzene | 541-73-1 | | <2.4 | <2.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,4-Dichlorobenzene | 106-46-7 | | 5.5 | 1.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,4-Dioxane | 123-91-1 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 2-Hexanone(MBK) | 591-78-6 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 4-Ethyltoluene | 622-96-8 | | 3.6 | 3 | < 1.00 | U | 3.23 | | < 1.00 | U | 2.37 | |
| 4-Isopropyltoluene | 99-87-6 | | | | < 1.00 | U | 1.65 | | < 1.00 | U | 1.01 | |
| 4-Methyl-2-pentanone(MIBK) | 108-10-1 | | 6 | 1.9 | < 1.00 | U | < 1.00 | U | < 1.00 | U | 1.05 | |
| Acetone | 67-64-1 | | 98.9 | 43.7 | 6.62 | S | 143 | | 69.6 | | 98.8 | |
| Acrylonitrile | 107-13-1 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Benzene | 71-43-2 | | 9.4 | 6.6 | < 1.00 | U | 1.1 | | < 1.00 | U | 4.95 | |
| Benzyl chloride | 100-44-7 | | <6.8 | <6.4 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Bromodichloromethane | 75-27-4 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Bromoform | 75-25-2 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Bromomethane | 74-83-9 | | <1.7 | <1.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Carbon Disulfide | 75-15-0 | | 4.2 | 3.7 | < 1.00 | U | 29.6 | | < 1.00 | U | 5.1 | |
| Carbon Tetrachloride | 56-23-5 | | <1.3 | 0.7 | 0.58 | | < 0.25 | U | 0.46 | | 0.46 | |
| Chlorobenzene | 108-90-7 | | <0.9 | <0.8 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Chloroethane | 75-00-3 | | <1.1 | <1.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Chloroform | 67-66-3 | | 1.1 | 0.6 | < 1.00 | U | 4.62 | | < 1.00 | U | < 1.00 | U |
| Chloromethane | 74-87-3 | | 3.7 | 3.7 | 1.19 | | < 1.00 | U | 1.22 | | 1.57 | |
| Cis-1,2-Dichloroethene | 156-59-2 | | <1.9 | <1.8 | < 1.00 | U | 3.8 | | < 1.00 | U | < 1.00 | U |
| cis-1,3-Dichloropropene | 10061-01-5 | | <2.3 | <2.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Cyclohexane | 110-82-7 | | | | < 1.00 | U | 1.42 | | < 1.00 | U | < 1.00 | U |
| Dibromochloromethane | 124-48-1 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Dichlorodifluoromethane | 75-71-8 | | 16.5 | 8.1 | 2.81 | | 2.96 | | 2.49 | | 2.92 | |
| Ethanol | 64-17-5 | | 210 | 57 | 6.76 | S | 14.9 | | 130 | E | 29.2 | |
| Ethyl acetate | 141-78-6 | | 5.4 | 1.5 | < 1.00 | U | < 1.00 | U | 1.47 | | < 1.00 | U |
| Ethylbenzene | 100-41-4 | | 5.7 | 3.5 | < 1.00 | U | 3.54 | | < 1.00 | U | 3.94 | |
| Heptane | 142-82-5 | | | | < 1.00 | U | 3.43 | | < 1.00 | U | 6.59 | |
| Hexachlorobutadiene | 87-68-3 | | <6.8 | <6.4 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Hexane | 110-54-3 | | | | < 1.00 | U | 7.12 | S | < 1.00 | U | 9.09 | S |
| Isopropylalcohol | 67-63-0 | | | | 1.15 | S | 1.8 | S | 35.4 | | 2.85 | S |
| Isopropylbenzene | 98-82-8 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| m,p-Xylene | 179601-23-1 | | 22.2 | 12.8 | < 1.00 | U | 14.3 | | < 1.00 | U | 14.1 | |
| Methyl Ethyl Ketone | 78-93-3 | | 12 | 11.3 | < 1.00 | U | 6.69 | | < 1.00 | U | 9.84 | |
| Methyl tert-butyl ether(MTBE) | 1634-04-4 | | 11.5 | 6.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Methylene Chloride | 75-09-2 | 60 | 10 | 6.1 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| n-Butylbenzene | 104-51-8 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| o-Xylene | 95-47-6 | | 7.9 | 4.6 | < 1.00 | U | 6.94 | | < 1.00 | U | 6.77 | |
| Propylene | 115-07-1 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | 22.2 | |
| sec-Butylbenzene | 135-98-8 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | 11.8 | |
| Styrene | 100-42-5 | | 1.9 | 1.3 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Tetrachloroethene | 127-18-4 | 30 | 15.9 | 6.5 | 0.67 | | 854 | | 0.79 | | 3.2 | |
| Tetrahydrofuran | 109-99-9 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Toluene | 108-88-3 | | 43 | 33.7 | 1.71 | | 9.45 | | 2.05 | | 14.6 | |
| Trans-1,2-Dichloroethene | 156-60-5 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| trans-1,3-Dichloropropene | 10061-02-6 | | <1.3 | <1.4 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Trichloroethene | 79-01-6 | 2 | 4.2 | 1.3 | < 0.25 | U | 14.1 | | < 0.25 | U | 0.39 | |
| Trichlorofluoromethane | 75-69-4 | | 18.1 | 4.3 | 1.47 | | 1.52 | | 1.33 | | 1.77 | |
| Trichlorotrifluoroethane | 76-13-1 | | 3.5 | 1.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Vinyl Chloride | 75-01-4 | | <1.9 | <1.8 | < 0.25 | U | < 0.25 | U | < 0.25 | U | < 0.25 | U |

Highlighted analytes are included in the NYSDOH Decision Matrices

Qualifiers

U - The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.

S - This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.

E - The reported value is estimated because the concentration exceeded the calibration range.

**FORMER IMPERIAL CLEANERS SITE**
**218 LAKEVILLE ROAD**
**LAKE SUCCESS, NY**

**VCP SITE #V-00244-1**

**TABLE 1**
**SUMMARY OF SVI INVESTIGATION SAMPLING RESULTS**

| | | | | | Outdoor Ambient Air Samples | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | CAS # | NYSDOH Air Guideline Value (µg/m3) | USEPA BASE Indoor Air 90th Percentile Conc (µg/m3) | USEPA BASE Outdoor Air 90th Percentile Conc (µg/m3) | Upwind Concentration (µg/m3) | | Downwind Concentration (µg/m3) | | | |
| | | | | | AA-1 | Q | AA-2 | Q | AA-3 (Duplicate) | Q |
| 1,1,1,2-Tetrachloroethane | 630-20-6 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,1,1-Trichloroethane | 71-55-6 | | 20.6 | 2.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,1,2-Trichloroethane | 79-00-5 | | <1.5 | <1.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,1-Dichloroethane | 75-34-3 | | <0.7 | <0.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,1-Dichloroethene | 75-35-4 | | <1.4 | <1.4 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,2,4-Trichlorobenzene | 120-82-1 | | <6.8 | <6.4 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,2,4-Trimethylbenzene | 95-63-6 | | 9.5 | 5.8 | 11.3 | | 12.6 | | 14.3 | |
| 1,2-Dibromoethane(EDB) | 106-93-4 | | <1.5 | <1.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,2-Dichlorobenzene | 95-50-1 | | <1.2 | <1.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,2-Dichloroethane | 107-06-2 | | <0.9 | <0.8 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,2-Dichloropropane | 78-87-5 | | <1.6 | <1.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,2-Dichlorotetrafluoroethane | 76-14-2 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,3,5-Trimethylbenzene | 108-67-8 | | 3.7 | 2.7 | 4.31 | | 4.32 | | 4.2 | |
| 1,3-Butadiene | 106-99-0 | | <3.0 | <3.4 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,3-Dichlorobenzene | 541-73-1 | | <2.4 | <2.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,4-Dichlorobenzene | 106-46-7 | | 5.5 | 1.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 1,4-Dioxane | 123-91-1 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 2-Hexanone(MBK) | 591-78-6 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| 4-Ethyltoluene | 622-96-8 | | 3.6 | 3 | 2.11 | | 2.84 | | 2.6 | |
| 4-Isopropyltoluene | 99-87-6 | | | | 1.03 | | 1.08 | | 1.31 | |
| 4-Methyl-2-pentanone(MIBK) | 108-10-1 | | 6 | 1.9 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Acetone | 67-64-1 | | 98.9 | 43.7 | 18.8 | | 28 | | 22.1 | |
| Acrylonitrile | 107-13-1 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Benzene | 71-43-2 | | 9.4 | 6.6 | 4.12 | | 3.19 | | 2.96 | |
| Benzyl chloride | 100-44-7 | | <6.8 | <6.4 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Bromodichloromethane | 75-27-4 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Bromoform | 75-25-2 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Bromomethane | 74-83-9 | | <1.7 | <1.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Carbon Disulfide | 75-15-0 | | 4.2 | 3.7 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Carbon Tetrachloride | 56-23-5 | | <1.3 | 0.7 | 0.38 | | 0.41 | | 0.43 | |
| Chlorobenzene | 108-90-7 | | <0.9 | <0.8 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Chloroethane | 75-00-3 | | <1.1 | <1.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Chloroform | 67-66-3 | | 1.1 | 0.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Chloromethane | 74-87-3 | | 3.7 | 3.7 | 1.53 | | 1.63 | | < 1.00 | U |
| Cis-1,2-Dichloroethene | 156-59-2 | | <1.9 | <1.8 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| cis-1,3-Dichloropropene | 10061-01-5 | | <2.3 | <2.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Cyclohexane | 110-82-7 | | | | 6.47 | | 4.54 | | 3.96 | |
| Dibromochloromethane | 124-48-1 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Dichlorodifluoromethane | 75-71-8 | | 16.5 | 8.1 | 2.51 | | 2.45 | | 2.47 | |
| Ethanol | 64-17-5 | | 210 | 57 | 17.5 | | 13.6 | | 13.8 | |
| Ethyl acetate | 141-78-6 | | 5.4 | 1.5 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Ethylbenzene | 100-41-4 | | 5.7 | 3.5 | 4.73 | | 4.6 | | 4.69 | |
| Heptane | 142-82-5 | | | | 8.27 | | 6.47 | | 5.73 | |
| Hexachlorobutadiene | 87-68-3 | | <6.8 | <6.4 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Hexane | 110-54-3 | | | | 10.8 | | 7.82 | S | 6.76 | S |
| Isopropylalcohol | 67-63-0 | | | | 1.67 | S | 2.44 | S | 1.28 | S |
| Isopropylbenzene | 98-82-8 | | | | 1.07 | | 1.11 | | < 1.00 | U |
| m,p-Xylene | 179601-23-1 | | 22.2 | 12.8 | 15.9 | | 15.3 | | 15.4 | |
| Methyl Ethyl Ketone | 78-93-3 | | 12 | 11.3 | 1.71 | | 1.09 | | 1.06 | |
| Methyl tert-butyl ether(MTBE) | 1634-04-4 | | 11.5 | 6.2 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Methylene Chloride | 75-09-2 | 60 | 10 | 6.1 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| n-Butylbenzene | 104-51-8 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| o-Xylene | 95-47-6 | | 7.9 | 4.6 | 7.59 | | 7.38 | | 7.33 | |
| Propylene | 115-07-1 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| sec-Butylbenzene | 135-98-8 | | | | 9.49 | | < 1.00 | U | 12.1 | |
| Styrene | 100-42-5 | | 1.9 | 1.3 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Tetrachloroethene | 127-18-4 | 30 | 15.9 | 6.5 | 0.33 | | 0.47 | | 0.39 | |
| Tetrahydrofuran | 109-99-9 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Toluene | 108-88-3 | | 43 | 33.7 | 21.9 | | 18.8 | | 18.3 | |
| Trans-1,2-Dichloroethene | 156-60-5 | | | | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| trans-1,3-Dichloropropene | 10061-02-6 | | <1.3 | <1.4 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Trichloroethene | 79-01-6 | 2 | 4.2 | 1.3 | < 0.25 | U | < 0.25 | U | < 0.25 | U |
| Trichlorofluoromethane | 75-69-4 | | 18.1 | 4.3 | 2.76 | | 2.3 | | 2.17 | |
| Trichlorotrifluoroethane | 76-13-1 | | 3.5 | 1.6 | < 1.00 | U | < 1.00 | U | < 1.00 | U |
| Vinyl Chloride | 75-01-4 | | <1.9 | <1.8 | < 0.25 | U | < 0.25 | U | < 0.25 | U |

Highlighted analytes are included in the NYSDOH Decision Matrices

Qualifiers

U - The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.

S - This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.

E - The reported value is estimated because the concentration exceeded the calibration range.

**FORMER IMPERIAL CLEANERS SITE**
**218 LAKEVILLE ROAD**
**LAKE SUCCESS, NY**
**VCP SITE #V-00244-1**

**TABLE 2**
**SVI INVESTIGATION SAMPLING RESULTS NYSDOH DECISION MATRIX COMPARISON**

| Location | NYSDEC DECISION MATRIX 1 | | | NYSDEC DECISION MATRIX 2 | | | |
|---|---|---|---|---|---|---|---|
| | **Carbon Tetrachloride µg/m³** | **Trichloroethene µg/m³** | **Vinyl Chloride µg/m³** | **1,1-Dichloroethene µg/m³** | **cis-1,2-Dichloroethene µg/m³** | **1,1,1-Trichloroethane µg/m³** | **Tetrachloroethene µg/m³** |
| **218 Lakeville Road** | | | | | | | |
| **Former Cleaners** | | | | | | | |
| IA-1/Duplicate IA-9 Result | 0.5/0.58 | <0.25/<0.25 | <0.25/<0.25 | <1.0/<1.0 | <1.0/<1.0 | <1.0/<1.0 | 5.65/5.98 |
| Matrix Range Indoor Air | 0.25 to <1 | <0.25 | <0.25 | <3 | <3 | <3 | <3 |
| SS-1 Result | <2.50 | 168 | <2.50 | <9.99 | 396 | <9.98 | 5090 |
| Matrix Range Sub-Slab Vapor | <5 | 50 to <250 | <5 | <100 | 100 to <1000 | <100 | 1,000 and above |
| *Recommended Action* | *Take Reasonable/Practical Action* | *Monitor* | *NoFurther Action* | *No Further Action* | *No Further Action* | *No Further Action* | *Mitigate* |
| **Tobacco Shop** | | | | | | | |
| IA-2 Result | 0.5 | 0.28 | <0.25 | <1.0 | <1.0 | <1.0 | 4.64 |
| Matrix Range Indoor Air | 0.25 to <1 | 0.25 to <1 | <0.25 | <3 | <3 | <3 | 3 to <30 |
| SS-2 Result | <2.50 | 191 | <2.50 | <9.99 | 244 | <9.98 | 18600 |
| Matrix Range Sub-Slab Vapor | <5 | 50 to <250 | <5 | <100 | 100 to <1000 | <100 | 1,000 and above |
| *Recommended Action* | *Take Reasonable/Practical Action* | *Monitor/Mitigate* | *NoFurther Action* | *No Further Action* | *No Further Action* | *No Further Action* | *Mitigate* |
| **Deli South** | | | | | | | |
| IA-3 Result | 0.51 | 0.27 | <0.25 | <1.0 | <1.0 | <1.0 | 1.92 |
| Matrix Range Indoor Air | 0.25 to <1 | 0.25 to <1 | <0.25 | <3 | <3 | <3 | <3 |
| SS-3 Result | <2.50 | 459 | <2.50 | <9.99 | 282 | <9.98 | 2760 |
| Matrix Range Sub-Slab Vapor | <5 | 250 and above | <5 | <100 | 100 to <1000 | <100 | 1,000 and above |
| *Recommended Action* | *Take Reasonable/Practical Action* | *Mitigate* | *NoFurther Action* | *No Further Action* | *Monitor* | *No Further Action* | *Mitigate* |
| **Deli North** | | | | | | | |
| IA-4 Result | 0.49 | <0.25 | <0.25 | <1.0 | <1.0 | <1.0 | 1.58 |
| Matrix Range Indoor Air | 0.25 to <1 | <0.25 | <0.25 | <3 | <3 | <3 | <3 |
| SS-4/Duplicate SS-9 Result | <2.50/<2.50 | 564/607 | <2.50/<2.50 | <9.99/<9.99 | 630/654 | <9.98/<9.98 | 3630/3550 |
| Matrix Range Sub-Slab Vapor | <5 | 250 and above | <5 | <100 | 100 to <1000 | <100 | 1,000 and above |
| *Recommended Action* | *Take Reasonable/Practical Action* | *Mitigate* | *NoFurther Action* | *No Further Action* | *Monitor* | *No Further Action* | *Mitigate* |
| **2 University Place** | | | | | | | |
| IA-5 Result | 0.57 | 1.01 | <0.25 | <1.0 | <1.0 | <1.0 | 1.82 |
| Matrix Range Indoor Air | 0.25 to <1 | 1 to <5.0 | <0.25 | <3 | <3 | <3 | <3 |
| SS-5 Result | <2.50 | 47 | <2.50 | <9.99 | <9.99 | <9.98 | 3590 |
| Matrix Range Sub-Slab Vapor | <5 | 5 to <50 | <5 | <100 | <100 | <100 | 1,000 and above |
| *Recommended Action* | *Take Reasonable/Practical Action* | *Monitor* | *NoFurther Action* | *No Further Action* | *No Further Action* | *No Further Action* | *Mitigate* |
| **4 University Place** | | | | | | | |
| IA-6 Result | 0.55 | 0.6 | <0.25 | <1.0 | <1.0 | <1.0 | 36.2 |
| Matrix Range Indoor Air | 0.25 to <1 | 0.25 to <1 | <0.25 | <3 | <3 | <3 | 30 to <100 |
| SS-6 Result | <2.50 | 655 | <2.50 | <9.99 | 134 | <9.98 | 20100 |
| Matrix Range Sub-Slab Vapor | <5 | 250 and above | <5 | <100 | 100 to <1000 | <100 | 1,000 and above |
| *Recommended Action* | *Take Reasonable/Practical Action* | *Mitigate* | *NoFurther Action* | *No Further Action* | *Monitor* | *No Further Action* | *Mitigate* |
| **220 Lakeville Road** | | | | | | | |
| IA-7 Result | 0.58 | <0.25 | <0.25 | <1.0 | <1.0 | <1.0 | 0.67 |
| Matrix Range Indoor Air | 0.25 to <1 | <0.25 | <0.25 | <3 | <3 | <3 | <3 |
| SS-7 Result | <2.50 | 14.1 | <0.25 | <1.0 | 3.8 | <1.0 | 854 |
| Matrix Range Sub-Slab Vapor | <5 | 5 to <50 | <5 | <100 | <100 | <100 | 100 to <1,000 |
| *Recommended Action* | *Take Reasonable/Practical Action* | *No Further Action* | *NoFurther Action* | *No Further Action* | *No Further Action* | *No Further Action* | *Monitor* |
| **216 Lakeville Road** | | | | | | | |
| IA-8 Result | 0.46 | <0.25 | <0.25 | <1.0 | <1.0 | <1.0 | 0.79 |
| Matrix Range Indoor Air | 0.25 to <1 | <0.25 | <0.25 | <3 | <3 | <3 | <3 |
| SS-8 Result | 0.46 | 0.39 | <0.25 | <1.0 | <1.0 | 8.34 | 3.2 |
| Matrix Range Sub-Slab Vapor | <5 | <5 | <5 | <100 | <100 | <100 | <100 |
| *Recommended Action* | *Take Reasonable/Practical Action* | *No Further Action* | *No Further Action* | *No Further Action* | *No Further Action* | *No Further Action* | *No Further Action* |

Decision Matrices in tables referenced from NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York. The recommendations indicated in the decision matrices are described below.

No Further Action: Given that the compound was not detected in the indoor air sample and that the concentration detected in the sub-slab vapor sample is not expected to significantly affect indoor air quality, no additional actions are needed to address human exposures.

TAKE REASONABLE AND PRACTICAL ACTIONS TO IDENTIFY SOURCE(S) AND REDUCE EXPOSURE: The concentration detected in the indoor air sample is likely due to indoor and/or outdoor sources rather than soil vapor intrusion given the concentration detected in the sub-slab vapor sample. Therefore, steps should be taken to identify potential source(s) and to reduce exposure accordingly (e.g., by keeping containers tightly capped or by storing volatile organic compound-containing products in places where people do not spend much time, such as a garage or outdoor shed). Resampling may be recommended to demonstrate the effectiveness of actions taken to reduce exposures.

MITIGATE: Take reasonable and practical actions to identify source(s) and reduce exposure: The concentration detected in the indoor air sample is likely due to indoor and/or outdoor sources rather than soil vapor intrusion given the concentration detected in the sub-slab vapor sample. Therefore, steps should be taken to identify potential source(s) and to reduce exposures accordingly (e.g., by keeping containers tightly capped or by storing volatile chemical-containing products in places where people do not spend much time, such as a garage or shed). Resampling may also be recommended to demonstrate the effectiveness of actions taken to reduce exposures.

MONITOR: Monitoring, including sub-slab vapor, basement air, lowest occupied living space air, and outdoor air sampling, is needed to determine whether concentrations in the indoor air or sub-slab vapor have changed. Monitoring may also be needed to determine whether existing building conditions (e.g., positive pressure heating, ventilation and air-conditioning systems) are maintaining the desired mitigation endpoint and to determine whether changes are needed. The type and frequency of monitoring is determined on a site-specific and building-specific basis, taking into account applicable environmental data and building operating conditions. Monitoring is an interim measure required to evaluate exposures related to soil vapor intrusion until contaminated environmental media are remediated.

MONITOR/MITIGATE: Monitoring or mitigation may be recommended after considering the magnitude of sub-slab vapor and indoor air concentrations along with building and site specific conditions.

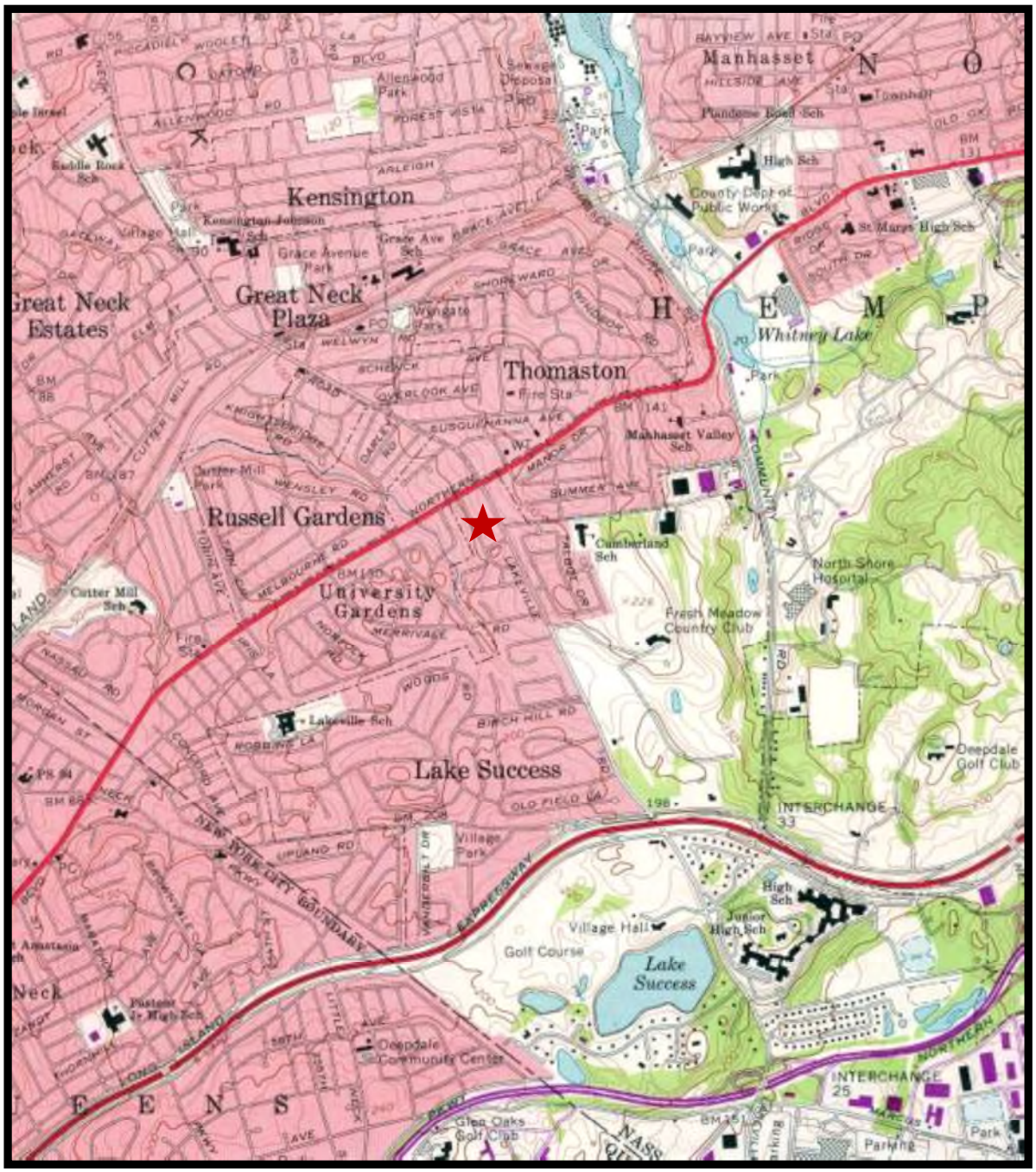
# FIGURES

**Former Imperial Cleaners Site**
**(VCP Site #V-00244-1)**
**218 Lakeville Road**
**Lake Success, New York**

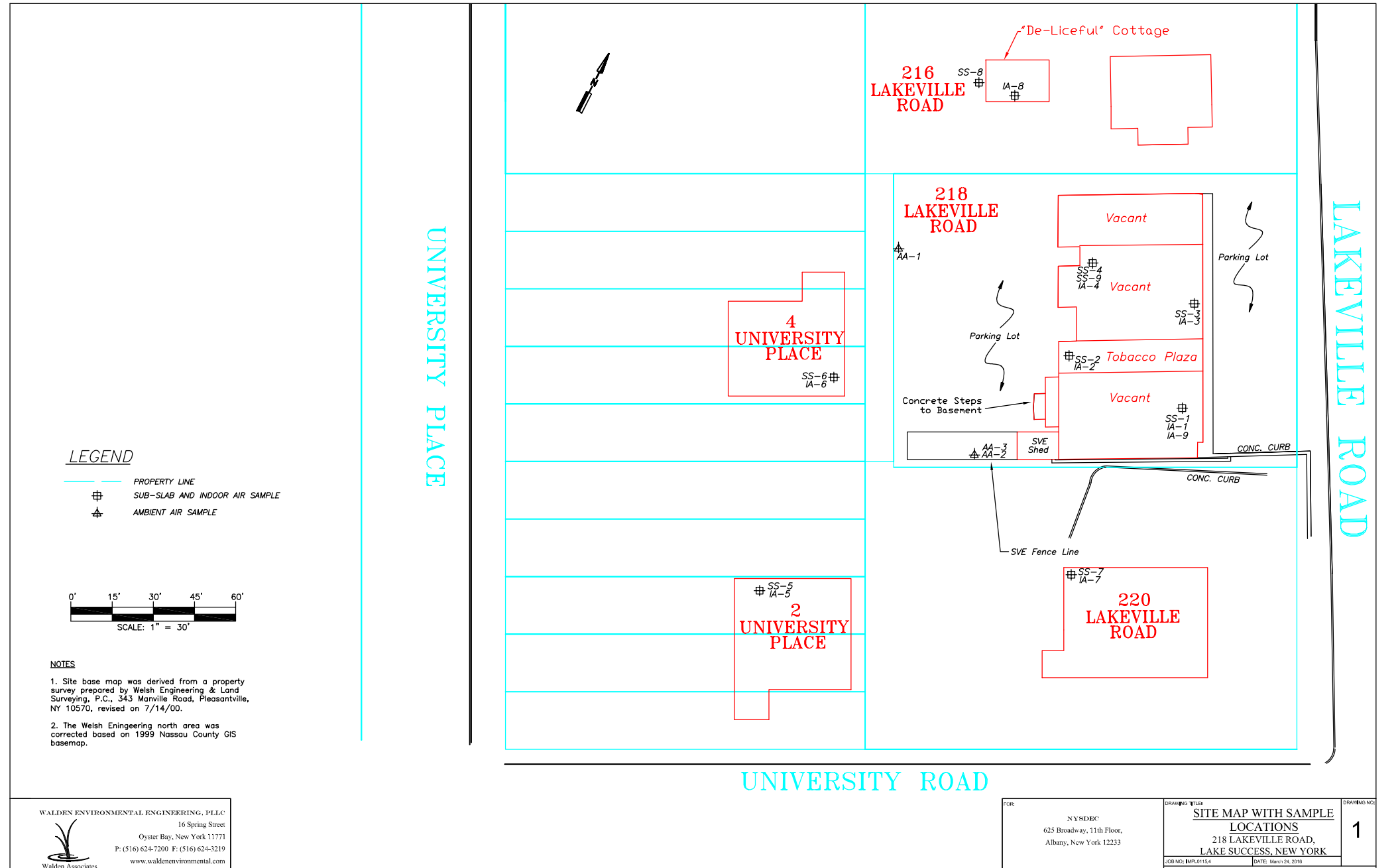
**FIGURE 1**

**SITE LOCATION MAP**

N




(USGS QUAD Sea Cliff, New York) (Scale 1:24000)




## LEGEND

- PROPERTY LINE
- SUB-SLAB AND INDOOR AIR SAMPLE
- AMBIENT AIR SAMPLE

0' 15' 30' 45' 60'

SCALE: 1" = 30'

NOTES

1. Site base map was derived from a property survey prepared by Welsh Engineering & Land Surveying, P.C., 343 Manville Road, Pleasantville, NY 10570, revised on 7/14/00.

2. The Welsh Eningeering north area was corrected based on 1999 Nassau County GIS basemap.


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FOR:
NYSDEC
625 Broadway, 11th Floor,
Albany, New York 12233

DRAWING TITLE:
SITE MAP WITH SAMPLE LOCATIONS
218 LAKEVILLE ROAD,
LAKE SUCCESS, NEW YORK

DRAWING NO:
1

JOB NO: IMPL0115.4
DATE: March 24, 2016

CAD FILE NAME: 2IMPL0115 Imperial Cleaners\IMPL0115.4 - SVE Investigation\Site Map, Sample Locations, Sept.dwg

# APPENDICES

# APPENDIX A
# Existing Soil Vapor Extraction System Details

**218 Lakeville Road Soil Vapor Extraction System**

Based on the investigation and remediation activities previously conducted at the 218 Lakeville Road site, it was determined that installation of an SVE system would be required to remove residual PCE remaining in soils at the site. This work was conducted under the VCP program administered by NYSDEC. A SVE pilot test was conducted in May 1998 to determine the SVE well radius of influence for a full-scale SVE system. The SVE system was designed and installed by the previous Site owner's consultants and started up in January 2001. The complete SVE system consists of eight soil vapor extraction wells, as shown on the attached figure and described below.

RW-1, RW-2, RW-3, RW-4 and RW-10 were installed in November - December 2000. RW-1 and RW-2 are located just east of the property line between 4 University Place and the Former Imperial Cleaners site. RW-3 was installed in the vicinity of former dry well DW-1, at the southwest corner of the Former Imperial Cleaners site. RW-1, RW-2 and RW-3 are 25 feet deep and screened 15 to 25 feet below grade. RW-4 (13 feet deep with 10 feet of slotted pipe) is located along the western boundary of 220 Lakeville Road, adjacent to the residence at 2 University Place, and its designed radius of influence covers portions of these two properties. RW-10 (25 feet deep with 10 feet of slotted pipe) was installed along the south side of the residence at 4 University Place, and its designed radius of influence extends to a portion of the property at 2 University Place.

Existing extraction wells B-1, FD-2 and B-3, which were installed at the Site prior to 1998, were connected to the five SVE wells and piping installed in 2000 to complete the SVE remediation system. Soil boring B-1 was converted to a SVE extraction well and is screened from 10 to 25 feet below grade. Floor drain FD-2 was excavated in 1996 and converted to a SVE extraction well screened 4 to 10 feet below the basement floor. Extraction well B-3 is located in the vicinity of LP-2 and is screened 15 to 30 feet below grade.

Site closure sampling (soil, soil vapor and indoor air perc badge sampling) was conducted in November 2007 – January 2008 in accordance with a NYSDEC approved work plan. The closure sampling results indicated that residual VOC concentrations met applicable NYSDEC and NYSDOH criteria. Permanent shutdown of the SVE system was recommended based on the 2007-2008 closure sampling results. The SVE system was subsequently shut down. All of the remediation system equipment remains in place at the Site.

## LEGEND

- SURVEY CONTROL STATION & BASELINE
- RW–1 — EXISTING SVE EXTRACTION WELL
- B–1 — EXISTING SOIL BORING SVE EXTRACTION WELL
- FD–1 — EXISTING FLOOR DRAIN SVE EXTRACTION WELL
- MW2 — EXISTING MONITORING WELL
- PROPERTY LINE

SCALE

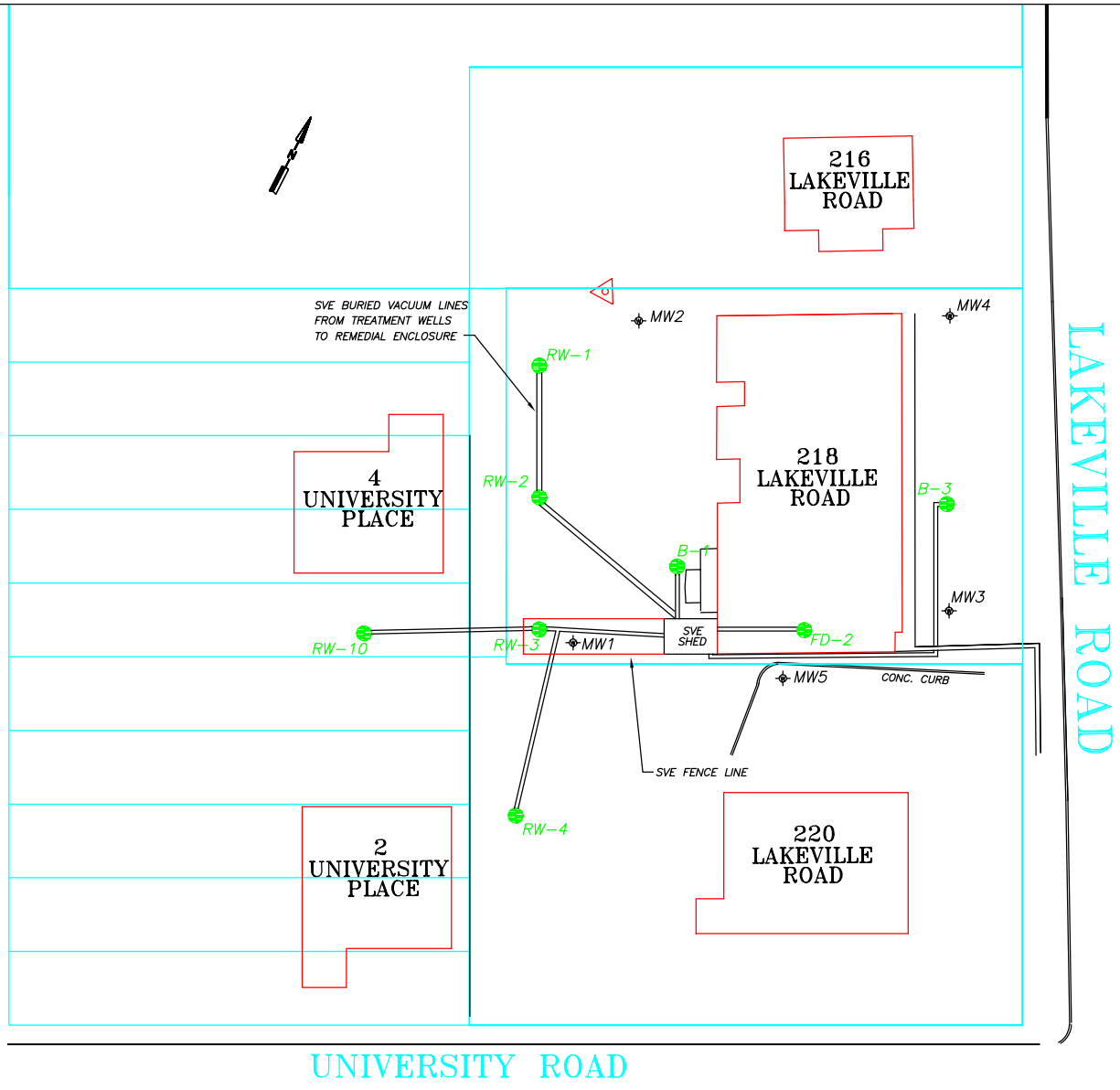
20 10 0 20 FT.

NOTES

1. All extraction wells locations are approximately located based on Anson Environmental's field measurements. No survey was conducted to exactly locate extraction well points.

2. Site base map was derived from a property survey prepared by Welsh Engineering & Land Surveying, P.C., 343 Manville Road, Pleasantville, NY 10570, revised on 7/14/00.

3. The Welsh Eningeering north area was corrected based on 1999 Nassau County GIS basemap.





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FOR:
NYSDEC
625 Broadway, 11th Floor,
Albany, New York 12233

DRAWING TITLE:
SVE SYSTEM LAYOUT
218 LAKEVILLE ROAD,
LAKE SUCCESS, NEW YORK

DRAWING NO: 4

JOB NO: SPGL200

DATE: 4-15-08

CAD FILE NAME: [illegible]

**APPENDIX B**
**Completed NYSDOH Indoor Air Quality Questionnaire/Building Inventory Sheets**

2 University Place



# Appendix B
## Indoor air quality questionnaire and building inventory

As discussed in Section 2.11, products in buildings should be inventoried every time indoor air is sampled to provide an accurate assessment of the potential contribution of volatile chemicals. In addition, the type of structure, floor layout and physical conditions of the building being studied should be noted to identify (and minimize) conditions that may interfere with the proposed testing.

Toward this end, a blank copy of the NYSDOH Center for Environmental Health's Indoor Air Quality Questionnaire and Building Inventory is provided in this appendix. Also provided is an example that demonstrates how the form should be completed properly.

2 University Place

OSR – 3

**NEW YORK STATE DEPARTMENT OF HEALTH**
**INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY**
**CENTER FOR ENVIRONMENTAL HEALTH**

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Jessica Bluth Date/Time Prepared 2/17/16

Preparer's Affiliation Walden Environmental Engineering Phone No. (516) 624-7200

Purpose of Investigation Soil Vapor Intrusion Investigation Former Imperial Cleaners Site (VCP Site # V-00244-1)

**1. OCCUPANT:**

**Interviewed:** (Y) / N

Last Name: Keeling First Name: Betty

Address: 2 University Place, Great Neck

County: Nassau

Home Phone: (516) 466-3531 Office Phone: _____

Number of Occupants/persons at this location 2 Age of Occupants 45+

**2. OWNER OR LANDLORD:** (Check if same as occupant ✓)

**Interviewed:** (Y) / N

Last Name: Keeling First Name: Bill

Address: Same as above

County: _____

Home Phone: _____ Office Phone: _____

**3. BUILDING CHARACTERISTICS**

**Type of Building:** (Circle appropriate response)

(Residential) School Commercial/Multi-use
Industrial Church Other: _____

**If the property is residential, type?** (Circle appropriate response)

| | | |
|---|---|---|
| Ranch | 2-Family | 3-Family |
| Raised Ranch | Split Level | Colonial |
| (Cape Cod) | Contemporary | Mobile Home |
| Duplex | Apartment House | Townhouses/Condos |
| Modular | Log Home | Other:_____ |

**If multiple units, how many?** _____

**If the property is commercial, type?**

Business Type(s) _____

Does it include residences (i.e., multi-use)? Y / N If yes, how many? _____

**Other characteristics:**

Number of floors 1 + B Building age ~ 1929

Is the building insulated? (Y) / N How air tight? Tight / Average / Not Tight

## 4. AIRFLOW

**Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:**

Airflow between floors

_____

_____

_____

Airflow near source

_____

_____

_____

Outdoor air infiltration

_____

_____

_____

Infiltration into air ducts

_____

_____

_____

**5. BASEMENT AND CONSTRUCTION CHARACTERISTICS** (Circle all that apply)

| | | | | |
|---|---|---|---|---|
| **a. Above grade construction:** | wood frame | concrete | stone | (brick) |
| **b. Basement type:** | (full) | crawlspace | slab | other _____ |
| **c. Basement floor:** | (concrete) | dirt | stone | other _____ |
| **d. Basement floor:** | uncovered | (covered) → except for boiler room | covered with _____ | |
| **e. Concrete floor:** | (unsealed) → re: exposed floor in boiler room | sealed | sealed with _____ | |
| **f. Foundation walls:** | poured | block | stone | other _____ |
| **g. Foundation walls:** | unsealed | sealed | sealed with _____ | |
| **h. The basement is:** | wet | damp | (dry) | moldy |
| **i. The basement is:** | (finished) | unfinished | partially finished | |
| **j. Sump present?** | (Y) N – 5 gallon bucket installed by homeowner in boiler room; top of bucket is reportedly sealed to concrete slab floor. | | | |
| **k. Water in sump?** | Y (N) not applicable | | | |

**Basement/Lowest level depth below grade:** _____(feet)

**Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)**

sump in boiler room (5 gallon bucket, described above) and floor drain just outside doorway to room containing sub-slab vapor sample location; both covered with plastic sheeting during sample collection

**6. HEATING, VENTING and AIR CONDITIONING** (Circle all that apply)

**Type of heating system(s) used in this building: (circle all that apply – note primary)**

| | | | |
|---|---|---|---|
| Hot air circulation | Heat pump | Hot water baseboard | |
| Space Heaters | Stream radiation | Radiant floor | |
| Electric baseboard | Wood stove | Outdoor wood boiler | Other _____ |

**The primary type of fuel used is:**

| | | |
|---|---|---|
| (Natural Gas) | Fuel Oil | Kerosene |
| Electric | Propane | Solar |
| Wood | Coal | |

**Domestic hot water tank fueled by:** natural gas

**Boiler/furnace located in:** (Basement) Outdoors Main Floor Other_____

**Air conditioning:** Central Air Window units Open Windows None

**Are there air distribution ducts present?** Y / N

**Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.**

_____

_____

_____

_____

## 7. OCCUPANCY

**Is basement/lowest level occupied?** Full-time (Occasionally) Seldom Almost Never

| **Level** | **General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)** |
|---|---|
| Basement | office, spare bedroom |
| 1st Floor | living areas, kitchen |
| 2nd Floor | |
| 3rd Floor | |
| 4th Floor | |

## 8. FACTORS THAT MAY influence INDOOR AIR QUALITY

**a. Is there an attached garage?** (Y) / N

**b. Does the garage have a separate heating unit?** Y / (N) / NA

**c. Are petroleum-powered machines or vehicles stored in the garage** (e.g., lawnmower, atv, car) (Y) / N / NA
Please specify: gas snow-blower, multiple paint cans, 2 propane tanks, 2 portable gas cans

**d. Has the building ever had a fire?** (Y) / N When? _____

**e. Is a kerosene or unvented gas space heater present?** Y (N) Where? _____

**f. Is there a workshop or hobby/craft area?** Y (N) Where & Type? _____

**g. Is there smoking in the building?** Y (N) How frequently? _____

**h. Have cleaning products been used recently?** (Y) / N When & Type? _____

**i. Have cosmetic products been used recently?** (Y) / N When & Type? _____

**j. Has painting/staining been done in the last 6 months?** Y / N Where & When? _____

**k. Is there new carpet, drapes or other textiles?** Y / N Where & When? _____

**l. Have air fresheners been used recently?** Y / N When & Type? _____

**m. Is there a kitchen exhaust fan?** Y / N If yes, where vented? _____

**n. Is there a bathroom exhaust fan?** Y / N If yes, where vented? _____

**o. Is there a clothes dryer?** (Y) / N If yes, is it vented outside? Y / N

**p. Has there been a pesticide application?** Y / N When & Type? _____

**Are there odors in the building?** Y / (N)
If yes, please describe: _____

**Do any of the building occupants use solvents at work?** Y / (N)
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Y / N

**Do any of the building occupants regularly use or work at a dry-cleaning service?** (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) No
Yes, use dry-cleaning infrequently (monthly or less) Unknown
Yes, work at a dry-cleaning service

**Is there a radon mitigation system for the building/structure?** Y / N Date of Installation: _____
**Is the system active or passive?** Active/Passive

## 9. WATER AND SEWAGE

**Water Supply:** (Public Water) Drilled Well Driven Well Dug Well Other: _____

**Sewage Disposal:** Public Sewer (Septic Tank) Leach Field Dry Well Other: _____
?

## 10. RELOCATION INFORMATION (for oil spill residential emergency)

**a. Provide reasons why relocation is recommended:** N/A

**b. Residents choose to:** remain in home relocate to friends/family relocate to hotel/motel

**c. Responsibility for costs associated with reimbursement explained?** Y / N

**d. Relocation package provided and explained to residents?** Y / N

## 11. FLOOR PLANS

**Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.**

**Basement:**

**First Floor:**

## 12. OUTDOOR PLOT

**Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.**

**Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.**

**13. PRODUCT INVENTORY FORM**

**Make & Model of field instrument used:** _____

**List specific products found in the residence that have the potential to affect indoor air quality.**

| Location | Product Description | Size (units) | Condition* | Chemical Ingredients | Field Instrument Reading (units) | Photo** Y / N |
|---|---|---|---|---|---|---|
| | Pledge Multi-Surface Cleaner | 9.7 oz | U | Basement bedroom | | |
| | Leather care foam (M. Benz) | 5.07 oz | U | Basement computer room | | |
| | Great Stuff Foam Sealant | 16 oz. | U | " " | | |
| | Febreeze | 27 fl. oz. | U | " " | | |
| | 3M Super 77 Multi-Purpose Adhesive | 16.75 oz | U | Basement entry way | | |
| | Resolve Carpet Cleaner Foam | 22 oz | UO | " " " | | |
| | Rust-Oleum Protective Enamel | 32 fl. oz | U | Basement laundry room | | |
| | Tide (powder) | 7.12 lb | U | " " " | | |
| | Behr Interior Satin Enamel | 32 oz | U | " " " | | |
| | Lysol Disinfectant Spray | 19 oz | U | " " " | | |
| | Xtra Laundry Detergent | 2.68 gal | U | " " " (2 containers total) | | |
| | Goof Off Spot Remover | 1 fl. oz | U | " " " | | |
| | Pledge Furniture Polish | 12.5 oz | U | " " " | | |
| | Quartet Dry-Erase Cleaner | 1.68 fl. oz | U | Basement office | | |
| | Quartet Dry-Erase Markers (5) | | U | " " | | |
| | Zep Coconut Verbana Air Freshener | 7 oz | U | " " | | |
| | Wet Gel Lubricant | 3.5 oz | U | Basement bedroom | | |
| | | | | | | |
| | | | | | | |

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

4 University Place



# Appendix B
## Indoor air quality questionnaire and building inventory

As discussed in Section 2.11, products in buildings should be inventoried every time indoor air is sampled to provide an accurate assessment of the potential contribution of volatile chemicals. In addition, the type of structure, floor layout and physical conditions of the building being studied should be noted to identify (and minimize) conditions that may interfere with the proposed testing.

Toward this end, a blank copy of the NYSDOH Center for Environmental Health's Indoor Air Quality Questionnaire and Building Inventory is provided in this appendix. Also provided is an example that demonstrates how the form should be completed properly.

4 University Place

OSR – 3

**NEW YORK STATE DEPARTMENT OF HEALTH**
**INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY**
**CENTER FOR ENVIRONMENTAL HEALTH**

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Jessica Bluth Date/Time Prepared 2/17/2016

Preparer's Affiliation Walden Environmental Engineering Phone No. (516) 624-7200

Purpose of Investigation Soil Vapor Intrusion Investigation
Former Imperial Cleaners Site (VCP Site # V-00244-1)

**1. OCCUPANT:**

**Interviewed:** (Y) / N

Last Name: _____ First Name: Aby

Address: 4 University Place, Great Neck NY 11020

County: Nassau

Home Phone: (718) 813-2980 Office Phone: _____

Number of Occupants/persons at this location 2 Age of Occupants 45+

**2. OWNER OR LANDLORD:** (Check if same as occupant ✓)

**Interviewed: Y / N**

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

**3. BUILDING CHARACTERISTICS**

**Type of Building:** (Circle appropriate response)

(Residential) School Commercial/Multi-use
Industrial Church Other: _____

**If the property is residential, type?** (Circle appropriate response)

| | | |
|---|---|---|
| Ranch | 2-Family | 3-Family |
| Raised Ranch | Split Level | (Colonial) |
| Cape Cod | Contemporary | Mobile Home |
| Duplex | Apartment House | Townhouses/Condos |
| Modular | Log Home | Other:_____ |

**If multiple units, how many?** N/A

**If the property is commercial, type?** N/A

Business Type(s) _____

Does it include residences (i.e., multi-use)? Y / N If yes, how many? _____

**Other characteristics:**

Number of floors 2+B Building age ~1929

Is the building insulated? (Y) N How air tight? Tight / Average / Not Tight

## 4. AIRFLOW

**Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:**

Airflow between floors

_____

_____

_____

Airflow near source

_____

_____

_____

Outdoor air infiltration

_____

_____

_____

Infiltration into air ducts

_____

_____

_____

**5. BASEMENT AND CONSTRUCTION CHARACTERISTICS** (Circle all that apply)

| | | | | |
|---|---|---|---|---|
| **a. Above grade construction:** | (wood frame) | concrete | stone | brick |
| **b. Basement type:** | (full) | crawlspace | slab | other _____ |
| **c. Basement floor:** | (concrete) | dirt | stone | other _____ |
| **d. Basement floor:** | uncovered | (covered) → except for laundry room | covered with _____ | |
| **e. Concrete floor:** | (unsealed) → re: exposed floor in laundry room | sealed | sealed with _____ | |
| **f. Foundation walls:** | (poured) | block | stone | (other) brick |
| **g. Foundation walls:** | unsealed | (sealed) partially | sealed with paint | |
| **h. The basement is:** | wet | damp | (dry) | moldy |
| **i. The basement is:** | (finished) → except for laundry room | unfinished | partially finished | |
| **j. Sump present?** | (Y) / N | | | |
| **k. Water in sump?** | Y / N / not applicable – capped; contains sump pump for discharge to sewer | | | |

**Basement/Lowest level depth below grade:** _____(feet)

**Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)**

small (~3" ϕ) hole in laundry room concrete slab floor proximal to sub-slab vapor sample location, used as a condensation drain for boiler/furnace equipment; homeowner stated that he installed the drain himself and it extends ~2-3' laterally beneath the floor.

**6. HEATING, VENTING and AIR CONDITIONING** (Circle all that apply)

**Type of heating system(s) used in this building: (circle all that apply – note primary)**

| | | | |
|---|---|---|---|
| (Hot air circulation) ? | Heat pump | Hot water baseboard | |
| Space Heaters | Stream radiation | Radiant floor | |
| Electric baseboard | Wood stove | Outdoor wood boiler | Other _____ |

**The primary type of fuel used is:**

| | | |
|---|---|---|
| (Natural Gas) | Fuel Oil | Kerosene |
| Electric | Propane | Solar |
| Wood | Coal | |

**Domestic hot water tank fueled by:** natural gas

**Boiler/furnace located in:** (Basement) Outdoors Main Floor Other_____

**Air conditioning:** (Central Air) Window units Open Windows None

**Are there air distribution ducts present?** Y / N

**Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.**

_____

_____

_____

_____

## 7. OCCUPANCY

**Is basement/lowest level occupied?** Full-time (Occasionally) Seldom Almost Never

| **Level** | **General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)** |
|---|---|
| Basement | recreation, laundry, storage |
| 1st Floor | kitchen, living areas, dining room |
| 2nd Floor | bedrooms |
| 3rd Floor | |
| 4th Floor | |

## 8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

**a. Is there an attached garage?** (Y) N

**b. Does the garage have a separate heating unit?** Y (N) NA

**c. Are petroleum-powered machines or vehicles stored in the garage** (e.g., lawnmower, atv, car) (Y) N / NA Please specify_____

**d. Has the building ever had a fire?** Y (N) When?_____

**e. Is a kerosene or unvented gas space heater present?** Y (N) Where?_____

**f. Is there a workshop or hobby/craft area?** Y / N Where & Type? _____

**g. Is there smoking in the building?** Y (N) How frequently? _____

**h. Have cleaning products been used recently?** (Y) N When & Type? _____

**i. Have cosmetic products been used recently?** (Y) N When & Type? _____

**j. Has painting/staining been done in the last 6 months?** Y / N Where & When? _____

**k. Is there new carpet, drapes or other textiles?** Y / N Where & When? _____

**l. Have air fresheners been used recently?** Y / N When & Type? _____

**m. Is there a kitchen exhaust fan?** (Y) / N If yes, where vented? _____

**n. Is there a bathroom exhaust fan?** (Y) / N If yes, where vented? _____

**o. Is there a clothes dryer?** (Y) / N If yes, is it vented outside? (Y) / N

**p. Has there been a pesticide application?** Y / N When & Type? _____

**Are there odors in the building?** Y (N)
If yes, please describe: _____

**Do any of the building occupants use solvents at work?** Y (N)
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Y / N

**Do any of the building occupants regularly use or work at a dry-cleaning service?** (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) No
Yes, use dry-cleaning infrequently (monthly or less) Unknown
Yes, work at a dry-cleaning service

**Is there a radon mitigation system for the building/structure?** Y / N Date of Installation: _____
**Is the system active or passive?** Active/Passive

## 9. WATER AND SEWAGE

**Water Supply:** (Public Water) Drilled Well Driven Well Dug Well Other: _____

**Sewage Disposal:** Public Sewer Septic Tank Leach Field Dry Well Other: _____

## 10. RELOCATION INFORMATION (for oil spill residential emergency)

**a. Provide reasons why relocation is recommended:** N/A

**b. Residents choose to:** remain in home relocate to friends/family relocate to hotel/motel

**c. Responsibility for costs associated with reimbursement explained?** Y / N

**d. Relocation package provided and explained to residents?** Y / N

## 11. FLOOR PLANS

**Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.**

**Basement:**

**First Floor:**

## 12. OUTDOOR PLOT

**Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.**

**Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.**

**13. PRODUCT INVENTORY FORM**

**Make & Model of field instrument used:** _____

**List specific products found in the residence that have the potential to affect indoor air quality.**

Sprayway Fast Open 32 (Screen opener for water-based inks) 19 oz. spray can U Basement bathroom

| Location | Product Description | Size (units) | Condition* | Chemical Ingredients | Field Instrument Reading (units) | Photo ** Y / N |
|---|---|---|---|---|---|---|
| | Tide Laundry Detergent | 25 oz. | U | Basement Laundry Rm. | | |
| | Kirkland Ultra Clean Laundry Det. | 1.51 gal | U | " " " | | |
| | Ultra Snuggle Fabric Softener | 1.23 gal | U | " " " | | |
| | Spray N' Wash Stain Remover | 650 mL | U | " " " | | |
| | Febreeze Fabric Refresher | 33.81 fl. oz | U | " " " | | |
| | Ultra Downey Fabric Softener | 34 fl. oz | U | " " " | | |
| | Clorox Disinfecting Wipes (wet) | 78 wipes | U | " " " | | |
| | Kirkland Fabric Softener Sheets | 250 sheets | U | " " " | | |
| | Clorox 2 Laundry Detergent - Stain Remover & Color Booster | 3.52 Qt | U | " " " | | |
| | Febreze Extra Strength | 16.9 fl. oz | U | " " " | | |
| | Krasdale All-Purpose Ammonia | 64 fl. oz | U | " " " | | |
| | Turtle Wax Concentrated Car Wash | 1 gal | U | " " " | | |
| MARKED "OIL" | Eater Cleaner/ Degreaser | 1 gal | U | " " " | | |
| | Bonide Household Insect Control | 128 fl. oz | U | " " " | | |
| | Raid Max Bug Barrier (2) | ~~128~~ 156 fl. oz | U | " " " | | |
| (x4) | Behr Interior Semi-Gloss Enamel | 480 fl. oz | U | " " " | | |
| | Klean Strip Paint Thinner | 1 Qt | U | Basement bathroom | | |
| | Glade Carpet & Room Deodorizer | 32 oz | U | " " | | |

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**

** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

- Clorox Toilet Bowl Cleaner 24 fl. oz Empty Basement bathroom



- Fantastik Oxy Power 26 fl. oz " " "
- Epsom Salt 4 lbs U " "

220 Lakeville Rd.



# Appendix B
## Indoor air quality questionnaire and building inventory

As discussed in Section 2.11, products in buildings should be inventoried every time indoor air is sampled to provide an accurate assessment of the potential contribution of volatile chemicals. In addition, the type of structure, floor layout and physical conditions of the building being studied should be noted to identify (and minimize) conditions that may interfere with the proposed testing.

Toward this end, a blank copy of the NYSDOH Center for Environmental Health's Indoor Air Quality Questionnaire and Building Inventory is provided in this appendix. Also provided is an example that demonstrates how the form should be completed properly.

OSR – 3

**NEW YORK STATE DEPARTMENT OF HEALTH**
**INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY**
**CENTER FOR ENVIRONMENTAL HEALTH**

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Jessica Bluth Date/Time Prepared 2/17/2016

Preparer's Affiliation Walden Environmental Engineering Phone No (516) 624-7200

Purpose of Investigation Soil Vapor Intrusion Investigation
Former Imperial Cleaners Site (VCP Site # V-00244-1)

**1. OCCUPANT:**

**Interviewed: Y / N**

Last Name: Goodstein Development Corporation First Name: _____

Address: 220 Lakeville Road, Great Neck NY 11020

County: Nassau

Home Phone: _____ Office Phone: (516) 482-8222

Number of Occupants/persons at this location < 10 Age of Occupants 25+

**2. OWNER OR LANDLORD:** (Check if same as occupant ___ )

**Interviewed: Y / N**

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

**3. BUILDING CHARACTERISTICS**

**Type of Building:** (Circle appropriate response)

| | | |
|---|---|---|
| Residential | School | (Commercial/Multi-use) |
| Industrial | Church | Other: _____ |

**If the property is residential, type?** (Circle appropriate response) N/A - Converted Residence

| | | |
|---|---|---|
| Ranch | 2-Family | 3-Family |
| Raised Ranch | Split Level | Colonial |
| Cape Cod | Contemporary | Mobile Home |
| Duplex | Apartment House | Townhouses/Condos |
| Modular | Log Home | Other:_____ |

**If multiple units, how many?** _____

**If the property is commercial, type?**

Business Type(s) development corp. office

Does it include residences (i.e., multi-use)? Y / (N) If yes, how many? _____

**Other characteristics:**

Number of floors 2 + B Building age ~ 1932

Is the building insulated? (Y) / N How air tight? Tight / Average / Not Tight

## 4. AIRFLOW

**Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:**

Airflow between floors

_____

_____

_____

Airflow near source

_____

_____

_____

Outdoor air infiltration

_____

_____

_____

Infiltration into air ducts

_____

_____

_____

**5. BASEMENT AND CONSTRUCTION CHARACTERISTICS** (Circle all that apply)

| | | | | |
|---|---|---|---|---|
| **a. Above grade construction:** | (wood frame) | concrete | stone | brick |
| **b. Basement type:** | (full) | crawlspace | slab | other _____ |
| **c. Basement floor:** | (concrete) | dirt | stone | other _____ |
| **d. Basement floor:** | (uncovered) | covered | covered with _____ | |
| **e. Concrete floor:** | (unsealed) | sealed | sealed with _____ | |
| **f. Foundation walls:** | (poured) | block | stone | other brick |
| **g. Foundation walls:** | unsealed | partially sealed? | sealed with paint | |
| **h. The basement is:** | wet | damp | (dry) | moldy |
| **i. The basement is:** | finished | (unfinished) | partially finished | |
| **j. Sump present?** | (Y) N | | | |
| **k. Water in sump?** | Y (N) not applicable | | | |

**Basement/Lowest level depth below grade:** _____(feet)

**Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)**

crack traversing basement concrete slab floor in same portion of room as sub-slab vapor sample location; appears to coincide with location of underground sewer pipe. Crack sealed with hydraulic cement prior to sampling.

**6. HEATING, VENTING and AIR CONDITIONING** (Circle all that apply)

**Type of heating system(s) used in this building: (circle all that apply – note primary)**

| | | | |
|---|---|---|---|
| (Hot air circulation) ? | Heat pump | Hot water baseboard | |
| Space Heaters | Stream radiation | Radiant floor | |
| Electric baseboard | Wood stove | Outdoor wood boiler | Other _____ |

**The primary type of fuel used is**:

| | | | |
|---|---|---|---|
| (Natural Gas) | Fuel Oil | Kerosene | * formerly fuel oil |
| Electric | Propane | Solar | |
| Wood | Coal | | |

**Domestic hot water tank fueled by:** natural gas

**Boiler/furnace located in:** (Basement) Outdoors Main Floor Other_____

**Air conditioning:** Central Air Window units Open Windows None

**Are there air distribution ducts present?** Y / N

**Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.**

_____

_____

_____

_____

## 7. OCCUPANCY

**Is basement/lowest level occupied?** Full-time Occasionally Seldom (Almost Never)

| **Level** | **General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)** |
|---|---|
| Basement | document storage |
| 1st Floor | offices |
| 2nd Floor | |
| 3rd Floor | |
| 4th Floor | |

## 8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

**a. Is there an attached garage?** Y (N)

**b. Does the garage have a separate heating unit?** Y / N (NA)

**c. Are petroleum-powered machines or vehicles stored in the garage** (e.g., lawnmower, atv, car) Y / N (NA) Please specify_____

**d. Has the building ever had a fire?** Y (N) When?_____

**e. Is a kerosene or unvented gas space heater present?** Y (N) Where?_____

**f. Is there a workshop or hobby/craft area?** Y (N) Where & Type? _____

**g. Is there smoking in the building?** Y (N) How frequently? _____

**h. Have cleaning products been used recently?** Y (N) When & Type? _____

**i. Have cosmetic products been used recently?** Y (N) When & Type? _____

**j. Has painting/staining been done in the last 6 months?** Y (N) Where & When? _____

**k. Is there new carpet, drapes or other textiles?** Y (N) Where & When? _____

**l. Have air fresheners been used recently?** Y (N) When & Type? _____

**m. Is there a kitchen exhaust fan?** Y / N If yes, where vented? _____

**n. Is there a bathroom exhaust fan?** Y / N If yes, where vented? _____

**o. Is there a clothes dryer?** Y (N) If yes, is it vented outside? Y / N

**p. Has there been a pesticide application?** Y (N) When & Type? _____

**Are there odors in the building?** Y (N)
If yes, please describe: _____

**Do any of the building occupants use solvents at work?** Y (N)
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Y / N

**Do any of the building occupants regularly use or work at a dry-cleaning service?** (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) No
Yes, use dry-cleaning infrequently (monthly or less) Unknown
Yes, work at a dry-cleaning service

**Is there a radon mitigation system for the building/structure?** Y (N) Date of Installation: _____
**Is the system active or passive?** Active/Passive

**9. WATER AND SEWAGE**

**Water Supply:** (Public Water) Drilled Well Driven Well Dug Well Other: _____

**Sewage Disposal:** Public Sewer (Septic Tank) Leach Field Dry Well Other: _____
?

**10. RELOCATION INFORMATION (for oil spill residential emergency)**

**a. Provide reasons why relocation is recommended:** N/A

**b. Residents choose to:** remain in home relocate to friends/family relocate to hotel/motel

**c. Responsibility for costs associated with reimbursement explained?** Y / N

**d. Relocation package provided and explained to residents?** Y / N

## 11. FLOOR PLANS

**Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.**

**Basement:**

**First Floor:**

## 12. OUTDOOR PLOT

**Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.**

**Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.**

**13. PRODUCT INVENTORY FORM**

**Make & Model of field instrument used:** _____

**List specific products found in the residence that have the potential to affect indoor air quality.**

| Location | Product Description | Size (units) | Condition* | Location ~~Chemical Ingredients~~ | Field Instrument Reading (units) | Photo** Y / N |
|---|---|---|---|---|---|---|
| | Klean-Strip Lacquer Thinner | 1 Qt | U | West basement room | | |
| Gaps & Cracks | Great Stuff Insulating Foam Sealant | 16 oz | U | " " " | | |
| | " " Window & Door | 16 oz | UO | " " " | | |
| | Klean-Strip Acetone | 1 Qt | U | " " " | | |
| | Klean-Strip S-L-X Denatured Alcohol | 1 Qt | U | " " " rust on bottom of can | | |
| | Flood Penetrol (Oil-Based Paint Additive) | 1 Qt | U | " " " rust on bottom of can | | |
| | Klean-Strip Japan Drier | 16 fl.oz | U | " " " | | |
| | Minwax Polyurethane (2) | 16 oz. total | U | " " " | | |
| | Minwax Pre-Stain Wood Conditioner | 1 Qt | U | " " " | | |
| | Klean-Strip Mineral Spirits | 1 gal | U/D | " " " rust on bottom of can | | |
| | DAP Plaster of Paris | 4 lbs | U | " " " | | |
| | Acryl Pro Ceramic Tile Adhesive | 1 gal | U | " " " | | |
| | Simple Set Thin-Set Mortar | 1 gal | U | " " " (for stone, porcelain & ceramic tile) | | |
| | Sheetrock All Purpose Joint Compound | 61.7 lbs | U | " " " | | |
| | Comet Spray Gel Mildew Remover | 32 fl.oz | U | East basement (file) room | | |
| | Mr. Clean with Febreze Cleaner | 1 gal | U | " " " | | |
| | America's Choice White Distilled Vinegar | 1 gal | U | " " " | | |
| | Konica Minolta Toner Cartridges | 5 | U/UO | Central basement room | | |
| | | | | | | |

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**

** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

**APPENDIX C**
**Laboratory Analytical Report**

**AVAILABLE UPON REQUEST**

# APPENDIX D
# Data Usability Summary Report

**Data Usability Summary Report**

Soil Vapor Intrusion Investigation
Former Imperial Cleaners Site
218 Lakeville Road, Lake Success, NY
VCP Site #V-00244-1

This Data Usability Summary Report (DUSR) has been prepared in accordance with the NYSDEC Draft DER-10 Appendix 2B Guidance for the Development of Data Usability Summary Reports. The DUSR provides a thorough evaluation of analytical data without using the services of an independent third party data validator. The primary objective of the DUSR is to determine whether or not the data presented meets project specific criteria for data quality and use.

The analytical data were evaluated by Ms. Jessica Bluth (Walden), whose experience and qualifications to prepare the DUSR for this project are presented in the attached resume. The samples collected for laboratory analysis as part of the soil vapor intrusion investigation were submitted to Phoenix Environmental Laboratories, Inc. (Phoenix) of Manchester, NH, a NYSDOH ELAP certified laboratory, and analyzed for VOCs using USEPA Method TO-15 with the analytical detection limits set forth in the NYSDOH SVI guidance document. The DUSR process consisted of evaluating the analytical data package produced by Phoenix and answering the following questions.

**1. Were there any deviations in the sampling protocol which deviated from established sampling procedures?**

The regulators attached to the 6-liter Summa® canisters were set for 24 hours by the laboratory. The samples were collected over an average of approximately 26 hours, with a sampling flow rate well below the required maximum rate of 0.2 liters (200 mls) per minute.

**2. Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables?**

The sampling and analytical program outlined in the *Soil Vapor Intrusion Investigation Work Plan* (Work Plan; Walden, December 2015) was designed to conform to the NYSDEC ASP Category B and USEPA CLP deliverables criteria. Both field sampling and laboratory analytical activities were performed with built-in QA/QC programs. Duplicate samples were collected at a minimum of one sample per ten samples collected with a minimum of one of each type of sample (i.e. one sub-slab, one indoor air, and one outdoor air). The analytical

laboratory (Phoenix) included method blanks and batch QA/QC samples as part of their standard QA/QC program. Additionally, the samples were handled in compliance with the holding time allowances.

**3. Have all holding times been met?**

Times of sample receipt, extraction, and analysis have been inspected to determine whether the holding time specifications have been met. All of the samples were analyzed within the specified holding times.

**4. Do all QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls, and sample data fall within the protocol-required limits and specifications?**

All of the primary sample data and QC data were reviewed. Duplicate sample analyses amongst the primary samples (sub-slab soil vapor, indoor air and ambient air) demonstrated a reasonable level of accuracy in the analytical results, and all of the data met the protocol-required criteria with only a few exceptions as noted below.

Batch QA/QC samples were run by the laboratory as part of their standard QA/QC program. Evaluation of the QA/QC data indicated that all laboratory control sample (LCS) recovery and relative percent difference (RPD) values were within required limits with the following exceptions:

- RPDs slightly above the designated limit of 20 were reported for 4-methyl-2-pentanone, acetone and chloromethane in one batch QA/QC sample. These values indicate the potential for slight variability (i.e. reduced precision) in the primary sample results for these analytes. For 4-methyl-2-pentanone and chloromethane, the QC sample results were very close to the reporting limit of 1.00 $\mu g/m^3$; according to a laboratory representative, high RPDs are commonly reported under such circumstances. The RPD exceedances were minor and these compounds are not primary NYSDOH-specified contaminants of concern; therefore, this data does not present an issue.
- The LCS recovery for acetone slightly exceeded criteria in one QA/QC sample, indicating that the acetone results reported for the primary samples may be slightly biased high. Measurable concentrations of acetone were detected in all of the primary environmental samples; however, the concentrations were less than 150 $\mu g/m^3$ and acetone is not a NYSDOH-specified contaminant of concern. Therefore, this LCS exceedance does not present an issue.

- An elevated RPD was reported for tetrachlorothene in one batch QA/QC sample, indicating potential variability in the primary tetrachloroethene sample results. Both the primary and duplicate QA/QC sample results were less than five times the reporting limit of 0.25 $\mu g/m^3$; according to a laboratory representative, as per EPA guidance there is no criteria for RPD under such circumstances. Therefore, the reported RPD value does not present an issue for the relevance of the data.

In summary, although some of the QA/QC sample data did not meet required laboratory criteria, the reliability of the laboratory results should not be affected.

**5. Have all the data been generated using established and agreed upon analytical protocols?**

Laboratory analytical protocols have been developed by the USEPA and are published in USEPA Compendium Method TO-15 (Determination of Volatile Organic Compounds in Air Collected in Specially Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry). The review of the laboratory deliverables indicated that the analytical data for this project was generated following these standard protocols.

**6. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms?**

An evaluation of the raw data confirmed the accuracy of the results provided in the data summary sheets and the quality control verification forms included in the analytical data package prepared by the laboratory.

**7. Have the correct data qualifiers been used?**

The laboratory provided a list of qualifiers used in their data reporting. QC failures such as potential sample contamination by laboratory solvents or estimation of sample result values due to analyte concentrations detected above calibration ranges were checked back to the reported data to determine whether the qualifiers were properly used. The evaluation indicated that the laboratory flagged the data using the correct data qualifiers when necessary. The data qualifiers comply with the NYSDEC ASP 95 revised guidelines.

**8. Have the minimum reporting limits been met?**

The required reporting limits are 0.25 µg/$m^3$ for TCE and 1.0 µg/$m^3$ for all other reportable VOCs. The laboratory utilized reporting limits of 0.25 µg/$m^3$ for PCE, TCE, vinyl chloride, and carbon tetrachloride, and 1.0 µg/$m^3$ for all other reportable VOCs.

The required reporting limits were met for all samples with the exception of the sub-slab soil vapor samples (SS-1 through SS-9). According to a laboratory representative, these reporting limits could not be obtained for the sub-slab soil vapor samples due to the concentrations of PCE and other VOCs detected in these samples which were present at concentrations above the calibration range(s) for the laboratory instrumentation. Therefore, these samples were run at dilution factors greater than one (1), resulting in higher reporting limits for all reportable VOCs.

In summary, analytical data package review conducted when preparing this DUSR found no data deficiencies, analytical protocol deviations, or quality control problems that impact the quality of the data. No QC exceedances were identified and it was determined that none of the data should be rejected. Therefore, there is no need for resampling or reanalysis based on the evaluation presented herein.

Prepared by:
Jessica Bluth, M.S.

WALDEN ASSOCIATES



# Jessica Bluth
## Project Geologist

Ms. Bluth is one of Walden Associates' highly knowledgeable project geologists. She specializes in compliance inspections, tank removal, permitting and violation resolution. She has worked with a diverse clientele, including municipal, commercial, industrial and state markets. Ms. Bluth has conducted numerous soil/groundwater quality and sub-surface investigations and has also performed UST-related services for many commercial and industrial petroleum distribution sites throughout New York state.

### EDUCATION

*M.S. in Geology*
University of Pittsburgh, 2004

*B.S. Geology*
State University of New York at Binghamton, Harpur College of Arts and Sciences, 2001
*cum laude*

### LICENSE/ CERTIFICATIONS

American Institute of Professional Geologists (AIPG)

Certified Professional Geologist (CPG) certification in progress

OSHA 40-hour HAZWOPER Health and Safety Training

Current Loss Prevention System (LPS) Training

Long Island Association of Professional Geologists

### SELECTED RELEVANT EXPERIENCE

**Retail Petroleum Spill Sites, Long Island and New York City**
Managed activities at 17 spill sites. Coordinated and performed field activities including groundwater and soil sampling, soil boring/well installations, well abandonments, subsurface utility markouts and waste disposal oversight. Prepared technical hydrogeologic reports (Subsurface Investigation Reports, Site Conceptual Models, Exposure Assessments, Well Abandonment Reports, etc.) and associated materials including hydrographs, geologic cross-sections, soil boring/ well construction logs, groundwater potentiometric surface and flow direction maps, and contaminant concentration isocontour maps. Responsibilities included the analysis, interpretation and reporting of data (utilizing EQuIS and GAMA for data management purposes); procurement and review of subcontractor proposals; compliance of project-related work with regulatory protocols and deadlines; third-party correspondence; providing direction to contractors and field technicians; and adherence to health and safety requirements.

**Multi-Media Sampling Investigations, Long Island, New York City and Westchester County**
Performed groundwater, soil/sediment, sub-slab/soil vapor, indoor air) sampling activities at developed and undeveloped residential, commercial, industrial and municipal sites in accordance with Phase II and other investigations as well as ongoing monitoring programs. Coordinated and directed subcontractors performing excavation and remedial activities, soil boring and well installation activities, utility markouts and ground-penetrating radar surveys. Performed and managed monitoring and remedial activities at New York State Brownfield, Inactive Hazardous Waste Disposal (Superfund), Voluntary Cleanup and Solid Waste Management Program sites throughout Long Island and New York City.

WALDEN ASSOCIATES

**Department of Parks and Recreation, Village of East Hills, East Hills, NY**
Conducted a 5-year compliance inspection on a 2,625 gallon AST for the Village's public pool. Developed a detailed Spill Response and Prevention Plan including flow diagrams for possible spill outcomes, first response methods, management responsibilities, instructions in case of fire, effects of the spill inside and outside of the secondary containment facility and instructions for spill reporting.

**Department of Highways, Town of Hempstead, Inwood, NY**
Performed "dry-as-a-bone" tightness tests on the facility's 2,500-gallon gasoline UST and 4,000-gallon diesel UST in accordance with Nassau County Fire Marhsal's (NCFM) office. Worked with the Department of Highways to address several violations under the Nassau County Health Department (NCHD) and notified NCHD upon completion.

**Various Retail Petroleum Sites**
Worked with various industrial and commercial petroleum distribution sites throughout New York. Conducted UST removals, compliance testing, permitting and violation resolutions for a variety of clients.

# APPENDIX C

## 2019 Off-site Property Access Outreach Documentation

| | |
|---|---|
| **From:** | Nora Brew |
| **To:** | "Jones, Joseph (DEC)"; "McLaughlin, Scarlett E (HEALTH)" |
| **Cc:** | "Corcoran, Bob (DEC)"; "Erica Johnston"; bowitch@bcalbany.com; "Norman Weisfeld"; "Madeleine Tierney"; "Jessica Bluth"; "Joseph Heaney WALDEN"; "Bethoney, Charlotte M (HEALTH)" |
| **Subject:** | RE: Former Imperial Cleaners Site - Template for Letter Requesting Access to Properties for Sampling - C130225 |
| **Date:** | Thursday, April 4, 2019 4:20:48 PM |

Good afternoon – here is an update on the SVI sampling activity -

Walden's field team is now completing the sampling canisters set up in 5 University Place and the 24-hour sample collection has started at 218 Lakeville Road and 220 Lakeville Road. The owners of 3 University Place did not contact us to coordinate the sampling and did not answer the door when we attempted to make contact in person on Tuesday and today. The owners of 216 Lakeville Road did not respond to our letter, phone and in-person requests for access to perform the sampling. The NYSDOH's attempts to get in touch with 3 University Place and 216 Lakeville Road were also unsuccessful.

We will be on-site tomorrow to retrieve the Summa canisters at the end of the 24-hour sampling period. The data will be evaluated and summarized in a report upon receipt from the laboratory.

Please contact me if you have any questions.

Nora

Nora M. Brew, P.E.
Project Manager

Walden Environmental Engineering
16 Spring Street, Oyster Bay, New York 11771 (HQ)
Office: (516) 624-7200 (x30) Fax: (516) 624-3219
www.waldenenvironmentalengineering.com

Additional Locations
Capital District * Hudson Valley

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---

**From:** Nora Brew <nbrew@Walden-Associates.com>
**Sent:** Tuesday, April 2, 2019 3:24 PM
**To:** 'Jones, Joseph (DEC)' <joseph.jones@dec.ny.gov>; 'McLaughlin, Scarlett E (HEALTH)' <scarlett.mclaughlin@health.ny.gov>
**Cc:** 'Corcoran, Bob (DEC)' <bob.corcoran@dec.ny.gov>; 'Erica Johnston' <ejohnston@walden-associates.com>; 'bowitch@bcalbany.com' <bowitch@bcalbany.com>; 'Norman Weisfeld' <norman@wbrothers.com>; 'Madeleine Tierney' <mtierney@walden-associates.com>; 'Jessica Bluth' <jbluth@walden-associates.com>
**Subject:** RE: Former Imperial Cleaners Site - Template for Letter Requesting Access to Properties for Sampling - C130225

Good afternoon all,

Here is the latest update on the sampling coordination. This morning, Walden visited the 218 Lakeville Road site as well as 220 Lakeville Road and 5 University Place, which have granted access for sampling. We scoped out the sampling locations and discussed logistics with the property

owners. We are coordinating the sampling to start up Thursday and collect the Summa canisters on Friday after 24 hours of sampling.

We also stopped by the law office at 216 Lakeville Road and discussed our plans with the office manager; the owners were out at court appearances. She was aware of our request to perform sampling and said one of the owners was expected back this afternoon so we will call to request confirmation that we can get access to the 216 Lakeville office for sampling on Thursday. The owner of 216 Lakeville will also have to check with his tenant in the rear cottage building to see if the tenant will grant access. I will send an update as soon as we hear back.

We also rang the bell at 3 University Place before and after visiting 5 University Place and no one came to the door. I left a large envelope in the mailbox containing our previous correspondence with a note on the front indicating that we are coordinating the sampling for this Thursday-Friday and requesting that they call Walden. I will let you know if we hear from them.

As it stands now, the sampling will proceed on Thursday (April 4$^{th}$) as follows (not necessarily in the sequence presented below):

- 218 Lakeville Road – Set up sub-slab vapor and indoor air sampling Summa canisters at the 4 locations previously sampled in the basement (total of 4 sub-slab and 4 indoor air samples, plus one duplicate for each). Note that the sub-slab vapor collection probes previously installed for the Feb. 2016 sampling will be used. Set up outdoor ambient sample canisters (upwind, downwind and duplicate – total of 3 ambient air samples).

- 220 Lakeville Road - Set up sub-slab vapor and indoor air sampling Summa canisters at the location previously sampled in the basement; the sub-slab probe previously installed for the Feb. 2016 sampling will be used (total of 1 sub-slab and 1 indoor air sample).

- 5 University Place – Install sub-slab vapor sampling probe in the basement (location selected during today's visit). Set up sub-slab vapor and indoor air sampling Summa canisters in the basement (total of 1 sub-slab and 1 indoor air sample).

- 3 University Place (**if the owner contacts Walden before Thursday) – Same as described for 5 University Place

- 216 Lakeville Road Law Office (**if the owner grants access) – Same as described for 5 University Place

- 216 Lakeville Road Rear Cottage (**if the owner and tenant both grant access) – Same as described for 5 University Place

The work will be performed in accordance with the December 2015 SVI Investigation Work Plan approved by the State and referenced in the February 2019 Remedial Work Plan approved by the State. Walden will return to each location on Friday to collect the Summa canisters after the 24-hour sampling period.

The weather.gov forecast for Thursday is 56 F daytime high/38 F nighttime low and for Friday is daytime high is 47 F. Please confirm that the State will accept the results of the sampling described above as valid and representative of heating season conditions per the NYSDOH SVI guidance (with updates).

Thank you,
Nora

Nora M. Brew, P.E.
Project Manager

Walden Environmental Engineering
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**From:** Jones, Joseph (DEC) <joseph.jones@dec.ny.gov>
**Sent:** Friday, March 29, 2019 1:25 PM
**To:** Nora Brew <nbrew@Walden-Associates.com>; McLaughlin, Scarlett E (HEALTH) <scarlett.mclaughlin@health.ny.gov>
**Cc:** Corcoran, Bob (DEC) <bob.corcoran@dec.ny.gov>; 'Erica Johnston' <ejohnston@walden-associates.com>; bowitch@bcalbany.com; 'Norman Weisfeld' <norman@wbrothers.com>; 'Madeleine Tierney' <mtierney@walden-associates.com>
**Subject:** RE: Former Imperial Cleaners Site - Template for Letter Requesting Access to Properties for Sampling - C130225

Well…..I think that the NYSDOH is best able to answer that question.

Joe J.

---

**From:** Nora Brew <nbrew@Walden-Associates.com>
**Sent:** Friday, March 29, 2019 1:21 PM
**To:** Jones, Joseph (DEC) <joseph.jones@dec.ny.gov>; McLaughlin, Scarlett E (HEALTH) <scarlett.mclaughlin@health.ny.gov>
**Cc:** Corcoran, Bob (DEC) <bob.corcoran@dec.ny.gov>; 'Erica Johnston' <ejohnston@walden-associates.com>; bowitch@bcalbany.com; 'Norman Weisfeld' <norman@wbrothers.com>; 'Madeleine Tierney' <mtierney@walden-associates.com>
**Subject:** RE: Former Imperial Cleaners Site - Template for Letter Requesting Access to Properties for Sampling - C130225

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Joe,

We will reach out to three who granted access (we only have a mailing address for 3 University Place

and have not received a response to our request for a phone # or email address) try to make arrangements. The forecast for next shows temperatures in the high 50's. Would the State consider that to be warm weather?

Nora M. Brew, P.E.
Project Manager

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**From:** Jones, Joseph (DEC) <joseph.jones@dec.ny.gov>
**Sent:** Friday, March 29, 2019 11:13 AM
**To:** Nora Brew <nbrew@Walden-Associates.com>; McLaughlin, Scarlett E (HEALTH) <scarlett.mclaughlin@health.ny.gov>
**Cc:** Corcoran, Bob (DEC) <bob.corcoran@dec.ny.gov>; 'Erica Johnston' <ejohnston@walden-associates.com>; bowitch@bcalbany.com; Norman Weisfeld <norman@wbrothers.com>; 'Madeleine Tierney' <mtierney@walden-associates.com>
**Subject:** RE: Former Imperial Cleaners Site - Template for Letter Requesting Access to Properties for Sampling - C130225

Nora,

I believe the best approach (which I approve) would be to sample those residences for which you have permission ASAP. If you do this, try to avoid warm weather as much as possible.

Joe J.

---

**From:** Nora Brew <nbrew@Walden-Associates.com>
**Sent:** Friday, March 29, 2019 9:46 AM
**To:** McLaughlin, Scarlett E (HEALTH) <scarlett.mclaughlin@health.ny.gov>
**Cc:** Corcoran, Bob (DEC) <bob.corcoran@dec.ny.gov>; Jones, Joseph (DEC) <joseph.jones@dec.ny.gov>; 'Erica Johnston' <ejohnston@walden-associates.com>; bowitch@bcalbany.com; Norman Weisfeld <norman@wbrothers.com>; 'Madeleine Tierney' <mtierney@walden-associates.com>
**Subject:** RE: Former Imperial Cleaners Site - Template for Letter Requesting Access to Properties for Sampling - C130225

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Scarlett,

Please let me know if you have any updates with respect to the sampling. We have had no further contact with any of the properties.

Nora

Nora M. Brew, P.E.
Project Manager

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16 Spring Street, Oyster Bay, New York 11771 (HQ)
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---

**From:** Nora Brew <nbrew@Walden-Associates.com>
**Sent:** Tuesday, March 26, 2019 11:29 AM
**To:** 'McLaughlin, Scarlett E (HEALTH)' <scarlett.mclaughlin@health.ny.gov>
**Cc:** 'Corcoran, Bob (DEC)' <bob.corcoran@dec.ny.gov>; 'Jones, Joseph (DEC)' <joseph.jones@dec.ny.gov>; 'Erica Johnston' <ejohnston@walden-associates.com>; 'bowitch@bcalbany.com' <bowitch@bcalbany.com>; Norman Weisfeld (norman@wbrothers.com) <norman@wbrothers.com>; 'Madeleine Tierney' <mtierney@walden-associates.com>
**Subject:** RE: Former Imperial Cleaners Site - Template for Letter Requesting Access to Properties for Sampling - C130225

Scarlett,

We have no further information on a contact phone number for 4 (now 6) University Place; I assume you've had no luck either despite your DOH reps speaking to a teenager who lives in that house last week and leaving your contact info. We sent a certified letter to 3 University Place requesting a phone # or email address so we can coordinate the sampling schedule and hope to get a response today since the letter would have been delivered by yesterday.

We have a contractor on standby and at this point, we cannot coordinate with the property owners and schedule the sampling until the State advises us of the next steps. Please get back to us as soon as possible so we can move forward with coordinating the work. I anticipate it taking a few days of back and forth with the various property owners to schedule two consecutive days that work for all parties. 220 Lakeville Road will only provide access during Monday – Friday business hours, so we plan to work within that window.

What is the maximum outdoor temperature DOH will consider for the heating season? Next week takes us into April and the current 10-day forecast for Great Neck shows temperatures in the 50's. Please confirm that the State will consider the SVI sampling, if conducted next week, representative of heating season conditions and sufficient to support the remedial design.

Thanks,
Nora

Nora M. Brew, P.E.
Project Manager

Walden Environmental Engineering
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**From:** McLaughlin, Scarlett E (HEALTH) <scarlett.mclaughlin@health.ny.gov>
**Sent:** Tuesday, March 26, 2019 10:55 AM
**To:** Nora Brew <nbrew@Walden-Associates.com>
**Cc:** Corcoran, Bob (DEC) <bob.corcoran@dec.ny.gov>; Jones, Joseph (DEC) <joseph.jones@dec.ny.gov>
**Subject:** RE: Former Imperial Cleaners Site - Template for Letter Requesting Access to Properties for Sampling - C130225

Nora-

I am sorry that I have been swamped and did not call you back yesterday. Today is a very full day as well but I wanted to update you so you know where we are in the process. We are still awaiting call backs (telephone tag with 216 Lakeville) and discussing the next steps internally. Did you ever get a phone number for 6 University Place (previously 4)?

Bob or Joe will get back to you after we have made our determination. Is there something else that you wished to discuss?

## Scarlett McLaughlin, P.G.

Public Health Specialist
New York State Department of Health
Bureau of Environmental Exposure Investigation
Empire State Plaza - Corning Tower Room 1787
Albany, NY 12237
Phone: (518) 402-7860
Fax: (518) 402-7859
Email: *Scarlett.McLaughlin@health.ny.gov*

---

**From:** Nora Brew <nbrew@Walden-Associates.com>
**Sent:** Tuesday, March 26, 2019 9:26 AM
**To:** McLaughlin, Scarlett E (HEALTH) <scarlett.mclaughlin@health.ny.gov>
**Subject:** RE: Former Imperial Cleaners Site - Template for Letter Requesting Access to Properties for Sampling - C130225

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Scarlett,

Good morning – please call me.

Thank you,

Nora

Nora M. Brew, P.E.
Project Manager

Walden Environmental Engineering
16 Spring Street, Oyster Bay, New York 11771 (HQ)
Office: (516) 624-7200 (x30), Fax: (516) 624-3219
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**From:** Nora Brew <nbrew@Walden-Associates.com>
**Sent:** Monday, March 25, 2019 4:34 PM
**To:** 'McLaughlin, Scarlett E (HEALTH)' <scarlett.mclaughlin@health.ny.gov>
**Cc:** 'Erica M Johnston' <ejohnston@walden-associates.com>; 'Jones, Joseph (DEC)' <joseph.jones@dec.ny.gov>; 'Corcoran, Bob (DEC)' <bob.corcoran@dec.ny.gov>; 'Bethoney, Charlotte M (HEALTH)' <charlotte.bethoney@health.ny.gov>; 'bowitch@bcalbany.com' <bowitch@bcalbany.com>; 'norman@wbrothers.com' <norman@wbrothers.com>
**Subject:** RE: Former Imperial Cleaners Site - Template for Letter Requesting Access to Properties for Sampling - C130225

Scarlett,

Please provide an update on the DOH's efforts to coordinate sampling with the off-site property owners. We have had no further contact with any of the property owners since our last update a week ago.

Nora

Nora M. Brew, P.E.
Project Manager

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**From:** Nora Brew <nbrew@Walden-Associates.com>
**Sent:** Monday, March 18, 2019 1:09 PM
**To:** 'McLaughlin, Scarlett E (HEALTH)' <scarlett.mclaughlin@health.ny.gov>
**Cc:** 'Erica M Johnston' <ejohnston@walden-associates.com>; 'Jones, Joseph (DEC)' <joseph.jones@dec.ny.gov>; 'Corcoran, Bob (DEC)' <bob.corcoran@dec.ny.gov>; 'Bethoney, Charlotte M (HEALTH)' <charlotte.bethoney@health.ny.gov>; 'bowitch@bcalbany.com' <bowitch@bcalbany.com>; 'norman@wbrothers.com' <norman@wbrothers.com>
**Subject:** RE: Former Imperial Cleaners Site - Template for Letter Requesting Access to Properties for

Sampling - C130225

Scarlett,

No details, they just returned the last page of the letter and indicated access denied.

Nora

Nora M. Brew, P.E.
Project Manager

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**From:** McLaughlin, Scarlett E (HEALTH) <scarlett.mclaughlin@health.ny.gov>
**Sent:** Monday, March 18, 2019 1:02 PM
**To:** Nora Brew <nbrew@Walden-Associates.com>
**Cc:** 'Erica M Johnston' <ejohnston@walden-associates.com>; Jones, Joseph (DEC) <joseph.jones@dec.ny.gov>; Corcoran, Bob (DEC) <bob.corcoran@dec.ny.gov>; Bethoney, Charlotte M (HEALTH) <charlotte.bethoney@health.ny.gov>; bowitch@bcalbany.com; norman@wbrothers.com
**Subject:** RE: Former Imperial Cleaners Site - Template for Letter Requesting Access to Properties for Sampling - C130225

Hi Nora,

Is there any additional information as to why access was denied? Thanks.

**Scarlett McLaughlin, P.G.**
Public Health Specialist
New York State Department of Health
Bureau of Environmental Exposure Investigation
Empire State Plaza - Corning Tower Room 1787
Albany, NY 12237
Phone: (518) 402-7860
Fax: (518) 402-7859
Email: *Scarlett.McLaughlin@health.ny.gov*

---

**From:** Nora Brew <nbrew@Walden-Associates.com>
**Sent:** Monday, March 18, 2019 1:00 PM
**To:** McLaughlin, Scarlett E (HEALTH) <scarlett.mclaughlin@health.ny.gov>
**Cc:** 'Erica M Johnston' <ejohnston@walden-associates.com>; Jones, Joseph (DEC) <joseph.jones@dec.ny.gov>; Corcoran, Bob (DEC) <bob.corcoran@dec.ny.gov>; Bethoney, Charlotte

M (HEALTH) <charlotte.bethoney@health.ny.gov>; bowitch@bcalbany.com; norman@wbrothers.com

**Subject:** RE: Former Imperial Cleaners Site - Template for Letter Requesting Access to Properties for Sampling - C130225

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Scarlett,

We received two responses this morning denying access to 1 University Place and 99 Briarfield Drive. I've updated the attached table accordingly. Thus far, the owners of 3 University Place, 5 University Place and 220 Lakeville Road have granted access.

Nora

Nora M. Brew, P.E.
Project Manager

Walden Environmental Engineering
16 Spring Street, Oyster Bay, New York 11771 (HQ)
Office: (516) 624-7200 (x30). Fax: (516) 624-3219
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**From:** Nora Brew <nbrew@Walden-Associates.com>
**Sent:** Thursday, March 14, 2019 10:22 AM
**To:** 'scarlett.mclaughlin@health.ny.gov' <scarlett.mclaughlin@health.ny.gov>
**Cc:** 'Erica M Johnston' <ejohnston@walden-associates.com>; 'joseph.jones@dec.ny.gov' <joseph.jones@dec.ny.gov>; 'bob.corcoran@dec.ny.gov' <bob.corcoran@dec.ny.gov>; 'charlotte.bethoney@health.ny.gov' <charlotte.bethoney@health.ny.gov>; 'bowitch@bcalbany.com' <bowitch@bcalbany.com>; 'norman@wbrothers.com' <norman@wbrothers.com>
**Subject:** RE: Former Imperial Cleaners Site - Template for Letter Requesting Access to Properties for Sampling - C130225

Scarlett,

Based on our conversation earlier this morning, I'm attaching a spreadsheet with a summary of the contacts we have made to date.

Thanks,
Nora

Nora M. Brew, P.E.
Project Manager

Walden Environmental Engineering
16 Spring Street, Oyster Bay, New York 11771 (HQ)
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**From:** Erica M Johnston <ejohnston@walden-associates.com>
**Sent:** Friday, March 8, 2019 2:40 PM
**To:** scarlett.mclaughlin@health.ny.gov; joseph.jones@dec.ny.gov; bob.corcoran@dec.ny.gov; charlotte.bethoney@health.ny.gov; bowitch@bcalbany.com; norman@wbrothers.com
**Cc:** 'Nora Brew' <nbrew@Walden-Associates.com>
**Subject:** RE: Former Imperial Cleaners Site - Template for Letter Requesting Access to Properties for Sampling - C130225

Hi Scarlett,

We sent out the letters on 2/19/19 via certified mail and I've been following up with phone calls (for those I have the numbers for). Here is a breakdown of the responses/non responses we have gotten so far:

**1 University Place**: Did not receive a receipt for certified mail, unable to contact via phone.

**99 Briarfield Drive:** Did not receive a receipt for certified mail, unable to contact via phone.

**1 University Road:** Did not receive a receipt for certified mail, unable to contact via phone.

**4 University Place:** Did not receive a receipt for certified mail. I spoke to the old owner, Ms. Inna Zade, who indicated she is no longer the owner of the property but would try to get me an updated contact number for the current owner.

**2 University Place**: Received via certified mail. I spoke with Ms. Betty Keeling today. She does not want us to enter the property. Access denied.

**216 Lakeville Road:** Received via certified mail. I left a voice mail and message for Gary Rosen, but have not received a written response/phone call back.

**220 Lakeville Road:** Received via certified mail. Access granted via letter.

**3 University Place:** Received via certified mail. Access granted via letter.

**5 University Place:** Received via certified mail. Access granted via letter.

**224 Lakeville Road:** Received via certified mail. No response.

Let me know if you have any other questions. Thanks!

Erica Johnston
Environmental Scientist

Walden Environmental Engineering

16 Spring Street, Oyster Bay, New York 11771(HQ)
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**From:** McLaughlin, Scarlett E (HEALTH) <scarlett.mclaughlin@health.ny.gov>
**Sent:** Wednesday, March 6, 2019 2:39 PM
**To:** Nora Brew <nbrew@Walden-Associates.com>; Jones, Joseph (DEC) <joseph.jones@dec.ny.gov>; Corcoran, Bob (DEC) <bob.corcoran@dec.ny.gov>; Bethoney, Charlotte M (HEALTH) <charlotte.bethoney@health.ny.gov>
**Cc:** 'Gary Bowitch' <bowitch@bcalbany.com>; Norman Weisfeld <norman@wbrothers.com>; 'Erica M Johnston' <ejohnston@walden-associates.com>
**Subject:** RE: Former Imperial Cleaners Site - Template for Letter Requesting Access to Properties for Sampling - C130225

Hi Nora,

I hope all is well. I am checking in to see if you have received any responses from the surrounding community regarding the SVI sampling. Please let us know, thanks.

## Scarlett McLaughlin, P.G.

Public Health Specialist
New York State Department of Health
Bureau of Environmental Exposure Investigation
Empire State Plaza - Corning Tower Room 1787
Albany, NY 12237
Phone: (518) 402-7860
Fax: (518) 402-7859
Email: *Scarlett.McLaughlin@health.ny.gov*

---

**From:** Nora Brew <nbrew@Walden-Associates.com>
**Sent:** Wednesday, February 20, 2019 1:13 PM
**To:** Jones, Joseph (DEC) <joseph.jones@dec.ny.gov>; Corcoran, Bob (DEC) <bob.corcoran@dec.ny.gov>; McLaughlin, Scarlett E (HEALTH) <scarlett.mclaughlin@health.ny.gov>; Bethoney, Charlotte M (HEALTH) <charlotte.bethoney@health.ny.gov>; Vooris, Christine N (HEALTH) <Christine.Vooris@health.ny.gov>
**Cc:** 'Gary Bowitch' <bowitch@bcalbany.com>; Norman Weisfeld <norman@wbrothers.com>; 'Erica M Johnston' <ejohnston@walden-associates.com>
**Subject:** RE: Former Imperial Cleaners Site - Template for Letter Requesting Access to Properties for Sampling

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Good afternoon,

The attached letters were sent yesterday by certified mail to the off-site property owners requesting access for sampling. We will let you know of the response as we hear back. Note that the photo page presented after the first letter in the pdf file was included with each letter. Please call me if you have any questions.

Nora

Nora M. Brew, P.E.
Project Manager

Walden Environmental Engineering
16 Spring Street, Oyster Bay, New York 11771 (HQ)
Office: (516) 624-7200 (x30). Fax: (516) 624-3219
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**From:** Nora Brew <nbrew@Walden-Associates.com>
**Sent:** Friday, February 15, 2019 12:58 PM
**To:** 'Jones, Joseph (DEC)' <joseph.jones@dec.ny.gov>; 'Corcoran, Bob (DEC)' <bob.corcoran@dec.ny.gov>; 'McLaughlin, Scarlett E (HEALTH)' <scarlett.mclaughlin@health.ny.gov>; 'Bethoney, Charlotte M (HEALTH)' <charlotte.bethoney@health.ny.gov>; 'Vooris, Christine N (HEALTH)' <Christine.Vooris@health.ny.gov>
**Cc:** 'Gary Bowitch' <bowitch@bcalbany.com>; Norman Weisfeld (norman@wbrothers.com) <norman@wbrothers.com>; 'Joseph Heaney' <jheaney@walden-associates.com>; 'Erica M Johnston' <ejohnston@walden-associates.com>
**Subject:** Former Imperial Cleaners Site - Template for Letter Requesting Access to Properties for Sampling

Good afternoon,

On Tuesday afternoon (February 19th), Walden will send out the attached letter to off-site property owners requesting access to perform the soil vapor intrusion sampling detailed in the February 2019 Remedial Work Plan approved by DEC and DOH earlier this week. Please call me if you have any questions or comments.

Thank you,
Nora

Nora M. Brew, P.E.
Project Manager

Walden Environmental Engineering

16 Spring Street, Oyster Bay, New York 11771(HQ)
Office: (516) 624-7200 (x30). Fax: (516) 624-3219
https://protect2.fireeye.com/url?k=68d94ad2-34fc46b1-68dbb3e7-0cc47aa88e08-899d1ffc118381f6&u=https://protect2.fireeye.com/url?k=ddc82455-81ec251c-ddcadd60-0cc47aa8d394-8b2dcfc9e00f7c97&u=https://protect2.fireeye.com/url?k=d169491e-8d4d4857-d16bb02b-0cc47aa8d394-4f973900a7600be2&u=https://protect2.fireeye.com/url?k=8ac9aa7a-d6ef9e21-8acb534f-000babd905ee-33aca8f3f62591b0&u=http://www.waldenenvironmentalengineering.com/

## Additional Locations
Capital District * Hudson Valley

*Providing environmental consulting, civil/environmental engineering, and Geographic Information Systems services since 1995.*

***Walden continues to grow through referrals from clients and friends like you***

WALDEN ENVIRONMENTAL ENGINEERING

*Sent by Certified Mail # 70170530000089406804*

February 19, 2019

PROPERTY OWNER
1 UNIVERSITY PLACE
LAKE SUCCESS, NY 11020

Re: Permission for Property Access
1 UNIVERSITY PLACE
LAKE SUCCESS, NEW YORK

To Whom it May Concern:

Walden Environmental Engineering, PLLC ("Walden") is the environmental consulting engineer for 218 Lakeville Aquisition LLC, the owner of property located at 218 Lakeville Road, Lake Success, New York (the "Site") and has been engaged to investigate and remediate historic environmental impacts on the Property. Walden is in the process of collecting data to finalize the cleanup plan for the Site which was formerly occupied by Imperial Cleaners.

The investigation and cleanup of the Site is being overseen by the New York State Department of Environmental Conservation ("NYSDEC") under the Brownfield Cleanup Program ("BCP"). The NYSDEC designated the Former Imperial Cleaners Site BCP Site #C130225. In accordance with the Citizen Participation Plan, project documents can be accessed at Station Library located at 26 Great Neck Road, Great Neck, New York 11021. The Site owner is working with the NYSDEC and the New York State Department of Health ("NYSDOH") to investigate and remediate the Site so that this matter can be closed pursuant to BCP site closure requirements.

Access to your property, located at 1 UNIVERSITY PLACE, LAKE SUCCESS, NEW YORK is requested to perform indoor air and sub-slab soil vapor sampling to determine if Site contamination is affecting your indoor air quality. The sampling results will be used to finalize design of the Site remedial program and develop a post-cleanup management plan for the Site. All of the work will be performed in accordance with a work plan reviewed and approved by both the NYSDEC and NYSDOH, consistent with procedures and guidelines established by New York State. All sampling

will be coordinated by Walden, which will oversee the work of qualified subcontractors who will be retained to conduct the actual drilling and sampling efforts.

The work to be conducted at 1 UNIVERSITY PLACE, LAKE SUCCESS, NEW YORK is detailed below with a tentative sequence of events. Please note your presence is required during the times that Walden and the subcontractors are to be on your property. Refer to the attached photographs for additional information.

First Day (Walden, Utility Mark-out Subcontractor and Drilling Subcontractor)

- Walden will inspect the basement/lowest level of your property to inventory chemicals stored on-site (such as cleaning products, paints, etc.) and select an appropriate location for sampling. The sampling location will be selected in an area with an unfinished floor if possible.
- A utility mark-out contractor will perform a Ground Penetrating Radar (GPR) survey to mark out the proposed sampling location and to ensure that no sub-surface structures and/or utility lines will be impacted by the investigation.
- After an appropriate sampling location has been selected based on Walden's inspection and the GPR survey (and approved by the property owner), the drilling contractor will drill through the basement/lowest level floor slab and install a temporary sub-slab sampling port below the concrete slab. (Note that the floor surface will be restored with cement immediately after the sample is collected.) A small diameter hole (approximately one inch) will be drilled through the concrete floor slab and into sub-slab material approximately two (2) inches below the bottom of the floor slab. A temporary probe constructed from inert tubing (e.g. polyethylene, stainless steel, nylon, Teflon®, etc.) will be installed and sealed to the floor. Testing will be performed to ensure that the seal is tight.
- Walden will set up air sampling canisters to collect one sub-slab vapor sample and one indoor air sample from the basement/lowest level of the property.
- The sub-slab vapor sample will be collected from the temporary sub-slab sampling port installed below the concrete slab.
- The indoor air sample will be collected concurrently with the sub-slab vapor sample, at approximately the same location as the sub-slab vapor sample.
- A sampling canister will be placed adjacent to the sub-slab sampling port and the indoor air sampling location. The sub-slab and indoor air samples will be collected using laboratory-provided sampling canisters over a 24-hour period.
- The sampling probe, canisters and all sampling equipment must not be disturbed during the sampling period.

- The total anticipated time within your residence for this portion of the work would be approximately two (2) to three (3) hours.

Second Day (Walden)

- Walden will return at the end of the 24-hour sampling period to remove the sampling canisters. The tubing used to connect the sub-slab vapor sampling canister to the probe will be removed. The sub-slab vapor probe will then be removed and the floor surface will be restored in kind.
- The total anticipated time within your residence for this portion of the work would be approximately 30 minutes.

The Site owner and Walden will comply with the following conditions of access to the 1 UNIVERSITY PLACE, LAKE SUCCESS, NEW YORK property:

- The property owner will be notified at least 10 days prior to the scheduled sampling date. This sampling is required by the NYSDOH and NYSDEC under an approved work plan that states the sampling is to take place during the heating season, which will end on or about March 31, 2019. Please indicate below any dates when you are unavailable to provide Walden entry to the property, so the sampling can be scheduled accordingly.
- The procedures set forth in the sampling work plan approved by the NYSDEC and NYSDOH will be followed. A copy of this work plan will be made available to you upon request. Walden will strive to schedule the work and subcontractors so that access to the property is required only two (2) times: once to install the sampling location, and set the canister(s) for sampling; and once after the canisters are set (approximately 24 hours after the sampling begins) to retrieve them. Note that this sampling is being coordinated with approximately ten (10) other properties with the goal of sampling all locations concurrently. Walden will attempt to accommodate your scheduling preferences to the extent feasible.
- The work will be performed in a clean and orderly fashion.

Please sign below to indicate your permission (or denial of permission) to allow the Site Owner and Walden to access the 1 UNIVERSITY PLACE, LAKE SUCCESS, NY property for the sampling described herein, and return to Walden by mail (stamped envelope enclosed), fax to 516-624-3219, or email to nbrew@walden-associates.com. Kindly respond to this letter with your permission or denial of permission within five (5) business days of receipt so that sampling may begin.

If you have any questions, please contact Scarlett McLaughlin at the New York State Department of Health at 518-402-7860, Joseph Jones at the New York State Department of Environmental Conservation at 518-402-9621, or Nora Brew at Walden Environmental Engineering at (516) 624-7200.

Thank you for your courtesy and cooperation.

Very truly yours,
Walden Environmental Engineering, PLLC.

Nora M. Brew, P.E.
Project Manager

ACCESS AUTHORIZED BY OWNER OF PROPERTY LOCATED AT
1 UNIVERSITY PLACE, LAKE SUCCESS, NEW YORK:

_____ _____
Signature Date

_____
Print Name

**-OR-**

ACCESS DENIED BY OWNER OF PROPERTY LOCATED AT
1 UNIVERSITY PALCE, LAKE SUCCESS, NEW YORK:

_____ _____
Signature Date

_____
Print Name

Please list any dates when access to your property is not available: _____

# Example Photographs of Indoor Air Quality Investigation Sampling



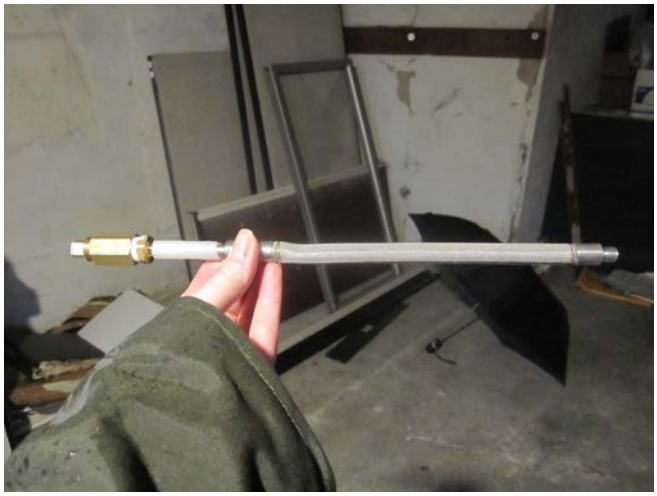
1. Performance of a Ground Penetrating Radar (GPR) survey to select safe location for sub slab drilling.



2. View of drilling equipment into a building slab.



3. Alternate view of drilling equipment into a building slab.



4. View of sub slab vapor sampling probe to be installed in a hole drilled through a building slab.



5. View of Summa canisters collecting indoor air and sub slab vapor samples (to be performed over a 24-hour time frame).

WALDEN ENVIRONMENTAL ENGINEERING

*Sent by Certified Mail # 70170530000089406873*

February 19, 2019

PROPERTY OWNER
1 UNIVERSITY ROAD
LAKE SUCCESS, NY 11020

Re: Permission for Property Access
1 UNIVERSITY ROAD
LAKE SUCCESS, NEW YORK

To Whom it May Concern:

Walden Environmental Engineering, PLLC ("Walden") is the environmental consulting engineer for 218 Lakeville Aquisition LLC, the owner of property located at 218 Lakeville Road, Lake Success, New York (the "Site") and has been engaged to investigate and remediate historic environmental impacts on the Property. Walden is in the process of collecting data to finalize the cleanup plan for the Site which was formerly occupied by Imperial Cleaners.

The investigation and cleanup of the Site is being overseen by the New York State Department of Environmental Conservation ("NYSDEC") under the Brownfield Cleanup Program ("BCP"). The NYSDEC designated the Former Imperial Cleaners Site BCP Site #C130225. In accordance with the Citizen Participation Plan, project documents can be accessed at Station Library located at 26 Great Neck Road, Great Neck, New York 11021. The Site owner is working with the NYSDEC and the New York State Department of Health ("NYSDOH") to investigate and remediate the Site so that this matter can be closed pursuant to BCP site closure requirements.

Access to your property, located at 1 UNIVERSITY ROAD, LAKE SUCCESS, NEW YORK is requested to perform indoor air and sub-slab soil vapor sampling to determine if Site contamination is affecting your indoor air quality. The sampling results will be used to finalize design of the Site remedial program and develop a post-cleanup management plan for the Site. All of the work will be performed in accordance with a work plan reviewed and approved by both the NYSDEC and NYSDOH, consistent with procedures and guidelines established by New York State. All sampling

will be coordinated by Walden, which will oversee the work of qualified subcontractors who will be retained to conduct the actual drilling and sampling efforts.

The work to be conducted at 1 UNIVERSITY ROAD, LAKE SUCCESS, NEW YORK is detailed below with a tentative sequence of events. Please note your presence is required during the times that Walden and the subcontractors are to be on your property. Refer to the attached photographs for additional information.

First Day (Walden, Utility Mark-out Subcontractor and Drilling Subcontractor)

- Walden will inspect the basement/lowest level of your property to inventory chemicals stored on-site (such as cleaning products, paints, etc.) and select an appropriate location for sampling. The sampling location will be selected in an area with an unfinished floor if possible.
- A utility mark-out contractor will perform a Ground Penetrating Radar (GPR) survey to mark out the proposed sampling location and to ensure that no sub-surface structures and/or utility lines will be impacted by the investigation.
- After an appropriate sampling location has been selected based on Walden's inspection and the GPR survey (and approved by the property owner), the drilling contractor will drill through the basement/lowest level floor slab and install a temporary sub-slab sampling port below the concrete slab. (Note that the floor surface will be restored with cement immediately after the sample is collected.) A small diameter hole (approximately one inch) will be drilled through the concrete floor slab and into sub-slab material approximately two (2) inches below the bottom of the floor slab. A temporary probe constructed from inert tubing (e.g. polyethylene, stainless steel, nylon, Teflon®, etc.) will be installed and sealed to the floor. Testing will be performed to ensure that the seal is tight.
- Walden will set up air sampling canisters to collect one sub-slab vapor sample and one indoor air sample from the basement/lowest level of the property.
- The sub-slab vapor sample will be collected from the temporary sub-slab sampling port installed below the concrete slab.
- The indoor air sample will be collected concurrently with the sub-slab vapor sample, at approximately the same location as the sub-slab vapor sample.
- A sampling canister will be placed adjacent to the sub-slab sampling port and the indoor air sampling location. The sub-slab and indoor air samples will be collected using laboratory-provided sampling canisters over a 24-hour period.
- The sampling probe, canisters and all sampling equipment must not be disturbed during the sampling period.

- The total anticipated time within your residence for this portion of the work would be approximately two (2) to three (3) hours.

Second Day (Walden)

- Walden will return at the end of the 24-hour sampling period to remove the sampling canisters. The tubing used to connect the sub-slab vapor sampling canister to the probe will be removed. The sub-slab vapor probe will then be removed and the floor surface will be restored in kind.
- The total anticipated time within your residence for this portion of the work would be approximately 30 minutes.

The Site owner and Walden will comply with the following conditions of access to the 1 UNIVERSITY ROAD, LAKE SUCCESS, NEW YORK property:

- The property owner will be notified at least 10 days prior to the scheduled sampling date. This sampling is required by the NYSDOH and NYSDEC under an approved work plan that states the sampling is to take place during the heating season, which will end on or about March 31, 2019. Please indicate below any dates when you are unavailable to provide Walden entry to the property, so the sampling can be scheduled accordingly.
- The procedures set forth in the sampling work plan approved by the NYSDEC and NYSDOH will be followed. A copy of this work plan will be made available to you upon request. Walden will strive to schedule the work and subcontractors so that access to the property is required only two (2) times: once to install the sampling location, and set the canister(s) for sampling; and once after the canisters are set (approximately 24 hours after the sampling begins) to retrieve them. Note that this sampling is being coordinated with approximately ten (10) other properties with the goal of sampling all locations concurrently. Walden will attempt to accommodate your scheduling preferences to the extent feasible.
- The work will be performed in a clean and orderly fashion.

Please sign below to indicate your permission (or denial of permission) to allow the Site Owner and Walden to access the 1 UNIVERSITY ROAD, LAKE SUCCESS, NY property for the sampling described herein, and return to Walden by mail (stamped envelope enclosed), fax to 516-624-3219, or email to nbrew@walden-associates.com. Kindly respond to this letter with your permission or denial of permission within five (5) business days of receipt so that sampling may begin.

If you have any questions, please contact Scarlett McLaughlin at the New York State Department of Health at 518-402-7860, Joseph Jones at the New York State Department of Environmental Conservation at 518-402-9621, or Nora Brew at Walden Environmental Engineering at (516) 624-7200.

Thank you for your courtesy and cooperation.

Very truly yours,
Walden Environmental Engineering, PLLC.

Nora M. Brew, P.E.
Project Manager

ACCESS AUTHORIZED BY OWNER OF PROPERTY LOCATED AT
1 UNIVERSITY ROAD, LAKE SUCCESS, NEW YORK:

_____ _____
Signature Date

_____
Print Name

**-OR-**

ACCESS DENIED BY OWNER OF PROPERTY LOCATED AT
1 UNIVERSITY ROAD, LAKE SUCCESS, NEW YORK:

_____ _____
Signature Date

_____
Print Name

Please list any dates when access to your property is not available: _____

WALDEN ENVIRONMENTAL ENGINEERING

*Sent by Certified Mail # 70170530000089406798*

February 19, 2019

PROPERTY OWNER
2 UNIVERSITY PLACE
LAKE SUCCESS, NY 11020

Re: Permission for Property Access
2 UNIVERSITY PLACE
LAKE SUCCESS, NEW YORK

To Whom it May Concern:

Walden Environmental Engineering, PLLC ("Walden") is the environmental consulting engineer for 218 Lakeville Aquisition LLC, the owner of property located at 218 Lakeville Road, Lake Success, New York (the "Site") and has been engaged to investigate and remediate historic environmental impacts on the Property. Walden is in the process of collecting data to finalize the cleanup plan for the Site which was formerly occupied by Imperial Cleaners.

The investigation and cleanup of the Site is being overseen by the New York State Department of Environmental Conservation ("NYSDEC") under the Brownfield Cleanup Program ("BCP"). The NYSDEC designated the Former Imperial Cleaners Site BCP Site #C130225. In accordance with the Citizen Participation Plan, project documents can be accessed at Station Library located at 26 Great Neck Road, Great Neck, New York 11021. The Site owner is working with the NYSDEC and the New York State Department of Health ("NYSDOH") to investigate and remediate the Site so that this matter can be closed pursuant to BCP site closure requirements.

Access to your property, located at 2 UNIVERSITY PLACE, LAKE SUCCESS, NEW YORK is requested to perform indoor air and sub-slab soil vapor sampling to determine if Site contamination is affecting your indoor air quality. The sampling results will be used to finalize design of the Site remedial program and develop a post-cleanup management plan for the Site. All of the work will be performed in accordance with a work plan reviewed and approved by both the NYSDEC and NYSDOH, consistent with procedures and guidelines established by New York State. All sampling

will be coordinated by Walden, which will oversee the work of qualified subcontractors who will be retained to conduct the actual drilling and sampling efforts.

The work to be conducted at 2 UNIVERSITY PLACE, LAKE SUCCESS, NEW YORK is detailed below with a tentative sequence of events. Please note your presence is required during the times that Walden and the subcontractors are to be on your property. Refer to the attached photographs for additional information.

First Day (Walden, Utility Mark-out Subcontractor and Drilling Subcontractor)

- Walden will inspect the basement/lowest level of your property to inventory chemicals stored on-site (such as cleaning products, paints, etc.) and select an appropriate location for sampling. The sampling location will be selected in an area with an unfinished floor if possible.
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- The sampling probe, canisters and all sampling equipment must not be disturbed during the sampling period.

- The total anticipated time within your residence for this portion of the work would be approximately two (2) to three (3) hours.

Second Day (Walden)

- Walden will return at the end of the 24-hour sampling period to remove the sampling canisters. The tubing used to connect the sub-slab vapor sampling canister to the probe will be removed. The sub-slab vapor probe will then be removed and the floor surface will be restored in kind.
- The total anticipated time within your residence for this portion of the work would be approximately 30 minutes.

The Site owner and Walden will comply with the following conditions of access to the 2 UNIVERSITY PLACE, LAKE SUCCESS, NEW YORK property:

- The property owner will be notified at least 10 days prior to the scheduled sampling date. This sampling is required by the NYSDOH and NYSDEC under an approved work plan that states the sampling is to take place during the heating season, which will end on or about March 31, 2019. Please indicate below any dates when you are unavailable to provide Walden entry to the property, so the sampling can be scheduled accordingly.
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Please sign below to indicate your permission (or denial of permission) to allow the Site Owner and Walden to access the 2 UNIVERSITY PLACE, LAKE SUCCESS, NY property for the sampling described herein, and return to Walden by mail (stamped envelope enclosed), fax to 516-624-3219, or email to nbrew@walden-associates.com. Kindly respond to this letter with your permission or denial of permission within five (5) business days of receipt so that sampling may begin.

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Thank you for your courtesy and cooperation.

Very truly yours,
Walden Environmental Engineering, PLLC.

Nora M. Brew, P.E.
Project Manager

ACCESS AUTHORIZED BY OWNER OF PROPERTY LOCATED AT
2 UNIVERSITY PLACE, LAKE SUCCESS, NEW YORK:

_____ _____
Signature Date

_____
Print Name

**-OR-**

ACCESS DENIED BY OWNER OF PROPERTY LOCATED AT
2 UNIVERSITY PLACE, LAKE SUCCESS, NEW YORK:

_____ _____
Signature Date

_____
Print Name

Please list any dates when access to your property is not available: _____

WALDEN ENVIRONMENTAL ENGINEERING

*Sent by Certified Mail # 70170530000089406651*

February 19, 2019

PROPERTY OWNER
3 UNIVERSITY PLACE
LAKE SUCCESS, NY 11020

Re: Permission for Property Access
3 UNIVERSITY PLACE
LAKE SUCCESS, NEW YORK

To Whom it May Concern:

Walden Environmental Engineering, PLLC ("Walden") is the environmental consulting engineer for 218 Lakeville Aquisition LLC, the owner of property located at 218 Lakeville Road, Lake Success, New York (the "Site") and has been engaged to investigate and remediate historic environmental impacts on the Property. Walden is in the process of collecting data to finalize the cleanup plan for the Site which was formerly occupied by Imperial Cleaners.

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Access to your property, located at 3 UNIVERSITY PLACE, LAKE SUCCESS, NEW YORK is requested to perform indoor air and sub-slab soil vapor sampling to determine if Site contamination is affecting your indoor air quality. The sampling results will be used to finalize design of the Site remedial program and develop a post-cleanup management plan for the Site. All of the work will be performed in accordance with a work plan reviewed and approved by both the NYSDEC and NYSDOH, consistent with procedures and guidelines established by New York State. All sampling

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The work to be conducted at 3 UNIVERSITY PLACE, LAKE SUCCESS, NEW YORK is detailed below with a tentative sequence of events. Please note your presence is required during the times that Walden and the subcontractors are to be on your property. Refer to the attached photographs for additional information.

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Second Day (Walden)

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Thank you for your courtesy and cooperation.

Very truly yours,
Walden Environmental Engineering, PLLC.

Nora M. Brew, P.E.
Project Manager

ACCESS AUTHORIZED BY OWNER OF PROPERTY LOCATED AT
3 UNIVERSITY PLACE, LAKE SUCCESS, NEW YORK:

_____ _____
Signature Date

_____
Print Name

**-OR-**

ACCESS DENIED BY OWNER OF PROPERTY LOCATED AT
3 UNIVERSITY PLACE, LAKE SUCCESS, NEW YORK:

_____ _____
Signature Date

_____
Print Name

Please list any dates when access to your property is not available: _____

WALDEN ENVIRONMENTAL ENGINEERING

*Sent by Certified Mail # 70170530000089406934*

February 19, 2019

PROPERTY OWNER
4 UNIVERSITY PLACE
LAKE SUCCESS, NY 11020

Re: Permission for Property Access
4 UNIVERSITY PLACE
LAKE SUCCESS, NEW YORK

To Whom it May Concern:

Walden Environmental Engineering, PLLC ("Walden") is the environmental consulting engineer for 218 Lakeville Aquisition LLC, the owner of property located at 218 Lakeville Road, Lake Success, New York (the "Site") and has been engaged to investigate and remediate historic environmental impacts on the Property. Walden is in the process of collecting data to finalize the cleanup plan for the Site which was formerly occupied by Imperial Cleaners.

The investigation and cleanup of the Site is being overseen by the New York State Department of Environmental Conservation ("NYSDEC") under the Brownfield Cleanup Program ("BCP"). The NYSDEC designated the Former Imperial Cleaners Site BCP Site #C130225. In accordance with the Citizen Participation Plan, project documents can be accessed at Station Library located at 26 Great Neck Road, Great Neck, New York 11021. The Site owner is working with the NYSDEC and the New York State Department of Health ("NYSDOH") to investigate and remediate the Site so that this matter can be closed pursuant to BCP site closure requirements.

Access to your property, located at 4 UNIVERSITY PLACE, LAKE SUCCESS, NEW YORK is requested to perform indoor air and sub-slab soil vapor sampling to determine if Site contamination is affecting your indoor air quality. The sampling results will be used to finalize design of the Site remedial program and develop a post-cleanup management plan for the Site. All of the work will be performed in accordance with a work plan reviewed and approved by both the NYSDEC and NYSDOH, consistent with procedures and guidelines established by New York State. All sampling

will be coordinated by Walden, which will oversee the work of qualified subcontractors who will be retained to conduct the actual drilling and sampling efforts.

The work to be conducted at 4 UNIVERSITY PLACE, LAKE SUCCESS, NEW YORK is detailed below with a tentative sequence of events. Please note your presence is required during the times that Walden and the subcontractors are to be on your property. Refer to the attached photographs for additional information.

First Day (Walden, Utility Mark-out Subcontractor and Drilling Subcontractor)

- Walden will inspect the basement/lowest level of your property to inventory chemicals stored on-site (such as cleaning products, paints, etc.) and select an appropriate location for sampling. The sampling location will be selected in an area with an unfinished floor if possible.
- A utility mark-out contractor will perform a Ground Penetrating Radar (GPR) survey to mark out the proposed sampling location and to ensure that no sub-surface structures and/or utility lines will be impacted by the investigation.
- After an appropriate sampling location has been selected based on Walden's inspection and the GPR survey (and approved by the property owner), the drilling contractor will drill through the basement/lowest level floor slab and install a temporary sub-slab sampling port below the concrete slab. (Note that the floor surface will be restored with cement immediately after the sample is collected.) A small diameter hole (approximately one inch) will be drilled through the concrete floor slab and into sub-slab material approximately two (2) inches below the bottom of the floor slab. A temporary probe constructed from inert tubing (e.g. polyethylene, stainless steel, nylon, Teflon®, etc.) will be installed and sealed to the floor. Testing will be performed to ensure that the seal is tight.
- Walden will set up air sampling canisters to collect one sub-slab vapor sample and one indoor air sample from the basement/lowest level of the property.
- The sub-slab vapor sample will be collected from the temporary sub-slab sampling port installed below the concrete slab.
- The indoor air sample will be collected concurrently with the sub-slab vapor sample, at approximately the same location as the sub-slab vapor sample.
- A sampling canister will be placed adjacent to the sub-slab sampling port and the indoor air sampling location. The sub-slab and indoor air samples will be collected using laboratory-provided sampling canisters over a 24-hour period.
- The sampling probe, canisters and all sampling equipment must not be disturbed during the sampling period.

- The total anticipated time within your residence for this portion of the work would be approximately two (2) to three (3) hours.

Second Day (Walden)

- Walden will return at the end of the 24-hour sampling period to remove the sampling canisters. The tubing used to connect the sub-slab vapor sampling canister to the probe will be removed. The sub-slab vapor probe will then be removed and the floor surface will be restored in kind.
- The total anticipated time within your residence for this portion of the work would be approximately 30 minutes.

The Site owner and Walden will comply with the following conditions of access to the 4 UNIVERSITY PLACE, LAKE SUCCESS, NEW YORK property:

- The property owner will be notified at least 10 days prior to the scheduled sampling date. This sampling is required by the NYSDOH and NYSDEC under an approved work plan that states the sampling is to take place during the heating season, which will end on or about March 31, 2019. Please indicate below any dates when you are unavailable to provide Walden entry to the property, so the sampling can be scheduled accordingly.
- The procedures set forth in the sampling work plan approved by the NYSDEC and NYSDOH will be followed. A copy of this work plan will be made available to you upon request. Walden will strive to schedule the work and subcontractors so that access to the property is required only two (2) times: once to install the sampling location, and set the canister(s) for sampling; and once after the canisters are set (approximately 24 hours after the sampling begins) to retrieve them. Note that this sampling is being coordinated with approximately ten (10) other properties with the goal of sampling all locations concurrently. Walden will attempt to accommodate your scheduling preferences to the extent feasible.
- The work will be performed in a clean and orderly fashion.

Please sign below to indicate your permission (or denial of permission) to allow the Site Owner and Walden to access the 4 UNIVERSITY PLACE, LAKE SUCCESS, NY property for the sampling described herein, and return to Walden by mail (stamped envelope enclosed), fax to 516-624-3219, or email to nbrew@walden-associates.com. Kindly respond to this letter with your permission or denial of permission within five (5) business days of receipt so that sampling may begin.

If you have any questions, please contact Scarlett McLaughlin at the New York State Department of Health at 518-402-7860, Joseph Jones at the New York State Department of Environmental Conservation at 518-402-9621, or Nora Brew at Walden Environmental Engineering at (516) 624-7200.

Thank you for your courtesy and cooperation.

Very truly yours,
Walden Environmental Engineering, PLLC.

Nora M. Brew, P.E.
Project Manager

ACCESS AUTHORIZED BY OWNER OF PROPERTY LOCATED AT
4 UNIVERSITY PLACE, LAKE SUCCESS, NEW YORK:

_____ _____
Signature Date

_____
Print Name

**-OR-**

ACCESS DENIED BY OWNER OF PROPERTY LOCATED AT
4 UNIVERSITY PLACE, LAKE SUCCESS, NEW YORK:

_____ _____
Signature Date

_____
Print Name

Please list any dates when access to your property is not available: _____

WALDEN ENVIRONMENTAL ENGINEERING

*Sent by Certified Mail # 70170530000089406668*

February 19, 2019

PROPERTY OWNER
5 UNIVERSITY PLACE
LAKE SUCCESS, NY 11020

Re: Permission for Property Access
5 UNIVERSITY PLACE
LAKE SUCCESS, NEW YORK

To Whom it May Concern:

Walden Environmental Engineering, PLLC ("Walden") is the environmental consulting engineer for 218 Lakeville Aquisition LLC, the owner of property located at 218 Lakeville Road, Lake Success, New York (the "Site") and has been engaged to investigate and remediate historic environmental impacts on the Property. Walden is in the process of collecting data to finalize the cleanup plan for the Site which was formerly occupied by Imperial Cleaners.

The investigation and cleanup of the Site is being overseen by the New York State Department of Environmental Conservation ("NYSDEC") under the Brownfield Cleanup Program ("BCP"). The NYSDEC designated the Former Imperial Cleaners Site BCP Site #C130225. In accordance with the Citizen Participation Plan, project documents can be accessed at Station Library located at 26 Great Neck Road, Great Neck, New York 11021. The Site owner is working with the NYSDEC and the New York State Department of Health ("NYSDOH") to investigate and remediate the Site so that this matter can be closed pursuant to BCP site closure requirements.

Access to your property, located at 5 UNIVERSITY PLACE, LAKE SUCCESS, NEW YORK is requested to perform indoor air and sub-slab soil vapor sampling to determine if Site contamination is affecting your indoor air quality. The sampling results will be used to finalize design of the Site remedial program and develop a post-cleanup management plan for the Site. All of the work will be performed in accordance with a work plan reviewed and approved by both the NYSDEC and NYSDOH, consistent with procedures and guidelines established by New York State. All sampling

will be coordinated by Walden, which will oversee the work of qualified subcontractors who will be retained to conduct the actual drilling and sampling efforts.

The work to be conducted at 5 UNIVERSITY PLACE, LAKE SUCCESS, NEW YORK is detailed below with a tentative sequence of events. Please note your presence is required during the times that Walden and the subcontractors are to be on your property. Refer to the attached photographs for additional information.

First Day (Walden, Utility Mark-out Subcontractor and Drilling Subcontractor)

- Walden will inspect the basement/lowest level of your property to inventory chemicals stored on-site (such as cleaning products, paints, etc.) and select an appropriate location for sampling. The sampling location will be selected in an area with an unfinished floor if possible.
- A utility mark-out contractor will perform a Ground Penetrating Radar (GPR) survey to mark out the proposed sampling location and to ensure that no sub-surface structures and/or utility lines will be impacted by the investigation.
- After an appropriate sampling location has been selected based on Walden's inspection and the GPR survey (and approved by the property owner), the drilling contractor will drill through the basement/lowest level floor slab and install a temporary sub-slab sampling port below the concrete slab. (Note that the floor surface will be restored with cement immediately after the sample is collected.) A small diameter hole (approximately one inch) will be drilled through the concrete floor slab and into sub-slab material approximately two (2) inches below the bottom of the floor slab. A temporary probe constructed from inert tubing (e.g. polyethylene, stainless steel, nylon, Teflon®, etc.) will be installed and sealed to the floor. Testing will be performed to ensure that the seal is tight.
- Walden will set up air sampling canisters to collect one sub-slab vapor sample and one indoor air sample from the basement/lowest level of the property.
- The sub-slab vapor sample will be collected from the temporary sub-slab sampling port installed below the concrete slab.
- The indoor air sample will be collected concurrently with the sub-slab vapor sample, at approximately the same location as the sub-slab vapor sample.
- A sampling canister will be placed adjacent to the sub-slab sampling port and the indoor air sampling location. The sub-slab and indoor air samples will be collected using laboratory-provided sampling canisters over a 24-hour period.
- The sampling probe, canisters and all sampling equipment must not be disturbed during the sampling period.

- The total anticipated time within your residence for this portion of the work would be approximately two (2) to three (3) hours.

Second Day (Walden)

- Walden will return at the end of the 24-hour sampling period to remove the sampling canisters. The tubing used to connect the sub-slab vapor sampling canister to the probe will be removed. The sub-slab vapor probe will then be removed and the floor surface will be restored in kind.
- The total anticipated time within your residence for this portion of the work would be approximately 30 minutes.

The Site owner and Walden will comply with the following conditions of access to the 5 UNIVERSITY PLACE, LAKE SUCCESS, NEW YORK property:

- The property owner will be notified at least 10 days prior to the scheduled sampling date. This sampling is required by the NYSDOH and NYSDEC under an approved work plan that states the sampling is to take place during the heating season, which will end on or about March 31, 2019. Please indicate below any dates when you are unavailable to provide Walden entry to the property, so the sampling can be scheduled accordingly.
- The procedures set forth in the sampling work plan approved by the NYSDEC and NYSDOH will be followed. A copy of this work plan will be made available to you upon request. Walden will strive to schedule the work and subcontractors so that access to the property is required only two (2) times: once to install the sampling location, and set the canister(s) for sampling; and once after the canisters are set (approximately 24 hours after the sampling begins) to retrieve them. Note that this sampling is being coordinated with approximately ten (10) other properties with the goal of sampling all locations concurrently. Walden will attempt to accommodate your scheduling preferences to the extent feasible.
- The work will be performed in a clean and orderly fashion.

Please sign below to indicate your permission (or denial of permission) to allow the Site Owner and Walden to access the 5 UNIVERSITY PLACE, LAKE SUCCESS, NY property for the sampling described herein, and return to Walden by mail (stamped envelope enclosed), fax to 516-624-3219, or email to nbrew@walden-associates.com. Kindly respond to this letter with your permission or denial of permission within five (5) business days of receipt so that sampling may begin.

If you have any questions, please contact Scarlett McLaughlin at the New York State Department of Health at 518-402-7860, Joseph Jones at the New York State Department of Environmental Conservation at 518-402-9621, or Nora Brew at Walden Environmental Engineering at (516) 624-7200.

Thank you for your courtesy and cooperation.

Very truly yours,
Walden Environmental Engineering, PLLC.

Nora M. Brew, P.E.
Project Manager

ACCESS AUTHORIZED BY OWNER OF PROPERTY LOCATED AT
5 UNIVERSITY PLACE, LAKE SUCCESS, NEW YORK:

_____ _____
Signature Date

_____
Print Name

**-OR-**

ACCESS DENIED BY OWNER OF PROPERTY LOCATED AT
5 UNIVERSITY PLACE, LAKE SUCCESS, NEW YORK:

_____ _____
Signature Date

_____
Print Name

Please list any dates when access to your property is not available: _____

WALDEN ENVIRONMENTAL ENGINEERING

*Sent by Certified Mail # 70170530000089406675*

February 19, 2019

PROPERTY OWNER
99 BRIARFIELD DRIVE
LAKE SUCCESS, NY 11020

Re: Permission for Property Access
99 BRIARFIELD DRIVE
LAKE SUCCESS, NEW YORK

To Whom it May Concern:

Walden Environmental Engineering, PLLC ("Walden") is the environmental consulting engineer for 218 Lakeville Aquisition LLC, the owner of property located at 218 Lakeville Road, Lake Success, New York (the "Site") and has been engaged to investigate and remediate historic environmental impacts on the Property. Walden is in the process of collecting data to finalize the cleanup plan for the Site which was formerly occupied by Imperial Cleaners.

The investigation and cleanup of the Site is being overseen by the New York State Department of Environmental Conservation ("NYSDEC") under the Brownfield Cleanup Program ("BCP"). The NYSDEC designated the Former Imperial Cleaners Site BCP Site #C130225. In accordance with the Citizen Participation Plan, project documents can be accessed at Station Library located at 26 Great Neck Road, Great Neck, New York 11021. The Site owner is working with the NYSDEC and the New York State Department of Health ("NYSDOH") to investigate and remediate the Site so that this matter can be closed pursuant to BCP site closure requirements.

Access to your property, located at 99 BRIARFIELD DRIVE, LAKE SUCCESS, NEW YORK is requested to perform indoor air and sub-slab soil vapor sampling to determine if Site contamination is affecting your indoor air quality. The sampling results will be used to finalize design of the Site remedial program and develop a post-cleanup management plan for the Site. All of the work will be performed in accordance with a work plan reviewed and approved by both the NYSDEC and NYSDOH, consistent with procedures and guidelines established by New York State. All sampling

will be coordinated by Walden, which will oversee the work of qualified subcontractors who will be retained to conduct the actual drilling and sampling efforts.

The work to be conducted at 99 BRIARFIELD DRIVE, LAKE SUCCESS, NEW YORK is detailed below with a tentative sequence of events. Please note your presence is required during the times that Walden and the subcontractors are to be on your property. Refer to the attached photographs for additional information.

First Day (Walden, Utility Mark-out Subcontractor and Drilling Subcontractor)

- Walden will inspect the basement/lowest level of your property to inventory chemicals stored on-site (such as cleaning products, paints, etc.) and select an appropriate location for sampling. The sampling location will be selected in an area with an unfinished floor if possible.
- A utility mark-out contractor will perform a Ground Penetrating Radar (GPR) survey to mark out the proposed sampling location and to ensure that no sub-surface structures and/or utility lines will be impacted by the investigation.
- After an appropriate sampling location has been selected based on Walden's inspection and the GPR survey (and approved by the property owner), the drilling contractor will drill through the basement/lowest level floor slab and install a temporary sub-slab sampling port below the concrete slab. (Note that the floor surface will be restored with cement immediately after the sample is collected.) A small diameter hole (approximately one inch) will be drilled through the concrete floor slab and into sub-slab material approximately two (2) inches below the bottom of the floor slab. A temporary probe constructed from inert tubing (e.g. polyethylene, stainless steel, nylon, Teflon®, etc.) will be installed and sealed to the floor. Testing will be performed to ensure that the seal is tight.
- Walden will set up air sampling canisters to collect one sub-slab vapor sample and one indoor air sample from the basement/lowest level of the property.
- The sub-slab vapor sample will be collected from the temporary sub-slab sampling port installed below the concrete slab.
- The indoor air sample will be collected concurrently with the sub-slab vapor sample, at approximately the same location as the sub-slab vapor sample.
- A sampling canister will be placed adjacent to the sub-slab sampling port and the indoor air sampling location. The sub-slab and indoor air samples will be collected using laboratory-provided sampling canisters over a 24-hour period.
- The sampling probe, canisters and all sampling equipment must not be disturbed during the sampling period.

- The total anticipated time within your residence for this portion of the work would be approximately two (2) to three (3) hours.

Second Day (Walden)

- Walden will return at the end of the 24-hour sampling period to remove the sampling canisters. The tubing used to connect the sub-slab vapor sampling canister to the probe will be removed. The sub-slab vapor probe will then be removed and the floor surface will be restored in kind.
- The total anticipated time within your residence for this portion of the work would be approximately 30 minutes.

The Site owner and Walden will comply with the following conditions of access to the 99 BRIARFIELD DRIVE, LAKE SUCCESS, NEW YORK property:

- The property owner will be notified at least 10 days prior to the scheduled sampling date. This sampling is required by the NYSDOH and NYSDEC under an approved work plan that states the sampling is to take place during the heating season, which will end on or about March 31, 2019. Please indicate below any dates when you are unavailable to provide Walden entry to the property, so the sampling can be scheduled accordingly.
- The procedures set forth in the sampling work plan approved by the NYSDEC and NYSDOH will be followed. A copy of this work plan will be made available to you upon request. Walden will strive to schedule the work and subcontractors so that access to the property is required only two (2) times: once to install the sampling location, and set the canister(s) for sampling; and once after the canisters are set (approximately 24 hours after the sampling begins) to retrieve them. Note that this sampling is being coordinated with approximately ten (10) other properties with the goal of sampling all locations concurrently. Walden will attempt to accommodate your scheduling preferences to the extent feasible.
- The work will be performed in a clean and orderly fashion.

Please sign below to indicate your permission (or denial of permission) to allow the Site Owner and Walden to access the 99 BRIARFIELD DRIVE, LAKE SUCCESS, NY property for the sampling described herein, and return to Walden by mail (stamped envelope enclosed), fax to 516-624-3219, or email to nbrew@walden-associates.com. Kindly respond to this letter with your permission or denial of permission within five (5) business days of receipt so that sampling may begin.

If you have any questions, please contact Scarlett McLaughlin at the New York State Department of Health at 518-402-7860, Joseph Jones at the New York State Department of Environmental Conservation at 518-402-9621, or Nora Brew at Walden Environmental Engineering at (516) 624-7200.

Thank you for your courtesy and cooperation.

Very truly yours,
Walden Environmental Engineering, PLLC.

Nora M. Brew, P.E.
Project Manager

ACCESS AUTHORIZED BY OWNER OF PROPERTY LOCATED AT
99 BRIARFIELD DRIVE, LAKE SUCCESS, NEW YORK:

_____ _____
Signature Date

_____
Print Name

**-OR-**

ACCESS DENIED BY OWNER OF PROPERTY LOCATED AT
99 BRIARFIELD DRIVE, LAKE SUCCESS, NEW YORK:

_____ _____
Signature Date

_____
Print Name

Please list any dates when access to your property is not available: _____

WALDEN ENVIRONMENTAL ENGINEERING

*Sent by Certified Mail # 70170530000089406682*

February 19, 2019

PROPERTY OWNER
216 LAKEVILLE ROAD
LAKE SUCCESS, NY 11020

Re: Permission for Property Access
216 LAKEVILLE ROAD
LAKE SUCCESS, NEW YORK

To Whom it May Concern:

Walden Environmental Engineering, PLLC ("Walden") is the environmental consulting engineer for 218 Lakeville Aquisition LLC, the owner of property located at 218 Lakeville Road, Lake Success, New York (the "Site") and has been engaged to investigate and remediate historic environmental impacts on the Property. Walden is in the process of collecting data to finalize the cleanup plan for the Site which was formerly occupied by Imperial Cleaners.

The investigation and cleanup of the Site is being overseen by the New York State Department of Environmental Conservation ("NYSDEC") under the Brownfield Cleanup Program ("BCP"). The NYSDEC designated the Former Imperial Cleaners Site BCP Site #C130225. In accordance with the Citizen Participation Plan, project documents can be accessed at Station Library located at 26 Great Neck Road, Great Neck, New York 11021. The Site owner is working with the NYSDEC and the New York State Department of Health ("NYSDOH") to investigate and remediate the Site so that this matter can be closed pursuant to BCP site closure requirements.

Access to your property, located at 216 LAKEVILLE ROAD, LAKE SUCCESS, NEW YORK is requested to perform indoor air and sub-slab soil vapor sampling to determine if Site contamination is affecting your indoor air quality. **Note that access to both buildings (the front office and rear cottage) is requested.** The sampling results will be used to finalize design of the Site remedial program and develop a post-cleanup management plan for the Site. All of the work will be performed in accordance with a work plan reviewed and approved by both the NYSDEC and

NYSDOH, consistent with procedures and guidelines established by New York State. All sampling will be coordinated by Walden, which will oversee the work of qualified subcontractors who will be retained to conduct the actual drilling and sampling efforts.

The work to be conducted at 216 LAKEVILLE ROAD, LAKE SUCCESS, NEW YORK is detailed below with a tentative sequence of events. Please note your presence is required during the times that Walden and the subcontractors are to be on your property. Refer to the attached photographs for additional information.

First Day (Walden, Utility Mark-out Subcontractor and Drilling Subcontractor)

- Walden will inspect the basement/lowest level of your property to inventory chemicals stored on-site (such as cleaning products, paints, etc.) and select an appropriate location for sampling. The sampling location will be selected in an area with an unfinished floor if possible.
- A utility mark-out contractor will perform a Ground Penetrating Radar (GPR) survey to mark out the proposed sampling location and to ensure that no sub-surface structures and/or utility lines will be impacted by the investigation.
- After an appropriate sampling location has been selected based on Walden's inspection and the GPR survey (and approved by the property owner), the drilling contractor will drill through the basement/lowest level floor slab and install a temporary sub-slab sampling port below the concrete slab. (Note that the floor surface will be restored with cement immediately after the sample is collected.) A small diameter hole (approximately one inch) will be drilled through the concrete floor slab and into sub-slab material approximately two (2) inches below the bottom of the floor slab. A temporary probe constructed from inert tubing (e.g. polyethylene, stainless steel, nylon, Teflon®, etc.) will be installed and sealed to the floor. Testing will be performed to ensure that the seal is tight.
- Walden will set up air sampling canisters to collect one sub-slab vapor sample and one indoor air sample from the basement/lowest level of the property.
- The sub-slab vapor sample will be collected from the temporary sub-slab sampling port installed below the concrete slab.
- The indoor air sample will be collected concurrently with the sub-slab vapor sample, at approximately the same location as the sub-slab vapor sample.
- A sampling canister will be placed adjacent to the sub-slab sampling port and the indoor air sampling location. The sub-slab and indoor air samples will be collected using laboratory-provided sampling canisters over a 24-hour period.

- The sampling probe, canisters and all sampling equipment must not be disturbed during the sampling period.
- The total anticipated time within your residence for this portion of the work would be approximately two (2) to three (3) hours.

Second Day (Walden)

- Walden will return at the end of the 24-hour sampling period to remove the sampling canisters. The tubing used to connect the sub-slab vapor sampling canister to the probe will be removed. The sub-slab vapor probe will then be removed and the floor surface will be restored in kind.
- The total anticipated time within your residence for this portion of the work would be approximately 30 minutes.

The Site owner and Walden will comply with the following conditions of access to the 216 LAKEVILLE ROAD, LAKE SUCCESS, NEW YORK property:

- The property owner will be notified at least 10 days prior to the scheduled sampling date. This sampling is required by the NYSDOH and NYSDEC under an approved work plan that states the sampling is to take place during the heating season, which will end on or about March 31, 2019. Please indicate below any dates when you are unavailable to provide Walden entry to the property, so the sampling can be scheduled accordingly.
- The procedures set forth in the sampling work plan approved by the NYSDEC and NYSDOH will be followed. A copy of this work plan will be made available to you upon request. Walden will strive to schedule the work and subcontractors so that access to the property is required only two (2) times: once to install the sampling location, and set the canister(s) for sampling; and once after the canisters are set (approximately 24 hours after the sampling begins) to retrieve them. Note that this sampling is being coordinated with approximately ten (10) other properties with the goal of sampling all locations concurrently. Walden will attempt to accommodate your scheduling preferences to the extent feasible.
- The work will be performed in a clean and orderly fashion.

Please sign below to indicate your permission (or denial of permission) to allow the Site Owner and Walden to access the 216 LAKEVILLE ROAD, LAKE SUCCESS, NY property for the sampling described herein, and return to Walden by mail (stamped envelope enclosed), fax to 516-624-3219, or email to nbrew@walden-associates.com. Kindly respond to this letter with your permission or denial of permission within five (5) business days of receipt so that sampling may begin.

If you have any questions, please contact Scarlett McLaughlin at the New York State Department of Health at 518-402-7860, Joseph Jones at the New York State Department of Environmental Conservation at 518-402-9621, or Nora Brew at Walden Environmental Engineering at (516) 624-7200.

Thank you for your courtesy and cooperation.

Very truly yours,
Walden Environmental Engineering, PLLC.

Nora M. Brew, P.E.
Project Manager

ACCESS AUTHORIZED BY OWNER OF PROPERTY (FRONT OFFICE AND REAR COTTAGE LOCATED AT 216 LAKEVILLE ROAD, LAKE SUCCESS, NEW YORK:

_____ _____
Signature Date

_____
Print Name

**-OR-**

ACCESS DENIED BY OWNER OF PROPERTY (FRONT OFFICE AND REAR COTTAGE LOCATED AT 216 LAKEVILLE ROAD, LAKE SUCCESS, NEW YORK:

_____ _____
Signature Date

_____
Print Name

Please list any dates when access to your property is not available: _____

WALDEN ENVIRONMENTAL ENGINEERING

*Sent by Certified Mail # 70170530000089406941*

February 19, 2019

PROPERTY OWNER
220 LAKEVILLE ROAD
LAKE SUCCESS, NY 11020

Re: Permission for Property Access
220 LAKEVILLE ROAD
LAKE SUCCESS, NEW YORK

To Whom it May Concern:

Walden Environmental Engineering, PLLC ("Walden") is the environmental consulting engineer for 218 Lakeville Aquisition LLC, the owner of property located at 218 Lakeville Road, Lake Success, New York (the "Site") and has been engaged to investigate and remediate historic environmental impacts on the Property. Walden is in the process of collecting data to finalize the cleanup plan for the Site which was formerly occupied by Imperial Cleaners.

The investigation and cleanup of the Site is being overseen by the New York State Department of Environmental Conservation ("NYSDEC") under the Brownfield Cleanup Program ("BCP"). The NYSDEC designated the Former Imperial Cleaners Site BCP Site #C130225. In accordance with the Citizen Participation Plan, project documents can be accessed at Station Library located at 26 Great Neck Road, Great Neck, New York 11021. The Site owner is working with the NYSDEC and the New York State Department of Health ("NYSDOH") to investigate and remediate the Site so that this matter can be closed pursuant to BCP site closure requirements.

Access to your property, located at 220 LAKEVILLE ROAD, LAKE SUCCESS, NEW YORK is requested to perform indoor air and sub-slab soil vapor sampling to determine if Site contamination is affecting your indoor air quality. The sampling results will be used to finalize design of the Site remedial program and develop a post-cleanup management plan for the Site. All of the work will be performed in accordance with a work plan reviewed and approved by both the NYSDEC and NYSDOH, consistent with procedures and guidelines established by New York State. All sampling

will be coordinated by Walden, which will oversee the work of qualified subcontractors who will be retained to conduct the actual drilling and sampling efforts.

The work to be conducted at 220 LAKEVILLE ROAD, LAKE SUCCESS, NEW YORK is detailed below with a tentative sequence of events. Please note your presence is required during the times that Walden and the subcontractors are to be on your property. Refer to the attached photographs for additional information.

First Day (Walden, Utility Mark-out Subcontractor and Drilling Subcontractor)

- Walden will inspect the basement/lowest level of your property to inventory chemicals stored on-site (such as cleaning products, paints, etc.) and select an appropriate location for sampling. The sampling location will be selected in an area with an unfinished floor if possible.
- A utility mark-out contractor will perform a Ground Penetrating Radar (GPR) survey to mark out the proposed sampling location and to ensure that no sub-surface structures and/or utility lines will be impacted by the investigation.
- After an appropriate sampling location has been selected based on Walden's inspection and the GPR survey (and approved by the property owner), the drilling contractor will drill through the basement/lowest level floor slab and install a temporary sub-slab sampling port below the concrete slab. (Note that the floor surface will be restored with cement immediately after the sample is collected.) A small diameter hole (approximately one inch) will be drilled through the concrete floor slab and into sub-slab material approximately two (2) inches below the bottom of the floor slab. A temporary probe constructed from inert tubing (e.g. polyethylene, stainless steel, nylon, Teflon®, etc.) will be installed and sealed to the floor. Testing will be performed to ensure that the seal is tight.
- Walden will set up air sampling canisters to collect one sub-slab vapor sample and one indoor air sample from the basement/lowest level of the property.
- The sub-slab vapor sample will be collected from the temporary sub-slab sampling port installed below the concrete slab.
- The indoor air sample will be collected concurrently with the sub-slab vapor sample, at approximately the same location as the sub-slab vapor sample.
- A sampling canister will be placed adjacent to the sub-slab sampling port and the indoor air sampling location. The sub-slab and indoor air samples will be collected using laboratory-provided sampling canisters over a 24-hour period.
- The sampling probe, canisters and all sampling equipment must not be disturbed during the sampling period.

- The total anticipated time within your residence for this portion of the work would be approximately two (2) to three (3) hours.

Second Day (Walden)

- Walden will return at the end of the 24-hour sampling period to remove the sampling canisters. The tubing used to connect the sub-slab vapor sampling canister to the probe will be removed. The sub-slab vapor probe will then be removed and the floor surface will be restored in kind.
- The total anticipated time within your residence for this portion of the work would be approximately 30 minutes.

The Site owner and Walden will comply with the following conditions of access to the 220 LAKEVILLE ROAD, LAKE SUCCESS, NEW YORK property:

- The property owner will be notified at least 10 days prior to the scheduled sampling date. This sampling is required by the NYSDOH and NYSDEC under an approved work plan that states the sampling is to take place during the heating season, which will end on or about March 31, 2019. Please indicate below any dates when you are unavailable to provide Walden entry to the property, so the sampling can be scheduled accordingly.
- The procedures set forth in the sampling work plan approved by the NYSDEC and NYSDOH will be followed. A copy of this work plan will be made available to you upon request. Walden will strive to schedule the work and subcontractors so that access to the property is required only two (2) times: once to install the sampling location, and set the canister(s) for sampling; and once after the canisters are set (approximately 24 hours after the sampling begins) to retrieve them. Note that this sampling is being coordinated with approximately ten (10) other properties with the goal of sampling all locations concurrently. Walden will attempt to accommodate your scheduling preferences to the extent feasible.
- The work will be performed in a clean and orderly fashion.

Please sign below to indicate your permission (or denial of permission) to allow the Site Owner and Walden to access the 220 LAKEVILLE ROAD, LAKE SUCCESS, NY property for the sampling described herein, and return to Walden by mail (stamped envelope enclosed), fax to 516-624-3219, or email to nbrew@walden-associates.com. Kindly respond to this letter with your permission or denial of permission within five (5) business days of receipt so that sampling may begin.

If you have any questions, please contact Scarlett McLaughlin at the New York State Department of Health at 518-402-7860, Joseph Jones at the New York State Department of Environmental Conservation at 518-402-9621, or Nora Brew at Walden Environmental Engineering at (516) 624-7200.

Thank you for your courtesy and cooperation.

Very truly yours,
Walden Environmental Engineering, PLLC.

Nora M. Brew, P.E.
Project Manager

ACCESS AUTHORIZED BY OWNER OF PROPERTY LOCATED AT
220 LAKEVILLE ROAD, LAKE SUCCESS, NEW YORK:

_____ _____
Signature Date

_____
Print Name

**-OR-**

ACCESS DENIED BY OWNER OF PROPERTY LOCATED AT
220 LAKEVILLE ROAD, LAKE SUCCESS, NEW YORK:

_____ _____
Signature Date

_____
Print Name

Please list any dates when access to your property is not available: _____

WALDEN ENVIRONMENTAL ENGINEERING

*Sent by Certified Mail # 70170530000089406699*

February 19, 2019

PROPERTY OWNER
224 LAKEVILLE ROAD
LAKE SUCCESS, NY 11020

Re: Permission for Property Access
224 LAKEVILLE ROAD
LAKE SUCCESS, NEW YORK

To Whom it May Concern:

Walden Environmental Engineering, PLLC ("Walden") is the environmental consulting engineer for 218 Lakeville Aquisition LLC, the owner of property located at 218 Lakeville Road, Lake Success, New York (the "Site") and has been engaged to investigate and remediate historic environmental impacts on the Property. Walden is in the process of collecting data to finalize the cleanup plan for the Site which was formerly occupied by Imperial Cleaners.

The investigation and cleanup of the Site is being overseen by the New York State Department of Environmental Conservation ("NYSDEC") under the Brownfield Cleanup Program ("BCP"). The NYSDEC designated the Former Imperial Cleaners Site BCP Site #C130225. In accordance with the Citizen Participation Plan, project documents can be accessed at Station Library located at 26 Great Neck Road, Great Neck, New York 11021. The Site owner is working with the NYSDEC and the New York State Department of Health ("NYSDOH") to investigate and remediate the Site so that this matter can be closed pursuant to BCP site closure requirements.

Access to your property, located at 224 LAKEVILLE ROAD, LAKE SUCCESS, NEW YORK is requested to perform indoor air and sub-slab soil vapor sampling to determine if Site contamination is affecting your indoor air quality. The sampling results will be used to finalize design of the Site remedial program and develop a post-cleanup management plan for the Site. All of the work will be performed in accordance with a work plan reviewed and approved by both the NYSDEC and NYSDOH, consistent with procedures and guidelines established by New York State. All sampling

will be coordinated by Walden, which will oversee the work of qualified subcontractors who will be retained to conduct the actual drilling and sampling efforts.

The work to be conducted at 224 LAKEVILLE ROAD, LAKE SUCCESS, NEW YORK is detailed below with a tentative sequence of events. Please note your presence is required during the times that Walden and the subcontractors are to be on your property. Refer to the attached photographs for additional information.

First Day (Walden, Utility Mark-out Subcontractor and Drilling Subcontractor)

- Walden will inspect the basement/lowest level of your property to inventory chemicals stored on-site (such as cleaning products, paints, etc.) and select an appropriate location for sampling. The sampling location will be selected in an area with an unfinished floor if possible.
- A utility mark-out contractor will perform a Ground Penetrating Radar (GPR) survey to mark out the proposed sampling location and to ensure that no sub-surface structures and/or utility lines will be impacted by the investigation.
- After an appropriate sampling location has been selected based on Walden's inspection and the GPR survey (and approved by the property owner), the drilling contractor will drill through the basement/lowest level floor slab and install a temporary sub-slab sampling port below the concrete slab. (Note that the floor surface will be restored with cement immediately after the sample is collected.) A small diameter hole (approximately one inch) will be drilled through the concrete floor slab and into sub-slab material approximately two (2) inches below the bottom of the floor slab. A temporary probe constructed from inert tubing (e.g. polyethylene, stainless steel, nylon, Teflon®, etc.) will be installed and sealed to the floor. Testing will be performed to ensure that the seal is tight.
- Walden will set up air sampling canisters to collect one sub-slab vapor sample and one indoor air sample from the basement/lowest level of the property.
- The sub-slab vapor sample will be collected from the temporary sub-slab sampling port installed below the concrete slab.
- The indoor air sample will be collected concurrently with the sub-slab vapor sample, at approximately the same location as the sub-slab vapor sample.
- A sampling canister will be placed adjacent to the sub-slab sampling port and the indoor air sampling location. The sub-slab and indoor air samples will be collected using laboratory-provided sampling canisters over a 24-hour period.
- The sampling probe, canisters and all sampling equipment must not be disturbed during the sampling period.

- The total anticipated time within your residence for this portion of the work would be approximately two (2) to three (3) hours.

Second Day (Walden)

- Walden will return at the end of the 24-hour sampling period to remove the sampling canisters. The tubing used to connect the sub-slab vapor sampling canister to the probe will be removed. The sub-slab vapor probe will then be removed and the floor surface will be restored in kind.
- The total anticipated time within your residence for this portion of the work would be approximately 30 minutes.

The Site owner and Walden will comply with the following conditions of access to the 224 LAKEVILLE ROAD, LAKE SUCCESS, NEW YORK property:

- The property owner will be notified at least 10 days prior to the scheduled sampling date. This sampling is required by the NYSDOH and NYSDEC under an approved work plan that states the sampling is to take place during the heating season, which will end on or about March 31, 2019. Please indicate below any dates when you are unavailable to provide Walden entry to the property, so the sampling can be scheduled accordingly.
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- The work will be performed in a clean and orderly fashion.

Please sign below to indicate your permission (or denial of permission) to allow the Site Owner and Walden to access the 224 LAKEVILLE ROAD, LAKE SUCCESS, NY property for the sampling described herein, and return to Walden by mail (stamped envelope enclosed), fax to 516-624-3219, or email to nbrew@walden-associates.com. Kindly respond to this letter with your permission or denial of permission within five (5) business days of receipt so that sampling may begin.

If you have any questions, please contact Scarlett McLaughlin at the New York State Department of Health at 518-402-7860, Joseph Jones at the New York State Department of Environmental Conservation at 518-402-9621, or Nora Brew at Walden Environmental Engineering at (516) 624-7200.

Thank you for your courtesy and cooperation.

Very truly yours,
Walden Environmental Engineering, PLLC.

Nora M. Brew, P.E.
Project Manager

ACCESS AUTHORIZED BY OWNER OF PROPERTY LOCATED AT
224 LAKEVILLE ROAD, LAKE SUCCESS, NEW YORK:

_____ _____
Signature Date

_____
Print Name

**-OR-**

ACCESS DENIED BY OWNER OF PROPERTY LOCATED AT
224 LAKEVILLE ROAD, LAKE SUCCESS, NEW YORK:

_____ _____
Signature Date

_____
Print Name

Please list any dates when access to your property is not available: _____

# APPENDIX D

## April 2019 Completed SVI Guidance Indoor Air Quality Questionnaire/ Building Inventory Sheets

OSR – 3

218 Lakeville Road

**NEW YORK STATE DEPARTMENT OF HEALTH**
**INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY**
**CENTER FOR ENVIRONMENTAL HEALTH**

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Madeleine Tierney Date/Time Prepared 4/5/19 1430

Preparer's Affiliation Walden Environmental Eng. Phone No. (516) 824-7202

Purpose of Investigation Soil vapor intrusion Investigation Former Emperial Cleaners site VCP site # V-00244-1

**1. OCCUPANT:**

**Interviewed:** Y / (N)

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

Number of Occupants/persons at this location _____ Age of Occupants _____

**2. OWNER OR LANDLORD:** (Check if same as occupant ___ )

**Interviewed:** Y / (N)

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

**3. BUILDING CHARACTERISTICS**

**Type of Building:** (Circle appropriate response)

| | | |
|---|---|---|
| Residential | School | (Commercial/Multi-use) |
| Industrial | Church | Other: _____ |

**If the property is residential, type?** (Circle appropriate response) N/A

| | | |
|---|---|---|
| Ranch | 2-Family | 3-Family |
| Raised Ranch | Split Level | Colonial |
| Cape Cod | Contemporary | Mobile Home |
| Duplex | Apartment House | Townhouses/Condos |
| Modular | Log Home | Other:_____ |

**If multiple units, how many?** ~~III~~ EMS

**If the property is commercial, type?**

Business Type(s) Vacant dry cleaner, vacant deli, contractor + tobacco shop

Does it include residences (i.e., multi-use)? Y (N) If yes, how many? _____

**Other characteristics:**

Number of floors 1 story + full basement Building age_____

Is the building insulated? Y (N) How air tight? Tight / Average / Not Tight

↓ basement

**4. AIRFLOW**

**Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:**

Airflow between floors

_____

_____

_____

Airflow near source

_____

_____

_____

Outdoor air infiltration

_____

_____

_____

Infiltration into air ducts

_____

_____

_____

## 5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

| | | | | |
|---|---|---|---|---|
| **a. Above grade construction:** | wood frame | concrete | stone | brick |
| **b. Basement type:** | full | crawlspace | slab | other _____ |
| **c. Basement floor:** | concrete | dirt | stone | other _____ |
| **d. Basement floor:** | uncovered | covered | covered with _____ | |
| **e. Concrete floor:** | unsealed | sealed | sealed with _____ | |
| **f. Foundation walls:** | poured | block | stone | other _____ |
| **g. Foundation walls:** | unsealed | sealed | sealed with _____ | |
| **h. The basement is:** | wet | damp | dry | moldy |
| **i. The basement is:** | finished | unfinished | partially finished | |
| **j. Sump present?** | Y / N | *No sump present - Floor Drains | | |
| **k. Water in sump?** | Y / N / not applicable | | | |

**Basement/Lowest level depth below grade:** ~12 (feet)

**Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)**

Floor Drains x 3 m (untether space

## 6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

**Type of heating system(s) used in this building: (circle all that apply – note primary)**

| | | | |
|---|---|---|---|
| Hot air circulation | Heat pump | Hot water baseboard | |
| Space Heaters | Stream radiation | Radiant floor | |
| Electric baseboard | Wood stove | Outdoor wood boiler | Other _____ |

**The primary type of fuel used is**:

| | | |
|---|---|---|
| Natural Gas | Fuel Oil | Kerosene |
| Electric | Propane | Solar |
| Wood | Coal | |

**Domestic hot water tank fueled by:** Natural gas

| | | | | |
|---|---|---|---|---|
| **Boiler/furnace located in:** | Basement | Outdoors | Main Floor | Other_____ |
| **Air conditioning:** | Central Air | Window units | Open Windows | None |

**Are there air distribution ducts present?** Y / N

**Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.**

_____

_____

_____

_____

## 7. OCCUPANCY

**Is basement/lowest level occupied?** Full-time Occasionally Seldom (Almost Never) - except for tobacco shop (occasional)

| **Level** | **General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)** |
|---|---|
| Basement | Storage |
| 1st Floor | Vacant / Contractor office / tobacco shop |
| 2nd Floor | |
| 3rd Floor | |
| 4th Floor | |

## 8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

**a. Is there an attached garage?** Y / (N)

**b. Does the garage have a separate heating unit?** Y / N / (NA)

**c. Are petroleum-powered machines or vehicles stored in the garage** (e.g., lawnmower, atv, car) Y / N / (NA) Please specify_____

**d. Has the building ever had a fire?** Y / (N) When?_____

**e. Is a kerosene or unvented gas space heater present?** Y / (N) Where?_____

**f. Is there a workshop or hobby/craft area?** Y / (N) Where & Type?_____

**g. Is there smoking in the building?** (Y) / N How frequently? Full-time (Tobacco Shop)

**h. Have cleaning products been used recently?** Y / (N) When & Type?_____

**i. Have cosmetic products been used recently?** Y / (N) When & Type?_____

**j. Has painting/staining been done in the last 6 months?** Y / (N) Where & When? _____

**k. Is there new carpet, drapes or other textiles?** Y / (N) Where & When? _____

**l. Have air fresheners been used recently?** Y / (N) When & Type? _____

**m. Is there a kitchen exhaust fan?** Y / (N) If yes, where vented? _____

**n. Is there a bathroom exhaust fan?** (Y) / N If yes, where vented? _____

**o. Is there a clothes dryer?** Y / (N) If yes, is it vented outside? Y / N

**p. Has there been a pesticide application?** Y / (N) When & Type? _____

**Are there odors in the building?** Y / (N)*
If yes, please describe: Tobacco shop has cigar smoke odors

**Do any of the building occupants use solvents at work?** Y / (N)
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Y / N

**Do any of the building occupants regularly use or work at a dry-cleaning service?** (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) — No
Yes, use dry-cleaning infrequently (monthly or less) — (Unknown)
Yes, work at a dry-cleaning service

**Is there a radon mitigation system for the building/structure?** Y / N Date of Installation: _____
**Is the system active or passive?** Active/Passive

- off-line SVE system shed/ compounds present

**9. WATER AND SEWAGE**

**Water Supply:** (Public Water) Drilled Well Driven Well Dug Well Other: _____

**Sewage Disposal:** Public Sewer (Septic Tank) Leach Field Dry Well Other: _____

**10. RELOCATION INFORMATION (for oil spill residential emergency)** N/A

**a. Provide reasons why relocation is recommended:** _____

**b. Residents choose to:** remain in home relocate to friends/family relocate to hotel/motel

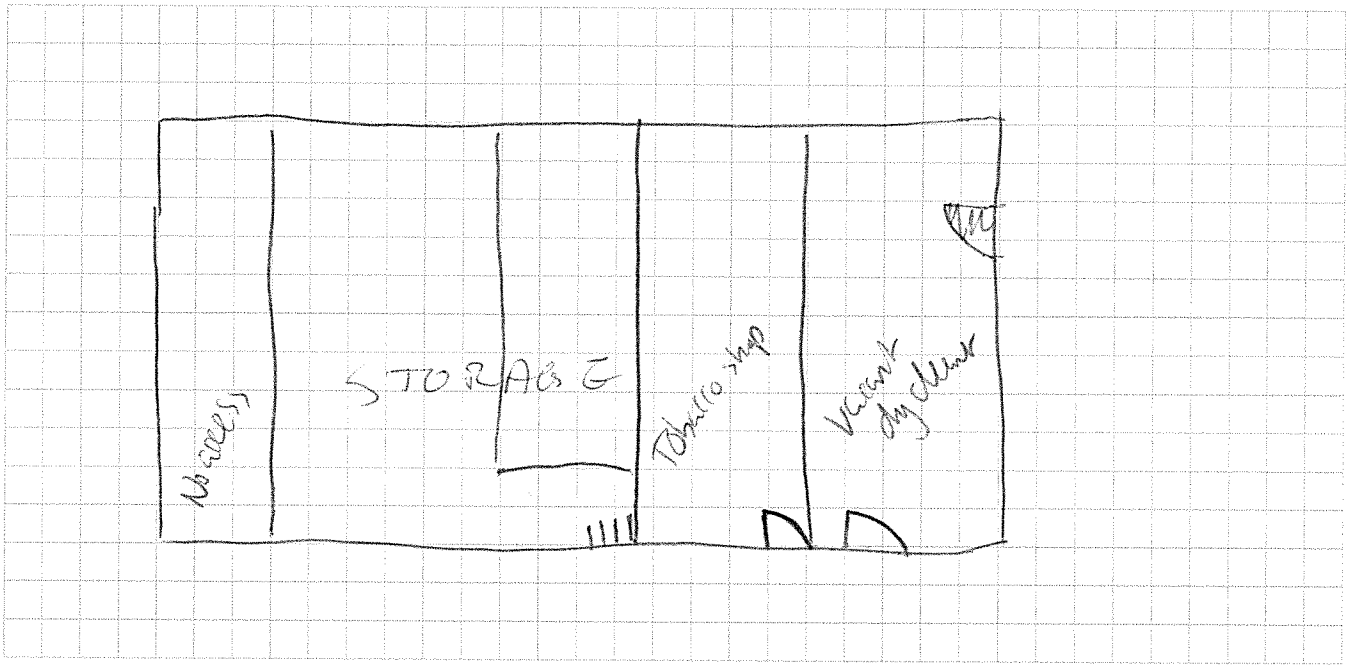
**c. Responsibility for costs associated with reimbursement explained?** Y / N

**d. Relocation package provided and explained to residents?** Y / N

## 11. FLOOR PLANS

**Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.**

**Basement:**

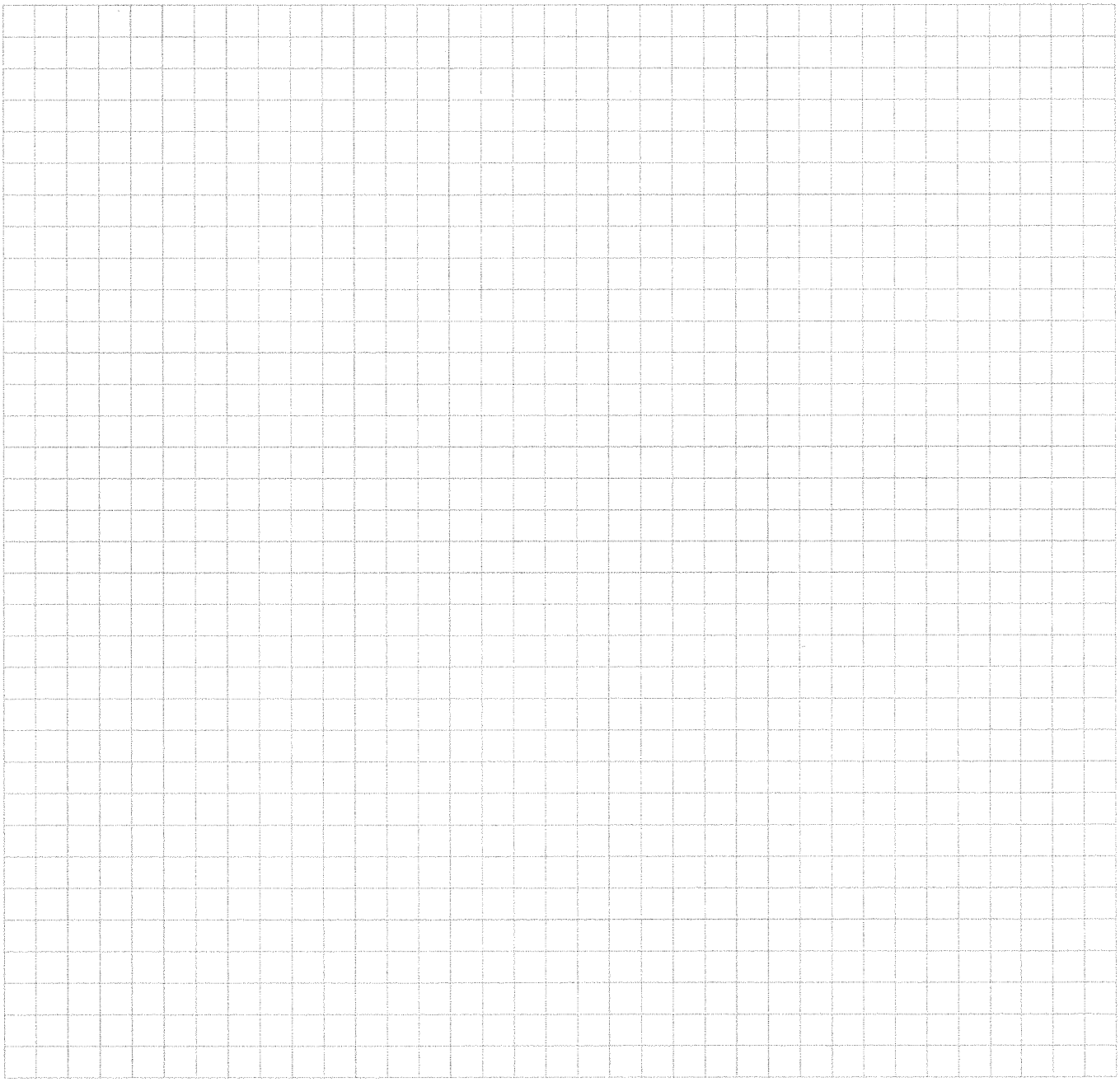



**First Floor:**

## 12. OUTDOOR PLOT

**Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.**

**Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.**



**13. PRODUCT INVENTORY FORM**

**Make & Model of field instrument used:** _____

**List specific products found in the residence that have the potential to affect indoor air quality.**

| Location | Product Description | Size (units) | Condition* | Chemical Ingredients | Field Instrument Reading (units) | Photo ** Y / N |
|---|---|---|---|---|---|---|
| Contractor storage/mouth | Flor paint Benjamin Moore | 5gal | U | 5 gal x 4 | | |
| | Roberts Flooring adhesive | 4gal | U | x 2 | | |
| | various color paint | 32oz | U | x 6 | | |
| | Roberts floor adhesive | 1gal | U | | | |
| | various paints/primers | 1gal | U | x 45 | | |
| | Roman wall paper adhesive | 2gal | U | | | |
| | Wonder | 1gal + 8oz | U | 1 gal, 2-32oz | | |
| | Great stuff foam sealant | 12oz + 16oz | U/O | x3 | | |
| | Leslie's swimming pool algicide | 1gal | U/O | | | |
| | Concrete & Fg reinforcement | 10oz | U | x 6 | | |
| | various sealants | 10oz | U | x 3 | | |
| | die hard car battery | | | | | |
| | Gold dust chlorinating concentrate | 8lbs | U/O | | | |
| | HTH super chlorinating tablets | 21 lbs | U/O | | | |
| | Hydrochloric acid swimming pool | 1gal | U/O | | | |
| | Rustoleum | 12oz | U/O/3U | x 4 | | |
| | RX11-flush Nu-arc anaerobic system/glycol flush | 29.4oz | U | | | |
| | Dynamo paint thinner | 1gt | U/O | | | |
| ↓ | USG Sheet Rock joint compound | 4.5gal | U | x 3 | | |

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

No chemicals found

**13. PRODUCT INVENTORY FORM**

**Make & Model of field instrument used:** _____

**List specific products found in the residence that have the potential to affect indoor air quality.**

| Location | Product Description | Size (units) | Condition* | Chemical Ingredients | Field Instrument Reading (units) | Photo ** Y / N |
|---|---|---|---|---|---|---|
| Contractor storage near | Hybrid super 9 | 9.8oz | U/O | x12 | | |
| | Fire extinguishers | | U/O | x3 | | |
| | Oatey x-15 shower pan | 16floz | U | | | |
| | Shell mortar | 5qt | U | | | |
| | Concrete bonder | 2L | U | | | |
| | 3M Fire Block Foam | 12floz | U | | | |
| | Klean strip turpentine | 1G | U | | | |
| | Thomas Mill wood floor cleaner | 32oz | U | | | |
| | Wood stain | 8oz | U | x10 | | |
| | Karnak sealant for siding | 5gal | U | x6 | | |
| Contractor storage unit | 66-mod bit Karnak adhesive | 5gal | U | x2 | | |
| | Bostik flooring adhesive | 4gal | U | x2 | | |
| | Sure Kleen 600 masonry cleaner | 5gal | U | | | |
| | Weld crete concrete sealer | 1gal | U | | | |
| | Benjamin moore paint | 1gal | U | x7 | | |
| | Bondo wood filler | 1.9lb | U/O | x2 | | |
| | Bondo cream hardner | 2.5oz | U/O | | | |
| | Benzamatic mapp gas | 14.1oz | U | | | |
| | Great stuff foam sealant | 16oz | U | | | |

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** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

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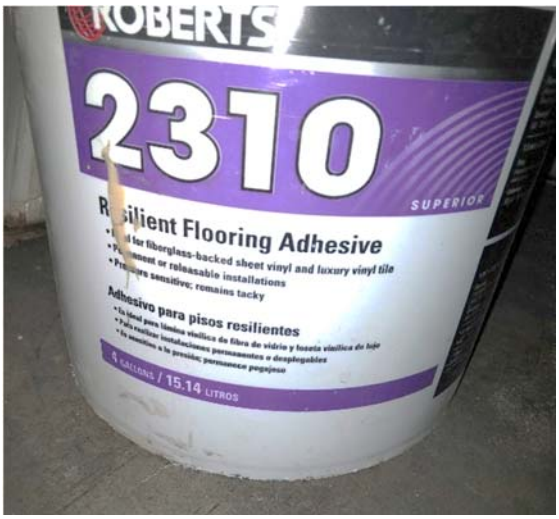
| Location | Product Description | Size (units) | Condition* | Chemical Ingredients | Field Instrument Reading (units) | Photo ** Y / N |
|---|---|---|---|---|---|---|
| contractor storage supplies | 3M Fire barrier sealant | 10 oz | U/O | x2 | | |
| | Rustoleum protective primer | 8oz | U | | | |
| | Paver Renew super gloss | 5 gal | U/O | | | |
| | Mapei Flex cover | 1 gal | U | | | |
| | USG all purpose joint compound | 5 gal | U | | | |
| | Fire extinguisher | | U/O | | | |
| Tobacco shop | Various Paints | 1 gal | U | x 4 | | |
| | Various Wood Stains | 1 Qt | U | x 4 | | |
| | DAP Crack shot spackling paste | 1 Qt | U/O | | | |
| | Rustoleum Spray Enamel | 12 oz | U | | | |
| | Sheetrock Joint Compound | 12 lb | U | | | |
| | Great Stuff foam sealer | 16 oz net | U | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

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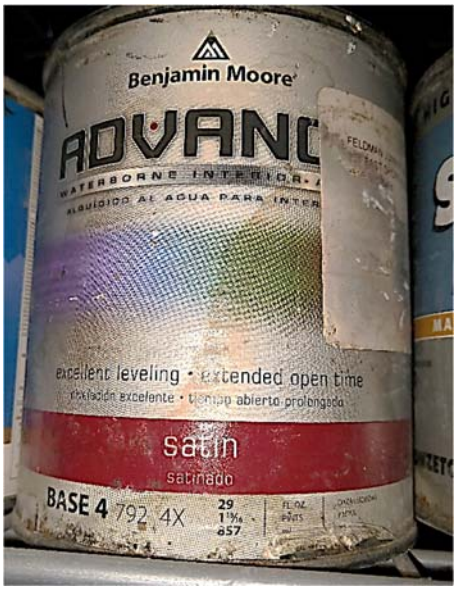
**Indoor Air Quality Questionnaire and Building Inventory**
**Product Inventory Photographs**
**218 Lakeville Road, Lake Success, NY**



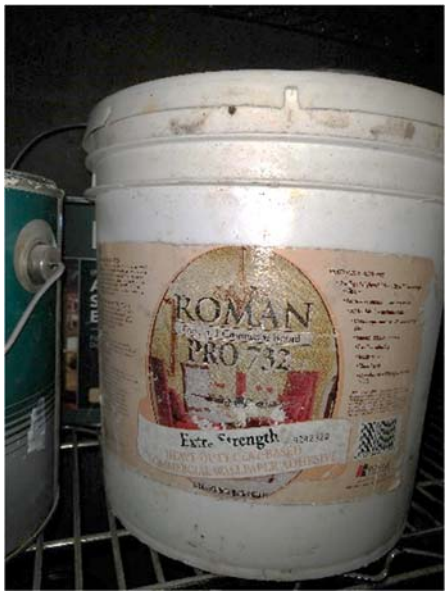

Benjamin Moore Paint




Roberts Flooring Adhesive




Benjamin Moore Paint (Typical)



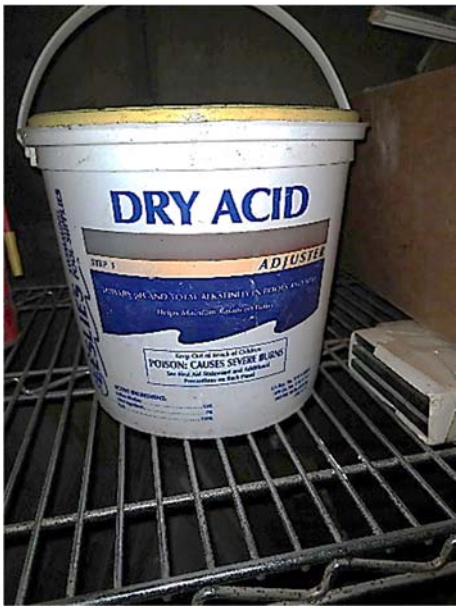

Wallpaper Adhesive




Benjamin Moore Paint




Windex Glass Cleaner




Pool pH Adjuster




Great Stuff Sealant



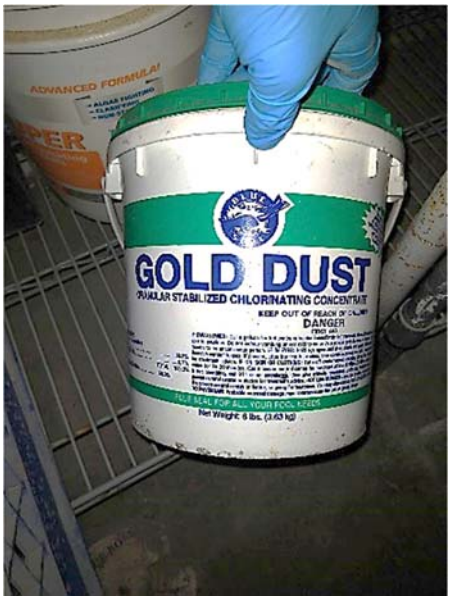

Karnak Flashing Roof Cement




DAP Sealant



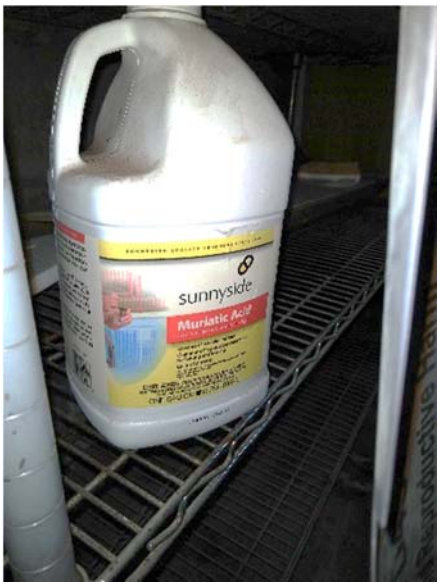

DieHard Car Battery




Gold Dust Chlorinating Compound




HTH Chlorinating Tablets




Sunnyside Muriatic Acid



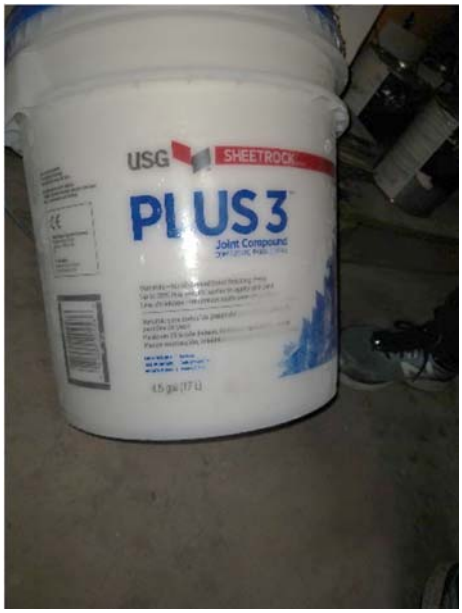

Rust-oleum Spray Paint




Rx11-flush Air Conditioning & Refrigeration System Flush




Dynamic Paint Thinner




USG Sheetrock Joint Compound




Rust-oleum Spray Paint




Rust-oleum Spray Paint




Hybrifix Super 7 Adhesive Sealant




Fire Extinguisher




Oatey Shower Pan Liner Adhesive




Shell Motor Oil




Concrobium House & Deck Wash




3M Fire Block Foam




Klean Strip Turpentine



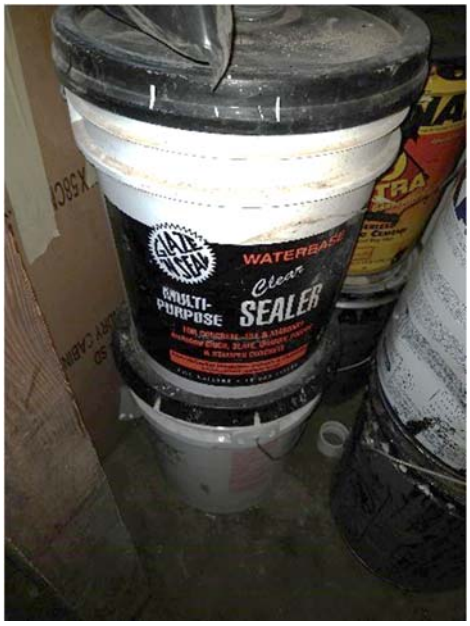

Thomasville Wood Floor Cleaner




Various Wood Stains




Redi Shine Glass Cleaner




Glaze N' Seal Multi-Purpose Sealer



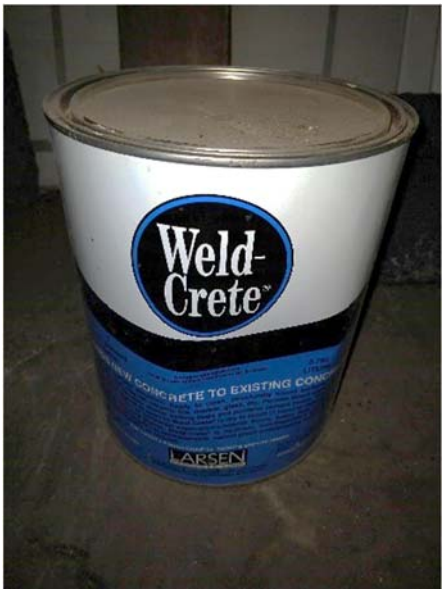

Karnak 66 Mod Bit Adhesive




Bostik BST Wood Flooring Adhesive




Prosoco Sure Klean Masonry Cleaner



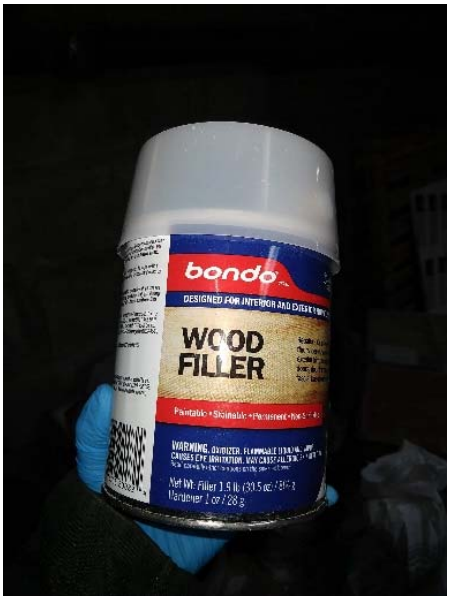

Weld-Crete Concrete Adhesive




Benjamin Moore Paint




Various Spackling Formulas




Bondo Wood Filler




Bondo White Crème Hardener




Benzomatic Map/Pro



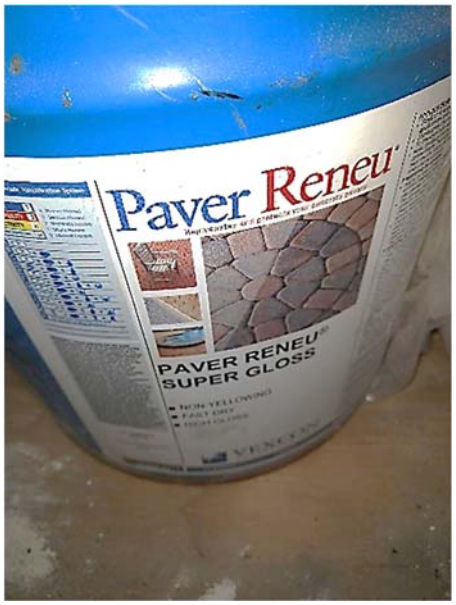

Great Stuff Sealant




3M Fire Barrier Sealant




Rust-oleum Enamel




Paver Reneu Gloss




Mapei Flexcolor CQ




PPG Speedhide Paint




Benjamin Moore Paint (Typical)




Benjamin Moore Paint (Typical)




Dap CrackShot Spackling Paste




Rust-oleum Spray Paint




Sheet Rock Joint Compound




Great Stuff Window and Door Sealant

OSR – 3

220 Lakeville Road

**NEW YORK STATE DEPARTMENT OF HEALTH**
**INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY**
**CENTER FOR ENVIRONMENTAL HEALTH**

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Erica Johnston Date/Time Prepared 4/5/19 @ 13:00

Preparer's Affiliation Envl. Consultant Phone No. 516-624-7200

Purpose of Investigation SVI Investigation for 218 Lakeville Road

**1. OCCUPANT:**

**Interviewed:** (Y) / N Good stem Development Corporation

Last Name: Noce First Name: Jennifer

Address: 220 Lakeville Road

County: Nassau

Home Phone: _____ Office Phone: 516-482-8222

Number of Occupants/persons at this location <10 Age of Occupants 25+

**2. OWNER OR LANDLORD:** (Check if same as occupant ___ )

**Interviewed:** Y / (N)

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

**3. BUILDING CHARACTERISTICS**

**Type of Building:** (Circle appropriate response)

| | | |
|---|---|---|
| Residential | School | (Commercial)/Multi-use |
| Industrial | Church | Other: office building |

**If the property is residential, type?** (Circle appropriate response)

| | | |
|---|---|---|
| Ranch | 2-Family | 3-Family |
| Raised Ranch | Split Level | Colonial |
| Cape Cod | Contemporary | Mobile Home |
| Duplex | Apartment House | Townhouses/Condos |
| Modular | Log Home | Other:_____ |

N/A

**If multiple units, how many?** N/A

**If the property is commercial, type?**

Business Type(s) Goodstein Development

Does it include residences (i.e., multi-use)? Y / (N) If yes, how many? _____

**Other characteristics:**

Number of floors 2+Basement Building age ~1932

Is the building insulated? (Y) / N How air tight? Tight / (Average) / Not Tight

## 4. AIRFLOW

**Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:**

Airflow between floors

Stair cases

Airflow near source

Window, doorways + garage door

Outdoor air infiltration

Opening of doors / windows

Infiltration into air ducts

**5. BASEMENT AND CONSTRUCTION CHARACTERISTICS** (Circle all that apply)

| | | | | |
|---|---|---|---|---|
| **a. Above grade construction:** | wood frame | concrete | stone | brick |
| **b. Basement type:** | full | crawlspace | slab | other _____ |
| **c. Basement floor:** | concrete | dirt | stone | other _____ |
| **d. Basement floor:** | uncovered | covered | covered with paint | |
| **e. Concrete floor:** | unsealed | sealed | sealed with epoxy / paint | |
| **f. Foundation walls:** | poured (partially) | block | stone | other _____ |
| **g. Foundation walls:** | unsealed (partially) | sealed | sealed with Paint | |
| **h. The basement is:** | wet | damp | dry | moldy |
| **i. The basement is:** | finished | unfinished | partially finished | |
| **j. Sump present?** | Y / N | | | |
| **k. Water in sump?** | Y / N / not applicable | | | |

**Basement/Lowest level depth below grade:** _____(feet)

**Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)**

Minor cracks ~2" long in the eastern portion of basement

Sewer utility + plumbing pipes/caps present IVO sample

**6. HEATING, VENTING and AIR CONDITIONING** (Circle all that apply)

**Type of heating system(s) used in this building: (circle all that apply – note primary)**

| | | | |
|---|---|---|---|
| Hot air circulation | Heat pump | Hot water baseboard | |
| Space Heaters | Stream radiation | Radiant floor | |
| Electric baseboard | Wood stove | Outdoor wood boiler | Other _____ |

**The primary type of fuel used is:**

| | | | |
|---|---|---|---|
| Natural Gas | Fuel Oil (cut) | Kerosene | perimeter present seems to be old / disconnected |
| Electric | Propane | Solar | |
| Wood | Coal | | |

**Domestic hot water tank fueled by:** Gas

**Boiler/furnace located in:** Basement (Hot water tank) Outdoors Main Floor Other_____

**Air conditioning:** Central Air Window units Open Windows None

**Are there air distribution ducts present?** (Y)/N - on 1st floor, not basement

**Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.**

_____

_____

_____

_____

## 7. OCCUPANCY

**Is basement/lowest level occupied?** Full-time Occasionally Seldom (Almost Never)

| **Level** | **General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)** |
|---|---|
| Basement | storage/garage/utilities |
| 1st Floor | offices |
| 2nd Floor | ↓ |
| 3rd Floor | |
| 4th Floor | |

## 8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

**a. Is there an attached garage?** (Y)/N

**b. Does the garage have a separate heating unit?** Y /(N)/ NA

**c. Are petroleum-powered machines or vehicles stored in the garage** (e.g., lawnmower, atv, car) (Y)/ N / NA Please specify car

**d. Has the building ever had a fire?** Y /(N) When?_____

**e. Is a kerosene or unvented gas space heater present?** Y / (N) Where?_____

**f. Is there a workshop or hobby/craft area?** Y /(N) Where & Type? _____

**g. Is there smoking in the building?** Y / (N) How frequently? _____

**h. Have cleaning products been used recently?** Y /(N) When & Type? _____

**i. Have cosmetic products been used recently?** Y /(N) When & Type? _____

**j. Has painting/staining been done in the last 6 months?** Y / N Where & When? _____

**k. Is there new carpet, drapes or other textiles?** Y / N Where & When? _____

**l. Have air fresheners been used recently?** Y / N When & Type? _____

**m. Is there a kitchen exhaust fan?** Y / N If yes, where vented? _____

**n. Is there a bathroom exhaust fan?** Y / N If yes, where vented? _____

**o. Is there a clothes dryer?** Y / N If yes, is it vented outside? Y / N

**p. Has there been a pesticide application?** Y / N When & Type? _____

**Are there odors in the building?** Y / N
If yes, please describe: _____

**Do any of the building occupants use solvents at work?** Y / N
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Y / N

**Do any of the building occupants regularly use or work at a dry-cleaning service?** (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) — No
Yes, use dry-cleaning infrequently (monthly or less) — Unknown
Yes, work at a dry-cleaning service

**Is there a radon mitigation system for the building/structure?** Y / N Date of Installation: _____
**Is the system active or passive?** Active/Passive

**9. WATER AND SEWAGE**

**Water Supply:** Public Water Drilled Well Driven Well Dug Well Other: _____

**Sewage Disposal:** Public Sewer Septic Tank Leach Field Dry Well Other: _____

**10. RELOCATION INFORMATION (for oil spill residential emergency)** N/A

**a. Provide reasons why relocation is recommended:** _____

**b. Residents choose to:** remain in home relocate to friends/family relocate to hotel/motel

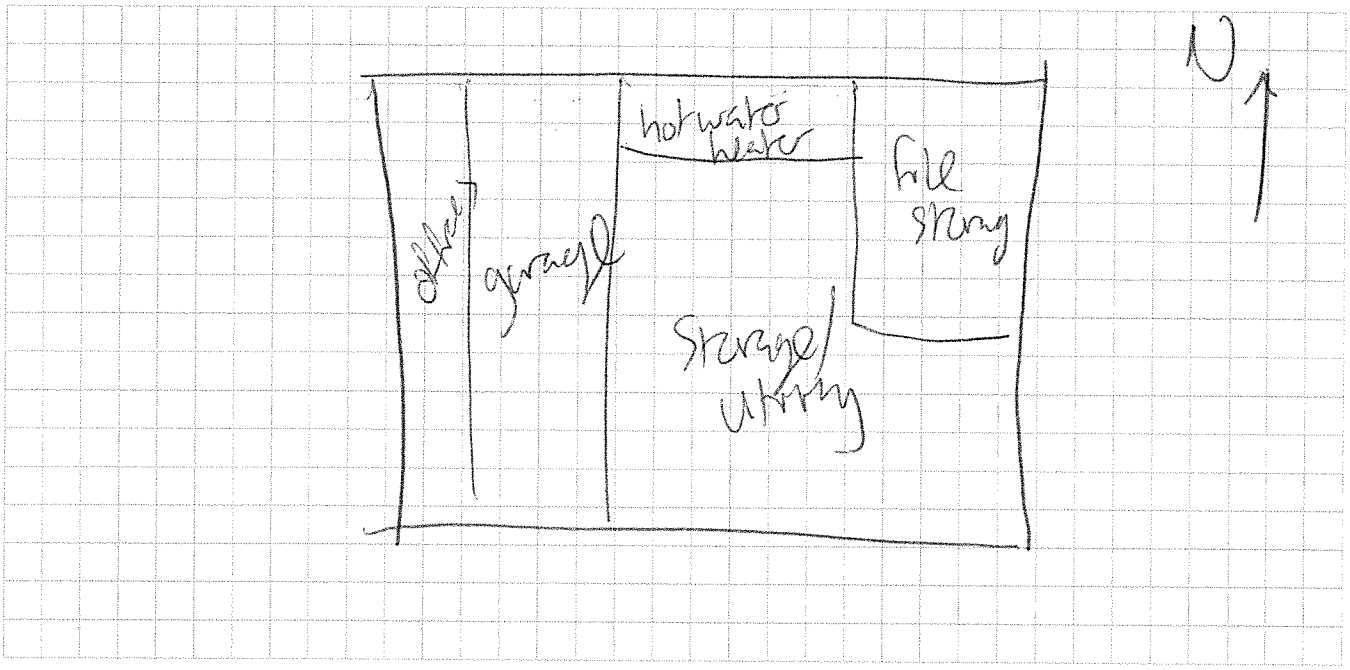
**c. Responsibility for costs associated with reimbursement explained?** Y / N

**d. Relocation package provided and explained to residents?** Y / N

## 11. FLOOR PLANS

**Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.**

**Basement:**



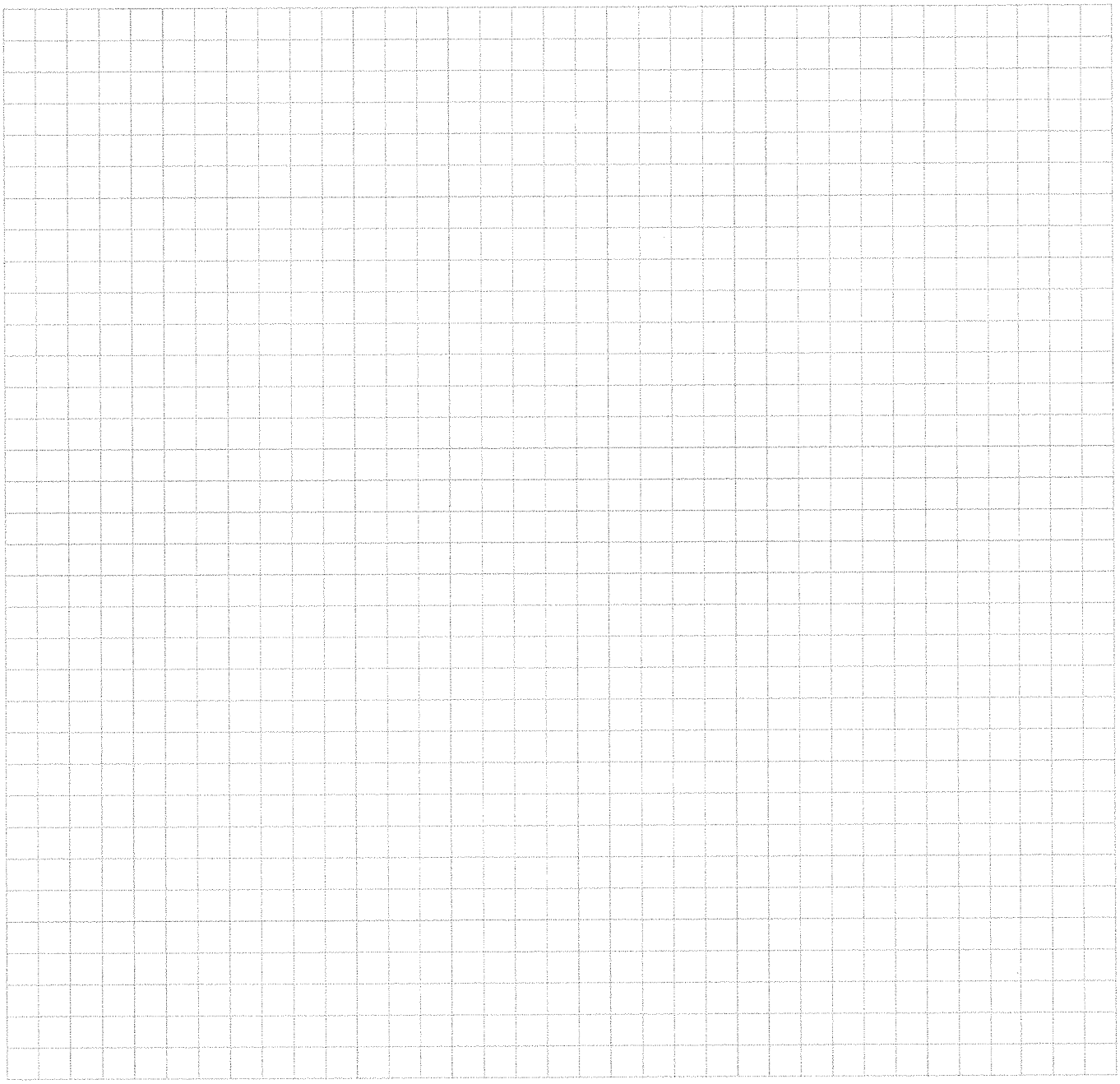

**First Floor:**



## 12. OUTDOOR PLOT

**Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.**

**Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.**



**13. PRODUCT INVENTORY FORM**

**Make & Model of field instrument used:** _____

**List specific products found in the residence that have the potential to affect indoor air quality.**

| Location | Product Description | Size (units) | Condition* | Chemical Ingredients | Field Instrument Reading (units) | Photo ** Y / N |
|---|---|---|---|---|---|---|
| utility storage | Klean Strip Lacquer thinner | 1gt | U | | | |
| | Flood penetrol | 1gt | U | | | |
| | Titebind wood glue | 16floz | U | | | |
| | Blaster silicone lubricant | 11 WOZ | U | | | |
| | WD-40 | 14.4 oz | U | | | |
| | Bondo all purpose resin | 32floz | U/O | | | |
| | Comet spray gel | 32fl | U | | | |
| | Mr. Clean multi surface | 1gal | U | | | |
| | Minwax poly. | 8floz | U | x2 | | |
| | Great Stuff foam sealant | 16oz | U/O | | | |
| | Minwax pre-stain conditioner | 32floz | U | | | |
| | Klean Strip six denatured alcohol | 1gt | U | | | |
| | Klean Strip isopropyl | 1gt | U | | | |
| | Klean Strip acetone | 1gt | U | | | |
| | Klean Strip odorless mineral spirits | 1gal | U | | | |
| | Bondo all purpose putty | 16floz | U/O | | | |
| | Benzomatic propylene | 5.4oz | 1U 3U/O | x4 | | |
| | BEHR - paint | 1gal | 2U/O 4U | x6 | | |
| | Cat pumps premium pump oil | 2floz | U/O | | | |

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**

** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

Ridgid engine lube 12oz - U

power core engine lube 32 fl oz - U/O

metal wax polishing - 16oz x2

gel - 1 U 1 U/O



STIHL oil 5.2floz - U/O x4

metal wax metal cleaner - 24oz U/O

**Indoor Air Quality Questionnaire and Building Inventory**
**Product Inventory Photographs**
**220 Lakeville Road, Lake Success, NY**




Klean Strip Lacquer Thinner




Flood Penetrol




Titebond III Ultimate Wood Glue




B'Laster Silicone Lubricant




WD-40 Lubricant




Bondo Fiberglass Resin




Comet Mildew Stain Remover




Mr. Clean Multi-Surface Cleaner



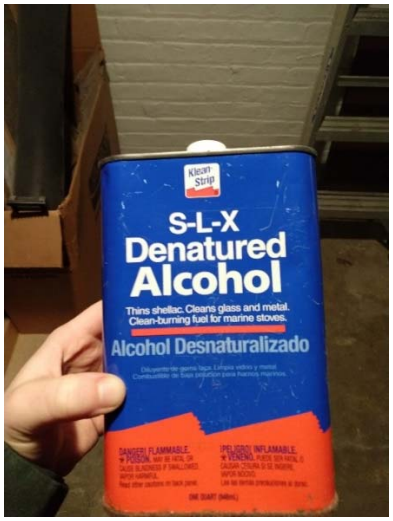

MINWAX Polyurethane




GREAT STUFF Foam Sealant




MINWAX Wood Conditioner




Klean Strip Denatured Alcohol




Klean Strip Japan Drier



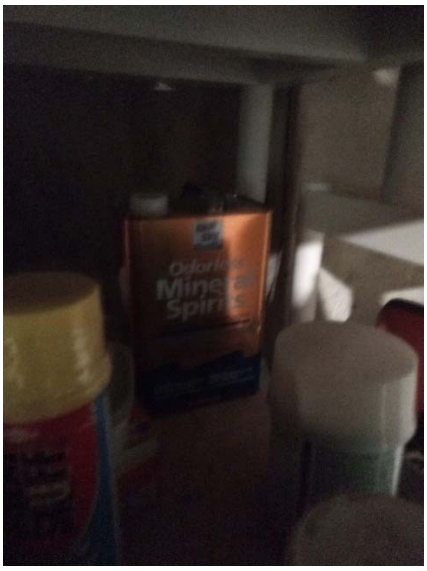

Klean Strip Acetone



Metalwax Polishing Gel




Metalwax Metal Cleaner



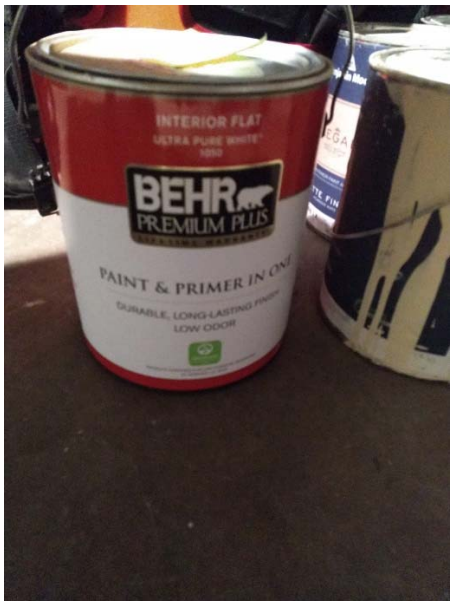
Klean Strip Odorless Mineral Spirits




Bondo All Purpose Putty




Bernzomatic Propane Tank




BEHR Paint and Primer in One




Cat Pumps High Pressure Pump Oil




RIDGID Small Engine Lubricant




PowerCare Small Engine Lubricant




STIHL 2-cycle Engine Oil

OSR – 3

5 University Place

**NEW YORK STATE DEPARTMENT OF HEALTH**
**INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY**
**CENTER FOR ENVIRONMENTAL HEALTH**

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Erica Johnston Date/Time Prepared 4/5/19 @ 15:15

Preparer's Affiliation Environmental Consultant Phone No. 516-624-7200

Purpose of Investigation SVI Investigation for 218 Lakeville Road

**1. OCCUPANT:**

**Interviewed:** (Y) / N

Last Name: Bifundo First Name: Athiro

Address: 5 University place

County: Nassau

Home Phone: 516-487-5141 Office Phone: _____

Number of Occupants/persons at this location 1 Age of Occupants ~80

**2. OWNER OR LANDLORD:** (Check if same as occupant ✓)

**Interviewed: Y / N**

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

**3. BUILDING CHARACTERISTICS**

**Type of Building:** (Circle appropriate response)

| | | |
|---|---|---|
| (Residential) | School | Commercial/Multi-use |
| Industrial | Church | Other: _____ |

**If the property is residential, type?** (Circle appropriate response)

| | | |
|---|---|---|
| (Ranch) | 2-Family | 3-Family |
| Raised Ranch | Split Level | Colonial |
| Cape Cod | Contemporary | Mobile Home |
| Duplex | Apartment House | Townhouses/Condos |
| Modular | Log Home | Other:_____ |

**If multiple units, how many?** N/A

**If the property is commercial, type?**

Business Type(s) N/A

Does it include residences (i.e., multi-use)? Y / N If yes, how many? _____

**Other characteristics:**

Number of floors 1 + Basement Building age_____

Is the building insulated? (Y) / N How air tight? Tight / (Average) / Not Tight

## 4. AIRFLOW

**Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:**

Airflow between floors

Airflow near source

Outdoor air infiltration

Infiltration into air ducts

**5. BASEMENT AND CONSTRUCTION CHARACTERISTICS** (Circle all that apply)

| | | | | |
|---|---|---|---|---|
| **a. Above grade construction:** | wood frame | concrete | stone | brick |
| **b. Basement type:** | full | crawlspace | slab | other _____ |
| **c. Basement floor:** | concrete | dirt | stone | other _____ |
| **d. Basement floor:** | uncovered | covered | covered with tile | |
| **e. Concrete floor:** | unsealed | sealed | sealed with unknown | |
| **f. Foundation walls:** | poured | block | stone | other _____ |
| **g. Foundation walls:** | unsealed | sealed | sealed with unable to observe | |
| **h. The basement is:** | wet | damp | dry | moldy |
| **i. The basement is:** | finished | unfinished | partially finished | |
| **j. Sump present?** | Y / N | | | |
| **k. Water in sump?** | Y / N / not applicable | | | |

**Basement/Lowest level depth below grade:** _____(feet) basement is partially grade + partially below grade

**Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)**

_____

_____

**6. HEATING, VENTING and AIR CONDITIONING** (Circle all that apply)

**Type of heating system(s) used in this building: (circle all that apply – note primary)**

| | | | |
|---|---|---|---|
| Hot air circulation | Heat pump | Hot water baseboard | |
| Space Heaters | Stream radiation | Radiant floor | |
| Electric baseboard | Wood stove | Outdoor wood boiler | Other _____ |

**The primary type of fuel used is:**

| | | |
|---|---|---|
| Natural Gas | Fuel Oil | Kerosene |
| Electric | Propane | Solar |
| Wood | Coal | |

**Domestic hot water tank fueled by:** fuel oil

**Boiler/furnace located in:** Basement Outdoors Main Floor Other_____

**Air conditioning:** Central Air Window units Open Windows None

**Are there air distribution ducts present?** Y / N

**Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.**

_____

_____

_____

_____

## 7. OCCUPANCY

**Is basement/lowest level occupied?** (Full-time) Occasionally (Seldom) Almost Never

| **Level** | **General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)** |
|---|---|
| Basement | Residential / Storage / Utility |
| 1st Floor | Residential |
| 2nd Floor | |
| 3rd Floor | |
| 4th Floor | |

## 8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

**a. Is there an attached garage?** (Y) / N

**b. Does the garage have a separate heating unit?** Y / (N) / NA

**c. Are petroleum-powered machines or vehicles stored in the garage** (e.g., lawnmower, atv, car) Y / N / NA
Please specify_____

**d. Has the building ever had a fire?** Y / (N) When?_____

**e. Is a kerosene or unvented gas space heater present?** Y / (N) Where?_____

**f. Is there a workshop or hobby/craft area?** (Y) / N Where & Type? _____

**g. Is there smoking in the building?** Y / (N) How frequently? _____

**h. Have cleaning products been used recently?** Y / (N) When & Type? _____

**i. Have cosmetic products been used recently?** Y / (N) When & Type? _____

**j. Has painting/staining been done in the last 6 months?** Y / N Where & When? _____

**k. Is there new carpet, drapes or other textiles?** Y / N Where & When? _____

**l. Have air fresheners been used recently?** Y / N When & Type? _____

**m. Is there a kitchen exhaust fan?** Y / N If yes, where vented? _____

**n. Is there a bathroom exhaust fan?** Y / N If yes, where vented? _____

**o. Is there a clothes dryer?** Y / N If yes, is it vented outside? Y / N

**p. Has there been a pesticide application?** Y / N When & Type? _____

**Are there odors in the building?** Y / N
If yes, please describe: _____

**Do any of the building occupants use solvents at work?** Y / N
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Y / N

**Do any of the building occupants regularly use or work at a dry-cleaning service?** (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) No
Yes, use dry-cleaning infrequently (monthly or less) Unknown
Yes, work at a dry-cleaning service

**Is there a radon mitigation system for the building/structure?** Y / N Date of Installation: _____
**Is the system active or passive?** Active/Passive

**9. WATER AND SEWAGE**

**Water Supply:** Public Water Drilled Well Driven Well Dug Well Other: _____

**Sewage Disposal:** Public Sewer Septic Tank Leach Field Dry Well Other: _____

**10. RELOCATION INFORMATION (for oil spill residential emergency)**

**a. Provide reasons why relocation is recommended:** _____

**b. Residents choose to:** remain in home relocate to friends/family relocate to hotel/motel

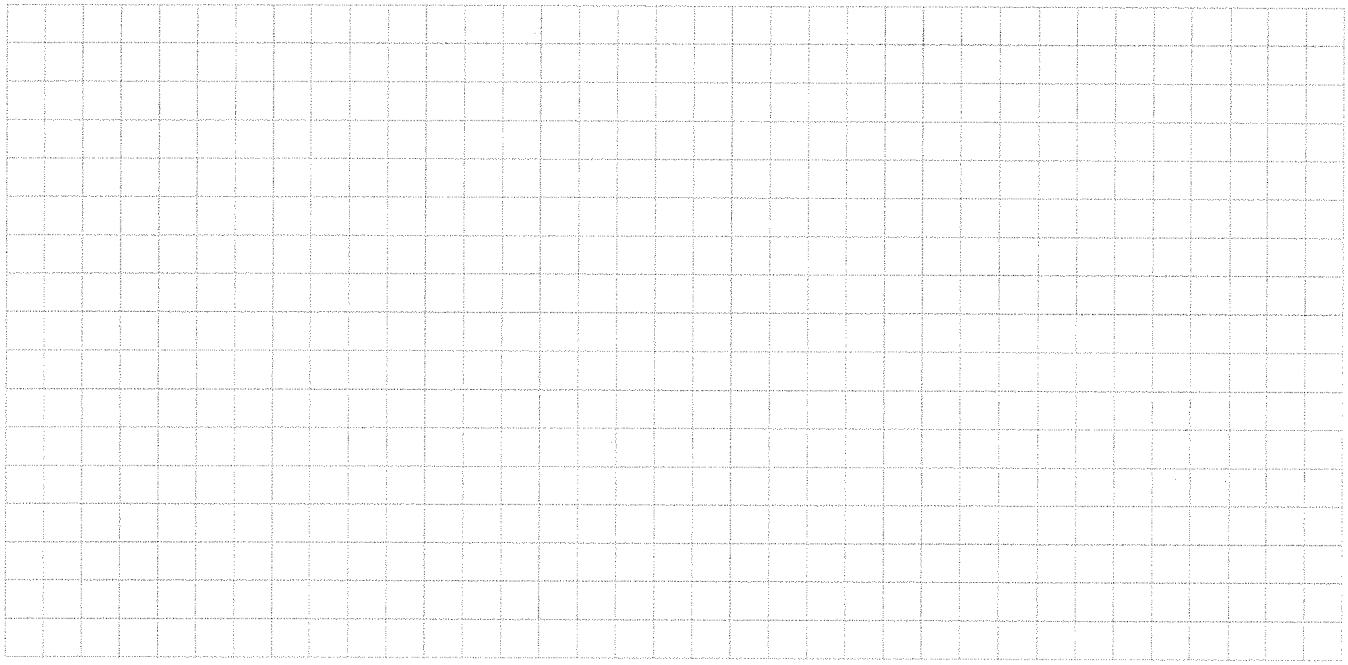
**c. Responsibility for costs associated with reimbursement explained?** Y / N

**d. Relocation package provided and explained to residents?** Y / N

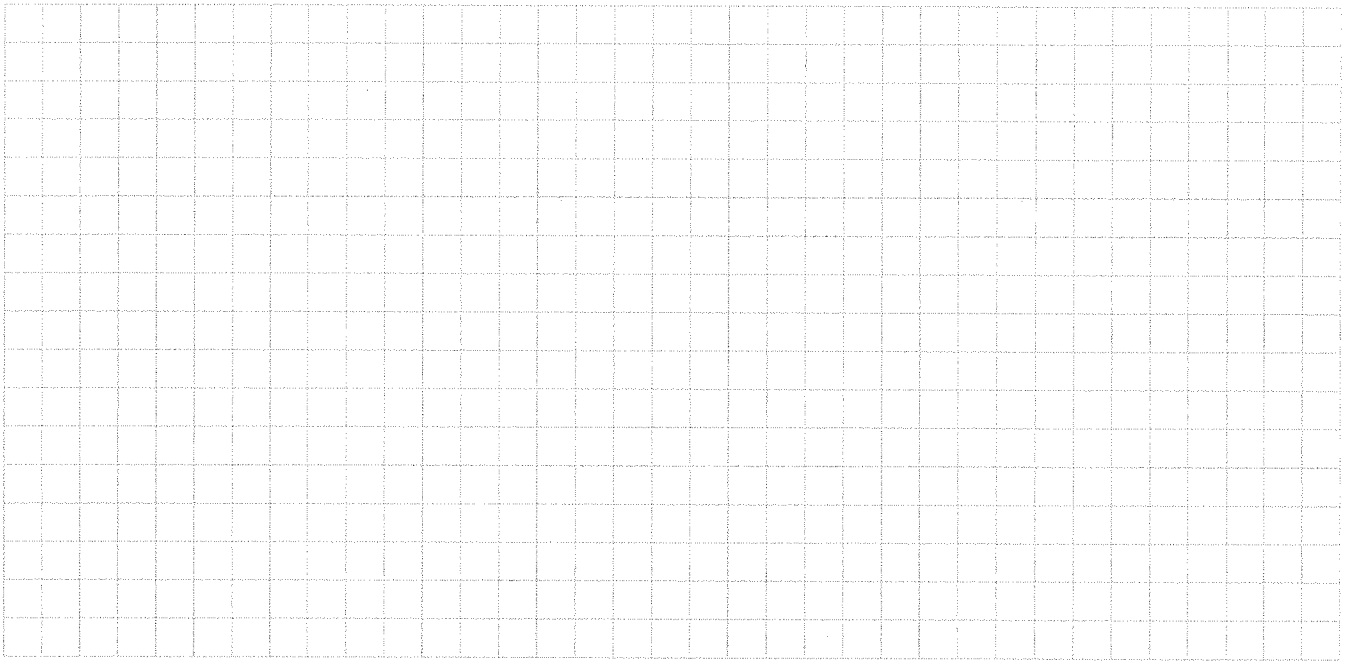
## 11. FLOOR PLANS

**Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.**

**Basement:**



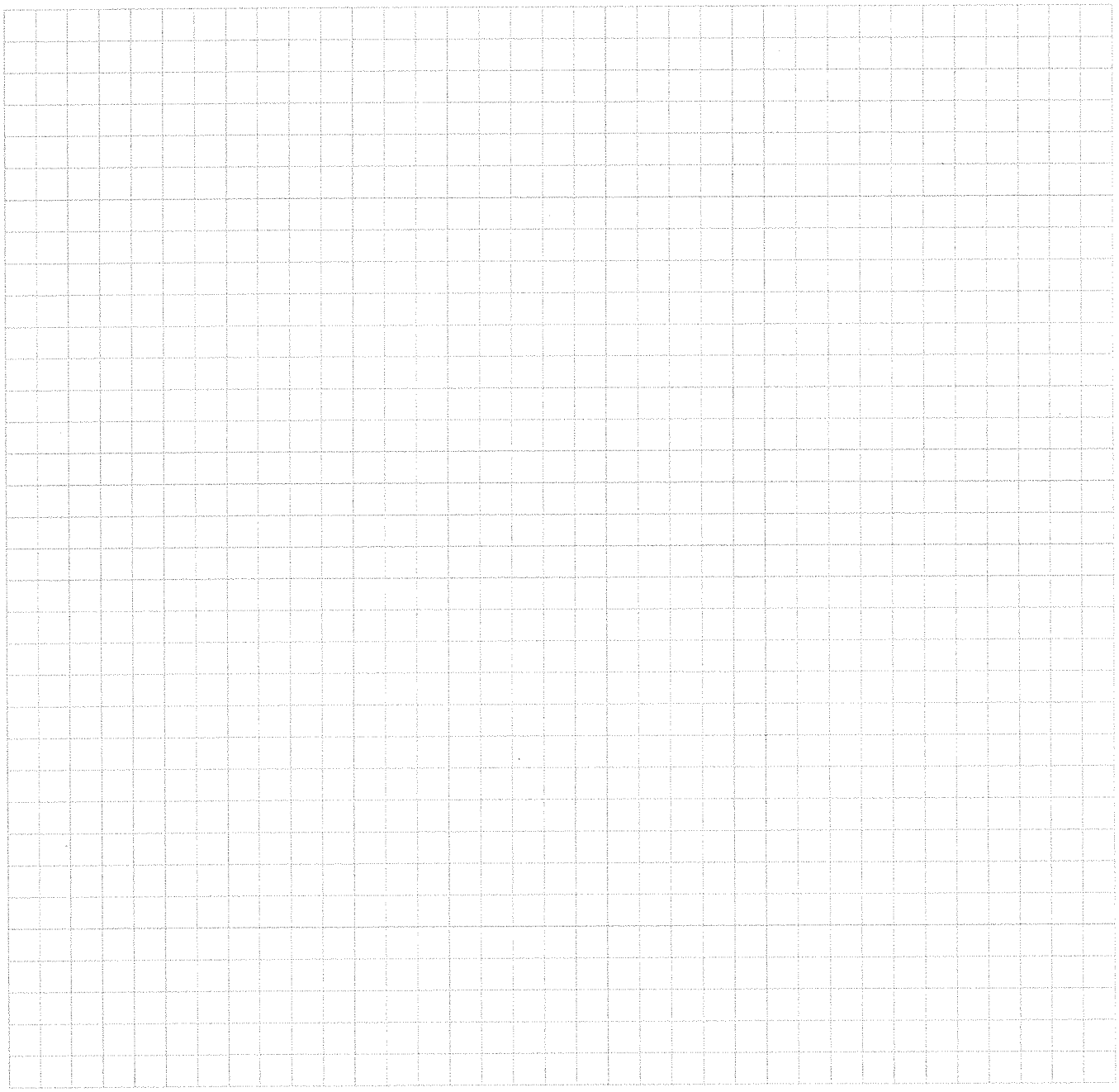
**First Floor:**



## 12. OUTDOOR PLOT

**Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.**

**Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.**



## 13. PRODUCT INVENTORY FORM

**Make & Model of field instrument used:** _____

**List specific products found in the residence that have the potential to affect indoor air quality.**

| Location | Product Description | Size (units) | Condition* | Chemical Ingredients | Field Instrument Reading (units) | Photo** Y / N |
|---|---|---|---|---|---|---|
| | Clorox Max performance stain remover | 3.33L | U | | | |
| | Downy fabric softner | 1.32gal | U | | | |
| | Clorox Bleach | 3.57L | U | | | |
| | Shout stain remover | 22floz | U | 22floz x 2 + 7.34gal x 1 | | |
| | Spectracide home pest control | unk. | U | | | |
| | Lysol disinfecting spray | 19oz | U | | | |
| | Arm + Hammer w/o detergent | 1.95gal | U | | | |
| | clorox w/ oxi magic | 22floz | U | | | |
| | OXI-clean stain remover | 11.61lb | | | | |
| | windex | 32floz | | x2 | | |
| | mr clean | 1.25gal | | | | |
| | Tilex | 1gal | | x2 | | |
| | Fantastik | 32floz | | | | |
| | soft scrub | 2lb | | | | |
| | Lysol toilet cleaner | 32oz | | x2 | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

**Indoor Air Quality Questionnaire and Building Inventory**
**Product Inventory Photographs**
**5 University Place, Lake Success, NY**




Ultra Downy Fabric Conditioner




Clorox Stain Remover and Color Booster




Bounce Fabric Softener Dryer Sheets




Clorox Bleach




OxiClean Stain Remover




OxiClean Stain Remover




Arm & Hammer Laundry Detergent




Shout Laundry Detergent




Spectracide Pest Control




Lysol Disinfectant Spray




Clorox Stain Remover




Shout Stain Remover




OxiClean Stain Remover/Bleach




Spray ‘n Wash Stain Remover



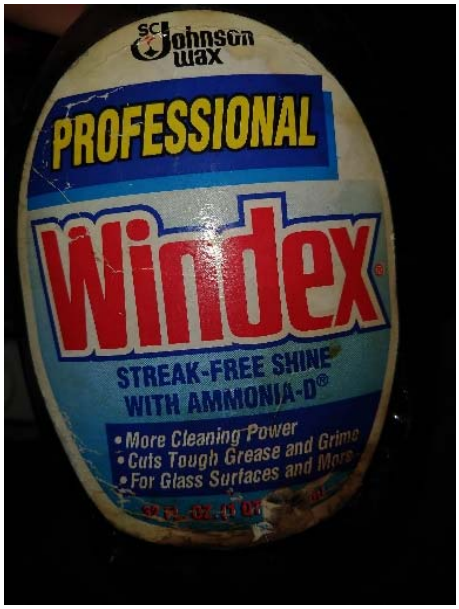

Windex Glass Cleaner




Tilex Bathroom Cleaner




Lysol Toilet Bowl Cleaner




Windex Glass Cleaner




Tilex Bathroom Cleaner




Soft Scrub with Bleach Cleanser




Fantastik All Purpose Cleaner




Mr. Clean Multi-Purpose Cleaner




Lysol Toilet Bowl Cleaner

# APPENDIX E

## April 2019 Investigation Photolog

**Appendix E**
**April 2019**
**SVI Investigation Photographs**



Photo #1: Representative view of helium test on sub-slab vapor probe



Photo #2: Sub-slab vapor sampling at 220 Lakeville Road (typical)



Photo #3: Indoor air sampling at 220 Lakeville Road (typical)



Photo #4: Concurrent indoor air and sub-slab vapor sampling at 218 Lakeville Road (typical)



Photo #5: Upwind ambient air sample and duplicate

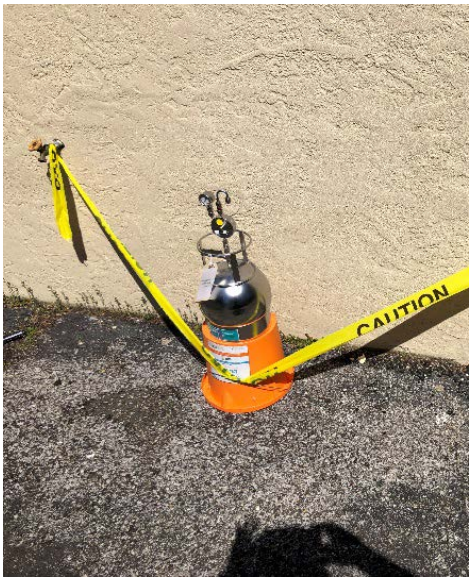



Photo #6: Downwind ambient air sample



Photo #7: Utility markout prior to sub-slab sample probe installation at 5 University Place



Photo #8: Sub-slab sample probe installation at 5 University Place

# APPENDIX F

## April 2019 Investigation Laboratory Analytical Report

PHOENIX
Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Telephone: 860.645.1102 • Fax: 860.645.0823

# NY ANALYTICAL SERVICES PROTOCOL DATA PACKAGE

## Walden Environmental Engineering PLLC

## 218 LAKEVILLE RD

## GCC90508

Ver 1

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PHOENIX
Environmental Laboratories, Inc.

**Tuesday, April 30, 2019**

**Attn: Erica Johnston**
**Walden Environmental Engineering PLLC**
**16 Spring Street**
**Oyster Bay, NY 11771**

**Project ID: 218 LAKEVILLE RD**
**SDG ID: GCC90508**
**Sample ID#s: CC90508 - CC90524**

**This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.**

**This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.**

**A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.**

**If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.**

**Sincerely yours,**

**Phyllis Shiller**
**Laboratory Director**

**NELAC - #NY11301**
**CT Lab Registration #PH-0618**
**MA Lab Registration #M-CT007**
**ME Lab Registration #CT-007**
**NH Lab Registration #213693-A,B**
**NJ Lab Registration #CT-003**
**NY Lab Registration #11301**
**PA Lab Registration #68-03530**
**RI Lab Registration #63**
**UT Lab Registration #CT00007**
**VT Lab Registration #VT11301**

**Environmental Laboratories, Inc.**
**587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045**
**Tel. (860) 645-1102 Fax (860) 645-0823**

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# NY ANALYTICAL SERVICES PROTOCOL
# DATA PACKAGE

**Client: Walden Environmental Engineering PLLC**

**Project: 218 LAKEVILLE RD**

**Laboratory Project: GCC90508**

**Environmental Laboratories, Inc.**
**587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040**
**Tel. (860) 645-1102 Fax (860) 645-0823**

NY # 11301

# NY Analytical Services Protocol Format

**April 30, 2019** **SDG I.D.: GCC90508**

**Walden Environmental Engineering PLLC 218 LAKEVILLE RD**

## Methodology Summary

### Volatiles in Air

Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air: Method TO-15, Second Edition, U. S. Environmental Protection Agency, January 1999.

**Environmental Laboratories, Inc.**
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

# NY Analytical Services Protocol Format

**April 30, 2019** **SDG I.D.: GCC90508**

**Walden Environmental Engineering PLLC 218 LAKEVILLE RD**

## Laboratory Chronicle

| Sample | Analysis | Collection Date | Prep Date | Analysis Date | Analyst | Hold Time Met |
|---|---|---|---|---|---|---|
| CC90508 | Volatiles (TO15) | 04/04/19 | 04/09/19 | 04/09/19 | KCA | Y |
| CC90509 | Volatiles (TO15) | 04/04/19 | 04/10/19 | 04/10/19 | KCA | Y |
| CC90510 | Volatiles (TO15) | 04/04/19 | 04/10/19 | 04/10/19 | KCA | Y |
| CC90511 | Volatiles (TO15) | 04/04/19 | 04/10/19 | 04/10/19 | KCA | Y |
| CC90512 | Volatiles (TO15) | 04/04/19 | 04/10/19 | 04/10/19 | KCA | Y |
| CC90513 | Volatiles (TO15) | 04/04/19 | 04/09/19 | 04/09/19 | KCA | Y |
| CC90514 | Volatiles (TO15) | 04/04/19 | 04/09/19 | 04/09/19 | KCA | Y |
| CC90515 | Volatiles (TO15) | 04/04/19 | 04/09/19 | 04/09/19 | KCA | Y |
| CC90516 | Volatiles (TO15) | 04/04/19 | 04/09/19 | 04/09/19 | KCA | Y |
| CC90517 | Volatiles (TO15) | 04/04/19 | 04/10/19 | 04/10/19 | KCA | Y |
| CC90518 | Volatiles (TO15) | 04/04/19 | 04/09/19 | 04/09/19 | KCA | Y |
| CC90519 | Volatiles (TO15) | 04/04/19 | 04/09/19 | 04/09/19 | KCA | Y |
| CC90520 | Volatiles (TO15) | 04/04/19 | 04/09/19 | 04/09/19 | KCA | Y |
| CC90521 | Volatiles (TO15) | 04/04/19 | 04/10/19 | 04/10/19 | KCA | Y |
| CC90522 | Volatiles (TO15) | 04/04/19 | 04/10/19 | 04/10/19 | KCA | Y |
| CC90523 | Volatiles (TO15) | 04/04/19 | 04/10/19 | 04/10/19 | KCA | Y |
| CC90524 | Volatiles (TO15) | 04/04/19 | 04/10/19 | 04/10/19 | KCA | Y |

Environmental Laboratories, Inc.
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Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

# SDG Comments

April 30, 2019

SDG I.D.: GCC90508

Any compound that is not detected above the MDL/LOD is reported as ND on the report and is reported in the electronic deliverables (EDD) as <RL or U at the RL per state and EPA guidance.

Version 1: Analysis results minus raw data.

Version 2: Complete report with raw data.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

# Sample Id Cross Reference

April 30, 2019

SDG I.D.: GCC90508

Project ID: 218 LAKEVILLE RD

| Client Id | Lab Id | Matrix |
|---|---|---|
| IA-4 | CC90508 | AIR |
| SS-3 | CC90509 | AIR |
| SS-7 | CC90510 | AIR |
| SS-4 | CC90511 | AIR |
| SS-DUP | CC90512 | AIR |
| IA-7 | CC90513 | AIR |
| IA-1 | CC90514 | AIR |
| IA-2 | CC90515 | AIR |
| IA-3 | CC90516 | AIR |
| SS-2 | CC90517 | AIR |
| AA-DUP | CC90518 | AIR |
| AA-1 | CC90519 | AIR |
| AA-2 | CC90520 | AIR |
| IA-10 | CC90521 | AIR |
| IA-DUP | CC90522 | AIR |
| SS-10 | CC90523 | AIR |
| SS-1 | CC90524 | AIR |

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

# Analysis Report

April 30, 2019

FOR: Attn: Erica Johnston
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | AIR | Collected by: | EMJ, JKB, MCT | 04/04/19 | 13:45 |
| Location Code: | WALDENE | Received by: | CP | 04/08/19 | 15:26 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IMPL0115.6 | | | | |
| Canister Id: | 492 | | | | |

## Laboratory Data

SDG ID: GCC90508
Phoenix ID: CC90508

Project ID: 218 LAKEVILLE RD
Client ID: IA-4

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Volatiles (TO15)** | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | *0.146* | 0.146 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| 1,1,1-Trichloroethane | ND | *0.183* | 0.183 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,1,2,2-Tetrachloroethane | ND | *0.146* | 0.146 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,1,2-Trichloroethane | ND | *0.183* | 0.183 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,1-Dichloroethane | ND | *0.247* | 0.247 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,1-Dichloroethene | ND | *0.051* | 0.051 | ND | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| 1,2,4-Trichlorobenzene | ND | *0.135* | 0.135 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2,4-Trimethylbenzene | 3.77 | *0.204* | 0.204 | 18.5 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-Dibromoethane(EDB) | ND | *0.130* | 0.130 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-Dichlorobenzene | ND | *0.166* | 0.166 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-Dichloroethane | ND | *0.247* | 0.247 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-dichloropropane | ND | *0.217* | 0.217 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-Dichlorotetrafluoroethane | ND | *0.143* | 0.143 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,3,5-Trimethylbenzene | 1.05 | *0.204* | 0.204 | 5.16 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,3-Butadiene | ND | *0.452* | 0.452 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,3-Dichlorobenzene | ND | *0.166* | 0.166 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,4-Dichlorobenzene | ND | *0.166* | 0.166 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,4-Dioxane | ND | *0.278* | 0.278 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 2-Hexanone(MBK) | ND | *0.244* | 0.244 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| 4-Ethyltoluene | 1.01 | *0.204* | 0.204 | 4.96 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| 4-Isopropyltoluene | ND | *0.182* | 0.182 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| 4-Methyl-2-pentanone(MIBK) | ND | *0.244* | 0.244 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Acetone | 7.42 | *0.421* | 0.421 | 17.6 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Acrylonitrile | ND | *0.461* | 0.461 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Benzene | 0.491 | *0.313* | 0.313 | 1.57 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Benzyl chloride | ND | *0.193* | 0.193 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |

Project ID: 218 LAKEVILLE RD
Client ID: IA-4

Phoenix I.D.: CC90508

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution | |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromodichloromethane | ND | *0.149* | 0.149 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Bromoform | ND | *0.097* | 0.097 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Bromomethane | ND | *0.258* | 0.258 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Carbon Disulfide | ND | *0.321* | 0.321 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Carbon Tetrachloride | 0.083 | *0.032* | 0.032 | 0.52 | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| Chlorobenzene | ND | *0.217* | 0.217 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Chloroethane | ND | *0.379* | 0.379 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Chloroform | ND | *0.205* | 0.205 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Chloromethane | 0.625 | *0.485* | 0.485 | 1.29 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Cis-1,2-Dichloroethene | 0.055 | *0.051* | 0.051 | 0.22 | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| cis-1,3-Dichloropropene | ND | *0.221* | 0.221 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Cyclohexane | 0.632 | *0.291* | 0.291 | 2.17 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Dibromochloromethane | ND | *0.118* | 0.118 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Dichlorodifluoromethane | 0.478 | *0.202* | 0.202 | 2.36 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Ethanol | 14.6 | *0.531* | 0.531 | 27.5 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| Ethyl acetate | ND | *0.278* | 0.278 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| Ethylbenzene | 0.513 | *0.230* | 0.230 | 2.23 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Heptane | 0.824 | *0.244* | 0.244 | 3.37 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Hexachlorobutadiene | ND | *0.094* | 0.094 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Hexane | 1.91 | *0.284* | 0.284 | 6.73 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Isopropylalcohol | 0.767 | *0.407* | 0.407 | 1.88 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Isopropylbenzene | 0.227 | *0.204* | 0.204 | 1.12 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| m,p-Xylene | 2.06 | *0.230* | 0.230 | 8.94 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Methyl Ethyl Ketone | 1.02 | *0.339* | 0.339 | 3.01 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Methyl tert-butyl ether(MTBE) | ND | *0.278* | 0.278 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Methylene Chloride | ND | *0.864* | 0.864 | ND | *3.00* | 3.00 | 04/09/19 | KCA | 1 | |
| n-Butylbenzene | ND | *0.182* | 0.182 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| o-Xylene | 0.892 | *0.230* | 0.230 | 3.87 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Propylene | ND | *0.581* | 0.581 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| sec-Butylbenzene | ND | *0.182* | 0.182 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| Styrene | ND | *0.235* | 0.235 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Tetrachloroethene | 2.49 | *0.037* | 0.037 | 16.9 | *0.25* | 0.25 | 04/09/19 | KCA | 1 | |
| Tetrahydrofuran | 1.74 | *0.339* | 0.339 | 5.13 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| Toluene | 2.46 | *0.266* | 0.266 | 9.26 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Trans-1,2-Dichloroethene | ND | *0.252* | 0.252 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| trans-1,3-Dichloropropene | ND | *0.221* | 0.221 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Trichloroethene | 0.043 | *0.037* | 0.037 | 0.23 | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| Trichlorofluoromethane | 0.245 | *0.178* | 0.178 | 1.38 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Trichlorotrifluoroethane | ND | *0.131* | 0.131 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Vinyl Chloride | ND | *0.078* | 0.078 | ND | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| **QA/QC Surrogates/Internals** | | | | | | | | | | |
| % Bromofluorobenzene | 102 | *%* | % | 102 | *%* | % | 04/09/19 | KCA | 1 | |
| % IS-1,4-Difluorobenzene | 89 | *%* | % | 89 | *%* | % | 04/09/19 | KCA | 1 | |
| % IS-Bromochloromethane | 88 | *%* | % | 88 | *%* | % | 04/09/19 | KCA | 1 | |
| % IS-Chlorobenzene-d5 | 92 | *%* | % | 92 | *%* | % | 04/09/19 | KCA | 1 | |

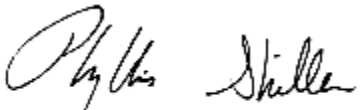
| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution |
|---|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**April 30, 2019**
**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

# Analysis Report

April 30, 2019

FOR: Attn: Erica Johnston
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | AIR | Collected by: | EMJ, JKB, MCT | 04/04/19 | 12:23 |
| Location Code: | WALDENE | Received by: | CP | 04/08/19 | 15:26 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IMPL0115.6 | | | | |
| Canister Id: | 21370 | | | | |

## Laboratory Data

SDG ID: GCC90508
Phoenix ID: CC90509

Project ID: 218 LAKEVILLE RD
Client ID: SS-3

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Volatiles (TO15)** | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | *0.729* | 0.729 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | 1 |
| 1,1,1-Trichloroethane | ND | *0.917* | 0.917 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,1,2,2-Tetrachloroethane | ND | *0.729* | 0.729 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,1,2-Trichloroethane | ND | *0.917* | 0.917 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,1-Dichloroethane | ND | *1.24* | 1.24 | ND | *5.02* | 5.02 | 04/10/19 | KCA | 5 | |
| 1,1-Dichloroethene | ND | *0.252* | 0.252 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 5 | |
| 1,2,4-Trichlorobenzene | ND | *0.674* | 0.674 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,2,4-Trimethylbenzene | ND | *1.02* | 1.02 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| 1,2-Dibromoethane(EDB) | ND | *0.651* | 0.651 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,2-Dichlorobenzene | ND | *0.832* | 0.832 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,2-Dichloroethane | ND | *1.24* | 1.24 | ND | *5.02* | 5.02 | 04/10/19 | KCA | 5 | |
| 1,2-dichloropropane | ND | *1.08* | 1.08 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| 1,2-Dichlorotetrafluoroethane | ND | *0.716* | 0.716 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,3,5-Trimethylbenzene | ND | *1.02* | 1.02 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| 1,3-Butadiene | ND | *2.26* | 2.26 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,3-Dichlorobenzene | ND | *0.832* | 0.832 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,4-Dichlorobenzene | ND | *0.832* | 0.832 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,4-Dioxane | ND | *1.39* | 1.39 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| 2-Hexanone(MBK) | ND | *1.22* | 1.22 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | 1 |
| 4-Ethyltoluene | ND | *1.02* | 1.02 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | 1 |
| 4-Isopropyltoluene | ND | *0.911* | 0.911 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | 1 |
| 4-Methyl-2-pentanone(MIBK) | ND | *1.22* | 1.22 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Acetone | ND | *2.11* | 2.11 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Acrylonitrile | ND | *2.31* | 2.31 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Benzene | ND | *1.57* | 1.57 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Benzyl chloride | ND | *0.966* | 0.966 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |

Project ID: 218 LAKEVILLE RD
Client ID: SS-3

Phoenix I.D.: CC90509

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution | |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromodichloromethane | ND | *0.747* | 0.747 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Bromoform | ND | *0.484* | 0.484 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Bromomethane | ND | *1.29* | 1.29 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Carbon Disulfide | ND | *1.61* | 1.61 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Carbon Tetrachloride | ND | *0.159* | 0.159 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 5 | |
| Chlorobenzene | ND | *1.09* | 1.09 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Chloroethane | ND | *1.90* | 1.90 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Chloroform | ND | *1.02* | 1.02 | ND | *4.98* | 4.98 | 04/10/19 | KCA | 5 | |
| Chloromethane | ND | *2.42* | 2.42 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Cis-1,2-Dichloroethene | 165 | *3.79* | 3.79 | 654 | *15.0* | 15.0 | 04/10/19 | KCA | 75 | |
| cis-1,3-Dichloropropene | ND | *1.10* | 1.10 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Cyclohexane | ND | *1.45* | 1.45 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Dibromochloromethane | ND | *0.587* | 0.587 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Dichlorodifluoromethane | 1.74 | *1.01* | 1.01 | 8.60 | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Ethanol | ND | *2.66* | 2.66 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | 1 |
| Ethyl acetate | ND | *1.39* | 1.39 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | 1 |
| Ethylbenzene | ND | *1.15* | 1.15 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Heptane | ND | *1.22* | 1.22 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Hexachlorobutadiene | ND | *0.469* | 0.469 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Hexane | ND | *1.42* | 1.42 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Isopropylalcohol | ND | *2.04* | 2.04 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Isopropylbenzene | ND | *1.02* | 1.02 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| m,p-Xylene | 1.44 | *1.15* | 1.15 | 6.25 | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Methyl Ethyl Ketone | ND | *1.70* | 1.70 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Methyl tert-butyl ether(MTBE) | ND | *1.39* | 1.39 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Methylene Chloride | ND | *4.32* | 4.32 | ND | *15.0* | 15.0 | 04/10/19 | KCA | 5 | |
| n-Butylbenzene | ND | *0.911* | 0.911 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | 1 |
| o-Xylene | ND | *1.15* | 1.15 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Propylene | ND | *2.91* | 2.91 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | 1 |
| sec-Butylbenzene | ND | *0.911* | 0.911 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | 1 |
| Styrene | ND | *1.17* | 1.17 | ND | *4.98* | 4.98 | 04/10/19 | KCA | 5 | |
| Tetrachloroethene | 674 | *2.77* | 2.77 | 4570 | *18.8* | 18.8 | 04/10/19 | KCA | 75 | |
| Tetrahydrofuran | ND | *1.70* | 1.70 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | 1 |
| Toluene | 1.48 | *1.33* | 1.33 | 5.57 | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Trans-1,2-Dichloroethene | 10.1 | *1.26* | 1.26 | 40.0 | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| trans-1,3-Dichloropropene | ND | *1.10* | 1.10 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Trichloroethene | 157 | *0.186* | 0.186 | 843 | *1.00* | 1.00 | 04/10/19 | KCA | 5 | |
| Trichlorofluoromethane | ND | *0.891* | 0.891 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Trichlorotrifluoroethane | ND | *0.653* | 0.653 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Vinyl Chloride | ND | *0.391* | 0.391 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 5 | |
| **QA/QC Surrogates/Internals** | | | | | | | | | | |
| % Bromofluorobenzene (5x) | 105 | *%* | % | 105 | *%* | % | 04/10/19 | KCA | 5 | |
| % IS-1,4-Difluorobenzene (5x) | 83 | *%* | % | 83 | *%* | % | 04/10/19 | KCA | 5 | |
| % IS-Bromochloromethane (5x) | 81 | *%* | % | 81 | *%* | % | 04/10/19 | KCA | 5 | |
| % IS-Chlorobenzene-d5 (5x) | 85 | *%* | % | 85 | *%* | % | 04/10/19 | KCA | 5 | |
| % Bromofluorobenzene (75x) | 99 | *%* | % | 99 | *%* | % | 04/10/19 | KCA | 75 | |
| % IS-1,4-Difluorobenzene (75x) | 86 | *%* | % | 86 | *%* | % | 04/10/19 | KCA | 75 | |
| % IS-Bromochloromethane (75x) | 85 | *%* | % | 85 | *%* | % | 04/10/19 | KCA | 75 | |
| % IS-Chlorobenzene-d5 (75x) | 88 | *%* | % | 88 | *%* | % | 04/10/19 | KCA | 75 | |

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution |
|---|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

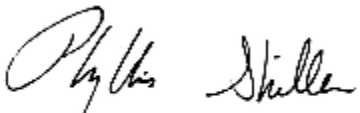
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

The canister was received under no vacuum, therefore sample results may not be representative.

An elevated reporting level was reported for TO15 due to a matrix interference of non target compounds.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**April 30, 2019**
**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

# Analysis Report

April 30, 2019

FOR: Attn: Erica Johnston
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | AIR | Collected by: | EMJ, JKB, MCT | 04/04/19 | 12:59 |
| Location Code: | WALDENE | Received by: | CP | 04/08/19 | 15:26 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IMPL0115.6 | | | | |
| Canister Id: | 11291 | | | | |

## Laboratory Data

SDG ID: GCC90508
Phoenix ID: CC90510

Project ID: 218 LAKEVILLE RD
Client ID: SS-7

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Volatiles (TO15)** | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | *0.146* | 0.146 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | 1 |
| 1,1,1-Trichloroethane | ND | *0.183* | 0.183 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,1,2,2-Tetrachloroethane | ND | *0.146* | 0.146 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,1,2-Trichloroethane | ND | *0.183* | 0.183 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,1-Dichloroethane | ND | *0.247* | 0.247 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,1-Dichloroethene | ND | *0.051* | 0.051 | ND | *0.20* | 0.20 | 04/10/19 | KCA | 1 | |
| 1,2,4-Trichlorobenzene | ND | *0.135* | 0.135 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,2,4-Trimethylbenzene | 0.403 | *0.204* | 0.204 | 1.98 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,2-Dibromoethane(EDB) | ND | *0.130* | 0.130 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,2-Dichlorobenzene | ND | *0.166* | 0.166 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,2-Dichloroethane | ND | *0.247* | 0.247 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,2-dichloropropane | ND | *0.217* | 0.217 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,2-Dichlorotetrafluoroethane | ND | *0.143* | 0.143 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,3,5-Trimethylbenzene | ND | *0.204* | 0.204 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,3-Butadiene | ND | *0.452* | 0.452 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,3-Dichlorobenzene | ND | *0.166* | 0.166 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,4-Dichlorobenzene | ND | *0.166* | 0.166 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,4-Dioxane | ND | *0.278* | 0.278 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 2-Hexanone(MBK) | ND | *0.244* | 0.244 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | 1 |
| 4-Ethyltoluene | ND | *0.204* | 0.204 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | 1 |
| 4-Isopropyltoluene | ND | *0.182* | 0.182 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | 1 |
| 4-Methyl-2-pentanone(MIBK) | ND | *0.244* | 0.244 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Acetone | 2.54 | *0.421* | 0.421 | 6.03 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Acrylonitrile | ND | *0.461* | 0.461 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Benzene | ND | *0.313* | 0.313 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Benzyl chloride | ND | *0.193* | 0.193 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |

Project ID: 218 LAKEVILLE RD
Client ID: SS-7

Phoenix I.D.: CC90510

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution | |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromodichloromethane | ND | *0.149* | 0.149 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Bromoform | ND | *0.097* | 0.097 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Bromomethane | ND | *0.258* | 0.258 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Carbon Disulfide | ND | *0.321* | 0.321 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Carbon Tetrachloride | ND | *0.032* | 0.032 | ND | *0.20* | 0.20 | 04/10/19 | KCA | 1 | |
| Chlorobenzene | ND | *0.217* | 0.217 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Chloroethane | ND | *0.379* | 0.379 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Chloroform | 0.302 | *0.205* | 0.205 | 1.47 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Chloromethane | ND | *0.485* | 0.485 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Cis-1,2-Dichloroethene | ND | *0.051* | 0.051 | ND | *0.20* | 0.20 | 04/10/19 | KCA | 1 | |
| cis-1,3-Dichloropropene | ND | *0.221* | 0.221 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Cyclohexane | ND | *0.291* | 0.291 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Dibromochloromethane | ND | *0.118* | 0.118 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Dichlorodifluoromethane | 0.473 | *0.202* | 0.202 | 2.34 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Ethanol | 2.12 | *0.531* | 0.531 | 3.99 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | 1 |
| Ethyl acetate | ND | *0.278* | 0.278 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | 1 |
| Ethylbenzene | 0.451 | *0.230* | 0.230 | 1.96 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Heptane | 0.288 | *0.244* | 0.244 | 1.18 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Hexachlorobutadiene | ND | *0.094* | 0.094 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Hexane | ND | *0.284* | 0.284 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Isopropylalcohol | ND | *0.407* | 0.407 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Isopropylbenzene | ND | *0.204* | 0.204 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| m,p-Xylene | 1.90 | *0.230* | 0.230 | 8.25 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Methyl Ethyl Ketone | 0.395 | *0.339* | 0.339 | 1.16 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Methyl tert-butyl ether(MTBE) | ND | *0.278* | 0.278 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Methylene Chloride | ND | *0.864* | 0.864 | ND | *3.00* | 3.00 | 04/10/19 | KCA | 1 | |
| n-Butylbenzene | ND | *0.182* | 0.182 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | 1 |
| o-Xylene | 0.440 | *0.230* | 0.230 | 1.91 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Propylene | ND | *0.581* | 0.581 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | 1 |
| sec-Butylbenzene | ND | *0.182* | 0.182 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | 1 |
| Styrene | 0.441 | *0.235* | 0.235 | 1.88 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Tetrachloroethene | 20.6 | *0.037* | 0.037 | 140 | *0.25* | 0.25 | 04/10/19 | KCA | 1 | |
| Tetrahydrofuran | ND | *0.339* | 0.339 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | 1 |
| Toluene | 2.75 | *0.266* | 0.266 | 10.4 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Trans-1,2-Dichloroethene | ND | *0.252* | 0.252 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| trans-1,3-Dichloropropene | ND | *0.221* | 0.221 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Trichloroethene | ND | *0.037* | 0.037 | ND | *0.20* | 0.20 | 04/10/19 | KCA | 1 | |
| Trichlorofluoromethane | 0.266 | *0.178* | 0.178 | 1.49 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Trichlorotrifluoroethane | ND | *0.131* | 0.131 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Vinyl Chloride | ND | *0.078* | 0.078 | ND | *0.20* | 0.20 | 04/10/19 | KCA | 1 | |
| **QA/QC Surrogates/Internals** | | | | | | | | | | |
| % Bromofluorobenzene | 101 | *%* | % | 101 | *%* | % | 04/10/19 | KCA | 1 | |
| % IS-1,4-Difluorobenzene | 78 | *%* | % | 78 | *%* | % | 04/10/19 | KCA | 1 | |
| % IS-Bromochloromethane | 74 | *%* | % | 74 | *%* | % | 04/10/19 | KCA | 1 | |
| % IS-Chlorobenzene-d5 | 87 | *%* | % | 87 | *%* | % | 04/10/19 | KCA | 1 | |

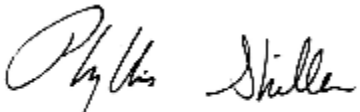
| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution |
|---|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**April 30, 2019**
**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

April 30, 2019

FOR: Attn: Erica Johnston
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | AIR | Collected by: | EMJ, JKB, MCT | 04/04/19 | 14:19 |
| Location Code: | WALDENE | Received by: | CP | 04/08/19 | 15:26 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IMPL0115.6 | | | | |
| Canister Id: | 230 | | | | |

## Laboratory Data

SDG ID: GCC90508
Phoenix ID: CC90511

Project ID: 218 LAKEVILLE RD
Client ID: SS-4

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Volatiles (TO15)** | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | *0.729* | 0.729 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | 1 |
| 1,1,1-Trichloroethane | ND | *0.917* | 0.917 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,1,2,2-Tetrachloroethane | ND | *0.729* | 0.729 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,1,2-Trichloroethane | ND | *0.917* | 0.917 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,1-Dichloroethane | ND | *1.24* | 1.24 | ND | *5.02* | 5.02 | 04/10/19 | KCA | 5 | |
| 1,1-Dichloroethene | ND | *0.252* | 0.252 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 5 | |
| 1,2,4-Trichlorobenzene | ND | *0.674* | 0.674 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,2,4-Trimethylbenzene | ND | *1.02* | 1.02 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| 1,2-Dibromoethane(EDB) | ND | *0.651* | 0.651 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,2-Dichlorobenzene | ND | *0.832* | 0.832 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,2-Dichloroethane | ND | *1.24* | 1.24 | ND | *5.02* | 5.02 | 04/10/19 | KCA | 5 | |
| 1,2-dichloropropane | ND | *1.08* | 1.08 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| 1,2-Dichlorotetrafluoroethane | ND | *0.716* | 0.716 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,3,5-Trimethylbenzene | ND | *1.02* | 1.02 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| 1,3-Butadiene | ND | *2.26* | 2.26 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,3-Dichlorobenzene | ND | *0.832* | 0.832 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,4-Dichlorobenzene | ND | *0.832* | 0.832 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,4-Dioxane | ND | *1.39* | 1.39 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| 2-Hexanone(MBK) | ND | *1.22* | 1.22 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | 1 |
| 4-Ethyltoluene | ND | *1.02* | 1.02 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | 1 |
| 4-Isopropyltoluene | ND | *0.911* | 0.911 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | 1 |
| 4-Methyl-2-pentanone(MIBK) | ND | *1.22* | 1.22 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Acetone | 2.39 | *2.11* | 2.11 | 5.67 | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Acrylonitrile | ND | *2.31* | 2.31 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Benzene | ND | *1.57* | 1.57 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Benzyl chloride | ND | *0.966* | 0.966 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |

Project ID: 218 LAKEVILLE RD
Client ID: SS-4

Phoenix I.D.: CC90511

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution | |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromodichloromethane | ND | *0.747* | 0.747 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Bromoform | ND | *0.484* | 0.484 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Bromomethane | ND | *1.29* | 1.29 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Carbon Disulfide | ND | *1.61* | 1.61 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Carbon Tetrachloride | ND | *0.159* | 0.159 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 5 | |
| Chlorobenzene | ND | *1.09* | 1.09 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Chloroethane | ND | *1.90* | 1.90 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Chloroform | 2.11 | *1.02* | 1.02 | 10.3 | *4.98* | 4.98 | 04/10/19 | KCA | 5 | |
| Chloromethane | ND | *2.42* | 2.42 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Cis-1,2-Dichloroethene | 391 | *3.79* | 3.79 | 1550 | *15.0* | 15.0 | 04/10/19 | KCA | 75 | |
| cis-1,3-Dichloropropene | ND | *1.10* | 1.10 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Cyclohexane | ND | *1.45* | 1.45 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Dibromochloromethane | ND | *0.587* | 0.587 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Dichlorodifluoromethane | ND | *1.01* | 1.01 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Ethanol | ND | *2.66* | 2.66 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | 1 |
| Ethyl acetate | ND | *1.39* | 1.39 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | 1 |
| Ethylbenzene | ND | *1.15* | 1.15 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Heptane | ND | *1.22* | 1.22 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Hexachlorobutadiene | ND | *0.469* | 0.469 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Hexane | ND | *1.42* | 1.42 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Isopropylalcohol | ND | *2.04* | 2.04 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Isopropylbenzene | ND | *1.02* | 1.02 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| m,p-Xylene | 1.75 | *1.15* | 1.15 | 7.59 | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Methyl Ethyl Ketone | ND | *1.70* | 1.70 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Methyl tert-butyl ether(MTBE) | ND | *1.39* | 1.39 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Methylene Chloride | ND | *4.32* | 4.32 | ND | *15.0* | 15.0 | 04/10/19 | KCA | 5 | |
| n-Butylbenzene | ND | *0.911* | 0.911 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | 1 |
| o-Xylene | ND | *1.15* | 1.15 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Propylene | ND | *2.91* | 2.91 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | 1 |
| sec-Butylbenzene | ND | *0.911* | 0.911 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | 1 |
| Styrene | ND | *1.17* | 1.17 | ND | *4.98* | 4.98 | 04/10/19 | KCA | 5 | |
| Tetrachloroethene | 2150 | *2.77* | 2.77 | 14600 | *18.8* | 18.8 | 04/10/19 | KCA | 75 | |
| Tetrahydrofuran | ND | *1.70* | 1.70 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | 1 |
| Toluene | 2.76 | *1.33* | 1.33 | 10.4 | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Trans-1,2-Dichloroethene | 20.2 | *1.26* | 1.26 | 80.0 | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| trans-1,3-Dichloropropene | ND | *1.10* | 1.10 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Trichloroethene | 217 | *2.79* | 2.79 | 1170 | *15.0* | 15.0 | 04/10/19 | KCA | 75 | |
| Trichlorofluoromethane | ND | *0.891* | 0.891 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Trichlorotrifluoroethane | ND | *0.653* | 0.653 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Vinyl Chloride | 0.490 | *0.391* | 0.391 | 1.25 | *1.00* | 1.00 | 04/10/19 | KCA | 5 | |
| **QA/QC Surrogates/Internals** | | | | | | | | | | |
| % Bromofluorobenzene (5x) | 106 | % | % | 106 | % | % | 04/10/19 | KCA | 5 | |
| % IS-1,4-Difluorobenzene (5x) | 82 | % | % | 82 | % | % | 04/10/19 | KCA | 5 | |
| % IS-Bromochloromethane (5x) | 77 | % | % | 77 | % | % | 04/10/19 | KCA | 5 | |
| % IS-Chlorobenzene-d5 (5x) | 84 | % | % | 84 | % | % | 04/10/19 | KCA | 5 | |
| % Bromofluorobenzene (75x) | 101 | % | % | 101 | % | % | 04/10/19 | KCA | 75 | |
| % IS-1,4-Difluorobenzene (75x) | 83 | % | % | 83 | % | % | 04/10/19 | KCA | 75 | |
| % IS-Bromochloromethane (75x) | 85 | % | % | 85 | % | % | 04/10/19 | KCA | 75 | |
| % IS-Chlorobenzene-d5 (75x) | 87 | % | % | 87 | % | % | 04/10/19 | KCA | 75 | |

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution |
|---|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

An elevated reporting level was reported for TO15 due to a matrix interference of non target compounds.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

**Phyllis Shiller, Laboratory Director**
**April 30, 2019**
**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

# Analysis Report

April 30, 2019

FOR: Attn: Erica Johnston
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | AIR | Collected by: | EMJ, JKB, MCT | 04/04/19 | 12:32 |
| Location Code: | WALDENE | Received by: | CP | 04/08/19 | 15:26 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IMPL0115.6 | | | | |
| Canister Id: | 215 | | | | |

## Laboratory Data

SDG ID: GCC90508
Phoenix ID: CC90512

Project ID: 218 LAKEVILLE RD
Client ID: SS-DUP

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Volatiles (TO15)** | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | *0.729* | 0.729 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | 1 |
| 1,1,1-Trichloroethane | ND | *0.917* | 0.917 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,1,2,2-Tetrachloroethane | ND | *0.729* | 0.729 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,1,2-Trichloroethane | ND | *0.917* | 0.917 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,1-Dichloroethane | ND | *1.24* | 1.24 | ND | *5.02* | 5.02 | 04/10/19 | KCA | 5 | |
| 1,1-Dichloroethene | ND | *0.252* | 0.252 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 5 | |
| 1,2,4-Trichlorobenzene | ND | *0.674* | 0.674 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,2,4-Trimethylbenzene | ND | *1.02* | 1.02 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| 1,2-Dibromoethane(EDB) | ND | *0.651* | 0.651 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,2-Dichlorobenzene | ND | *0.832* | 0.832 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,2-Dichloroethane | ND | *1.24* | 1.24 | ND | *5.02* | 5.02 | 04/10/19 | KCA | 5 | |
| 1,2-dichloropropane | ND | *1.08* | 1.08 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| 1,2-Dichlorotetrafluoroethane | ND | *0.716* | 0.716 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,3,5-Trimethylbenzene | ND | *1.02* | 1.02 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| 1,3-Butadiene | ND | *2.26* | 2.26 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,3-Dichlorobenzene | ND | *0.832* | 0.832 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,4-Dichlorobenzene | ND | *0.832* | 0.832 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,4-Dioxane | ND | *1.39* | 1.39 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| 2-Hexanone(MBK) | ND | *1.22* | 1.22 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | 1 |
| 4-Ethyltoluene | ND | *1.02* | 1.02 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | 1 |
| 4-Isopropyltoluene | ND | *0.911* | 0.911 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | 1 |
| 4-Methyl-2-pentanone(MIBK) | ND | *1.22* | 1.22 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Acetone | 3.59 | *2.11* | 2.11 | 8.52 | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Acrylonitrile | ND | *2.31* | 2.31 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Benzene | ND | *1.57* | 1.57 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Benzyl chloride | ND | *0.966* | 0.966 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |

Project ID: 218 LAKEVILLE RD
Client ID: SS-DUP

Phoenix I.D.: CC90512

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution | |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromodichloromethane | ND | *0.747* | 0.747 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Bromoform | ND | *0.484* | 0.484 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Bromomethane | ND | *1.29* | 1.29 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Carbon Disulfide | ND | *1.61* | 1.61 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Carbon Tetrachloride | ND | *0.159* | 0.159 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 5 | |
| Chlorobenzene | ND | *1.09* | 1.09 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Chloroethane | ND | *1.90* | 1.90 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Chloroform | 1.59 | *1.02* | 1.02 | 7.76 | *4.98* | 4.98 | 04/10/19 | KCA | 5 | |
| Chloromethane | ND | *2.42* | 2.42 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Cis-1,2-Dichloroethene | 84.8 | *0.252* | 0.252 | 336 | *1.00* | 1.00 | 04/10/19 | KCA | 5 | |
| cis-1,3-Dichloropropene | ND | *1.10* | 1.10 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Cyclohexane | ND | *1.45* | 1.45 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Dibromochloromethane | ND | *0.587* | 0.587 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Dichlorodifluoromethane | ND | *1.01* | 1.01 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Ethanol | ND | *2.66* | 2.66 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | 1 |
| Ethyl acetate | ND | *1.39* | 1.39 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | 1 |
| Ethylbenzene | ND | *1.15* | 1.15 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Heptane | ND | *1.22* | 1.22 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Hexachlorobutadiene | ND | *0.469* | 0.469 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Hexane | ND | *1.42* | 1.42 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Isopropylalcohol | ND | *2.04* | 2.04 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Isopropylbenzene | ND | *1.02* | 1.02 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| m,p-Xylene | 1.80 | *1.15* | 1.15 | 7.81 | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Methyl Ethyl Ketone | ND | *1.70* | 1.70 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Methyl tert-butyl ether(MTBE) | ND | *1.39* | 1.39 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Methylene Chloride | ND | *4.32* | 4.32 | ND | *15.0* | 15.0 | 04/10/19 | KCA | 5 | |
| n-Butylbenzene | ND | *0.911* | 0.911 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | 1 |
| o-Xylene | ND | *1.15* | 1.15 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Propylene | ND | *2.91* | 2.91 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | 1 |
| sec-Butylbenzene | ND | *0.911* | 0.911 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | 1 |
| Styrene | ND | *1.17* | 1.17 | ND | *4.98* | 4.98 | 04/10/19 | KCA | 5 | |
| Tetrachloroethene | 1940 | *2.77* | 2.77 | 13100 | *18.8* | 18.8 | 04/10/19 | KCA | 75 | |
| Tetrahydrofuran | ND | *1.70* | 1.70 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | 1 |
| Toluene | 2.83 | *1.33* | 1.33 | 10.7 | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Trans-1,2-Dichloroethene | 4.16 | *1.26* | 1.26 | 16.5 | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| trans-1,3-Dichloropropene | ND | *1.10* | 1.10 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Trichloroethene | 49.4 | *0.186* | 0.186 | 265 | *1.00* | 1.00 | 04/10/19 | KCA | 5 | |
| Trichlorofluoromethane | ND | *0.891* | 0.891 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Trichlorotrifluoroethane | ND | *0.653* | 0.653 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Vinyl Chloride | ND | *0.391* | 0.391 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 5 | |
| **QA/QC Surrogates/Internals** | | | | | | | | | | |
| % Bromofluorobenzene (5x) | 102 | *%* | % | 102 | *%* | % | 04/10/19 | KCA | 5 | |
| % IS-1,4-Difluorobenzene (5x) | 81 | *%* | % | 81 | *%* | % | 04/10/19 | KCA | 5 | |
| % IS-Bromochloromethane (5x) | 79 | *%* | % | 79 | *%* | % | 04/10/19 | KCA | 5 | |
| % IS-Chlorobenzene-d5 (5x) | 84 | *%* | % | 84 | *%* | % | 04/10/19 | KCA | 5 | |
| % Bromofluorobenzene (75x) | 100 | *%* | % | 100 | *%* | % | 04/10/19 | KCA | 75 | |
| % IS-1,4-Difluorobenzene (75x) | 79 | *%* | % | 79 | *%* | % | 04/10/19 | KCA | 75 | |
| % IS-Bromochloromethane (75x) | 78 | *%* | % | 78 | *%* | % | 04/10/19 | KCA | 75 | |
| % IS-Chlorobenzene-d5 (75x) | 83 | *%* | % | 83 | *%* | % | 04/10/19 | KCA | 75 | |

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution |
|---|---|---|---|---|---|---|---|---|---|

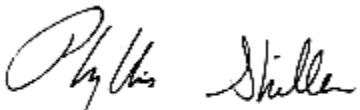
1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

An elevated reporting level was reported for TO15 due to a matrix interference of non target compounds.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**April 30, 2019**
**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

# Analysis Report

April 30, 2019

FOR: Attn: Erica Johnston
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | AIR | Collected by: | EMJ, JKB, MCT | 04/04/19 | 12:58 |
| Location Code: | WALDENE | Received by: | CP | 04/08/19 | 15:26 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IMPL0115.6 | | | | |
| Canister Id: | 23326 | | | | |

## Laboratory Data

SDG ID: GCC90508
Phoenix ID: CC90513

Project ID: 218 LAKEVILLE RD
Client ID: IA-7

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Volatiles (TO15)** | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | *0.146* | 0.146 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| 1,1,1-Trichloroethane | ND | *0.183* | 0.183 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,1,2,2-Tetrachloroethane | ND | *0.146* | 0.146 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,1,2-Trichloroethane | ND | *0.183* | 0.183 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,1-Dichloroethane | ND | *0.247* | 0.247 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,1-Dichloroethene | ND | *0.051* | 0.051 | ND | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| 1,2,4-Trichlorobenzene | ND | *0.135* | 0.135 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2,4-Trimethylbenzene | 0.216 | *0.204* | 0.204 | 1.06 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-Dibromoethane(EDB) | ND | *0.130* | 0.130 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-Dichlorobenzene | ND | *0.166* | 0.166 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-Dichloroethane | ND | *0.247* | 0.247 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-dichloropropane | ND | *0.217* | 0.217 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-Dichlorotetrafluoroethane | ND | *0.143* | 0.143 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,3,5-Trimethylbenzene | ND | *0.204* | 0.204 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,3-Butadiene | ND | *0.452* | 0.452 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,3-Dichlorobenzene | ND | *0.166* | 0.166 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,4-Dichlorobenzene | ND | *0.166* | 0.166 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,4-Dioxane | ND | *0.278* | 0.278 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 2-Hexanone(MBK) | ND | *0.244* | 0.244 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| 4-Ethyltoluene | ND | *0.204* | 0.204 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| 4-Isopropyltoluene | ND | *0.182* | 0.182 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| 4-Methyl-2-pentanone(MIBK) | 0.302 | *0.244* | 0.244 | 1.24 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Acetone | 6.49 | *0.421* | 0.421 | 15.4 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Acrylonitrile | ND | *0.461* | 0.461 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Benzene | 0.369 | *0.313* | 0.313 | 1.18 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Benzyl chloride | ND | *0.193* | 0.193 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |

Project ID: 218 LAKEVILLE RD
Client ID: IA-7

Phoenix I.D.: CC90513

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution | |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromodichloromethane | ND | *0.149* | 0.149 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Bromoform | ND | *0.097* | 0.097 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Bromomethane | ND | *0.258* | 0.258 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Carbon Disulfide | ND | *0.321* | 0.321 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Carbon Tetrachloride | 0.087 | *0.032* | 0.032 | 0.55 | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| Chlorobenzene | ND | *0.217* | 0.217 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Chloroethane | ND | *0.379* | 0.379 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Chloroform | ND | *0.205* | 0.205 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Chloromethane | 0.554 | *0.485* | 0.485 | 1.14 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Cis-1,2-Dichloroethene | ND | *0.051* | 0.051 | ND | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| cis-1,3-Dichloropropene | ND | *0.221* | 0.221 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Cyclohexane | ND | *0.291* | 0.291 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Dibromochloromethane | ND | *0.118* | 0.118 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Dichlorodifluoromethane | 0.481 | *0.202* | 0.202 | 2.38 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Ethanol | 8.06 | *0.531* | 0.531 | 15.2 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| Ethyl acetate | ND | *0.278* | 0.278 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| Ethylbenzene | ND | *0.230* | 0.230 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Heptane | ND | *0.244* | 0.244 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Hexachlorobutadiene | ND | *0.094* | 0.094 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Hexane | 0.477 | *0.284* | 0.284 | 1.68 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Isopropylalcohol | ND | *0.407* | 0.407 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Isopropylbenzene | ND | *0.204* | 0.204 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| m,p-Xylene | 0.847 | *0.230* | 0.230 | 3.68 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Methyl Ethyl Ketone | ND | *0.339* | 0.339 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Methyl tert-butyl ether(MTBE) | ND | *0.278* | 0.278 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Methylene Chloride | ND | *0.864* | 0.864 | ND | *3.00* | 3.00 | 04/09/19 | KCA | 1 | |
| n-Butylbenzene | ND | *0.182* | 0.182 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| o-Xylene | 0.245 | *0.230* | 0.230 | 1.06 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Propylene | ND | *0.581* | 0.581 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| sec-Butylbenzene | ND | *0.182* | 0.182 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| Styrene | ND | *0.235* | 0.235 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Tetrachloroethene | 0.085 | *0.037* | 0.037 | 0.58 | *0.25* | 0.25 | 04/09/19 | KCA | 1 | |
| Tetrahydrofuran | ND | *0.339* | 0.339 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| Toluene | 1.87 | *0.266* | 0.266 | 7.04 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Trans-1,2-Dichloroethene | ND | *0.252* | 0.252 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| trans-1,3-Dichloropropene | ND | *0.221* | 0.221 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Trichloroethene | ND | *0.037* | 0.037 | ND | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| Trichlorofluoromethane | 0.251 | *0.178* | 0.178 | 1.41 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Trichlorotrifluoroethane | ND | *0.131* | 0.131 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Vinyl Chloride | ND | *0.078* | 0.078 | ND | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| **QA/QC Surrogates/Internals** | | | | | | | | | | |
| % Bromofluorobenzene | 103 | *%* | % | 103 | *%* | % | 04/09/19 | KCA | 1 | |
| % IS-1,4-Difluorobenzene | 91 | *%* | % | 91 | *%* | % | 04/09/19 | KCA | 1 | |
| % IS-Bromochloromethane | 90 | *%* | % | 90 | *%* | % | 04/09/19 | KCA | 1 | |
| % IS-Chlorobenzene-d5 | 91 | *%* | % | 91 | *%* | % | 04/09/19 | KCA | 1 | |

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution |
|---|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

The canister was received under no vacuum, therefore sample results may not be representative.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**April 30, 2019**

**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

# Analysis Report

April 30, 2019

FOR: Attn: Erica Johnston
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | AIR | Collected by: | EMJ, JKB, MCT | 04/04/19 | 12:33 |
| Location Code: | WALDENE | Received by: | CP | 04/08/19 | 15:26 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IMPL0115.6 | | | | |
| Canister Id: | 21365 | | | | |

## Laboratory Data

SDG ID: GCC90508
Phoenix ID: CC90514

Project ID: 218 LAKEVILLE RD
Client ID: IA-1

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Volatiles (TO15)** | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | *0.146* | 0.146 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| 1,1,1-Trichloroethane | ND | *0.183* | 0.183 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,1,2,2-Tetrachloroethane | ND | *0.146* | 0.146 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,1,2-Trichloroethane | ND | *0.183* | 0.183 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,1-Dichloroethane | ND | *0.247* | 0.247 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,1-Dichloroethene | ND | *0.051* | 0.051 | ND | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| 1,2,4-Trichlorobenzene | ND | *0.135* | 0.135 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2,4-Trimethylbenzene | ND | *0.204* | 0.204 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-Dibromoethane(EDB) | ND | *0.130* | 0.130 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-Dichlorobenzene | ND | *0.166* | 0.166 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-Dichloroethane | ND | *0.247* | 0.247 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-dichloropropane | ND | *0.217* | 0.217 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-Dichlorotetrafluoroethane | ND | *0.143* | 0.143 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,3,5-Trimethylbenzene | ND | *0.204* | 0.204 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,3-Butadiene | ND | *0.452* | 0.452 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,3-Dichlorobenzene | ND | *0.166* | 0.166 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,4-Dichlorobenzene | ND | *0.166* | 0.166 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,4-Dioxane | ND | *0.278* | 0.278 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 2-Hexanone(MBK) | ND | *0.244* | 0.244 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| 4-Ethyltoluene | ND | *0.204* | 0.204 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| 4-Isopropyltoluene | ND | *0.182* | 0.182 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| 4-Methyl-2-pentanone(MIBK) | ND | *0.244* | 0.244 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Acetone | 2.34 | *0.421* | 0.421 | 5.56 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Acrylonitrile | ND | *0.461* | 0.461 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Benzene | ND | *0.313* | 0.313 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Benzyl chloride | ND | *0.193* | 0.193 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |

Project ID: 218 LAKEVILLE RD
Client ID: IA-1

Phoenix I.D.: CC90514

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution | |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromodichloromethane | ND | *0.149* | 0.149 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Bromoform | ND | *0.097* | 0.097 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Bromomethane | ND | *0.258* | 0.258 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Carbon Disulfide | ND | *0.321* | 0.321 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Carbon Tetrachloride | 0.084 | *0.032* | 0.032 | 0.53 | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| Chlorobenzene | ND | *0.217* | 0.217 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Chloroethane | ND | *0.379* | 0.379 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Chloroform | ND | *0.205* | 0.205 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Chloromethane | 0.607 | *0.485* | 0.485 | 1.25 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Cis-1,2-Dichloroethene | ND | *0.051* | 0.051 | ND | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| cis-1,3-Dichloropropene | ND | *0.221* | 0.221 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Cyclohexane | ND | *0.291* | 0.291 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Dibromochloromethane | ND | *0.118* | 0.118 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Dichlorodifluoromethane | 0.482 | *0.202* | 0.202 | 2.38 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Ethanol | 5.57 | *0.531* | 0.531 | 10.5 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| Ethyl acetate | ND | *0.278* | 0.278 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| Ethylbenzene | ND | *0.230* | 0.230 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Heptane | ND | *0.244* | 0.244 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Hexachlorobutadiene | ND | *0.094* | 0.094 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Hexane | ND | *0.284* | 0.284 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Isopropylalcohol | 0.952 | *0.407* | 0.407 | 2.34 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Isopropylbenzene | ND | *0.204* | 0.204 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| m,p-Xylene | ND | *0.230* | 0.230 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Methyl Ethyl Ketone | ND | *0.339* | 0.339 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Methyl tert-butyl ether(MTBE) | ND | *0.278* | 0.278 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Methylene Chloride | ND | *0.864* | 0.864 | ND | *3.00* | 3.00 | 04/09/19 | KCA | 1 | |
| n-Butylbenzene | ND | *0.182* | 0.182 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| o-Xylene | ND | *0.230* | 0.230 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Propylene | ND | *0.581* | 0.581 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| sec-Butylbenzene | ND | *0.182* | 0.182 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| Styrene | ND | *0.235* | 0.235 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Tetrachloroethene | 0.391 | *0.037* | 0.037 | 2.65 | *0.25* | 0.25 | 04/09/19 | KCA | 1 | |
| Tetrahydrofuran | ND | *0.339* | 0.339 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| Toluene | ND | *0.266* | 0.266 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Trans-1,2-Dichloroethene | ND | *0.252* | 0.252 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| trans-1,3-Dichloropropene | ND | *0.221* | 0.221 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Trichloroethene | ND | *0.037* | 0.037 | ND | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| Trichlorofluoromethane | 0.267 | *0.178* | 0.178 | 1.50 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Trichlorotrifluoroethane | ND | *0.131* | 0.131 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Vinyl Chloride | ND | *0.078* | 0.078 | ND | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| **QA/QC Surrogates/Internals** | | | | | | | | | | |
| % Bromofluorobenzene | 101 | *%* | % | 101 | *%* | % | 04/09/19 | KCA | 1 | |
| % IS-1,4-Difluorobenzene | 87 | *%* | % | 87 | *%* | % | 04/09/19 | KCA | 1 | |
| % IS-Bromochloromethane | 87 | *%* | % | 87 | *%* | % | 04/09/19 | KCA | 1 | |
| % IS-Chlorobenzene-d5 | 88 | *%* | % | 88 | *%* | % | 04/09/19 | KCA | 1 | |

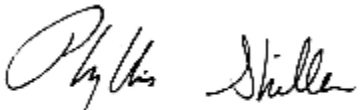
| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution |
|---|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**April 30, 2019**
**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

# Analysis Report

April 30, 2019

FOR: Attn: Erica Johnston
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | AIR | Collected by: | EMJ, JKB, MCT | 04/04/19 | 13:49 |
| Location Code: | WALDENE | Received by: | CP | 04/08/19 | 15:26 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IMPL0115.6 | | | | |
| Canister Id: | 11292 | | | | |

## Laboratory Data

SDG ID: GCC90508
Phoenix ID: CC90515

Project ID: 218 LAKEVILLE RD
Client ID: IA-2

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Volatiles (TO15)** | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | *0.146* | 0.146 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| 1,1,1-Trichloroethane | ND | *0.183* | 0.183 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,1,2,2-Tetrachloroethane | ND | *0.146* | 0.146 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,1,2-Trichloroethane | ND | *0.183* | 0.183 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,1-Dichloroethane | ND | *0.247* | 0.247 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,1-Dichloroethene | ND | *0.051* | 0.051 | ND | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| 1,2,4-Trichlorobenzene | ND | *0.135* | 0.135 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2,4-Trimethylbenzene | 0.351 | *0.204* | 0.204 | 1.72 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-Dibromoethane(EDB) | ND | *0.130* | 0.130 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-Dichlorobenzene | ND | *0.166* | 0.166 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-Dichloroethane | ND | *0.247* | 0.247 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-dichloropropane | ND | *0.217* | 0.217 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-Dichlorotetrafluoroethane | ND | *0.143* | 0.143 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,3,5-Trimethylbenzene | ND | *0.204* | 0.204 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,3-Butadiene | ND | *0.452* | 0.452 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,3-Dichlorobenzene | ND | *0.166* | 0.166 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,4-Dichlorobenzene | ND | *0.166* | 0.166 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,4-Dioxane | ND | *0.278* | 0.278 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 2-Hexanone(MBK) | ND | *0.244* | 0.244 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| 4-Ethyltoluene | ND | *0.204* | 0.204 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| 4-Isopropyltoluene | ND | *0.182* | 0.182 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| 4-Methyl-2-pentanone(MIBK) | ND | *0.244* | 0.244 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Acetone | 3.53 | *0.421* | 0.421 | 8.38 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Acrylonitrile | ND | *0.461* | 0.461 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Benzene | ND | *0.313* | 0.313 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Benzyl chloride | ND | *0.193* | 0.193 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |

Project ID: 218 LAKEVILLE RD
Client ID: IA-2

Phoenix I.D.: CC90515

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution | |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromodichloromethane | ND | *0.149* | 0.149 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Bromoform | ND | *0.097* | 0.097 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Bromomethane | ND | *0.258* | 0.258 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Carbon Disulfide | ND | *0.321* | 0.321 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Carbon Tetrachloride | 0.084 | *0.032* | 0.032 | 0.53 | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| Chlorobenzene | ND | *0.217* | 0.217 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Chloroethane | ND | *0.379* | 0.379 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Chloroform | ND | *0.205* | 0.205 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Chloromethane | 0.630 | *0.485* | 0.485 | 1.30 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Cis-1,2-Dichloroethene | ND | *0.051* | 0.051 | ND | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| cis-1,3-Dichloropropene | ND | *0.221* | 0.221 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Cyclohexane | ND | *0.291* | 0.291 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Dibromochloromethane | ND | *0.118* | 0.118 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Dichlorodifluoromethane | 0.474 | *0.202* | 0.202 | 2.34 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Ethanol | 5.32 | *0.531* | 0.531 | 10.0 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| Ethyl acetate | ND | *0.278* | 0.278 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| Ethylbenzene | ND | *0.230* | 0.230 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Heptane | ND | *0.244* | 0.244 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Hexachlorobutadiene | ND | *0.094* | 0.094 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Hexane | ND | *0.284* | 0.284 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Isopropylalcohol | 1.15 | *0.407* | 0.407 | 2.83 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Isopropylbenzene | ND | *0.204* | 0.204 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| m,p-Xylene | ND | *0.230* | 0.230 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Methyl Ethyl Ketone | ND | *0.339* | 0.339 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Methyl tert-butyl ether(MTBE) | ND | *0.278* | 0.278 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Methylene Chloride | ND | *0.864* | 0.864 | ND | *3.00* | 3.00 | 04/09/19 | KCA | 1 | |
| n-Butylbenzene | ND | *0.182* | 0.182 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| o-Xylene | ND | *0.230* | 0.230 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Propylene | ND | *0.581* | 0.581 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| sec-Butylbenzene | ND | *0.182* | 0.182 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| Styrene | ND | *0.235* | 0.235 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Tetrachloroethene | 1.00 | *0.037* | 0.037 | 6.78 | *0.25* | 0.25 | 04/09/19 | KCA | 1 | |
| Tetrahydrofuran | ND | *0.339* | 0.339 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| Toluene | 0.344 | *0.266* | 0.266 | 1.30 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Trans-1,2-Dichloroethene | ND | *0.252* | 0.252 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| trans-1,3-Dichloropropene | ND | *0.221* | 0.221 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Trichloroethene | ND | *0.037* | 0.037 | ND | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| Trichlorofluoromethane | 0.257 | *0.178* | 0.178 | 1.44 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Trichlorotrifluoroethane | ND | *0.131* | 0.131 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Vinyl Chloride | ND | *0.078* | 0.078 | ND | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| **QA/QC Surrogates/Internals** | | | | | | | | | | |
| % Bromofluorobenzene | 100 | *%* | % | 100 | *%* | % | 04/09/19 | KCA | 1 | |
| % IS-1,4-Difluorobenzene | 86 | *%* | % | 86 | *%* | % | 04/09/19 | KCA | 1 | |
| % IS-Bromochloromethane | 84 | *%* | % | 84 | *%* | % | 04/09/19 | KCA | 1 | |
| % IS-Chlorobenzene-d5 | 88 | *%* | % | 88 | *%* | % | 04/09/19 | KCA | 1 | |

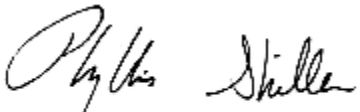
| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution |
|---|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**April 30, 2019**
**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

April 30, 2019

FOR: Attn: Erica Johnston
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | AIR | Collected by: | EMJ, JKB, MCT | 04/04/19 | 13:48 |
| Location Code: | WALDENE | Received by: | CP | 04/08/19 | 15:26 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IMPL0115.6 | | | | |
| Canister Id: | 23352 | | | | |

## Laboratory Data

SDG ID: GCC90508
Phoenix ID: CC90516

Project ID: 218 LAKEVILLE RD
Client ID: IA-3

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Volatiles (TO15)** | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | *0.146* | 0.146 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| 1,1,1-Trichloroethane | ND | *0.183* | 0.183 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,1,2,2-Tetrachloroethane | ND | *0.146* | 0.146 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,1,2-Trichloroethane | ND | *0.183* | 0.183 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,1-Dichloroethane | ND | *0.247* | 0.247 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,1-Dichloroethene | ND | *0.051* | 0.051 | ND | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| 1,2,4-Trichlorobenzene | ND | *0.135* | 0.135 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2,4-Trimethylbenzene | 2.61 | *0.204* | 0.204 | 12.8 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-Dibromoethane(EDB) | ND | *0.130* | 0.130 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-Dichlorobenzene | ND | *0.166* | 0.166 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-Dichloroethane | ND | *0.247* | 0.247 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-dichloropropane | ND | *0.217* | 0.217 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-Dichlorotetrafluoroethane | ND | *0.143* | 0.143 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,3,5-Trimethylbenzene | 0.752 | *0.204* | 0.204 | 3.69 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,3-Butadiene | ND | *0.452* | 0.452 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,3-Dichlorobenzene | ND | *0.166* | 0.166 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,4-Dichlorobenzene | ND | *0.166* | 0.166 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,4-Dioxane | ND | *0.278* | 0.278 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 2-Hexanone(MBK) | ND | *0.244* | 0.244 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| 4-Ethyltoluene | 0.713 | *0.204* | 0.204 | 3.50 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| 4-Isopropyltoluene | ND | *0.182* | 0.182 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| 4-Methyl-2-pentanone(MIBK) | ND | *0.244* | 0.244 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Acetone | 5.98 | *0.421* | 0.421 | 14.2 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Acrylonitrile | ND | *0.461* | 0.461 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Benzene | ND | *0.313* | 0.313 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Benzyl chloride | ND | *0.193* | 0.193 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |

Project ID: 218 LAKEVILLE RD
Client ID: IA-3

Phoenix I.D.: CC90516

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution | |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromodichloromethane | ND | *0.149* | 0.149 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Bromoform | ND | *0.097* | 0.097 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Bromomethane | ND | *0.258* | 0.258 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Carbon Disulfide | ND | *0.321* | 0.321 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Carbon Tetrachloride | 0.077 | *0.032* | 0.032 | 0.48 | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| Chlorobenzene | ND | *0.217* | 0.217 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Chloroethane | ND | *0.379* | 0.379 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Chloroform | ND | *0.205* | 0.205 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Chloromethane | 0.625 | *0.485* | 0.485 | 1.29 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Cis-1,2-Dichloroethene | ND | *0.051* | 0.051 | ND | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| cis-1,3-Dichloropropene | ND | *0.221* | 0.221 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Cyclohexane | ND | *0.291* | 0.291 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Dibromochloromethane | ND | *0.118* | 0.118 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Dichlorodifluoromethane | 0.464 | *0.202* | 0.202 | 2.29 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Ethanol | 8.80 | *0.531* | 0.531 | 16.6 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| Ethyl acetate | ND | *0.278* | 0.278 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| Ethylbenzene | ND | *0.230* | 0.230 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Heptane | 0.335 | *0.244* | 0.244 | 1.37 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Hexachlorobutadiene | ND | *0.094* | 0.094 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Hexane | 0.666 | *0.284* | 0.284 | 2.35 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Isopropylalcohol | 1.02 | *0.407* | 0.407 | 2.51 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Isopropylbenzene | ND | *0.204* | 0.204 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| m,p-Xylene | 0.870 | *0.230* | 0.230 | 3.78 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Methyl Ethyl Ketone | 0.687 | *0.339* | 0.339 | 2.02 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Methyl tert-butyl ether(MTBE) | ND | *0.278* | 0.278 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Methylene Chloride | ND | *0.864* | 0.864 | ND | *3.00* | 3.00 | 04/09/19 | KCA | 1 | |
| n-Butylbenzene | ND | *0.182* | 0.182 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| o-Xylene | 0.387 | *0.230* | 0.230 | 1.68 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Propylene | ND | *0.581* | 0.581 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| sec-Butylbenzene | ND | *0.182* | 0.182 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| Styrene | 0.249 | *0.235* | 0.235 | 1.06 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Tetrachloroethene | 1.14 | *0.037* | 0.037 | 7.73 | *0.25* | 0.25 | 04/09/19 | KCA | 1 | |
| Tetrahydrofuran | 1.24 | *0.339* | 0.339 | 3.65 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| Toluene | 0.862 | *0.266* | 0.266 | 3.25 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Trans-1,2-Dichloroethene | ND | *0.252* | 0.252 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| trans-1,3-Dichloropropene | ND | *0.221* | 0.221 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Trichloroethene | 0.041 | *0.037* | 0.037 | 0.22 | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| Trichlorofluoromethane | 0.263 | *0.178* | 0.178 | 1.48 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Trichlorotrifluoroethane | ND | *0.131* | 0.131 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Vinyl Chloride | ND | *0.078* | 0.078 | ND | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| **QA/QC Surrogates/Internals** | | | | | | | | | | |
| % Bromofluorobenzene | 103 | *%* | % | 103 | *%* | % | 04/09/19 | KCA | 1 | |
| % IS-1,4-Difluorobenzene | 86 | *%* | % | 86 | *%* | % | 04/09/19 | KCA | 1 | |
| % IS-Bromochloromethane | 85 | *%* | % | 85 | *%* | % | 04/09/19 | KCA | 1 | |
| % IS-Chlorobenzene-d5 | 89 | *%* | % | 89 | *%* | % | 04/09/19 | KCA | 1 | |

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution |
|---|---|---|---|---|---|---|---|---|---|

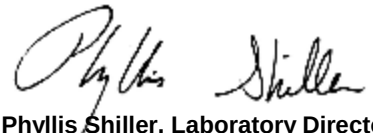
1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

The canister was received under no vacuum, therefore sample results may not be representative.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**April 30, 2019**

**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

April 30, 2019

FOR: Attn: Erica Johnston
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | AIR | Collected by: | EMJ, JKB, MCT | 04/04/19 | 12:48 |
| Location Code: | WALDENE | Received by: | CP | 04/08/19 | 15:26 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IMPL0115.6 | | | | |
| Canister Id: | 219 | | | | |

## Laboratory Data

SDG ID: GCC90508
Phoenix ID: CC90517

Project ID: 218 LAKEVILLE RD
Client ID: SS-2

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Volatiles (TO15)** | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | *0.729* | 0.729 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | 1 |
| 1,1,1-Trichloroethane | ND | *0.917* | 0.917 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,1,2,2-Tetrachloroethane | ND | *0.729* | 0.729 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,1,2-Trichloroethane | ND | *0.917* | 0.917 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,1-Dichloroethane | ND | *1.24* | 1.24 | ND | *5.02* | 5.02 | 04/10/19 | KCA | 5 | |
| 1,1-Dichloroethene | ND | *0.252* | 0.252 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 5 | |
| 1,2,4-Trichlorobenzene | ND | *0.674* | 0.674 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,2,4-Trimethylbenzene | ND | *1.02* | 1.02 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| 1,2-Dibromoethane(EDB) | ND | *0.651* | 0.651 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,2-Dichlorobenzene | ND | *0.832* | 0.832 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,2-Dichloroethane | ND | *1.24* | 1.24 | ND | *5.02* | 5.02 | 04/10/19 | KCA | 5 | |
| 1,2-dichloropropane | ND | *1.08* | 1.08 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| 1,2-Dichlorotetrafluoroethane | ND | *0.716* | 0.716 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,3,5-Trimethylbenzene | ND | *1.02* | 1.02 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| 1,3-Butadiene | ND | *2.26* | 2.26 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,3-Dichlorobenzene | ND | *0.832* | 0.832 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,4-Dichlorobenzene | ND | *0.832* | 0.832 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,4-Dioxane | ND | *1.39* | 1.39 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| 2-Hexanone(MBK) | ND | *1.22* | 1.22 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | 1 |
| 4-Ethyltoluene | ND | *1.02* | 1.02 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | 1 |
| 4-Isopropyltoluene | ND | *0.911* | 0.911 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | 1 |
| 4-Methyl-2-pentanone(MIBK) | ND | *1.22* | 1.22 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Acetone | 2.22 | *2.11* | 2.11 | 5.27 | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Acrylonitrile | ND | *2.31* | 2.31 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Benzene | ND | *1.57* | 1.57 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Benzyl chloride | ND | *0.966* | 0.966 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |

Project ID: 218 LAKEVILLE RD
Client ID: SS-2

Phoenix I.D.: CC90517

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution | |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromodichloromethane | ND | *0.747* | 0.747 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Bromoform | ND | *0.484* | 0.484 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Bromomethane | ND | *1.29* | 1.29 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Carbon Disulfide | ND | *1.61* | 1.61 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Carbon Tetrachloride | ND | *0.159* | 0.159 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 5 | |
| Chlorobenzene | ND | *1.09* | 1.09 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Chloroethane | ND | *1.90* | 1.90 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Chloroform | 17.2 | *1.02* | 1.02 | 83.9 | *4.98* | 4.98 | 04/10/19 | KCA | 5 | |
| Chloromethane | ND | *2.42* | 2.42 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Cis-1,2-Dichloroethene | 76.4 | *0.252* | 0.252 | 303 | *1.00* | 1.00 | 04/10/19 | KCA | 5 | |
| cis-1,3-Dichloropropene | ND | *1.10* | 1.10 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Cyclohexane | ND | *1.45* | 1.45 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Dibromochloromethane | ND | *0.587* | 0.587 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Dichlorodifluoromethane | ND | *1.01* | 1.01 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Ethanol | 2.89 | *2.66* | 2.66 | 5.44 | *5.01* | 5.01 | 04/10/19 | KCA | 5 | 1 |
| Ethyl acetate | ND | *1.39* | 1.39 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | 1 |
| Ethylbenzene | ND | *1.15* | 1.15 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Heptane | ND | *1.22* | 1.22 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Hexachlorobutadiene | ND | *0.469* | 0.469 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Hexane | ND | *1.42* | 1.42 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Isopropylalcohol | ND | *2.04* | 2.04 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Isopropylbenzene | ND | *1.02* | 1.02 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| m,p-Xylene | ND | *1.15* | 1.15 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Methyl Ethyl Ketone | ND | *1.70* | 1.70 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Methyl tert-butyl ether(MTBE) | ND | *1.39* | 1.39 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Methylene Chloride | ND | *4.32* | 4.32 | ND | *15.0* | 15.0 | 04/10/19 | KCA | 5 | |
| n-Butylbenzene | ND | *0.911* | 0.911 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | 1 |
| o-Xylene | ND | *1.15* | 1.15 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Propylene | ND | *2.91* | 2.91 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | 1 |
| sec-Butylbenzene | ND | *0.911* | 0.911 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | 1 |
| Styrene | ND | *1.17* | 1.17 | ND | *4.98* | 4.98 | 04/10/19 | KCA | 5 | |
| Tetrachloroethene | 6410 | *11.1* | 11.1 | 43400 | *75.2* | 75.2 | 04/10/19 | KCA | 300 | |
| Tetrahydrofuran | ND | *1.70* | 1.70 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | 1 |
| Toluene | ND | *1.33* | 1.33 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Trans-1,2-Dichloroethene | 4.43 | *1.26* | 1.26 | 17.6 | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| trans-1,3-Dichloropropene | ND | *1.10* | 1.10 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Trichloroethene | 68.9 | *0.186* | 0.186 | 370 | *1.00* | 1.00 | 04/10/19 | KCA | 5 | |
| Trichlorofluoromethane | ND | *0.891* | 0.891 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Trichlorotrifluoroethane | ND | *0.653* | 0.653 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Vinyl Chloride | ND | *0.391* | 0.391 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 5 | |
| **QA/QC Surrogates/Internals** | | | | | | | | | | |
| % Bromofluorobenzene (5x) | 105 | *%* | % | 105 | *%* | % | 04/10/19 | KCA | 5 | |
| % IS-1,4-Difluorobenzene (5x) | 82 | *%* | % | 82 | *%* | % | 04/10/19 | KCA | 5 | |
| % IS-Bromochloromethane (5x) | 79 | *%* | % | 79 | *%* | % | 04/10/19 | KCA | 5 | |
| % IS-Chlorobenzene-d5 (5x) | 82 | *%* | % | 82 | *%* | % | 04/10/19 | KCA | 5 | |
| % Bromofluorobenzene (300x) | 102 | *%* | % | 102 | *%* | % | 04/10/19 | KCA | 300 | |
| % IS-1,4-Difluorobenzene (300x) | 77 | *%* | % | 77 | *%* | % | 04/10/19 | KCA | 300 | |
| % IS-Bromochloromethane (300x) | 77 | *%* | % | 77 | *%* | % | 04/10/19 | KCA | 300 | |
| % IS-Chlorobenzene-d5 (300x) | 82 | *%* | % | 82 | *%* | % | 04/10/19 | KCA | 300 | |

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution |
|---|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

An elevated reporting level was reported for TO15 due to a matrix interference of non target compounds.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

**Phyllis Shiller, Laboratory Director**
**April 30, 2019**
**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

# Analysis Report

April 30, 2019

FOR: Attn: Erica Johnston
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | AIR | Collected by: | EMJ, JKB, MCT | 04/04/19 | 12:42 |
| Location Code: | WALDENE | Received by: | CP | 04/08/19 | 15:26 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IMPL0115.6 | | | | |
| Canister Id: | 28600 | | | | |

## Laboratory Data

SDG ID: GCC90508
Phoenix ID: CC90518

Project ID: 218 LAKEVILLE RD
Client ID: AA-DUP

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Volatiles (TO15)** | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | *0.146* | 0.146 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| 1,1,1-Trichloroethane | ND | *0.183* | 0.183 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,1,2,2-Tetrachloroethane | ND | *0.146* | 0.146 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,1,2-Trichloroethane | ND | *0.183* | 0.183 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,1-Dichloroethane | ND | *0.247* | 0.247 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,1-Dichloroethene | ND | *0.051* | 0.051 | ND | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| 1,2,4-Trichlorobenzene | ND | *0.135* | 0.135 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2,4-Trimethylbenzene | ND | *0.204* | 0.204 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-Dibromoethane(EDB) | ND | *0.130* | 0.130 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-Dichlorobenzene | ND | *0.166* | 0.166 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-Dichloroethane | ND | *0.247* | 0.247 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-dichloropropane | ND | *0.217* | 0.217 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-Dichlorotetrafluoroethane | ND | *0.143* | 0.143 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,3,5-Trimethylbenzene | ND | *0.204* | 0.204 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,3-Butadiene | ND | *0.452* | 0.452 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,3-Dichlorobenzene | ND | *0.166* | 0.166 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,4-Dichlorobenzene | ND | *0.166* | 0.166 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,4-Dioxane | ND | *0.278* | 0.278 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 2-Hexanone(MBK) | ND | *0.244* | 0.244 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| 4-Ethyltoluene | ND | *0.204* | 0.204 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| 4-Isopropyltoluene | ND | *0.182* | 0.182 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| 4-Methyl-2-pentanone(MIBK) | ND | *0.244* | 0.244 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Acetone | 2.91 | *0.421* | 0.421 | 6.91 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Acrylonitrile | ND | *0.461* | 0.461 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Benzene | ND | *0.313* | 0.313 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Benzyl chloride | ND | *0.193* | 0.193 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |

Project ID: 218 LAKEVILLE RD
Client ID: AA-DUP

Phoenix I.D.: CC90518

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution | |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromodichloromethane | ND | *0.149* | 0.149 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Bromoform | ND | *0.097* | 0.097 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Bromomethane | ND | *0.258* | 0.258 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Carbon Disulfide | ND | *0.321* | 0.321 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Carbon Tetrachloride | 0.080 | *0.032* | 0.032 | 0.50 | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| Chlorobenzene | ND | *0.217* | 0.217 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Chloroethane | ND | *0.379* | 0.379 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Chloroform | ND | *0.205* | 0.205 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Chloromethane | 0.641 | *0.485* | 0.485 | 1.32 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Cis-1,2-Dichloroethene | ND | *0.051* | 0.051 | ND | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| cis-1,3-Dichloropropene | ND | *0.221* | 0.221 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Cyclohexane | ND | *0.291* | 0.291 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Dibromochloromethane | ND | *0.118* | 0.118 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Dichlorodifluoromethane | 0.489 | *0.202* | 0.202 | 2.42 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Ethanol | 2.16 | *0.531* | 0.531 | 4.07 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| Ethyl acetate | ND | *0.278* | 0.278 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| Ethylbenzene | ND | *0.230* | 0.230 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Heptane | ND | *0.244* | 0.244 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Hexachlorobutadiene | ND | *0.094* | 0.094 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Hexane | ND | *0.284* | 0.284 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Isopropylalcohol | 0.515 | *0.407* | 0.407 | 1.27 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Isopropylbenzene | ND | *0.204* | 0.204 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| m,p-Xylene | ND | *0.230* | 0.230 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Methyl Ethyl Ketone | ND | *0.339* | 0.339 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Methyl tert-butyl ether(MTBE) | ND | *0.278* | 0.278 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Methylene Chloride | ND | *0.864* | 0.864 | ND | *3.00* | 3.00 | 04/09/19 | KCA | 1 | |
| n-Butylbenzene | ND | *0.182* | 0.182 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| o-Xylene | ND | *0.230* | 0.230 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Propylene | ND | *0.581* | 0.581 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| sec-Butylbenzene | ND | *0.182* | 0.182 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| Styrene | ND | *0.235* | 0.235 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Tetrachloroethene | ND | *0.037* | 0.037 | ND | *0.25* | 0.25 | 04/09/19 | KCA | 1 | |
| Tetrahydrofuran | ND | *0.339* | 0.339 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| Toluene | ND | *0.266* | 0.266 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Trans-1,2-Dichloroethene | ND | *0.252* | 0.252 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| trans-1,3-Dichloropropene | ND | *0.221* | 0.221 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Trichloroethene | ND | *0.037* | 0.037 | ND | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| Trichlorofluoromethane | 0.263 | *0.178* | 0.178 | 1.48 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Trichlorotrifluoroethane | ND | *0.131* | 0.131 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Vinyl Chloride | ND | *0.078* | 0.078 | ND | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| **QA/QC Surrogates/Internals** | | | | | | | | | | |
| % Bromofluorobenzene | 99 | *%* | % | 99 | *%* | % | 04/09/19 | KCA | 1 | |
| % IS-1,4-Difluorobenzene | 86 | *%* | % | 86 | *%* | % | 04/09/19 | KCA | 1 | |
| % IS-Bromochloromethane | 87 | *%* | % | 87 | *%* | % | 04/09/19 | KCA | 1 | |
| % IS-Chlorobenzene-d5 | 89 | *%* | % | 89 | *%* | % | 04/09/19 | KCA | 1 | |

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution |
|---|---|---|---|---|---|---|---|---|---|

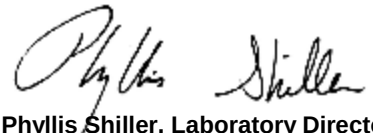
1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

The canister was received under no vacuum, therefore sample results may not be representative.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**April 30, 2019**

**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

# Analysis Report

April 30, 2019

FOR: Attn: Erica Johnston
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | AIR | Collected by: | EMJ, JKB, MCT | 04/04/19 | 13:43 |
| Location Code: | WALDENE | Received by: | CP | 04/08/19 | 15:26 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IMPL0115.6 | | | | |
| Canister Id: | 19854 | | | | |

## Laboratory Data

SDG ID: GCC90508
Phoenix ID: CC90519

Project ID: 218 LAKEVILLE RD
Client ID: AA-1

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Volatiles (TO15)** | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | *0.146* | 0.146 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| 1,1,1-Trichloroethane | ND | *0.183* | 0.183 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,1,2,2-Tetrachloroethane | ND | *0.146* | 0.146 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,1,2-Trichloroethane | ND | *0.183* | 0.183 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,1-Dichloroethane | ND | *0.247* | 0.247 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,1-Dichloroethene | ND | *0.051* | 0.051 | ND | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| 1,2,4-Trichlorobenzene | ND | *0.135* | 0.135 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2,4-Trimethylbenzene | ND | *0.204* | 0.204 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-Dibromoethane(EDB) | ND | *0.130* | 0.130 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-Dichlorobenzene | ND | *0.166* | 0.166 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-Dichloroethane | ND | *0.247* | 0.247 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-dichloropropane | ND | *0.217* | 0.217 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-Dichlorotetrafluoroethane | ND | *0.143* | 0.143 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,3,5-Trimethylbenzene | ND | *0.204* | 0.204 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,3-Butadiene | ND | *0.452* | 0.452 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,3-Dichlorobenzene | ND | *0.166* | 0.166 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,4-Dichlorobenzene | ND | *0.166* | 0.166 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,4-Dioxane | ND | *0.278* | 0.278 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 2-Hexanone(MBK) | ND | *0.244* | 0.244 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| 4-Ethyltoluene | ND | *0.204* | 0.204 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| 4-Isopropyltoluene | ND | *0.182* | 0.182 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| 4-Methyl-2-pentanone(MIBK) | ND | *0.244* | 0.244 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Acetone | 1.79 | *0.421* | 0.421 | 4.25 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Acrylonitrile | ND | *0.461* | 0.461 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Benzene | ND | *0.313* | 0.313 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Benzyl chloride | ND | *0.193* | 0.193 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |

Project ID: 218 LAKEVILLE RD
Client ID: AA-1

Phoenix I.D.: CC90519

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution | |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromodichloromethane | ND | *0.149* | 0.149 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Bromoform | ND | *0.097* | 0.097 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Bromomethane | ND | *0.258* | 0.258 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Carbon Disulfide | 0.471 | *0.321* | 0.321 | 1.47 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Carbon Tetrachloride | 0.083 | *0.032* | 0.032 | 0.52 | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| Chlorobenzene | ND | *0.217* | 0.217 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Chloroethane | ND | *0.379* | 0.379 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Chloroform | ND | *0.205* | 0.205 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Chloromethane | 0.638 | *0.485* | 0.485 | 1.32 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Cis-1,2-Dichloroethene | ND | *0.051* | 0.051 | ND | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| cis-1,3-Dichloropropene | ND | *0.221* | 0.221 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Cyclohexane | ND | *0.291* | 0.291 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Dibromochloromethane | ND | *0.118* | 0.118 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Dichlorodifluoromethane | 0.472 | *0.202* | 0.202 | 2.33 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Ethanol | 2.44 | *0.531* | 0.531 | 4.59 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| Ethyl acetate | ND | *0.278* | 0.278 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| Ethylbenzene | ND | *0.230* | 0.230 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Heptane | ND | *0.244* | 0.244 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Hexachlorobutadiene | ND | *0.094* | 0.094 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Hexane | ND | *0.284* | 0.284 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Isopropylalcohol | 0.575 | *0.407* | 0.407 | 1.41 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Isopropylbenzene | ND | *0.204* | 0.204 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| m,p-Xylene | ND | *0.230* | 0.230 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Methyl Ethyl Ketone | ND | *0.339* | 0.339 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Methyl tert-butyl ether(MTBE) | ND | *0.278* | 0.278 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Methylene Chloride | ND | *0.864* | 0.864 | ND | *3.00* | 3.00 | 04/09/19 | KCA | 1 | |
| n-Butylbenzene | ND | *0.182* | 0.182 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| o-Xylene | ND | *0.230* | 0.230 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Propylene | ND | *0.581* | 0.581 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| sec-Butylbenzene | ND | *0.182* | 0.182 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| Styrene | ND | *0.235* | 0.235 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Tetrachloroethene | ND | *0.037* | 0.037 | ND | *0.25* | 0.25 | 04/09/19 | KCA | 1 | |
| Tetrahydrofuran | ND | *0.339* | 0.339 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| Toluene | ND | *0.266* | 0.266 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Trans-1,2-Dichloroethene | ND | *0.252* | 0.252 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| trans-1,3-Dichloropropene | ND | *0.221* | 0.221 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Trichloroethene | ND | *0.037* | 0.037 | ND | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| Trichlorofluoromethane | 0.253 | *0.178* | 0.178 | 1.42 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Trichlorotrifluoroethane | ND | *0.131* | 0.131 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Vinyl Chloride | ND | *0.078* | 0.078 | ND | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| **QA/QC Surrogates/Internals** | | | | | | | | | | |
| % Bromofluorobenzene | 100 | *%* | % | 100 | *%* | % | 04/09/19 | KCA | 1 | |
| % IS-1,4-Difluorobenzene | 84 | *%* | % | 84 | *%* | % | 04/09/19 | KCA | 1 | |
| % IS-Bromochloromethane | 83 | *%* | % | 83 | *%* | % | 04/09/19 | KCA | 1 | |
| % IS-Chlorobenzene-d5 | 88 | *%* | % | 88 | *%* | % | 04/09/19 | KCA | 1 | |

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution |
|---|---|---|---|---|---|---|---|---|---|

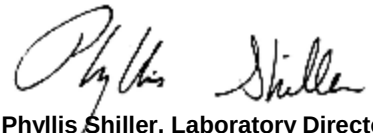
1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

The canister was received under no vacuum, therefore sample results may not be representative.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**April 30, 2019**

**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

April 30, 2019

FOR: Attn: Erica Johnston
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | AIR | Collected by: | EMJ, JKB, MCT | 04/04/19 | 12:41 |
| Location Code: | WALDENE | Received by: | CP | 04/08/19 | 15:26 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IMPL0115.6 | | | | |
| Canister Id: | 21341 | | | | |

## Laboratory Data

SDG ID: GCC90508
Phoenix ID: CC90520

Project ID: 218 LAKEVILLE RD
Client ID: AA-2

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Volatiles (TO15)** | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | *0.146* | 0.146 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| 1,1,1-Trichloroethane | ND | *0.183* | 0.183 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,1,2,2-Tetrachloroethane | ND | *0.146* | 0.146 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,1,2-Trichloroethane | ND | *0.183* | 0.183 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,1-Dichloroethane | ND | *0.247* | 0.247 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,1-Dichloroethene | ND | *0.051* | 0.051 | ND | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| 1,2,4-Trichlorobenzene | ND | *0.135* | 0.135 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2,4-Trimethylbenzene | ND | *0.204* | 0.204 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-Dibromoethane(EDB) | ND | *0.130* | 0.130 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-Dichlorobenzene | ND | *0.166* | 0.166 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-Dichloroethane | ND | *0.247* | 0.247 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-dichloropropane | ND | *0.217* | 0.217 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,2-Dichlorotetrafluoroethane | ND | *0.143* | 0.143 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,3,5-Trimethylbenzene | ND | *0.204* | 0.204 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,3-Butadiene | ND | *0.452* | 0.452 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,3-Dichlorobenzene | ND | *0.166* | 0.166 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,4-Dichlorobenzene | ND | *0.166* | 0.166 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 1,4-Dioxane | ND | *0.278* | 0.278 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| 2-Hexanone(MBK) | ND | *0.244* | 0.244 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| 4-Ethyltoluene | ND | *0.204* | 0.204 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| 4-Isopropyltoluene | ND | *0.182* | 0.182 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| 4-Methyl-2-pentanone(MIBK) | ND | *0.244* | 0.244 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Acetone | 1.67 | *0.421* | 0.421 | 3.96 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Acrylonitrile | ND | *0.461* | 0.461 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Benzene | ND | *0.313* | 0.313 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Benzyl chloride | ND | *0.193* | 0.193 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |

Project ID: 218 LAKEVILLE RD
Client ID: AA-2

Phoenix I.D.: CC90520

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution | |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromodichloromethane | ND | *0.149* | 0.149 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Bromoform | ND | *0.097* | 0.097 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Bromomethane | ND | *0.258* | 0.258 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Carbon Disulfide | ND | *0.321* | 0.321 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Carbon Tetrachloride | 0.080 | *0.032* | 0.032 | 0.50 | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| Chlorobenzene | ND | *0.217* | 0.217 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Chloroethane | ND | *0.379* | 0.379 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Chloroform | ND | *0.205* | 0.205 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Chloromethane | 0.598 | *0.485* | 0.485 | 1.23 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Cis-1,2-Dichloroethene | ND | *0.051* | 0.051 | ND | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| cis-1,3-Dichloropropene | ND | *0.221* | 0.221 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Cyclohexane | ND | *0.291* | 0.291 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Dibromochloromethane | ND | *0.118* | 0.118 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Dichlorodifluoromethane | 0.482 | *0.202* | 0.202 | 2.38 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Ethanol | 2.22 | *0.531* | 0.531 | 4.18 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| Ethyl acetate | ND | *0.278* | 0.278 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| Ethylbenzene | ND | *0.230* | 0.230 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Heptane | ND | *0.244* | 0.244 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Hexachlorobutadiene | ND | *0.094* | 0.094 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Hexane | ND | *0.284* | 0.284 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Isopropylalcohol | 0.676 | *0.407* | 0.407 | 1.66 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Isopropylbenzene | ND | *0.204* | 0.204 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| m,p-Xylene | ND | *0.230* | 0.230 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Methyl Ethyl Ketone | ND | *0.339* | 0.339 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Methyl tert-butyl ether(MTBE) | ND | *0.278* | 0.278 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Methylene Chloride | ND | *0.864* | 0.864 | ND | *3.00* | 3.00 | 04/09/19 | KCA | 1 | |
| n-Butylbenzene | ND | *0.182* | 0.182 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| o-Xylene | ND | *0.230* | 0.230 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Propylene | ND | *0.581* | 0.581 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| sec-Butylbenzene | ND | *0.182* | 0.182 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| Styrene | ND | *0.235* | 0.235 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Tetrachloroethene | ND | *0.037* | 0.037 | ND | *0.25* | 0.25 | 04/09/19 | KCA | 1 | |
| Tetrahydrofuran | ND | *0.339* | 0.339 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | 1 |
| Toluene | ND | *0.266* | 0.266 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Trans-1,2-Dichloroethene | ND | *0.252* | 0.252 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| trans-1,3-Dichloropropene | ND | *0.221* | 0.221 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Trichloroethene | ND | *0.037* | 0.037 | ND | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| Trichlorofluoromethane | 0.250 | *0.178* | 0.178 | 1.40 | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Trichlorotrifluoroethane | ND | *0.131* | 0.131 | ND | *1.00* | 1.00 | 04/09/19 | KCA | 1 | |
| Vinyl Chloride | ND | *0.078* | 0.078 | ND | *0.20* | 0.20 | 04/09/19 | KCA | 1 | |
| **QA/QC Surrogates/Internals** | | | | | | | | | | |
| % Bromofluorobenzene | 100 | *%* | % | 100 | *%* | % | 04/09/19 | KCA | 1 | |
| % IS-1,4-Difluorobenzene | 82 | *%* | % | 82 | *%* | % | 04/09/19 | KCA | 1 | |
| % IS-Bromochloromethane | 82 | *%* | % | 82 | *%* | % | 04/09/19 | KCA | 1 | |
| % IS-Chlorobenzene-d5 | 86 | *%* | % | 86 | *%* | % | 04/09/19 | KCA | 1 | |

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution |
|---|---|---|---|---|---|---|---|---|---|

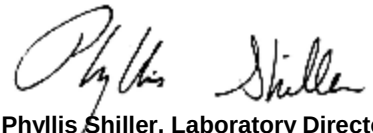
1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

The canister was received under no vacuum, therefore sample results may not be representative.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**April 30, 2019**

**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

# Analysis Report

April 30, 2019

FOR: Attn: Erica Johnston
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | AIR | Collected by: | EMJ, JKB, MCT | 04/04/19 | 15:21 |
| Location Code: | WALDENE | Received by: | CP | 04/08/19 | 15:26 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IMPL0115.6 | | | | |
| Canister Id: | 13635 | | | | |

## Laboratory Data

SDG ID: GCC90508
Phoenix ID: CC90521

Project ID: 218 LAKEVILLE RD
Client ID: IA-10

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Volatiles (TO15)** | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | *0.146* | 0.146 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | 1 |
| 1,1,1-Trichloroethane | ND | *0.183* | 0.183 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,1,2,2-Tetrachloroethane | ND | *0.146* | 0.146 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,1,2-Trichloroethane | ND | *0.183* | 0.183 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,1-Dichloroethane | ND | *0.247* | 0.247 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,1-Dichloroethene | ND | *0.051* | 0.051 | ND | *0.20* | 0.20 | 04/10/19 | KCA | 1 | |
| 1,2,4-Trichlorobenzene | ND | *0.135* | 0.135 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,2,4-Trimethylbenzene | 1.58 | *0.204* | 0.204 | 7.76 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,2-Dibromoethane(EDB) | ND | *0.130* | 0.130 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,2-Dichlorobenzene | ND | *0.166* | 0.166 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,2-Dichloroethane | ND | *0.247* | 0.247 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,2-dichloropropane | ND | *0.217* | 0.217 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,2-Dichlorotetrafluoroethane | ND | *0.143* | 0.143 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,3,5-Trimethylbenzene | 0.375 | *0.204* | 0.204 | 1.84 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,3-Butadiene | ND | *0.452* | 0.452 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,3-Dichlorobenzene | ND | *0.166* | 0.166 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,4-Dichlorobenzene | ND | *0.166* | 0.166 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,4-Dioxane | ND | *0.278* | 0.278 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 2-Hexanone(MBK) | ND | *0.244* | 0.244 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | 1 |
| 4-Ethyltoluene | 0.419 | *0.204* | 0.204 | 2.06 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | 1 |
| 4-Isopropyltoluene | ND | *0.182* | 0.182 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | 1 |
| 4-Methyl-2-pentanone(MIBK) | ND | *0.244* | 0.244 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Acetone | 17.3 | *0.421* | 0.421 | 41.1 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Acrylonitrile | ND | *0.461* | 0.461 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Benzene | 1.03 | *0.313* | 0.313 | 3.29 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Benzyl chloride | ND | *0.193* | 0.193 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |

Project ID: 218 LAKEVILLE RD
Client ID: IA-10

Phoenix I.D.: CC90521

| Parameter | ppbv Result | | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Bromodichloromethane | ND | | *0.149* | 0.149 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Bromoform | ND | | *0.097* | 0.097 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Bromomethane | ND | | *0.258* | 0.258 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Carbon Disulfide | ND | | *0.321* | 0.321 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Carbon Tetrachloride | 0.073 | | *0.032* | 0.032 | 0.46 | *0.20* | 0.20 | 04/10/19 | KCA | 1 | |
| Chlorobenzene | ND | | *0.217* | 0.217 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Chloroethane | ND | | *0.379* | 0.379 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Chloroform | ND | | *0.205* | 0.205 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Chloromethane | 0.652 | | *0.485* | 0.485 | 1.35 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Cis-1,2-Dichloroethene | ND | | *0.051* | 0.051 | ND | *0.20* | 0.20 | 04/10/19 | KCA | 1 | |
| cis-1,3-Dichloropropene | ND | | *0.221* | 0.221 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Cyclohexane | 1.47 | | *0.291* | 0.291 | 5.06 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Dibromochloromethane | ND | | *0.118* | 0.118 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Dichlorodifluoromethane | 0.615 | | *0.202* | 0.202 | 3.04 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Ethanol | 54.4 | E | *0.531* | 0.531 | 102 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | 1 |
| Ethyl acetate | 1.32 | | *0.278* | 0.278 | 4.75 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | 1 |
| Ethylbenzene | 1.67 | | *0.230* | 0.230 | 7.25 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Heptane | 3.20 | | *0.244* | 0.244 | 13.1 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Hexachlorobutadiene | ND | | *0.094* | 0.094 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Hexane | 4.64 | | *0.284* | 0.284 | 16.3 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Isopropylalcohol | 1.76 | | *0.407* | 0.407 | 4.32 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Isopropylbenzene | ND | | *0.204* | 0.204 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| m,p-Xylene | 6.33 | | *0.230* | 0.230 | 27.5 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Methyl Ethyl Ketone | 1.31 | | *0.339* | 0.339 | 3.86 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Methyl tert-butyl ether(MTBE) | ND | | *0.278* | 0.278 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Methylene Chloride | 34.6 | | *0.864* | 0.864 | 120 | *3.00* | 3.00 | 04/10/19 | KCA | 1 | |
| n-Butylbenzene | ND | | *0.182* | 0.182 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | 1 |
| o-Xylene | 2.06 | | *0.230* | 0.230 | 8.94 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Propylene | ND | | *0.581* | 0.581 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | 1 |
| sec-Butylbenzene | ND | | *0.182* | 0.182 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | 1 |
| Styrene | ND | | *0.235* | 0.235 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Tetrachloroethene | 1.69 | | *0.037* | 0.037 | 11.5 | *0.25* | 0.25 | 04/10/19 | KCA | 1 | |
| Tetrahydrofuran | 0.926 | | *0.339* | 0.339 | 2.73 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | 1 |
| Toluene | 10.2 | | *0.266* | 0.266 | 38.4 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Trans-1,2-Dichloroethene | ND | | *0.252* | 0.252 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| trans-1,3-Dichloropropene | ND | | *0.221* | 0.221 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Trichloroethene | 0.145 | | *0.037* | 0.037 | 0.78 | *0.20* | 0.20 | 04/10/19 | KCA | 1 | |
| Trichlorofluoromethane | 0.319 | | *0.178* | 0.178 | 1.79 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Trichlorotrifluoroethane | ND | | *0.131* | 0.131 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Vinyl Chloride | ND | | *0.078* | 0.078 | ND | *0.20* | 0.20 | 04/10/19 | KCA | 1 | |
| **QA/QC Surrogates/Internals** | | | | | | | | | | | |
| % Bromofluorobenzene | 102 | | *%* | % | 102 | *%* | % | 04/10/19 | KCA | 1 | |
| % IS-1,4-Difluorobenzene | 82 | | *%* | % | 82 | *%* | % | 04/10/19 | KCA | 1 | |
| % IS-Bromochloromethane | 79 | | *%* | % | 79 | *%* | % | 04/10/19 | KCA | 1 | |
| % IS-Chlorobenzene-d5 | 89 | | *%* | % | 89 | *%* | % | 04/10/19 | KCA | 1 | |

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution |
|---|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

E = Estimated value quantitated above calibration range for this compound.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

**Phyllis Shiller, Laboratory Director**
**April 30, 2019**
**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

# Analysis Report

April 30, 2019

FOR: Attn: Erica Johnston
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | AIR | Collected by: | EMJ, JKB, MCT | 04/04/19 | 12:20 |
| Location Code: | WALDENE | Received by: | CP | 04/08/19 | 15:26 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IMPL0115.6 | | | | |
| Canister Id: | 156 | | | | |

## Laboratory Data

SDG ID: GCC90508
Phoenix ID: CC90522

Project ID: 218 LAKEVILLE RD
Client ID: IA-DUP

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Volatiles (TO15)** | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | *0.146* | 0.146 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | 1 |
| 1,1,1-Trichloroethane | ND | *0.183* | 0.183 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,1,2,2-Tetrachloroethane | ND | *0.146* | 0.146 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,1,2-Trichloroethane | ND | *0.183* | 0.183 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,1-Dichloroethane | ND | *0.247* | 0.247 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,1-Dichloroethene | ND | *0.051* | 0.051 | ND | *0.20* | 0.20 | 04/10/19 | KCA | 1 | |
| 1,2,4-Trichlorobenzene | ND | *0.135* | 0.135 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,2,4-Trimethylbenzene | 3.44 | *0.204* | 0.204 | 16.9 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,2-Dibromoethane(EDB) | ND | *0.130* | 0.130 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,2-Dichlorobenzene | ND | *0.166* | 0.166 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,2-Dichloroethane | ND | *0.247* | 0.247 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,2-dichloropropane | ND | *0.217* | 0.217 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,2-Dichlorotetrafluoroethane | ND | *0.143* | 0.143 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,3,5-Trimethylbenzene | 1.01 | *0.204* | 0.204 | 4.96 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,3-Butadiene | ND | *0.452* | 0.452 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,3-Dichlorobenzene | ND | *0.166* | 0.166 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,4-Dichlorobenzene | ND | *0.166* | 0.166 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 1,4-Dioxane | ND | *0.278* | 0.278 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| 2-Hexanone(MBK) | ND | *0.244* | 0.244 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | 1 |
| 4-Ethyltoluene | 1.29 | *0.204* | 0.204 | 6.34 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | 1 |
| 4-Isopropyltoluene | ND | *0.182* | 0.182 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | 1 |
| 4-Methyl-2-pentanone(MIBK) | ND | *0.244* | 0.244 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Acetone | 8.49 | *0.421* | 0.421 | 20.2 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Acrylonitrile | ND | *0.461* | 0.461 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Benzene | 0.516 | *0.313* | 0.313 | 1.65 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Benzyl chloride | ND | *0.193* | 0.193 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |

Project ID: 218 LAKEVILLE RD
Client ID: IA-DUP

Phoenix I.D.: CC90522

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution | |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromodichloromethane | ND | *0.149* | 0.149 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Bromoform | ND | *0.097* | 0.097 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Bromomethane | ND | *0.258* | 0.258 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Carbon Disulfide | ND | *0.321* | 0.321 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Carbon Tetrachloride | 0.074 | *0.032* | 0.032 | 0.47 | *0.20* | 0.20 | 04/10/19 | KCA | 1 | |
| Chlorobenzene | ND | *0.217* | 0.217 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Chloroethane | ND | *0.379* | 0.379 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Chloroform | ND | *0.205* | 0.205 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Chloromethane | 0.580 | *0.485* | 0.485 | 1.20 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Cis-1,2-Dichloroethene | 0.058 | *0.051* | 0.051 | 0.23 | *0.20* | 0.20 | 04/10/19 | KCA | 1 | |
| cis-1,3-Dichloropropene | ND | *0.221* | 0.221 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Cyclohexane | 0.902 | *0.291* | 0.291 | 3.10 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Dibromochloromethane | ND | *0.118* | 0.118 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Dichlorodifluoromethane | 0.475 | *0.202* | 0.202 | 2.35 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Ethanol | 17.9 | *0.531* | 0.531 | 33.7 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | 1 |
| Ethyl acetate | ND | *0.278* | 0.278 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | 1 |
| Ethylbenzene | 0.581 | *0.230* | 0.230 | 2.52 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Heptane | 1.05 | *0.244* | 0.244 | 4.30 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Hexachlorobutadiene | ND | *0.094* | 0.094 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Hexane | 2.35 | *0.284* | 0.284 | 8.28 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Isopropylalcohol | 0.750 | *0.407* | 0.407 | 1.84 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Isopropylbenzene | 0.238 | *0.204* | 0.204 | 1.17 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| m,p-Xylene | 2.35 | *0.230* | 0.230 | 10.2 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Methyl Ethyl Ketone | 0.861 | *0.339* | 0.339 | 2.54 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Methyl tert-butyl ether(MTBE) | ND | *0.278* | 0.278 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Methylene Chloride | ND | *0.864* | 0.864 | ND | *3.00* | 3.00 | 04/10/19 | KCA | 1 | |
| n-Butylbenzene | ND | *0.182* | 0.182 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | 1 |
| o-Xylene | 0.977 | *0.230* | 0.230 | 4.24 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Propylene | ND | *0.581* | 0.581 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | 1 |
| sec-Butylbenzene | ND | *0.182* | 0.182 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | 1 |
| Styrene | ND | *0.235* | 0.235 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Tetrachloroethene | 1.34 | *0.037* | 0.037 | 9.08 | *0.25* | 0.25 | 04/10/19 | KCA | 1 | |
| Tetrahydrofuran | 1.95 | *0.339* | 0.339 | 5.75 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | 1 |
| Toluene | 2.89 | *0.266* | 0.266 | 10.9 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Trans-1,2-Dichloroethene | ND | *0.252* | 0.252 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| trans-1,3-Dichloropropene | ND | *0.221* | 0.221 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Trichloroethene | 0.047 | *0.037* | 0.037 | 0.25 | *0.20* | 0.20 | 04/10/19 | KCA | 1 | |
| Trichlorofluoromethane | 0.264 | *0.178* | 0.178 | 1.48 | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Trichlorotrifluoroethane | ND | *0.131* | 0.131 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 1 | |
| Vinyl Chloride | ND | *0.078* | 0.078 | ND | *0.20* | 0.20 | 04/10/19 | KCA | 1 | |
| **QA/QC Surrogates/Internals** | | | | | | | | | | |
| % Bromofluorobenzene | 100 | *%* | % | 100 | *%* | % | 04/10/19 | KCA | 1 | |
| % IS-1,4-Difluorobenzene | 85 | *%* | % | 85 | *%* | % | 04/10/19 | KCA | 1 | |
| % IS-Bromochloromethane | 82 | *%* | % | 82 | *%* | % | 04/10/19 | KCA | 1 | |
| % IS-Chlorobenzene-d5 | 90 | *%* | % | 90 | *%* | % | 04/10/19 | KCA | 1 | |

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution |
|---|---|---|---|---|---|---|---|---|---|

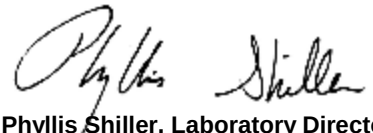
1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

The canister was received under no vacuum, therefore sample results may not be representative.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**April 30, 2019**

**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

April 30, 2019

FOR: Attn: Erica Johnston
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | AIR | Collected by: | EMJ, JKB, MCT | 04/04/19 | 15:17 |
| Location Code: | WALDENE | Received by: | CP | 04/08/19 | 15:26 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IMPL0115.6 | | | | |
| Canister Id: | 23327 | | | | |

## Laboratory Data

SDG ID: GCC90508
Phoenix ID: CC90523

Project ID: 218 LAKEVILLE RD
Client ID: SS-10

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Volatiles (TO15)** | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | *0.729* | 0.729 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | 1 |
| 1,1,1-Trichloroethane | ND | *0.917* | 0.917 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,1,2,2-Tetrachloroethane | ND | *0.729* | 0.729 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,1,2-Trichloroethane | ND | *0.917* | 0.917 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,1-Dichloroethane | ND | *1.24* | 1.24 | ND | *5.02* | 5.02 | 04/10/19 | KCA | 5 | |
| 1,1-Dichloroethene | ND | *0.252* | 0.252 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 5 | |
| 1,2,4-Trichlorobenzene | ND | *0.674* | 0.674 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,2,4-Trimethylbenzene | 4.96 | *1.02* | 1.02 | 24.4 | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| 1,2-Dibromoethane(EDB) | ND | *0.651* | 0.651 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,2-Dichlorobenzene | ND | *0.832* | 0.832 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,2-Dichloroethane | ND | *1.24* | 1.24 | ND | *5.02* | 5.02 | 04/10/19 | KCA | 5 | |
| 1,2-dichloropropane | ND | *1.08* | 1.08 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| 1,2-Dichlorotetrafluoroethane | ND | *0.716* | 0.716 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,3,5-Trimethylbenzene | 1.11 | *1.02* | 1.02 | 5.45 | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| 1,3-Butadiene | ND | *2.26* | 2.26 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,3-Dichlorobenzene | ND | *0.832* | 0.832 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,4-Dichlorobenzene | ND | *0.832* | 0.832 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,4-Dioxane | ND | *1.39* | 1.39 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| 2-Hexanone(MBK) | ND | *1.22* | 1.22 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | 1 |
| 4-Ethyltoluene | 1.54 | *1.02* | 1.02 | 7.57 | *5.01* | 5.01 | 04/10/19 | KCA | 5 | 1 |
| 4-Isopropyltoluene | ND | *0.911* | 0.911 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | 1 |
| 4-Methyl-2-pentanone(MIBK) | ND | *1.22* | 1.22 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Acetone | 78.5 | *2.11* | 2.11 | 186 | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Acrylonitrile | ND | *2.31* | 2.31 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Benzene | 2.08 | *1.57* | 1.57 | 6.64 | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Benzyl chloride | ND | *0.966* | 0.966 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |

Project ID: 218 LAKEVILLE RD
Client ID: SS-10

Phoenix I.D.: CC90523

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution | |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromodichloromethane | ND | *0.747* | 0.747 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Bromoform | ND | *0.484* | 0.484 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Bromomethane | ND | *1.29* | 1.29 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Carbon Disulfide | 1.66 | *1.61* | 1.61 | 5.17 | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Carbon Tetrachloride | ND | *0.159* | 0.159 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 5 | |
| Chlorobenzene | ND | *1.09* | 1.09 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Chloroethane | ND | *1.90* | 1.90 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Chloroform | 5.46 | *1.02* | 1.02 | 26.6 | *4.98* | 4.98 | 04/10/19 | KCA | 5 | |
| Chloromethane | ND | *2.42* | 2.42 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Cis-1,2-Dichloroethene | ND | *0.252* | 0.252 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 5 | |
| cis-1,3-Dichloropropene | ND | *1.10* | 1.10 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Cyclohexane | ND | *1.45* | 1.45 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Dibromochloromethane | ND | *0.587* | 0.587 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Dichlorodifluoromethane | ND | *1.01* | 1.01 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Ethanol | 10.0 | *2.66* | 2.66 | 18.8 | *5.01* | 5.01 | 04/10/19 | KCA | 5 | 1 |
| Ethyl acetate | ND | *1.39* | 1.39 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | 1 |
| Ethylbenzene | 2.36 | *1.15* | 1.15 | 10.2 | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Heptane | 2.60 | *1.22* | 1.22 | 10.6 | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Hexachlorobutadiene | ND | *0.469* | 0.469 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Hexane | 1.90 | *1.42* | 1.42 | 6.69 | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Isopropylalcohol | ND | *2.04* | 2.04 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Isopropylbenzene | ND | *1.02* | 1.02 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| m,p-Xylene | 11.2 | *1.15* | 1.15 | 48.6 | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Methyl Ethyl Ketone | 6.72 | *1.70* | 1.70 | 19.8 | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Methyl tert-butyl ether(MTBE) | ND | *1.39* | 1.39 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Methylene Chloride | ND | *4.32* | 4.32 | ND | *15.0* | 15.0 | 04/10/19 | KCA | 5 | |
| n-Butylbenzene | ND | *0.911* | 0.911 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | 1 |
| o-Xylene | 3.12 | *1.15* | 1.15 | 13.5 | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Propylene | ND | *2.91* | 2.91 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | 1 |
| sec-Butylbenzene | ND | *0.911* | 0.911 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | 1 |
| Styrene | ND | *1.17* | 1.17 | ND | *4.98* | 4.98 | 04/10/19 | KCA | 5 | |
| Tetrachloroethene | 1050 | *2.77* | 2.77 | 7120 | *18.8* | 18.8 | 04/10/19 | KCA | 75 | |
| Tetrahydrofuran | ND | *1.70* | 1.70 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | 1 |
| Toluene | 9.43 | *1.33* | 1.33 | 35.5 | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Trans-1,2-Dichloroethene | ND | *1.26* | 1.26 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| trans-1,3-Dichloropropene | ND | *1.10* | 1.10 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Trichloroethene | 15.3 | *0.186* | 0.186 | 82.2 | *1.00* | 1.00 | 04/10/19 | KCA | 5 | |
| Trichlorofluoromethane | ND | *0.891* | 0.891 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Trichlorotrifluoroethane | ND | *0.653* | 0.653 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Vinyl Chloride | ND | *0.391* | 0.391 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 5 | |
| **QA/QC Surrogates/Internals** | | | | | | | | | | |
| % Bromofluorobenzene (5x) | 104 | *%* | % | 104 | *%* | % | 04/10/19 | KCA | 5 | |
| % IS-1,4-Difluorobenzene (5x) | 83 | *%* | % | 83 | *%* | % | 04/10/19 | KCA | 5 | |
| % IS-Bromochloromethane (5x) | 77 | *%* | % | 77 | *%* | % | 04/10/19 | KCA | 5 | |
| % IS-Chlorobenzene-d5 (5x) | 85 | *%* | % | 85 | *%* | % | 04/10/19 | KCA | 5 | |
| % Bromofluorobenzene (75x) | 100 | *%* | % | 100 | *%* | % | 04/10/19 | KCA | 75 | |
| % IS-1,4-Difluorobenzene (75x) | 78 | *%* | % | 78 | *%* | % | 04/10/19 | KCA | 75 | |
| % IS-Bromochloromethane (75x) | 76 | *%* | % | 76 | *%* | % | 04/10/19 | KCA | 75 | |
| % IS-Chlorobenzene-d5 (75x) | 84 | *%* | % | 84 | *%* | % | 04/10/19 | KCA | 75 | |

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution |
|---|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

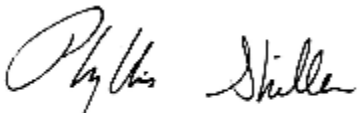
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

The canister was received under no vacuum, therefore sample results may not be representative.

An elevated reporting level was reported for TO15 due to a matrix interference of non target compounds.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**April 30, 2019**
**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

April 30, 2019

FOR: Attn: Erica Johnston
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | AIR | Collected by: | EMJ, JKB, MCT | 04/04/19 | 12:30 |
| Location Code: | WALDENE | Received by: | CP | 04/08/19 | 15:26 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | IMPL0115.6 | | | | |
| Canister Id: | 28557 | | | | |

## Laboratory Data

SDG ID: GCC90508
Phoenix ID: CC90524

Project ID: 218 LAKEVILLE RD
Client ID: SS-1

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Volatiles (TO15)** | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | *0.729* | 0.729 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | 1 |
| 1,1,1-Trichloroethane | ND | *0.917* | 0.917 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,1,2,2-Tetrachloroethane | ND | *0.729* | 0.729 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,1,2-Trichloroethane | ND | *0.917* | 0.917 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,1-Dichloroethane | ND | *1.24* | 1.24 | ND | *5.02* | 5.02 | 04/10/19 | KCA | 5 | |
| 1,1-Dichloroethene | ND | *0.252* | 0.252 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 5 | |
| 1,2,4-Trichlorobenzene | ND | *0.674* | 0.674 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,2,4-Trimethylbenzene | ND | *1.02* | 1.02 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| 1,2-Dibromoethane(EDB) | ND | *0.651* | 0.651 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,2-Dichlorobenzene | ND | *0.832* | 0.832 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,2-Dichloroethane | ND | *1.24* | 1.24 | ND | *5.02* | 5.02 | 04/10/19 | KCA | 5 | |
| 1,2-dichloropropane | ND | *1.08* | 1.08 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| 1,2-Dichlorotetrafluoroethane | ND | *0.716* | 0.716 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,3,5-Trimethylbenzene | ND | *1.02* | 1.02 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| 1,3-Butadiene | ND | *2.26* | 2.26 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,3-Dichlorobenzene | ND | *0.832* | 0.832 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,4-Dichlorobenzene | ND | *0.832* | 0.832 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| 1,4-Dioxane | ND | *1.39* | 1.39 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| 2-Hexanone(MBK) | ND | *1.22* | 1.22 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | 1 |
| 4-Ethyltoluene | ND | *1.02* | 1.02 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | 1 |
| 4-Isopropyltoluene | ND | *0.911* | 0.911 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | 1 |
| 4-Methyl-2-pentanone(MIBK) | ND | *1.22* | 1.22 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Acetone | 3.58 | *2.11* | 2.11 | 8.50 | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Acrylonitrile | ND | *2.31* | 2.31 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Benzene | ND | *1.57* | 1.57 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Benzyl chloride | ND | *0.966* | 0.966 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |

Project ID: 218 LAKEVILLE RD
Client ID: SS-1

Phoenix I.D.: CC90524

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution | |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromodichloromethane | ND | *0.747* | 0.747 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Bromoform | ND | *0.484* | 0.484 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Bromomethane | ND | *1.29* | 1.29 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Carbon Disulfide | ND | *1.61* | 1.61 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Carbon Tetrachloride | ND | *0.159* | 0.159 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 5 | |
| Chlorobenzene | ND | *1.09* | 1.09 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Chloroethane | ND | *1.90* | 1.90 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Chloroform | 1.60 | *1.02* | 1.02 | 7.81 | *4.98* | 4.98 | 04/10/19 | KCA | 5 | |
| Chloromethane | ND | *2.42* | 2.42 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Cis-1,2-Dichloroethene | 85.9 | *0.252* | 0.252 | 340 | *1.00* | 1.00 | 04/10/19 | KCA | 5 | |
| cis-1,3-Dichloropropene | ND | *1.10* | 1.10 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Cyclohexane | ND | *1.45* | 1.45 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Dibromochloromethane | ND | *0.587* | 0.587 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Dichlorodifluoromethane | ND | *1.01* | 1.01 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Ethanol | 2.71 | *2.66* | 2.66 | 5.10 | *5.01* | 5.01 | 04/10/19 | KCA | 5 | 1 |
| Ethyl acetate | ND | *1.39* | 1.39 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | 1 |
| Ethylbenzene | ND | *1.15* | 1.15 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Heptane | ND | *1.22* | 1.22 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Hexachlorobutadiene | ND | *0.469* | 0.469 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Hexane | ND | *1.42* | 1.42 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Isopropylalcohol | ND | *2.04* | 2.04 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Isopropylbenzene | ND | *1.02* | 1.02 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| m,p-Xylene | 1.73 | *1.15* | 1.15 | 7.51 | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Methyl Ethyl Ketone | ND | *1.70* | 1.70 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Methyl tert-butyl ether(MTBE) | ND | *1.39* | 1.39 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Methylene Chloride | ND | *4.32* | 4.32 | ND | *15.0* | 15.0 | 04/10/19 | KCA | 5 | |
| n-Butylbenzene | ND | *0.911* | 0.911 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | 1 |
| o-Xylene | ND | *1.15* | 1.15 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Propylene | ND | *2.91* | 2.91 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | 1 |
| sec-Butylbenzene | ND | *0.911* | 0.911 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | 1 |
| Styrene | ND | *1.17* | 1.17 | ND | *4.98* | 4.98 | 04/10/19 | KCA | 5 | |
| Tetrachloroethene | 1840 | *2.77* | 2.77 | 12500 | *18.8* | 18.8 | 04/10/19 | KCA | 75 | |
| Tetrahydrofuran | ND | *1.70* | 1.70 | ND | *5.01* | 5.01 | 04/10/19 | KCA | 5 | 1 |
| Toluene | 2.66 | *1.33* | 1.33 | 10.0 | *5.01* | 5.01 | 04/10/19 | KCA | 5 | |
| Trans-1,2-Dichloroethene | 4.31 | *1.26* | 1.26 | 17.1 | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| trans-1,3-Dichloropropene | ND | *1.10* | 1.10 | ND | *4.99* | 4.99 | 04/10/19 | KCA | 5 | |
| Trichloroethene | 49.5 | *0.186* | 0.186 | 266 | *1.00* | 1.00 | 04/10/19 | KCA | 5 | |
| Trichlorofluoromethane | ND | *0.891* | 0.891 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Trichlorotrifluoroethane | ND | *0.653* | 0.653 | ND | *5.00* | 5.00 | 04/10/19 | KCA | 5 | |
| Vinyl Chloride | ND | *0.391* | 0.391 | ND | *1.00* | 1.00 | 04/10/19 | KCA | 5 | |
| **QA/QC Surrogates/Internals** | | | | | | | | | | |
| % Bromofluorobenzene (5x) | 104 | *%* | % | 104 | *%* | % | 04/10/19 | KCA | 5 | |
| % IS-1,4-Difluorobenzene (5x) | 84 | *%* | % | 84 | *%* | % | 04/10/19 | KCA | 5 | |
| % IS-Bromochloromethane (5x) | 80 | *%* | % | 80 | *%* | % | 04/10/19 | KCA | 5 | |
| % IS-Chlorobenzene-d5 (5x) | 85 | *%* | % | 85 | *%* | % | 04/10/19 | KCA | 5 | |
| % Bromofluorobenzene (75x) | 100 | *%* | % | 100 | *%* | % | 04/10/19 | KCA | 75 | |
| % IS-1,4-Difluorobenzene (75x) | 79 | *%* | % | 79 | *%* | % | 04/10/19 | KCA | 75 | |
| % IS-Bromochloromethane (75x) | 78 | *%* | % | 78 | *%* | % | 04/10/19 | KCA | 75 | |
| % IS-Chlorobenzene-d5 (75x) | 84 | *%* | % | 84 | *%* | % | 04/10/19 | KCA | 75 | |

| Parameter | ppbv Result | ppbv RL | LOD/ MDL | ug/m3 Result | ug/m3 RL | LOD/ MDL | Date/Time | By | Dilution |
|---|---|---|---|---|---|---|---|---|---|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

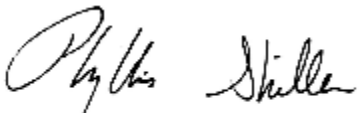
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

## Comments:

The canister was received under no vacuum, therefore sample results may not be representative.

An elevated reporting level was reported for TO15 due to a matrix interference of non target compounds.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**
**April 30, 2019**
**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Canister Sampling Information

April 30, 2019

FOR: Attn: Erica Johnston
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

Location Code: WALDENE

SDG I.D.: GCC90508

Project ID: 218 LAKEVILLE RD

| | | | | | | Laboratory | | | | | Field | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Client Id | Lab Id | Canister Id | Canister Type | Reg. Id | Chk Out Date | Out Hg | In Hg | Out Flow | In Flow | Flow RPD | Start Hg | End Hg | Sampling Start Date | Sampling End Date |
| IA-4 | CC90508 | 492 | 6.0L | 5354 | 04/04/19 | -30 | -1 | 3.6 | 3.5 | 2.8 | -30 | -3 | 04/04/19 13:50 | 04/05/19 13:45 |
| SS-3 | CC90509 | 21370 | 6.0L | 2860 | 04/04/19 | -30 | 0 | 3.6 | 3.8 | 5.4 | -30 | -3 | 04/04/19 13:54 | 04/05/19 12:23 |
| SS-7 | CC90510 | 11291 | 6.0L | 7017 | 04/04/19 | -30 | -1 | 3.6 | 3.5 | 2.8 | -30 | -2 | 04/04/19 13:35 | 04/05/19 12:59 |
| SS-4 | CC90511 | 230 | 6.0L | 4490 | 04/04/19 | -30 | -1 | 3.6 | 3.6 | 0.0 | -30 | -4 | 04/04/19 13:49 | 04/05/19 14:19 |
| SS-DUP | CC90512 | 215 | 6.0L | 5389 | 04/04/19 | -30 | -1 | 3.6 | 3.6 | 0.0 | -30 | -3 | 04/04/19 14:03 | 04/05/19 12:32 |
| IA-7 | CC90513 | 23326 | 6.0L | 2869 | 04/04/19 | -30 | 0 | 3.6 | 3.5 | 2.8 | -30 | -2 | 04/04/19 13:38 | 04/05/19 12:38 |
| IA-1 | CC90514 | 21365 | 6.0L | 5400 | 04/04/19 | -30 | -2 | 3.6 | 3.5 | 2.8 | -29 | -3 | 04/04/19 14:04 | 04/05/19 12:33 |
| IA-2 | CC90515 | 11292 | 6.0L | 5656 | 04/04/19 | -30 | -2 | 3.6 | 3.5 | 2.8 | -30 | -4 | 04/04/19 13:58 | 04/05/19 13:49 |
| IA-3 | CC90516 | 23352 | 6.0L | 2984 | 04/04/19 | -30 | 0 | 3.6 | 3.3 | 8.7 | -30 | -3 | 04/04/19 13:53 | 04/05/19 13:48 |
| SS-2 | CC90517 | 219 | 6.0L | 6975 | 04/04/19 | -30 | -2 | 3.6 | 3.6 | 0.0 | -29 | -3 | 04/04/19 13:57 | 04/05/19 12:48 |
| AA-DUP | CC90518 | 28600 | 6.0L | 1550 | 04/04/19 | -30 | 0 | 3.6 | 3.8 | 5.4 | -30 | -3 | 04/04/19 14:10 | 04/05/19 12:42 |
| AA-1 | CC90519 | 19854 | 6.0L | 5350 | 04/04/19 | -30 | 0 | 3.6 | 3.7 | 2.7 | -30 | -4 | 04/04/19 14:11 | 04/05/19 13:43 |
| AA-2 | CC90520 | 21341 | 6.0L | 2868 | 04/04/19 | -30 | 0 | 3.6 | 3.7 | 2.7 | -30 | -2 | 04/04/19 14:14 | 04/05/19 12:44 |
| IA-10 | CC90521 | 13635 | 6.0L | 5647 | 04/04/19 | -30 | -2 | 3.6 | 5.7 | 45.2 | -30 | -4 | 04/04/19 16:59 | 04/05/19 15:51 |

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
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NY # 11301

# Canister Sampling Information

April 30, 2019

FOR: Attn: Erica Johnston
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

Location Code: WALDENE

SDG I.D.: GCC90508

Project ID: 218 LAKEVILLE RD

| | | | | | | Laboratory | | | | | Field | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Client Id | Lab Id | Canister Id | Canister Type | Reg. Id | Chk Out Date | Out Hg | In Hg | Out Flow | In Flow | Flow RPD | Start Hg | End Hg | Sampling Start Date | Sampling End Date |
| IA-DUP | CC90522 | 156 | 6.0L | 0828 | 04/04/19 | -30 | 0 | 3.6 | 4.1 | 13.0 | -30 | 0 | 04/04/19 13:46 | 04/05/19 12:20 |
| SS-10 | CC90523 | 23327 | 6.0L | 1309 | 04/04/19 | -30 | 0 | 3.6 | 4.2 | 15.4 | -30 | 0 | 04/04/19 16:57 | 04/05/19 15:17 |
| SS-1 | CC90524 | 28557 | 6.0L | 2929 | 04/04/19 | -30 | 0 | 3.6 | 3.9 | 8.0 | -30 | -1 | 04/04/19 14:02 | 04/05/19 12:30 |

Environmental Laboratories, Inc.
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NY # 11301

# QA/QC Report

April 30, 2019

## QA/QC Data

SDG I.D.: GCC90508

| Parameter | Blk ppbv | Blk RL ppbv | Blk ug/m3 | Blk RL ug/m3 | LCS % | Sample Result ug/m3 | Sample Dup ug/m3 | Sample Result ppbv | Sample Dup ppbv | DUP RPD | % Rec Limits | % RPD Limits | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| QA/QC Batch 474160 (ppbv), QC Sample No: CC90508 (CC90508, CC90509 (5X) , CC90511 (5X) , CC90512 (5X) , CC90513, CC90514, CC90515, CC90516, CC90517 (5X) , CC90518, CC90519, CC90520, CC90521, CC90522, CC90523 (5X) , CC90524 (5X) ) | | | | | | | | | | | | | |
| **Volatiles** | | | | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 0.150 | ND | 1.03 | 116 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| 1,1,1-Trichloroethane | ND | 0.180 | ND | 0.98 | 117 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| 1,1,2,2-Tetrachloroethane | ND | 0.150 | ND | 1.03 | 109 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| 1,1,2-Trichloroethane | ND | 0.180 | ND | 0.98 | 105 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| 1,1-Dichloroethane | ND | 0.250 | ND | 1.01 | 111 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| 1,1-Dichloroethene | ND | 0.050 | ND | 0.20 | 110 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| 1,2,4-Trichlorobenzene | ND | 0.130 | ND | 0.96 | 154 | ND | ND | ND | ND | NC | 70 - 130 | 25 | I |
| 1,2,4-Trimethylbenzene | ND | 0.200 | ND | 0.98 | 113 | 18.5 | 18.3 | 3.77 | 3.73 | 1.1 | 70 - 130 | 25 | |
| 1,2-Dibromoethane(EDB) | ND | 0.130 | ND | 1.00 | 111 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| 1,2-Dichlorobenzene | ND | 0.170 | ND | 1.02 | 112 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| 1,2-Dichloroethane | ND | 0.250 | ND | 1.01 | 112 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| 1,2-dichloropropane | ND | 0.220 | ND | 1.02 | 107 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| 1,2-Dichlorotetrafluoroethane | ND | 0.140 | ND | 0.98 | 112 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| 1,3,5-Trimethylbenzene | ND | 0.200 | ND | 0.98 | 110 | 5.16 | 5.26 | 1.05 | 1.07 | 1.9 | 70 - 130 | 25 | |
| 1,3-Butadiene | ND | 0.450 | ND | 0.99 | 112 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| 1,3-Dichlorobenzene | ND | 0.170 | ND | 1.02 | 111 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| 1,4-Dichlorobenzene | ND | 0.170 | ND | 1.02 | 110 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| 1,4-Dioxane | ND | 0.280 | ND | 1.01 | 110 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| 2-Hexanone(MBK) | ND | 0.240 | ND | 0.98 | 115 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| 4-Ethyltoluene | ND | 0.200 | ND | 0.98 | 111 | 4.96 | 4.68 | 1.01 | 0.953 | NC | 70 - 130 | 25 | |
| 4-Isopropyltoluene | ND | 0.180 | ND | 0.99 | 112 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| 4-Methyl-2-pentanone(MIBK) | ND | 0.240 | ND | 0.98 | 121 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| Acetone | ND | 0.420 | ND | 1.00 | 108 | 17.6 | 17.4 | 7.42 | 7.35 | 0.9 | 70 - 130 | 25 | |
| Acrylonitrile | ND | 0.460 | ND | 1.00 | 108 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| Benzene | ND | 0.310 | ND | 0.99 | 115 | 1.57 | 1.57 | 0.491 | 0.492 | NC | 70 - 130 | 25 | |
| Benzyl chloride | ND | 0.190 | ND | 0.98 | 113 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| Bromodichloromethane | ND | 0.150 | ND | 1.00 | 114 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| Bromoform | ND | 0.097 | ND | 1.00 | 158 | ND | ND | ND | ND | NC | 70 - 130 | 25 | I |
| Bromomethane | ND | 0.260 | ND | 1.01 | 109 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| Carbon Disulfide | ND | 0.320 | ND | 1.00 | 108 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| Carbon Tetrachloride | ND | 0.032 | ND | 0.20 | 129 | 0.52 | 0.55 | 0.083 | 0.087 | NC | 70 - 130 | 25 | |
| Chlorobenzene | ND | 0.220 | ND | 1.01 | 102 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| Chloroethane | ND | 0.380 | ND | 1.00 | 110 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| Chloroform | ND | 0.200 | ND | 0.98 | 111 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| Chloromethane | ND | 0.480 | ND | 0.99 | 111 | 1.29 | 1.27 | 0.625 | 0.614 | NC | 70 - 130 | 25 | |
| Cis-1,2-Dichloroethene | ND | 0.256 | ND | 1.01 | 114 | 0.22 | ND | 0.055 | ND | NC | 70 - 130 | 25 | |
| cis-1,3-Dichloropropene | ND | 0.220 | ND | 1.00 | 115 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| Cyclohexane | ND | 0.290 | ND | 1.00 | 115 | 2.17 | 2.26 | 0.632 | 0.658 | NC | 70 - 130 | 25 | |
| Dibromochloromethane | ND | 0.120 | ND | 1.02 | 139 | ND | ND | ND | ND | NC | 70 - 130 | 25 | I |
| Dichlorodifluoromethane | ND | 0.200 | ND | 0.99 | 114 | 2.36 | 2.31 | 0.478 | 0.468 | NC | 70 - 130 | 25 | |

# QA/QC Data

SDG I.D.: GCC90508

| Parameter | Blk ppbv | Blk RL ppbv | Blk ug/m3 | Blk RL ug/m3 | LCS % | Sample Result ug/m3 | Sample Dup ug/m3 | Sample Result ppbv | Sample Dup ppbv | DUP RPD | % Rec Limits | % RPD Limits | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ethanol | ND | 0.530 | ND | 1.00 | 145 | 27.5 | 26.6 | 14.6 | 14.1 | 3.5 | 70 - 130 | 25 | I |
| Ethyl acetate | ND | 0.280 | ND | 1.01 | 119 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| Ethylbenzene | ND | 0.230 | ND | 1.00 | 107 | 2.23 | 2.23 | 0.513 | 0.515 | NC | 70 - 130 | 25 | |
| Heptane | ND | 0.240 | ND | 0.98 | 109 | 3.37 | 3.51 | 0.824 | 0.856 | NC | 70 - 130 | 25 | |
| Hexachlorobutadiene | ND | 0.094 | ND | 1.00 | 133 | ND | ND | ND | ND | NC | 70 - 130 | 25 | I |
| Hexane | ND | 0.280 | ND | 0.99 | 114 | 6.73 | 6.66 | 1.91 | 1.89 | 1.1 | 70 - 130 | 25 | |
| Isopropylalcohol | ND | 0.410 | ND | 1.01 | 107 | 1.88 | 1.75 | 0.767 | 0.713 | NC | 70 - 130 | 25 | |
| Isopropylbenzene | ND | 0.200 | ND | 0.98 | 104 | 1.12 | 1.10 | 0.227 | 0.224 | NC | 70 - 130 | 25 | |
| m,p-Xylene | ND | 0.230 | ND | 1.00 | 111 | 8.94 | 8.68 | 2.06 | 2.00 | 3.0 | 70 - 130 | 25 | |
| Methyl Ethyl Ketone | ND | 0.340 | ND | 1.00 | 113 | 3.01 | 2.86 | 1.02 | 0.969 | NC | 70 - 130 | 25 | |
| Methyl tert-butyl ether(MTBE) | ND | 0.280 | ND | 1.01 | 115 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| Methylene Chloride | ND | 0.860 | ND | 2.99 | 108 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| n-Butylbenzene | ND | 0.180 | ND | 0.99 | 114 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| o-Xylene | ND | 0.230 | ND | 1.00 | 107 | 3.87 | 3.79 | 0.892 | 0.873 | NC | 70 - 130 | 25 | |
| Propylene | ND | 0.580 | ND | 1.00 | 113 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| sec-Butylbenzene | ND | 0.180 | ND | 0.99 | 107 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| Styrene | ND | 0.230 | ND | 0.98 | 112 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| Tetrachloroethene | ND | 0.037 | ND | 0.25 | 107 | 16.9 | 16.6 | 2.49 | 2.45 | 1.6 | 70 - 130 | 25 | |
| Tetrahydrofuran | ND | 0.340 | ND | 1.00 | 120 | 5.13 | 5.04 | 1.74 | 1.71 | 1.7 | 70 - 130 | 25 | |
| Toluene | ND | 0.270 | ND | 1.02 | 109 | 9.26 | 9.00 | 2.46 | 2.39 | 2.9 | 70 - 130 | 25 | |
| Trans-1,2-Dichloroethene | ND | 0.250 | ND | 0.99 | 114 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| trans-1,3-Dichloropropene | ND | 0.220 | ND | 1.00 | 118 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| Trichloroethene | ND | 0.037 | ND | 0.20 | 104 | 0.23 | 0.27 | 0.043 | 0.050 | NC | 70 - 130 | 25 | |
| Trichlorofluoromethane | ND | 0.180 | ND | 1.01 | 111 | 1.38 | 1.24 | 0.245 | 0.221 | NC | 70 - 130 | 25 | |
| Trichlorotrifluoroethane | ND | 0.130 | ND | 1.00 | 111 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| Vinyl Chloride | ND | 0.078 | ND | 0.20 | 111 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| % Bromofluorobenzene | 100 | % | 100 | % | 101 | 102 | 98 | 102 | 98 | NC | 70 - 130 | 25 | |
| % IS-1,4-Difluorobenzene | 95 | % | 95 | % | 94 | 89 | 91 | 89 | 91 | NC | 60 - 140 | 25 | |
| % IS-Bromochloromethane | 98 | % | 98 | % | 96 | 88 | 91 | 88 | 91 | NC | 60 - 140 | 25 | |
| % IS-Chlorobenzene-d5 | 94 | % | 94 | % | 99 | 92 | 95 | 92 | 95 | NC | 60 - 140 | 25 | |

QA/QC Batch 474357 (ppbv), QC Sample No: CC90523 (CC90509 (75X) , CC90511 (75X) , CC90512 (75X) , CC90517 (300X) , CC90523 (75X) , CC90524 (75X) )

## Volatiles

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cis-1,2-Dichloroethene | ND | 0.256 | ND | 1.01 | 120 | ND | ND | ND | ND | NC | 70 - 130 | 25 | |
| Tetrachloroethene | ND | 2.77 | ND | 18.8 | 107 | 7120 | 6980 | 1050 | 1030 | 1.9 | 70 - 130 | 25 | |
| Trichloroethene | ND | 2.77 | ND | 14.9 | 105 | 62.8 | 60.1 | 11.7 | 11.2 | NC | 70 - 130 | 25 | |
| % Bromofluorobenzene | 97 | | 97 | | 101 | 100 | 101 | 100 | 101 | NC | 70 - 130 | 25 | |
| % IS-1,4-Difluorobenzene | 91 | % | 91 | % | 96 | 78 | 78 | 78 | 78 | NC | 60 - 140 | 25 | |
| % IS-Bromochloromethane | 93 | % | 93 | % | 95 | 76 | 76 | 76 | 76 | NC | 60 - 140 | 25 | |
| % IS-Chlorobenzene-d5 | 93 | % | 93 | % | 103 | 84 | 83 | 84 | 83 | NC | 60 - 140 | 25 | |

I = This parameter is outside laboratory LCS/LCSD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
April 30, 2019

# Sample Criteria Exceedances Report

## GCC90508 - WALDENE



Criteria: None

State: NY

| SampNo | Acode | Phoenix Analyte | Criteria | Result | RL | Criteria | RL Criteria | Analysis Units |
|---|---|---|---|---|---|---|---|---|

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

04/30/2019

Phoenix Environmental Laboratories, Inc.

Page 67 of 516

**PHOENIX**
*Environmental Laboratories, Inc.*
587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Telephone: 860.645.1102 • Fax: 860.645.0823

# CHAIN OF CUSTODY RECORD
## AIR ANALYSES
800-827-5426
email: greg@phoenixlabs.com

P.O. # Page 1 of 3

Data Delivery:
☐ Fax #:
☒ Email: nbrew@waldenassociates.com
☒ Phone #: 516-624-7200

| | | | |
|---|---|---|---|
| Report to: Erica Johnston | Invoice to: Nora Brew, P.E | Project Name: 218 Lakeville Road | |
| Customer: Walden Assoc. | Walden Associates | Requested Deliverable: RCP ☐ ASP CAT B ☒ | |
| Address: 16 Spring Street | nbrew@waldenassociates.com | MCP ☐ NJ Deliverables ☐ | |
| Oyster Bay, NY 11771 | Sampled by: EMS - JKB + MCT | State where samples collected: NY | |

| Phoenix ID # | Client Sample ID | Canister ID # | Canister Size (L) | Outgoing Canister Pressure (" Hg) | Incoming Canister Pressure (" Hg) | Flow Regulator ID # | Flow Controller Setting (mL/min) | 4/4/19 Sampling Start Time | 4/5/19 Sampling End Time | Sample Start Date | Canister Pressure at Start (" Hg) | Canister Pressure at End (" Hg) | Ambient/Indoor Air | Soil Gas | Grab (G) Composite (C) | TO-14 | TO-15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | THIS SECTION FOR LAB USE ONLY | | | | | | | | | | | MATRIX | | | ANALYSES | |
| 90508 | IA-4 | 492 | 6.0 | -30 | -1 | 5354 | 3.6 | 13:50 | 13:45 | 4/4/19 | -30 | -3 | X | | G | | X |
| 90509 | SS-3 | 21370 | | | Ø | 2860 | | 13:54 | 12:23 | 4/4/19 | -30 | -3 | | X | G | | X |
| 90510 | SS-7 | 11291 | | | -1 | 7017 | | 13:35 | 12:59 | 4/4/19 | -30 | -2 | | X | G | | X |
| 90511 | SS-4 | ~~230~~ | | | -1 | 4490 | | 13:49 | 14:19 | 4/4/19 | -30 | -4 | | X | G | | X |
| 90512 | SS-Dup | ~~215~~ | | | -1 | 5389 | | 14:03 | 12:32 | 4/4/19 | -30 | -3 | | X | G | | X |
| 90513 | IA-7 | 23326 | | | Ø | 2869 | | 13:38 | 12:58 | 4/4/19 | -30 | -2 | X | | G | | X |
| 90514 | IA-1 | 21365 | | | -2 | 5400 | | 14:04 | 12:33 | 4/4/19 | -29 | -3 | X | | G | | X |
| 90515 | IA-2 | 11292 | | | -2 | 5656 | | 13:58 | 13:49 | 4/4/19 | -30 | -4 | X | | G | | X |
| 90516 | IA-3 | 23352 | | | Ø | 2984 | | 13:53 | 13:48 | 4/4/19 | -30 | -3 | X | | G | | X |
| 90517 | SS-2 | 219 | | | -2 | 6975 | | 13:57 | 12:48 | 4/4/19 | -29 | -3 | | X | G | | X |

| Relinquished by: | Accepted by: | Date: | Time: |
|---|---|---|---|
| | | 4/8/19 | 11:[illegible] |
| | | 4/8/19 | 15:2[illegible] |

Data Format:
Excel ☒ Equis ☒ Other ☐ ( )

Turnaround Time:
☐ 24 Hour ☐ 48 Hour ☐ 72 Hour ☒ Standard

SPECIAL INSTRUCTIONS, QC REQUIREMENTS, REGULATORY INFORMATION: (10)(6.0)(24HR) IND-CERT

Send email to nbrew@walden-associates.com with data - standard turnaround time

Requested Criteria

Quote Number:

*I attest that all media released by Phoenix Environmental Laboratories, Inc. have been received in good working condition and agree to the terms and conditions as listed on the back of this document:*

Signature: Date: 4/5/19

**PHOENIX**
*Environmental Laboratories, Inc.*
587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Telephone: 860.645.1102 • Fax: 860.645.0823

# CHAIN OF CUSTODY RECORD
## AIR ANALYSES
800-827-5426
email: greg@phoenixlabs.com

P.O. #


Data Delivery:
☐ Fax #:
☒ Email: nbrew@walden-associates.com
☒ Phone #: 516-624-7200

Report to: Erica Johnston
Customer: Walden Assoc
Address: 16 Spring Street
Oyster Bay, NY 11771

Invoice to: Nora Brew, PE.
nbrew@walden-associates

Sampled by: EMJ - JKB - MCT

Project Name: 218 Lakeville Road
Requested Deliverable: RCP ☐ ASP CAT B ☒
MCP ☐ NJ Deliverables ☐
State where samples collected: NY

| Phoenix ID # | Client Sample ID | Canister ID # | Canister Size (L) | Outgoing Canister Pressure (" Hg) | Incoming Canister Pressure ("Hg) | Flow Regulator ID # | Flow Controller Setting (mL/min) | Sampling Start Time | Sampling End Time | Sample Start Date | Canister Pressure at Start (" Hg) | Canister Pressure at End ("Hg) | MATRIX: Ambient/Indoor Air | MATRIX: Soil Gas | MATRIX: Grab (G) Composite (C) | ANALYSES: TO-14 | ANALYSES: TO-15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | THIS SECTION FOR LAB USE ONLY | | | | | | | | | | | | | | | |
| 90518 | AA-Dup | 28600 | 6.0 | -30 | Ø | 1550 | 3.6 | 14:10 | 12:42 | 4/4/19 | -30 | -3 | X | | | | X |
| 90519 | AA-1 | 19854 | | | Ø | 5360 | | 14:11 | 13:43 | 4/4/19 | -30 | -4 | X | | | | X |
| 90520 | ~~AA~~-2 | 21341 | | | Ø | 2868 | | 14:14 | 12:41 | 4/4/19 | -30 | -2 | X | | | | X |
| | | ~~23343~~ | | | | 6998 | | | | | | | | | | | |
| | | ~~23340~~ | | | | 5387 | | | | | | | | | | | |
| 90521 | IA-10 | 13635 | | | -2 | 5647 | | 1659 | 15:21 | 4/4/19 | -30 | -4 | X | Emis | | | X |
| 90522 | IA-Dup | 156 | | | Ø | 0838 | | 13:46 | 12:20 | 4/4/19 | -30 | 0 | X | Ø | | | X |
| 90523 | SS-10 | 23327 | | | Ø | 1309 | | 1657 | 15:17 | 4/4/19 | -30 | 0 | | X | | X | |
| | | 21357 | | | | 3506 | | | | | | | | | | | |
| 90524 | SS-1 | 28557 | | | Ø | 2929 | | 1402 | 12:30 | 4/4/19 | -30 | -1 | | X | | | X |

| Relinquished by: | Accepted by: | Date: | Time: |
|---|---|---|---|
| | | 4/8/19 | 11:00 |
| | | 4/18/19 | 15:26 |

Data Format: Excel ☒ Equis ☒ Other ☐ ( )

Turnaround Time:
☐ 24 Hour ☐ 48 Hour ☐ 72 Hour ☒ Standard

SPECIAL INSTRUCTIONS, QC REQUIREMENTS, REGULATORY INFORMATION: (10)(6.0)(24HR)
Send data + lab reports via email to nbrew@walden-associates.com IND-CERT

Cans 23343, 23340 + 21357 not used

Requested Criteria

Quote Number:

*I attest that all media released by Phoenix Environmental Laboratories, Inc. have been received in good working condition and agree to the terms and conditions as listed on the back of this document.*

Signature: Date: 4/5/19

04/30/2019 Phoenix Environmental Laboratories, Inc. Page 66 of 516

04/30/2019

**PHOENIX**
*Environmental Laboratories, Inc.*

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Telephone: 860.645.1102 • Fax: 860.645.0823

# CHAIN OF CUSTODY RECORD
## AIR ANALYSES

800-827-5426
email: greg@phoenixlabs.com

P.O. #



Data Delivery:
- ☐ Fax #:
- ☐ Email:
- ☐ Phone #:

Report to: Erica Johnston
Customer: Walden Assoc
Address:

Invoice to:

Sampled by:

Project Name:

Requested Deliverable:
RCP ☐ ASP CAT B ☐
MCP ☐ NJ Deliverables ☐

State where samples collected:

| Phoenix ID # | Client Sample ID | Canister ID # | Canister Size (L) | Outgoing Canister Pressure (" Hg) | Incoming Canister Pressure ("Hg) | Flow Regulator ID # | Flow Controller Setting (mL/min) | Sampling Start Time | Sampling End Time | Sample Start Date | Canister Pressure at Start (" Hg) | Canister Pressure at End ("Hg) | Ambient/Indoor Air | Soil Gas | Grab ( G ) Composite ( C ) | TO-14 | TO-15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | THIS SECTION FOR LAB USE ONLY | | | | | | | | | | | MATRIX | | | ANALYSES | |
| | | 28563 | 6.0 | -30 | | 4981 | 3.6 | | | | | | | | | | |
| | | 488 | ↓ | ↓ | | 2843 | ↓ | | | | | | | | | | |
| | | 28582 | | | | 2923 | | | | | | | | | | | |
| | | 19732 | | | | 2975 | | | | | | | | | | | |

| Relinquished by: | Accepted by: | Date: | Time: |
|---|---|---|---|
| | | 4/8/19 | 11:00 |
| | | 4/8/19 | 15:26 |

Data Format:
Excel ☐ Equis ☐ Other ☐ ( )

Turnaround Time:
☐ 24 Hour ☐ 48 Hour ☐ 72 Hour ☐ Standard

*I attest that all media released by Phoenix Environmental Laboratories, Inc. have been received in good working condition and agree to the terms and conditions as listed on the back of this document:*

Signature: Date:

SPECIAL INSTRUCTIONS, QC REQUIREMENTS, REGULATORY INFORMATION: (✓)(60)(24HR)
IND-CERT

Canisters not used

Requested Criteria

Quote Number:

Phoenix Environmental Laboratories, Inc.

GL90508

**Christine Paradise**

**From:** Bobbi Aloisa
**Sent:** Thursday, April 04, 2019 6:31 PM
**To:** Shannon Wilhelm; Lori Bailey; Christine Paradise; Tara Banning
**Subject:** Walden Associates...

**They have 24 air cans coming back in Friday or early next week**

**2 #'s are written wrong on the chain**

**They are incorrectly written as 0230 and 0215**

**They should be logged back out as 230 and 215**

**Bobbi Aloisa**
**Vice President**
**Director of Client Services**
**Phoenix Environmental Laboratories**
**587 East Middle Turnpike**
**Manchester, CT 06040**
**Ph: 860-645-8728**

## Sarah Bell

**From:** Erica M Johnston <ejohnston@walden-associates.com>
**Sent:** Wednesday, April 10, 2019 10:23 AM
**To:** Sarah Bell
**Subject:** FW: Phoenix Labs - GCC90508, 218 LAKEVILLE RD - COC Acknowledgement

Hi Sarah,

Please see below.

---

From: Erica M Johnston <ejohnston@walden-associates.com>
Sent: Wednesday, April 10, 2019 10:21 AM
To: 'Client Services' <clientservices@phoenixlabs.com>
Subject: RE: Phoenix Labs - GCC90508, 218 LAKEVILLE RD - COC Acknowledgement

Can you please include PO# IMPL0115.6? Thanks.

---

From: Client Services <clientservices@phoenixlabs.com>
Sent: Monday, April 08, 2019 9:10 PM
To: ejohnston@walden-associates.com
Subject: Phoenix Labs - GCC90508, 218 LAKEVILLE RD - COC Acknowledgement

Erica,

Please email client services only if you have a Price Quote# for this SDG, a Quote# was not listed on the COC.

Please email client services only if you Require a PO# on your Invoice, a PO# was not listed on the COC.

GCC90508 Criteria:
None.

Please email client services only if you require criteria different than what is listed.

Delivery group GCC90508 (218 LAKEVILLE RD ) has been logged in for the following samples:

| Phoenix Id | Client Id |
|---|---|
| CC90508 | IA-4 |
| CC90509 | SS-3 |
| CC90510 | SS-7 |
| CC90511 | SS-4 |
| CC90512 | SS-DUP |
| CC90513 | IA-7 |
| CC90514 | IA-1 |
| CC90515 | IA-2 |
| CC90516 | IA-3 |
| CC90517 | SS-2 |

| | |
|---|---|
| CC90518 | AA-DUP |
| CC90519 | AA-1 |
| CC90520 | AA-2 |
| CC90521 | IA-10 |
| CC90522 | IA-DUP |
| CC90523 | SS-10 |
| CC90524 | SS-1 |

If there are any questions regarding this submittal, please call Phoenix Client Services at extension 200.

Phoenix Environmental Laboratories, Inc.
587 East Middle Turnpike
P.O. Box 370
Manchester, CT 06374
Tel. (860) 645-1102
Fax. (860) 645-0823
www.phoenixlabs.com

Please do not reply to this email.
cc'd:michael@phoenixlabs.com;ejohnston@walden-associates.com;greg@phoenixlabs.com

PHOENIX
Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Telephone: 860.645.1102 • Fax: 860.645.0823

NY ANALYTICAL SERVICES PROTOCOL
DATA PACKAGE

Client: Walden Environmental Engineering PLLC

218 LAKEVILLE RD

Laboratory Project: GCC90508

Volatile TO15
Ver 1

# Organic Data Flags

LOD(MDL): Limit of Detection or Method Detection Limit
The minimum reportable concentration that can be measured with confidence.

PQL(RL): Practical Quantitation Level or Reporting Level
This value is at or above the MDL and is supported by the lowest calibration standard.

· · Q Qualifiers:

U - The compound was analyzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.

J - Indicates an estimated value, may indicate one of the following, depending on the situation:
a) The reported value is estimated and below the MDL
b) Used when estimating a concentration for TIC where a 1:1 response is assumed or when the result indicates the presence of a compound that meets the indentification criteria, but the results is less than the quantitation limit, but greater than zero.
c) QC associated with this analyte is within warning limits.

X - The concentration is not reported. This quantitation file was not evaluated for this compound at this dilution; a volatile purging or related issue may be the cause.

L - Biased Low

N - The concentration is based on the response of the nearest internal. This flag is used on the TIC form for all compounds identified.

S - This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.

B - This compound was also present in the method blank

D - The reported concentration is the result of a diluted analysis.

E - The reported value is estimated because the concentration exceeded the calibration range.

A - Indicates that the tentatively identified compound is a suspected aldol condensation product. Aldol condensation products are produced during the extraction process.

Q - For TICS, this compound was quantitated using a calibration curve. This compound is part of the instrument method, but not part of the client target list.

P- Percent difference is greater than 25% between the two GC columns and the lower result is reported.

PHOENIX
**Environmental Laboratories, Inc.**
**587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040**
**Tel. (860) 645-1102 Fax (860) 645-0823**

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

SDG: GCC90508

# Volatile Air Conformance / Non-Conformance Summary

Project ID / Client ID: 218 LAKEVILLE RD, Walden Environmental Engineering PLLC

Form 1 (Analysis):
---
No observations noted.

Form 2 (Surrogates):
---
All surrogates met criteria with the following exceptions: None.

Form 3 (Laboratory Control/Matrix Spike):
---
Sample: CC90508 LCS
All LCS recoveries met criteria with the following exceptions: Ethanol 145%, Dibromochloromethane 139%, Bromoform 158%, 1,2, Trichlorobenzene 154%, Hexachlorobutadiene 133%

Sample: CC90523 LCS
All LCS recoveries met criteria with the following exceptions: Chloromethane 132%, 1,3-Butadiene 133%, Ethanol 161%, Acetone 132%, Isopropylalcohol 131%, Acrylonitrile 142%, Methylene Chloride 134%, Tetrahydrofuran 134%, Carbon Tetrachloride 151%, Cyclohexane 135%, 4-Methyl-2-pentanone(MIBK) 132%, Dibromochloromethane 145%, Bromoform 160%, Benzyl chloride 43%, 1,2,4-Trichlorobenzene 146%. No bias is suspected, samples associated with this
LCS compounds reported are :Cis-1,2-Dichloroethene, Trichloroethene, Tetrachloroethane,

Form 4 (Method Blank):
---
File: CHEM20 0409_19.D
All compounds were non-detect with the following exceptions:

File: CHEM20 0409_46.D
All compounds were non-detect with the following exceptions:

Form 5 (Tune):
---
File: CHEM20 0409_02.D
All Tune criteria was met with the following exceptions: None.

File: CHEM20 0409_14.D
All Tune criteria was met with the following exceptions: None.

File: CHEM20 0409_41.D
All Tune criteria was met with the following exceptions: None.

Form 6 (Initial Calibration):
---
Calibration: CHEM20 04/09/19 - 04/09/19
100% of method compounds met criteria.
The following compounds did not meet maximum % deviations: None.

Calibration: CHEM20 04/09/19 - 04/09/19
100% of method compounds met criteria.

PHOENIX
**Environmental Laboratories, Inc.**
**587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040**
**Tel. (860) 645-1102 Fax (860) 645-0823**

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

SDG: GCC90508

# Volatile Air Conformance / Non-Conformance Summary

Project ID / Client ID: 218 LAKEVILLE RD, Walden Environmental Engineering PLLC

The following compounds did not meet maximum % deviations: None.

Form 7 (Continuing Calibration):
---
File: CHEM20 0409_14.D (Opening)
96% of method compounds met criteria.
The following compounds did not meet maximum % deviations: None.

File: CHEM20 0409_41.D (Opening)
96% of method compounds met criteria.
The following compounds did not meet maximum % deviations: Ethanol -35.8% (30), Isopropylalcohol -32.5% (30), Acrylonitrile -79.2% (30), 1,2,4-Trichlorobenzene 46.5% (30)

Form 8 (Internal Standard and Retention Time):
---
File: CHEM20 - 0409_14.D Full
All samples met internal standard area and retention time critieria with the following exceptions: None.

File: CHEM20 - 0409_14.D Sim
All samples met internal standard area and retention time critieria with the following exceptions: None.

File: CHEM20 - 0409_41.D Full
All samples met internal standard area and retention time critieria with the following exceptions: None.

File: CHEM20 - 0409_41.D Sim
All samples met internal standard area and retention time critieria with the following exceptions: None.



04/25/19

Alejandro Paredes
Project Manager

2C
AIR SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Phoenix Environmental Labs Client: WALDENE

Lab Code: Phoenix Case No.: SDG: GCC90508

QC Batch Id: 474160 QC Sample Id: CC90508

| | CLIENT ID | LAB ID | SMC1 BFB # | | | | TOT OUT |
|---|---|---|---|---|---|---|---|
| 01 | CC90508 LCS | CC90508 LCS | 101 | | | | 0 |
| 02 | CC90508 BLANK | CC90508 BLANK | 100 | | | | 0 |
| 03 | IA-4 | CC90508 | 102 | | | | 0 |
| 04 | IA-4 DUP | CC90508 DUP | 98 | | | | 0 |
| 05 | IA-7 | CC90513 | 103 | | | | 0 |
| 06 | IA-1 | CC90514 | 101 | | | | 0 |
| 07 | IA-2 | CC90515 | 100 | | | | 0 |
| 08 | IA-3 | CC90516 | 103 | | | | 0 |
| 09 | AA-DUP | CC90518 | 99 | | | | 0 |
| 10 | AA-1 | CC90519 | 100 | | | | 0 |
| 11 | AA-2 | CC90520 | 100 | | | | 0 |
| 12 | IA-10 | CC90521 | 102 | | | | 0 |
| 13 | IA-DUP | CC90522 | 100 | | | | 0 |
| 14 | SS-3 5X | CC90509 5X | 105 | | | | 0 |
| 15 | SS-4 5X | CC90511 5X | 106 | | | | 0 |
| 16 | SS-DUP 5X | CC90512 5X | 102 | | | | 0 |
| 17 | SS-2 5X | CC90517 5X | 105 | | | | 0 |
| 18 | SS-10 5X | CC90523 5X | 104 | | | | 0 |
| 19 | SS-1 5X | CC90524 5X | 104 | | | | 0 |
| 20 | SS-7 | CC90510 | 101 | | | | 0 |
| 21 | | | | | | | |
| 22 | | | | | | | |
| 23 | | | | | | | |
| 24 | | | | | | | |
| 25 | | | | | | | |
| 26 | | | | | | | |
| 27 | | | | | | | |
| 28 | | | | | | | |
| 29 | | | | | | | |
| 30 | | | | | | | |

| | | | QC LIMITS |
|---|---|---|---|
| SMC1 | BFB | Bromofluorobenzene | (70-130) |

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

FORM II AIR

2C
AIR SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Phoenix Environmental Labs Client: WALDENE

Lab Code: Phoenix Case No.: SDG: GCC90508

QC Batch Id: 474357 QC Sample Id: CC90523

| | CLIENT ID | LAB ID | SMC1 BFB # | | | | TOT OUT |
|---|---|---|---|---|---|---|---|
| 01 | CC90523 LCS | CC90523 LCS | 101 | | | | 0 |
| 02 | CC90523 BLANK | CC90523 BLANK | 97 | | | | 0 |
| 03 | SS-3 75X | CC90509 75X | 99 | | | | 0 |
| 04 | SS-4 75X | CC90511 75X | 101 | | | | 0 |
| 05 | SS-DUP 75X | CC90512 75X | 100 | | | | 0 |
| 06 | SS-10 75X | CC90523 75X | 100 | | | | 0 |
| 07 | SS-1 75X | CC90524 75X | 100 | | | | 0 |
| 08 | SS-2 300X | CC90517 300X | 102 | | | | 0 |
| 09 | SS-10 DUP 75X | CC90523 DUP 75X | 101 | | | | 0 |
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| | | | QC LIMITS |
|---|---|---|---|
| SMC1 | BFB | Bromofluorobenzene | (70-130) |

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

FORM II AIR

# AIR LCS RECOVERY

Lab Name: Phoenix Environmental Labs Client: WALDENE

Lab Code: Phoenix Case No: SAS No: SDG No GCC90508

LCS - Client Id: CC90508 LCS

| COMPOUND | SPIKE ADDED (ppbv) | | LCS CONCENTRATION (ppbv) | LCS % REC # | QC. LIMITS REC. | |
|---|---|---|---|---|---|---|
| Propylene | 10 | | 11.29 | 113 | 70 | 130 |
| Dichlorodifluoromethane | 10 | | 11.39 | 114 | 70 | 130 |
| Chloromethane | 10 | | 11.15 | 112 | 70 | 130 |
| 1,2-Dichlorotetrafluoroethane | 10 | | 11.18 | 112 | 70 | 130 |
| Vinyl Chloride | 10 | | 11.08 | 111 | 70 | 130 |
| 1,3-Butadiene | 10 | | 11.23 | 112 | 70 | 130 |
| Bromomethane | 10 | | 10.85 | 109 | 70 | 130 |
| Chloroethane | 10 | | 11.00 | 110 | 70 | 130 |
| Ethanol | 8 | | 11.63 | 145 * | 70 | 130 |
| Acetone | 10 | | 10.79 | 108 | 70 | 130 |
| Trichlorofluoromethane | 10 | | 11.09 | 111 | 70 | 130 |
| Isopropylalcohol | 10 | | 10.67 | 107 | 70 | 130 |
| Acrylonitrile | 10 | | 10.78 | 108 | 70 | 130 |
| 1,1-Dichloroethene | 10 | | 10.98 | 110 | 70 | 130 |
| Methylene Chloride | 10 | | 10.81 | 108 | 70 | 130 |
| Carbon Disulfide | 10 | | 10.84 | 108 | 70 | 130 |
| Trichlorotrifluoroethane | 10 | | 11.08 | 111 | 70 | 130 |
| 1,1-Dichloroethane | 10 | | 11.09 | 111 | 70 | 130 |
| Methyl tert-butyl ether(MTBE) | 10 | | 11.48 | 115 | 70 | 130 |
| Methyl Ethyl Ketone | 10 | | 11.30 | 113 | 70 | 130 |
| Cis-1,2-Dichloroethene | 10 | | 11.41 | 114 | 70 | 130 |
| Hexane | 10 | | 11.40 | 114 | 70 | 130 |
| Chloroform | 10 | | 11.10 | 111 | 70 | 130 |
| Ethyl acetate | 10 | | 11.86 | 119 | 70 | 130 |
| Tetrahydrofuran | 10 | | 11.97 | 120 | 70 | 130 |
| 1,2-Dichloroethane | 10 | | 11.23 | 112 | 70 | 130 |
| 1,1,1-Trichloroethane | 10 | | 11.68 | 117 | 70 | 130 |
| Benzene | 10 | | 11.50 | 115 | 70 | 130 |
| Carbon Tetrachloride | 10 | | 12.88 | 129 | 70 | 130 |
| Cyclohexane | 10 | | 11.46 | 115 | 70 | 130 |
| 1,2-dichloropropane | 10 | | 10.71 | 107 | 70 | 130 |
| Bromodichloromethane | 10 | | 11.44 | 114 | 70 | 130 |
| Trichloroethene | 10 | | 10.44 | 104 | 70 | 130 |
| 1,4-Dioxane | 10 | | 11.01 | 110 | 70 | 130 |
| Heptane | 10 | | 10.93 | 109 | 70 | 130 |
| cis-1,3-Dichloropropene | 10 | | 11.50 | 115 | 70 | 130 |
| 4-Methyl-2-pentanone(MIBK) | 10 | | 12.06 | 121 | 70 | 130 |
| trans-1,3-Dichloropropene | 10 | | 11.82 | 118 | 70 | 130 |
| 1,1,2-Trichloroethane | 10 | | 10.54 | 105 | 70 | 130 |
| Toluene | 10 | | 10.93 | 109 | 70 | 130 |
| Dibromochloromethane | 10 | | 13.88 | 139 * | 70 | 130 |
| 2-Hexanone(MBK) | 10 | | 11.48 | 115 | 70 | 130 |
| 1,2-Dibromoethane(EDB) | 10 | | 11.09 | 111 | 70 | 130 |
| Tetrachloroethene | 10 | | 10.69 | 107 | 70 | 130 |

FORM III AIR

# AIR LCS RECOVERY

Lab Name: Phoenix Environmental Labs Client: WALDENE

Lab Code: Phoenix Case No: SAS No: SDG No GCC90508

LCS - Client Id: CC90508 LCS

| COMPOUND | SPIKE ADDED (ppbv) | | LCS CONCENTRATION (ppbv) | LCS % REC # | QC. LIMITS REC. | |
|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 10 | | 11.56 | 116 | 70 | 130 |
| Chlorobenzene | 10 | | 10.17 | 102 | 70 | 130 |
| Ethylbenzene | 10 | | 10.73 | 107 | 70 | 130 |
| m,p-Xylene | 20 | | 22.12 | 111 | 70 | 130 |
| Bromoform | 10 | | 15.82 | 158 * | 70 | 130 |
| Styrene | 10 | | 11.20 | 112 | 70 | 130 |
| 1,1,2,2-Tetrachloroethane | 10 | | 10.90 | 109 | 70 | 130 |
| o-Xylene | 10 | | 10.74 | 107 | 70 | 130 |
| Isopropylbenzene | 10 | | 10.42 | 104 | 70 | 130 |
| 4-Ethyltoluene | 10 | | 11.11 | 111 | 70 | 130 |
| 1,3,5-Trimethylbenzene | 10 | | 11.02 | 110 | 70 | 130 |
| 1,2,4-Trimethylbenzene | 10 | | 11.34 | 113 | 70 | 130 |
| Benzyl chloride | 10 | | 11.30 | 113 | 70 | 130 |
| 1,3-Dichlorobenzene | 10 | | 11.09 | 111 | 70 | 130 |
| 1,4-Dichlorobenzene | 10 | | 10.98 | 110 | 70 | 130 |
| sec-Butylbenzene | 10 | | 10.73 | 107 | 70 | 130 |
| 4-Isopropyltoluene | 10 | | 11.24 | 112 | 70 | 130 |
| 1,2-Dichlorobenzene | 10 | | 11.24 | 112 | 70 | 130 |
| n-Butylbenzene | 10 | | 11.39 | 114 | 70 | 130 |
| 1,2,4-Trichlorobenzene | 10 | | 15.41 | 154 * | 70 | 130 |
| Hexachlorobutadiene | 10 | | 13.32 | 133 * | 70 | 130 |
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FORM III AIR

AIR LCS RECOVERY

Lab Name: Phoenix Environmental Labs Client: WALDENE

Lab Code: Phoenix Case No: SAS No: SDG No GCC90508

LCS - Client Id: CC90523 LCS

| COMPOUND | SPIKE ADDED (ppbv) | | LCS CONCENTRATION (ppbv) | LCS % REC # | QC. LIMITS REC. | |
|---|---|---|---|---|---|---|
| Propylene | 10 | | 11.90 | 119 | 70 | 130 |
| Dichlorodifluoromethane | 10 | | 11.43 | 114 | 70 | 130 |
| Chloromethane | 10 | | 13.23 | 132 * | 70 | 130 |
| 1,2-Dichlorotetrafluoroethane | 10 | | 12.66 | 127 | 70 | 130 |
| Vinyl Chloride | 10 | | 12.80 | 128 | 70 | 130 |
| 1,3-Butadiene | 10 | | 13.27 | 133 * | 70 | 130 |
| Bromomethane | 10 | | 12.13 | 121 | 70 | 130 |
| Chloroethane | 10 | | 12.67 | 127 | 70 | 130 |
| Ethanol | 8 | | 12.89 | 161 * | 70 | 130 |
| Acetone | 10 | | 13.21 | 132 * | 70 | 130 |
| Trichlorofluoromethane | 10 | | 12.50 | 125 | 70 | 130 |
| Isopropylalcohol | 10 | | 13.09 | 131 * | 70 | 130 |
| Acrylonitrile | 10 | | 14.20 | 142 * | 70 | 130 |
| 1,1-Dichloroethene | 10 | | 13.02 | 130 | 70 | 130 |
| Methylene Chloride | 10 | | 13.35 | 134 * | 70 | 130 |
| Carbon Disulfide | 10 | | 12.55 | 126 | 70 | 130 |
| Trichlorotrifluoroethane | 10 | | 12.81 | 128 | 70 | 130 |
| Trans-1,2-Dichloroethene | 10 | | 11.73 | 117 | 70 | 130 |
| 1,1-Dichloroethane | 10 | | 11.08 | 111 | 70 | 130 |
| Methyl tert-butyl ether(MTBE) | 10 | | 11.28 | 113 | 70 | 130 |
| Methyl Ethyl Ketone | 10 | | 12.26 | 123 | 70 | 130 |
| Cis-1,2-Dichloroethene | 10 | | 12.03 | 120 | 70 | 130 |
| Hexane | 10 | | 12.46 | 125 | 70 | 130 |
| Chloroform | 10 | | 11.74 | 117 | 70 | 130 |
| Ethyl acetate | 10 | | 12.75 | 128 | 70 | 130 |
| Tetrahydrofuran | 10 | | 13.43 | 134 * | 70 | 130 |
| 1,2-Dichloroethane | 10 | | 12.80 | 128 | 70 | 130 |
| 1,1,1-Trichloroethane | 10 | | 12.89 | 129 | 70 | 130 |
| Benzene | 10 | | 12.23 | 122 | 70 | 130 |
| Carbon Tetrachloride | 10 | | 15.12 | 151 * | 70 | 130 |
| Cyclohexane | 10 | | 13.45 | 135 * | 70 | 130 |
| 1,2-dichloropropane | 10 | | 10.73 | 107 | 70 | 130 |
| Bromodichloromethane | 10 | | 12.02 | 120 | 70 | 130 |
| Trichloroethene | 10 | | 10.47 | 105 | 70 | 130 |
| 1,4-Dioxane | 10 | | 10.47 | 105 | 70 | 130 |
| Heptane | 10 | | 12.06 | 121 | 70 | 130 |
| cis-1,3-Dichloropropene | 10 | | 12.01 | 120 | 70 | 130 |
| 4-Methyl-2-pentanone(MIBK) | 10 | | 13.21 | 132 * | 70 | 130 |
| trans-1,3-Dichloropropene | 10 | | 12.28 | 123 | 70 | 130 |
| 1,1,2-Trichloroethane | 10 | | 10.69 | 107 | 70 | 130 |
| Toluene | 10 | | 11.11 | 111 | 70 | 130 |
| Dibromochloromethane | 10 | | 14.54 | 145 * | 70 | 130 |
| 2-Hexanone(MBK) | 10 | | 12.61 | 126 | 70 | 130 |
| 1,2-Dibromoethane(EDB) | 10 | | 11.06 | 111 | 70 | 130 |

FORM III AIR

# AIR LCS RECOVERY

Lab Name: Phoenix Environmental Labs Client: WALDENE

Lab Code: Phoenix Case No: SAS No: SDG No GCC90508

LCS - Client Id: CC90523 LCS

| COMPOUND | SPIKE ADDED (ppbv) | | LCS CONCENTRATION (ppbv) | LCS % REC # | QC. LIMITS REC. | |
|---|---|---|---|---|---|---|
| Tetrachloroethene | 10 | | 10.73 | 107 | 70 | 130 |
| 1,1,1,2-Tetrachloroethane | 10 | | 11.71 | 117 | 70 | 130 |
| Chlorobenzene | 10 | | 9.915 | 99 | 70 | 130 |
| Ethylbenzene | 10 | | 10.36 | 104 | 70 | 130 |
| m,p-Xylene | 20 | | 22.05 | 110 | 70 | 130 |
| Bromoform | 10 | | 15.99 | 160 * | 70 | 130 |
| Styrene | 10 | | 10.88 | 109 | 70 | 130 |
| 1,1,2,2-Tetrachloroethane | 10 | | 10.78 | 108 | 70 | 130 |
| o-Xylene | 10 | | 10.63 | 106 | 70 | 130 |
| Isopropylbenzene | 10 | | 10.29 | 103 | 70 | 130 |
| 4-Ethyltoluene | 10 | | 10.81 | 108 | 70 | 130 |
| 1,3,5-Trimethylbenzene | 10 | | 10.73 | 107 | 70 | 130 |
| 1,2,4-Trimethylbenzene | 10 | | 11.20 | 112 | 70 | 130 |
| Benzyl chloride | 10 | | 4.338 | 43 * | 70 | 130 |
| 1,3-Dichlorobenzene | 10 | | 10.60 | 106 | 70 | 130 |
| 1,4-Dichlorobenzene | 10 | | 10.79 | 108 | 70 | 130 |
| sec-Butylbenzene | 10 | | 10.47 | 105 | 70 | 130 |
| 4-Isopropyltoluene | 10 | | 10.91 | 109 | 70 | 130 |
| 1,2-Dichlorobenzene | 10 | | 10.85 | 109 | 70 | 130 |
| n-Butylbenzene | 10 | | 11.35 | 114 | 70 | 130 |
| 1,2,4-Trichlorobenzene | 10 | | 14.63 | 146 * | 70 | 130 |
| Hexachlorobutadiene | 10 | | 12.94 | 129 | 70 | 130 |
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FORM III AIR

4A

AIR METHOD BLANK SUMMARY

Client ID: CC90508 BLANK

Lab Name: Phoenix Environmental Labs  Client: WALDENE

Lab Code: Phoenix  Case No.:  SAS No.:  SDG No.: GCC90508

Lab File ID: 0409_19.D  Lab Sample ID: CC90508 BLK

Date Analyzed: 04/09/2019  Time Analyzed: 17:15

GC Column: RTX-1 60M  Lab Batch ID: 474160

Instrument ID: CHEM20  Heated Purge:(Y/N) Y

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | TIME ANALYZED |
|---|---|---|---|---|
| 01 | CC90508 LCS | CC90508 LCS | 0409_17.D | 16:04 |
| 02 | IA-4 | CC90508 | 0409_20.D | 17:56 |
| 03 | IA-4 DUP | CC90508 DUP | 0409_21.D | 18:37 |
| 04 | IA-7 | CC90513 | 0409_22.D | 19:18 |
| 05 | IA-1 | CC90514 | 0409_23.D | 20:00 |
| 06 | IA-2 | CC90515 | 0409_24.D | 20:41 |
| 07 | IA-3 | CC90516 | 0409_25.D | 21:22 |
| 08 | AA-DUP | CC90518 | 0409_26.D | 22:03 |
| 09 | AA-1 | CC90519 | 0409_27.D | 22:44 |
| 10 | AA-2 | CC90520 | 0409_28.D | 23:25 |
| 11 | IA-10 | CC90521 | 0409_29.D | 00:06 |
| 12 | IA-DUP | CC90522 | 0409_30.D | 00:47 |
| 13 | SS-3 5X | CC90509 5X | 0409_31.D | 01:24 |
| 14 | SS-4 5X | CC90511 5X | 0409_33.D | 02:40 |
| 15 | SS-DUP 5X | CC90512 5X | 0409_34.D | 03:18 |
| 16 | SS-2 5X | CC90517 5X | 0409_35.D | 03:56 |
| 17 | SS-10 5X | CC90523 5X | 0409_36.D | 04:33 |
| 18 | SS-1 5X | CC90524 5X | 0409_37.D | 05:11 |
| 19 | SS-7 | CC90510 | 0409_39.D | 06:28 |
| 20 | | | | |

COMMENTS:

FORM IV AIR

4A

AIR METHOD BLANK SUMMARY

Client ID: CC90523 BLANK

Lab Name: Phoenix Environmental Labs  Client: WALDENE

Lab Code: Phoenix  Case No.:  SAS No.:  SDG No.: GCC90508

Lab File ID: 0409_46.D  Lab Sample ID: CC90523 BLK

Date Analyzed: 04/10/2019  Time Analyzed: 10:54

GC Column: RTX-1 60M  Lab Batch ID: 474357

Instrument ID: CHEM20  Heated Purge:(Y/N) Y

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | TIME ANALYZED |
|---|---|---|---|---|
| 01 | CC90523 LCS | CC90523 LCS | 0409_43.D | 09:05 |
| 02 | SS-3 75X | CC90509 75X | 0409_47.D | 12:05 |
| 03 | SS-4 75X | CC90511 75X | 0409_48.D | 12:42 |
| 04 | SS-DUP 75X | CC90512 75X | 0409_49.D | 13:20 |
| 05 | SS-10 75X | CC90523 75X | 0409_51.D | 14:35 |
| 06 | SS-1 75X | CC90524 75X | 0409_52.D | 15:12 |
| 07 | SS-2 300X | CC90517 300X | 0409_55.D | 17:09 |
| 08 | SS-10 DUP 75X | CC90523 DUP 75X | 0409_56.D | 17:47 |
| 09 | | | | |
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COMMENTS:

FORM IV AIR

5B
AIR INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Phoenix Environmental Labs  Client: WALDENE

Lab Code: Phoenix  Case No.:  SAS No.:  SDG No.: GCC90508

Lab File ID: 0409_02.D  BFB Injection Date: 04/09/19

Instrument ID: CHEM20  BFB Injection Time: 06:32

GC Column: RTX-1 60M  Heated Purge: (Y/N) Y

AutoFind: Scans 983, 984, 985; Background Corrected with Scan 978

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | | | |
|---|---|---|---|---|---|
| 50 | 8.0 - 40.0% of mass 95 | 26.2 | | | |
| 75 | 30.0 - 66.0% of mass 95 | 51.4 | | | |
| 95 | Base Peak, 100% relative abundance | 100.0 | | | |
| 96 | 5.0 - 9.0% of mass 95 | 6.7 | | | |
| 173 | Less than 2.0% of mass 174 | 0.4 | ( | 0.6 | )1 |
| 174 | 50.0 - 120.0% of mass 95 | 65.7 | | | |
| 175 | 4.0 - 9.0% of mass 174 | 8.0 | ( | 5.3 | )1 |
| 176 | 93.0 - 101.0% of mass 174 | 97.8 | ( | 64.3 | )1 |
| 177 | 5.0 - 9.0% of mass 176 | 6.5 | ( | 4.2 | )1 |

1-Value is % mass 95

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

| | CLIENT ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED | |
|---|---|---|---|---|---|---|
| 01 | ICAL 0.02 | 0.02 | 0409_04.D | 04/09/19 | 07:45 | |
| 02 | ICAL 0.035 | 0.035 | 0409_05.D | 04/09/19 | 08:22 | |
| 03 | ICAL 0.05 | 0.05 | 0409_06.D | 04/09/19 | 08:59 | |
| 04 | ICAL 0.1 | 0.10 | 0409_07.D | 04/09/19 | 09:36 | |
| 05 | ICAL 0.5 | 0.50 | 0409_08.D | 04/09/19 | 10:16 | |
| 06 | ICAL 2.5 | 2.5 | 0409_09.D | 04/09/19 | 10:56 | |
| 07 | ICAL 5 | 5.0 | 0409_10.D | 04/09/19 | 11:33 | |
| 08 | ICAL 25 | 25 | 0409_11.D | 04/09/19 | 12:13 | |
| 09 | ICAL 40 | 40 | 0409_12.D | 04/09/19 | 12:55 | |
| 10 | ICAL 1 | 1ppb cc | 0409_14.D | 04/09/19 | 14:09 | |
| 11 | ICAL 0.2 | 0.2ppb | 0409_15.D | 04/09/19 | 14:47 | |
| 12 | ICAL 10 | 10ppb cc | 0409_16.D | 04/09/19 | 15:24 | |
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(*) Outside 24 hr clock

FORM V AIR

CLPBFB

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_02.D
Acq On : 09 Apr 2019 06:32 am
Operator : CORTEX\ms
Sample : 0/0
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p

Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Title : VOA Standards for 5 point calibration
Last Update : Wed Apr 10 09:42:38 2019

AutoFind: Scans 983, 984, 985; Background Corrected with Scan 978

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 8 | 40 | 26.2 | 47339 | PASS |
| 75 | 95 | 30 | 66 | 51.4 | 92744 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 180592 | PASS |
| 96 | 95 | 5 | 9 | 6.7 | 12165 | PASS |
| 173 | 174 | 0.00 | 2 | 0.6 | 707 | PASS |
| 174 | 95 | 50 | 120 | 65.7 | 118715 | PASS |
| 175 | 174 | 4 | 9 | 8.0 | 9512 | PASS |
| 176 | 174 | 93 | 101 | 97.8 | 116080 | PASS |
| 177 | 176 | 5 | 9 | 6.5 | 7498 | PASS |

20_AIR_0409.M Thu Apr 25 12:22:06 2019

5B
AIR INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Phoenix Environmental Labs  Client: WALDENE

Lab Code: Phoenix  Case No.:  SAS No.:  SDG No.: GCC90508

Lab File ID: 0409_14.D  BFB Injection Date: 04/09/19

Instrument ID: CHEM20  BFB Injection Time: 14:09

GC Column: RTX-1 60M  Heated Purge: (Y/N) Y

AutoFind: Scans 983, 984, 985; Background Corrected with Scan 978

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | | | |
|---|---|---|---|---|---|
| 50 | 8.0 - 40.0% of mass 95 | 27.3 | | | |
| 75 | 30.0 - 66.0% of mass 95 | 52.3 | | | |
| 95 | Base Peak, 100% relative abundance | 100.0 | | | |
| 96 | 5.0 - 9.0% of mass 95 | 6.5 | | | |
| 173 | Less than 2.0% of mass 174 | 0.3 | ( | 0.5 | )1 |
| 174 | 50.0 - 120.0% of mass 95 | 66.8 | | | |
| 175 | 4.0 - 9.0% of mass 174 | 7.4 | ( | 5.0 | )1 |
| 176 | 93.0 - 101.0% of mass 174 | 94.1 | ( | 62.9 | )1 |
| 177 | 5.0 - 9.0% of mass 176 | 6.9 | ( | 4.4 | )1 |

1-Value is % mass 95

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

| | CLIENT ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED | |
|---|---|---|---|---|---|---|
| 01 | CC90508 LCS | CC90508 LCS | 0409_17.D | 04/09/19 | 16:04 | |
| 02 | CC90508 BLANK | CC90508 BLANK | 0409_19.D | 04/09/19 | 17:15 | |
| 03 | IA-4 | CC90508 | 0409_20.D | 04/09/19 | 17:56 | |
| 04 | IA-4 DUP | CC90508 DUP | 0409_21.D | 04/09/19 | 18:37 | |
| 05 | IA-7 | CC90513 | 0409_22.D | 04/09/19 | 19:18 | |
| 06 | IA-1 | CC90514 | 0409_23.D | 04/09/19 | 20:00 | |
| 07 | IA-2 | CC90515 | 0409_24.D | 04/09/19 | 20:41 | |
| 08 | IA-3 | CC90516 | 0409_25.D | 04/09/19 | 21:22 | |
| 09 | AA-DUP | CC90518 | 0409_26.D | 04/09/19 | 22:03 | |
| 10 | AA-1 | CC90519 | 0409_27.D | 04/09/19 | 22:44 | |
| 11 | AA-2 | CC90520 | 0409_28.D | 04/09/19 | 23:25 | |
| 12 | IA-10 | CC90521 | 0409_29.D | 04/10/19 | 00:06 | |
| 13 | IA-DUP | CC90522 | 0409_30.D | 04/10/19 | 00:47 | |
| 14 | SS-3 5X | CC90509 5X | 0409_31.D | 04/10/19 | 01:24 | |
| 15 | SS-4 5X | CC90511 5X | 0409_33.D | 04/10/19 | 02:40 | |
| 16 | SS-DUP 5X | CC90512 5X | 0409_34.D | 04/10/19 | 03:18 | |
| 17 | SS-2 5X | CC90517 5X | 0409_35.D | 04/10/19 | 03:56 | |
| 18 | SS-10 5X | CC90523 5X | 0409_36.D | 04/10/19 | 04:33 | |
| 19 | SS-1 5X | CC90524 5X | 0409_37.D | 04/10/19 | 05:11 | |
| 20 | SS-7 | CC90510 | 0409_39.D | 04/10/19 | 06:28 | |
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(*) Outside 24 hr clock

FORM V AIR

CLPBFB

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_14.D
Acq On : 09 Apr 2019 02:09 pm
Operator : CORTEX\ms
Sample : 1ppb cc
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p

Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Title : VOA Standards for 5 point calibration
Last Update : Wed Apr 10 09:03:38 2019

AutoFind: Scans 983, 984, 985; Background Corrected with Scan 978

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 8 | 40 | 27.3 | 49877 | PASS |
| 75 | 95 | 30 | 66 | 52.3 | 95688 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 182928 | PASS |
| 96 | 95 | 5 | 9 | 6.5 | 11823 | PASS |
| 173 | 174 | 0.00 | 2 | 0.5 | 619 | PASS |
| 174 | 95 | 50 | 120 | 66.8 | 122232 | PASS |
| 175 | 174 | 4 | 9 | 7.4 | 9075 | PASS |
| 176 | 174 | 93 | 101 | 94.1 | 115013 | PASS |
| 177 | 176 | 5 | 9 | 6.9 | 7951 | PASS |

20_AIR_0409.M Wed Apr 10 09:04:13 2019

5B
AIR INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Phoenix Environmental Labs  Client: WALDENE

Lab Code: Phoenix  Case No.:  SAS No.:  SDG No.: GCC90508

Lab File ID: 0409_41.D  BFB Injection Date: 04/10/19

Instrument ID: CHEM20  BFB Injection Time: 07:47

GC Column: RTX-1 60M  Heated Purge: (Y/N) Y

AutoFind: Scans 983, 984, 985; Background Corrected with Scan 978

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | | | |
|---|---|---|---|---|---|
| 50 | 8.0 - 40.0% of mass 95 | 28.8 | | | |
| 75 | 30.0 - 66.0% of mass 95 | 54.9 | | | |
| 95 | Base Peak, 100% relative abundance | 100.0 | | | |
| 96 | 5.0 - 9.0% of mass 95 | 6.7 | | | |
| 173 | Less than 2.0% of mass 174 | 0.3 | ( | 0.5 | )1 |
| 174 | 50.0 - 120.0% of mass 95 | 64.9 | | | |
| 175 | 4.0 - 9.0% of mass 174 | 7.6 | ( | 4.9 | )1 |
| 176 | 93.0 - 101.0% of mass 174 | 97.3 | ( | 63.1 | )1 |
| 177 | 5.0 - 9.0% of mass 176 | 6.3 | ( | 4.0 | )1 |

1-Value is % mass 95

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

| | CLIENT ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED | |
|---|---|---|---|---|---|---|
| 01 | CCAL 1 | 1ppb cc | 0409_41.D | 04/10/19 | 07:47 | |
| 02 | CC90523 LCS | CC90523 LCS | 0409_43.D | 04/10/19 | 09:05 | |
| 03 | CC90523 BLANK | CC90523 BLANK | 0409_46.D | 04/10/19 | 10:54 | |
| 04 | SS-3 75X | CC90509 75X | 0409_47.D | 04/10/19 | 12:05 | |
| 05 | SS-4 75X | CC90511 75X | 0409_48.D | 04/10/19 | 12:42 | |
| 06 | SS-DUP 75X | CC90512 75X | 0409_49.D | 04/10/19 | 13:20 | |
| 07 | SS-10 75X | CC90523 75X | 0409_51.D | 04/10/19 | 14:35 | |
| 08 | SS-1 75X | CC90524 75X | 0409_52.D | 04/10/19 | 15:12 | |
| 09 | SS-2 300X | CC90517 300X | 0409_55.D | 04/10/19 | 17:09 | |
| 10 | SS-10 DUP 75X | CC90523 DUP 75X | 0409_56.D | 04/10/19 | 17:47 | |
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(*) Outside 24 hr clock

FORM V AIR

CLPBFB

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_41.D
Acq On : 10 Apr 2019 07:47 am
Operator : CORTEX\ms
Sample : 1ppb cc
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p

Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Title : VOA Standards for 5 point calibration
Last Update : Wed Apr 10 09:42:38 2019

AutoFind: Scans 983, 984, 985; Background Corrected with Scan 978

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 8 | 40 | 28.8 | 46732 | PASS |
| 75 | 95 | 30 | 66 | 54.9 | 89059 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 162091 | PASS |
| 96 | 95 | 5 | 9 | 6.7 | 10803 | PASS |
| 173 | 174 | 0.00 | 2 | 0.5 | 502 | PASS |
| 174 | 95 | 50 | 120 | 64.9 | 105125 | PASS |
| 175 | 174 | 4 | 9 | 7.6 | 7990 | PASS |
| 176 | 174 | 93 | 101 | 97.3 | 102251 | PASS |
| 177 | 176 | 5 | 9 | 6.3 | 6397 | PASS |

20_AIR_0409.M Wed Apr 10 16:02:24 2019

8A
AIR INTERNAL STANDARD AREA AND RT SUMMARY
Full Scan

Lab Name: Phoenix Environmental Labs Client: WALDENE

Lab Code: Phoenix Case No.: _____ SAS No.: _____ SDG No.: GCC90508

Lab Method / File Id: 20_AIR_0409.M / 0409_14.D Date Analyzed: 04/09/19

Instrument ID: CHEM20 Time Analyzed: 14:09

GC Column: RTX-1 60M ID: 0.18 (mm) Heated Purge:(Y/N) Y

| | | IS1 (BCM) AREA | # | RT | # | IS2 (DFB) AREA | # | RT | # | IS3 (CBZ) AREA | # | RT | # | | | LAB FILE ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | 140317 | | 6.88 | | 445159 | | 7.78 | | 209039 | | 9.81 | | | | 0409_14.D |
| | UPPER LIMIT | 197145 | | 7.21 | | 625448 | | 8.11 | | 293700 | | 10.14 | | | | 0409_14.D |
| | LOWER LIMIT | 83489 | | 6.55 | | 264870 | | 7.45 | | 124378 | | 9.48 | | | | 0409_14.D |
| | | | | | | | | | | | | | | | | |
| | CLIENT ID | | | | | | | | | | | | | | | |
| 01 | ICAL 1 | 140317 | | 6.88 | | 445159 | | 7.78 | | 209039 | | 9.81 | | | | 0409_14.D |
| 02 | CC90508 LCS | 134010 | | 6.88 | | 417487 | | 7.78 | | 207223 | | 9.81 | | | | 0409_17.D |
| 03 | CC90508 BLANK | 137728 | | 6.87 | | 422184 | | 7.77 | | 195526 | | 9.81 | | | | 0409_19.D |
| 04 | IA-4 | 123417 | | 6.87 | | 397146 | | 7.77 | | 192260 | | 9.81 | | | | 0409_20.D |
| 05 | IA-4 DUP | 127622 | | 6.87 | | 404760 | | 7.77 | | 197692 | | 9.81 | | | | 0409_21.D |
| 06 | IA-7 | 126580 | | 6.88 | | 403050 | | 7.77 | | 189246 | | 9.81 | | | | 0409_22.D |
| 07 | IA-1 | 122750 | | 6.88 | | 385641 | | 7.77 | | 183209 | | 9.81 | | | | 0409_23.D |
| 08 | IA-2 | 118253 | | 6.87 | | 382590 | | 7.77 | | 184430 | | 9.81 | | | | 0409_24.D |
| 09 | IA-3 | 119780 | | 6.88 | | 382989 | | 7.77 | | 186262 | | 9.81 | | | | 0409_25.D |
| 10 | AA-DUP | 122049 | | 6.87 | | 383830 | | 7.77 | | 185802 | | 9.81 | | | | 0409_26.D |
| 11 | AA-1 | 116764 | | 6.88 | | 374302 | | 7.78 | | 183086 | | 9.81 | | | | 0409_27.D |
| 12 | AA-2 | 115623 | | 6.87 | | 365856 | | 7.77 | | 179920 | | 9.81 | | | | 0409_28.D |
| 13 | IA-10 | 110707 | | 6.88 | | 364770 | | 7.78 | | 186507 | | 9.81 | | | | 0409_29.D |
| 14 | IA-DUP | 115319 | | 6.88 | | 377508 | | 7.77 | | 189140 | | 9.81 | | | | 0409_30.D |
| 15 | SS-3 5X | 113392 | | 6.88 | | 368048 | | 7.78 | | 177037 | | 9.81 | | | | 0409_31.D |
| 16 | SS-4 5X | 108129 | | 6.88 | | 363783 | | 7.78 | | 176076 | | 9.81 | | | | 0409_33.D |
| 17 | SS-DUP 5X | 110428 | | 6.87 | | 361275 | | 7.77 | | 175180 | | 9.81 | | | | 0409_34.D |
| 18 | SS-2 5X | 111130 | | 6.87 | | 366695 | | 7.77 | | 171906 | | 9.81 | | | | 0409_35.D |
| 19 | SS-10 5X | 108660 | | 6.87 | | 370681 | | 7.77 | | 178139 | | 9.81 | | | | 0409_36.D |
| 20 | SS-1 5X | 111696 | | 6.88 | | 372099 | | 7.77 | | 178488 | | 9.81 | | | | 0409_37.D |
| 21 | SS-7 | 103792 | | 6.87 | | 347939 | | 7.77 | | 181935 | | 9.81 | | | | 0409_39.D |
| 22 | | | | | | | | | | | | | | | | |

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +140% of internal standard area
AREA LOWER LIMIT = - 60% of internal standard area
RT UPPER LIMIT = +0.33 minutes of internal standard RT
RT LOWER LIMIT = -0.33 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

8A
AIR INTERNAL STANDARD AREA AND RT SUMMARY
Sim Scan

Lab Name: Phoenix Environmental Labs Client: WALDENE

Lab Code: Phoenix Case No.: _____ SAS No.: _____ SDG No.: GCC90508

Lab Method / File Id: 20_AIR_0409.M / 0409_14.D Date Analyzed: 04/09/19

Instrument ID: CHEM20 Time Analyzed: 14:09

GC Column: RTX-1 60M ID: 0.18 (mm) Heated Purge:(Y/N) Y

| | | IS1 (BCM) AREA | # | RT | # | IS2 (DFB) AREA | # | RT | # | IS3 (CBZ) AREA | # | RT | # | | | LAB FILE ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | 191401 | | 6.88 | | 508826 | | 7.77 | | 209433 | | 9.81 | | | | 0409_14.D |
| | UPPER LIMIT | 268918 | | 7.21 | | 714901 | | 8.10 | | 294253 | | 10.14 | | | | 0409_14.D |
| | LOWER LIMIT | 113884 | | 6.55 | | 302751 | | 7.44 | | 124613 | | 9.48 | | | | 0409_14.D |
| | | | | | | | | | | | | | | | | |
| | CLIENT ID | | | | | | | | | | | | | | | |
| 01 | ICAL 1 | 191401 | | 6.88 | | 508826 | | 7.77 | | 209433 | | 9.81 | | | | 0409_14.D |
| 02 | CC90508 LCS | 175430 | | 6.88 | | 484012 | | 7.78 | | 216049 | | 9.81 | | | | 0409_17.D |
| 03 | CC90508 BLANK | 182807 | | 6.87 | | 482208 | | 7.77 | | 198523 | | 9.81 | | | | 0409_19.D |
| 04 | IA-4 | 170484 | | 6.87 | | 458010 | | 7.77 | | 196633 | | 9.81 | | | | 0409_20.D |
| 05 | IA-4 DUP | 172030 | | 6.87 | | 459992 | | 7.78 | | 195993 | | 9.81 | | | | 0409_21.D |
| 06 | IA-7 | 174436 | | 6.88 | | 463928 | | 7.77 | | 194291 | | 9.81 | | | | 0409_22.D |
| 07 | IA-1 | 166803 | | 6.87 | | 441412 | | 7.77 | | 184998 | | 9.81 | | | | 0409_23.D |
| 08 | IA-2 | 162299 | | 6.87 | | 431989 | | 7.78 | | 182680 | | 9.81 | | | | 0409_24.D |
| 09 | IA-3 | 163336 | | 6.87 | | 438358 | | 7.77 | | 188778 | | 9.81 | | | | 0409_25.D |
| 10 | AA-DUP | 166324 | | 6.87 | | 440757 | | 7.77 | | 185027 | | 9.81 | | | | 0409_26.D |
| 11 | AA-1 | 161216 | | 6.88 | | 430780 | | 7.77 | | 183192 | | 9.81 | | | | 0409_27.D |
| 12 | AA-2 | 159220 | | 6.87 | | 423143 | | 7.77 | | 180033 | | 9.81 | | | | 0409_28.D |
| 13 | IA-10 | 153766 | | 6.88 | | 423277 | | 7.77 | | 187914 | | 9.81 | | | | 0409_29.D |
| 14 | IA-DUP | 160015 | | 6.87 | | 436620 | | 7.77 | | 190281 | | 9.81 | | | | 0409_30.D |
| 15 | SS-3 5X | 155825 | | 6.88 | | 428062 | | 7.78 | | 181597 | | 9.81 | | | | 0409_31.D |
| 16 | SS-4 5X | 148494 | | 6.88 | | 416872 | | 7.78 | | 179264 | | 9.81 | | | | 0409_33.D |
| 17 | SS-DUP 5X | 153174 | | 6.87 | | 416485 | | 7.78 | | 176329 | | 9.81 | | | | 0409_34.D |
| 18 | SS-2 5X | 152242 | | 6.87 | | 415688 | | 7.77 | | 173129 | | 9.81 | | | | 0409_35.D |
| 19 | SS-10 5X | 153033 | | 6.87 | | 424362 | | 7.77 | | 177125 | | 9.81 | | | | 0409_36.D |
| 20 | SS-1 5X | 155548 | | 6.87 | | 430137 | | 7.78 | | 180414 | | 9.81 | | | | 0409_37.D |
| 21 | SS-7 | 144640 | | 6.87 | | 403962 | | 7.77 | | 181982 | | 9.81 | | | | 0409_39.D |
| 22 | | | | | | | | | | | | | | | | |

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +140% of internal standard area
AREA LOWER LIMIT = - 60% of internal standard area
RT UPPER LIMIT = +0.33 minutes of internal standard RT
RT LOWER LIMIT = -0.33 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

8A
AIR INTERNAL STANDARD AREA AND RT SUMMARY
Full Scan

Lab Name: Phoenix Environmental Labs Client: WALDENE

Lab Code: Phoenix Case No.: _____ SAS No.: _____ SDG No.: GCC90508

Lab Method / File Id: 20_AIR_0409.M / Average Date Analyzed: 04/09/19

Instrument ID: CHEM20 Time Analyzed: 14:09

GC Column: RTX-1 60M ID: 0.18 (mm) Heated Purge:(Y/N) Y

| | IS1 (BCM) Area Avg | # | RT Avg | # | IS2 (DFB) Area Avg | # | RT Avg | # | IS3 (CBZ) Area Avg | # | RT Avg | # | | | LAB FILE ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | | 149726 | | 6.88 | | 429737 | | 7.78 | | 209563 | | 9.81 | | | | Average |
| | UPPER LIMIT | | 210364 | | 7.21 | | 603780 | | 8.11 | | 294436 | | 10.14 | | | | Average |
| | LOWER LIMIT | | 89087 | | 6.55 | | 255693 | | 7.45 | | 124690 | | 9.48 | | | | Average |
| | | | | | | | | | | | | | | | | | |
| | CLIENT ID | | | | | | | | | | | | | | | | |
| 01 | ICAL 0.5 | | 140216 | | 6.87 | | 430790 | | 7.77 | | 199872 | | 9.81 | | | | 0409_08.D |
| 02 | ICAL 2.5 | | 139560 | | 6.88 | | 435952 | | 7.78 | | 202851 | | 9.81 | | | | 0409_09.D |
| 03 | ICAL 5 | | 144117 | | 6.88 | | 429079 | | 7.78 | | 205886 | | 9.81 | | | | 0409_10.D |
| 04 | ICAL 25 | | 163778 | | 6.89 | | 416024 | | 7.78 | | 223724 | | 9.81 | | | | 0409_11.D |
| 05 | ICAL 40 | | 185336 | | 6.89 | | 424848 | | 7.78 | | 231886 | | 9.81 | | | | 0409_12.D |
| 06 | ICAL 1 | | 140317 | | 6.88 | | 445159 | | 7.78 | | 209039 | | 9.81 | | | | 0409_14.D |
| 07 | ICAL 0.2 | | 140705 | | 6.87 | | 434962 | | 7.77 | | 200316 | | 9.81 | | | | 0409_15.D |
| 08 | ICAL 10 | | 143775 | | 6.88 | | 421079 | | 7.78 | | 202928 | | 9.81 | | | | 0409_16.D |
| 09 | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | |
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| 21 | | | | | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | | | | | |

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +140% of internal standard area
AREA LOWER LIMIT = - 60% of internal standard area
RT UPPER LIMIT = +0.33 minutes of internal standard RT
RT LOWER LIMIT = -0.33 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

8A
AIR INTERNAL STANDARD AREA AND RT SUMMARY
Sim Scan

Lab Name: Phoenix Environmental Labs Client: WALDENE

Lab Code: Phoenix Case No.: _____ SAS No.: _____ SDG No.: GCC90508

Lab Method / File Id: 20_AIR_0409.M / Average Date Analyzed: 04/09/19

Instrument ID: CHEM20 Time Analyzed: 14:09

GC Column: RTX-1 60M ID: 0.18 (mm) Heated Purge:(Y/N) Y

| | | IS1 (BCM) Area Avg # | RT Avg # | IS2 (DFB) Area Avg # | RT Avg # | IS3 (CBZ) Area Avg # | RT Avg # | | | LAB FILE ID |
|---|---|---|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | 192041 | 6.88 | 498362 | 7.78 | 207341 | 9.81 | | | Average |
| | UPPER LIMIT | 269817 | 7.21 | 700199 | 8.11 | 291314 | 10.14 | | | Average |
| | LOWER LIMIT | 114264 | 6.55 | 296526 | 7.45 | 123368 | 9.48 | | | Average |
| | | | | | | | | | | |
| | CLIENT ID | | | | | | | | | |
| 01 | ICAL 0.02 | 199331 | 6.88 | 518707 | 7.77 | 208626 | 9.81 | | | 0409_04.D |
| 02 | ICAL 0.035 | 195696 | 6.87 | 506266 | 7.77 | 205987 | 9.81 | | | 0409_05.D |
| 03 | ICAL 0.05 | 193754 | 6.88 | 505626 | 7.78 | 206756 | 9.81 | | | 0409_06.D |
| 04 | ICAL 0.1 | 192013 | 6.88 | 498339 | 7.77 | 205684 | 9.81 | | | 0409_07.D |
| 05 | ICAL 0.5 | 189087 | 6.87 | 494232 | 7.77 | 205493 | 9.81 | | | 0409_08.D |
| 06 | ICAL 2.5 | 185571 | 6.88 | 495028 | 7.77 | 206662 | 9.81 | | | 0409_09.D |
| 07 | ICAL 5 | 192406 | 6.88 | 487305 | 7.78 | 209097 | 9.81 | | | 0409_10.D |
| 08 | ICAL 1 | 191401 | 6.88 | 508826 | 7.77 | 209433 | 9.81 | | | 0409_14.D |
| 09 | ICAL 0.2 | 188865 | 6.87 | 495973 | 7.77 | 203542 | 9.81 | | | 0409_15.D |
| 10 | ICAL 10 | 192284 | 6.88 | 473322 | 7.77 | 212132 | 9.81 | | | 0409_16.D |
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| 21 | | | | | | | | | | |
| 22 | | | | | | | | | | |

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +140% of internal standard area
AREA LOWER LIMIT = - 60% of internal standard area
RT UPPER LIMIT = +0.33 minutes of internal standard RT
RT LOWER LIMIT = -0.33 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

8A
AIR INTERNAL STANDARD AREA AND RT SUMMARY
Full Scan

Lab Name: Phoenix Environmental Labs Client: WALDENE

Lab Code: Phoenix Case No.: _____ SAS No.: _____ SDG No.: GCC90508

Lab Method / File Id: 20_AIR_0409.M / 0409_41.D Date Analyzed: 04/10/19

Instrument ID: CHEM20 Time Analyzed: 7:47

GC Column: RTX-1 60M ID: 0.18 (mm) Heated Purge:(Y/N) Y

| | IS1 (BCM) AREA | # | RT | # | IS2 (DFB) AREA | # | RT | # | IS3 (CBZ) AREA | # | RT | # | | | LAB FILE ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 HOUR STD | 114610 | | 6.87 | | 388380 | | 7.77 | | 188017 | | 9.81 | | | | 0409_41.D |
| UPPER LIMIT | 161027 | | 7.20 | | 545674 | | 8.10 | | 264164 | | 10.14 | | | | 0409_41.D |
| LOWER LIMIT | 68193 | | 6.54 | | 231086 | | 7.44 | | 111870 | | 9.48 | | | | 0409_41.D |
| | | | | | | | | | | | | | | | |
| CLIENT ID | | | | | | | | | | | | | | | |
| 01 CCAL 1 | 114610 | | 6.87 | | 388380 | | 7.77 | | 188017 | | 9.81 | | | | 0409_41.D |
| 02 CC90523 LCS | 109338 | | 6.88 | | 372985 | | 7.78 | | 193517 | | 9.81 | | | | 0409_43.D |
| 03 CC90523 BLANK | 106351 | | 6.88 | | 352841 | | 7.77 | | 175545 | | 9.81 | | | | 0409_46.D |
| 04 SS-3 75X | 97780 | | 6.88 | | 332148 | | 7.77 | | 165153 | | 9.81 | | | | 0409_47.D |
| 05 SS-4 75X | 97046 | | 6.87 | | 324029 | | 7.77 | | 164483 | | 9.81 | | | | 0409_48.D |
| 06 SS-DUP 75X | 89869 | | 6.87 | | 306888 | | 7.77 | | 155615 | | 9.81 | | | | 0409_49.D |
| 07 SS-10 75X | 87556 | | 6.88 | | 301959 | | 7.77 | | 158326 | | 9.81 | | | | 0409_51.D |
| 08 SS-1 75X | 89308 | | 6.87 | | 306244 | | 7.77 | | 158510 | | 9.81 | | | | 0409_52.D |
| 09 SS-2 300X | 88581 | | 6.88 | | 298725 | | 7.77 | | 153421 | | 9.81 | | | | 0409_55.D |
| 10 SS-10 DUP 75X | 87632 | | 6.88 | | 302941 | | 7.78 | | 156938 | | 9.81 | | | | 0409_56.D |
| 11 | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | |
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| 19 | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | |
| 21 | | | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | | | |

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +140% of internal standard area
AREA LOWER LIMIT = - 60% of internal standard area
RT UPPER LIMIT = +0.33 minutes of internal standard RT
RT LOWER LIMIT = -0.33 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

8A
AIR INTERNAL STANDARD AREA AND RT SUMMARY
Sim Scan

Lab Name: Phoenix Environmental Labs Client: WALDENE

Lab Code: Phoenix Case No.: _____ SAS No.: _____ SDG No.: GCC90508

Lab Method / File Id: 20_AIR_0409.M / 0409_41.D Date Analyzed: 04/10/19

Instrument ID: CHEM20 Time Analyzed: 7:47

GC Column: RTX-1 60M ID: 0.18 (mm) Heated Purge:(Y/N) Y

| | | IS1 (BCM) AREA | # | RT | # | IS2 (DFB) AREA | # | RT | # | IS3 (CBZ) AREA | # | RT | # | | | LAB FILE ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | 157682 | | 6.87 | | 439722 | | 7.78 | | 186542 | | 9.81 | | | | 0409_41.D |
| | UPPER LIMIT | 221543 | | 7.20 | | 617809 | | 8.11 | | 262092 | | 10.14 | | | | 0409_41.D |
| | LOWER LIMIT | 93821 | | 6.54 | | 261635 | | 7.45 | | 110992 | | 9.48 | | | | 0409_41.D |
| | | | | | | | | | | | | | | | | |
| | CLIENT ID | | | | | | | | | | | | | | | |
| 01 | CCAL 1 | 157682 | | 6.87 | | 439722 | | 7.78 | | 186542 | | 9.81 | | | | 0409_41.D |
| 02 | CC90523 LCS | 148993 | | 6.88 | | 424054 | | 7.78 | | 195889 | | 9.81 | | | | 0409_43.D |
| 03 | CC90523 BLANK | 146799 | | 6.87 | | 404965 | | 7.77 | | 173605 | | 9.81 | | | | 0409_46.D |
| 04 | SS-3 75X | 137584 | | 6.87 | | 382802 | | 7.78 | | 167035 | | 9.81 | | | | 0409_47.D |
| 05 | SS-4 75X | 135711 | | 6.87 | | 375973 | | 7.78 | | 165386 | | 9.81 | | | | 0409_48.D |
| 06 | SS-DUP 75X | 127781 | | 6.87 | | 355995 | | 7.77 | | 156711 | | 9.81 | | | | 0409_49.D |
| 07 | SS-10 75X | 124556 | | 6.87 | | 353647 | | 7.77 | | 158517 | | 9.81 | | | | 0409_51.D |
| 08 | SS-1 75X | 127172 | | 6.87 | | 358698 | | 7.78 | | 160556 | | 9.81 | | | | 0409_52.D |
| 09 | SS-2 300X | 123179 | | 6.88 | | 351724 | | 7.78 | | 156678 | | 9.81 | | | | 0409_55.D |
| 10 | SS-10 DUP 75X | 122754 | | 6.88 | | 352072 | | 7.78 | | 159025 | | 9.81 | | | | 0409_56.D |
| 11 | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | |
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| 17 | | | | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | |
| 21 | | | | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | | | | |

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +140% of internal standard area
AREA LOWER LIMIT = - 60% of internal standard area
RT UPPER LIMIT = +0.33 minutes of internal standard RT
RT LOWER LIMIT = -0.33 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

AIR ANALYSIS DATA SHEET

CLIENT ID: IA-4

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90508

Canister: 492 Lab File ID: 0409_20.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/09/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 115-07-1 | Propylene | 0.581 | U | 0.581 | 0.581 | r |
| 75-71-8 | Dichlorodifluoromethane | 0.478 | | 0.202 | 0.202 | r |
| 74-87-3 | Chloromethane | 0.625 | | 0.485 | 0.485 | r |
| 106-99-0 | 1,3-Butadiene | 0.452 | U | 0.452 | 0.452 | r |
| 75-00-3 | Chloroethane | 0.379 | U | 0.379 | 0.379 | r |
| 64-17-5 | Ethanol | 14.6 | S | 0.531 | 0.531 | r |
| 67-64-1 | Acetone | 7.42 | S | 0.421 | 0.421 | r |
| 75-69-4 | Trichlorofluoromethane | 0.245 | | 0.178 | 0.178 | r |
| 67-63-0 | Isopropylalcohol | 0.767 | S | 0.407 | 0.407 | r |
| 107-13-1 | Acrylonitrile | 0.461 | U | 0.461 | 0.461 | r |
| 75-09-2 | Methylene Chloride | 0.864 | U | 0.864 | 0.864 | r |
| 75-15-0 | Carbon Disulfide | 0.321 | U | 0.321 | 0.321 | r |
| 1634-04-4 | Methyl tert-butyl ether(MTBE) | 0.278 | U | 0.278 | 0.278 | r |
| 78-93-3 | Methyl Ethyl Ketone | 1.02 | | 0.339 | 0.339 | r |
| 110-54-3 | Hexane | 1.91 | S | 0.284 | 0.284 | r |
| 141-78-6 | Ethyl acetate | 0.278 | U | 0.278 | 0.278 | r |
| 109-99-9 | Tetrahydrofuran | 1.74 | | 0.339 | 0.339 | r |
| 71-43-2 | Benzene | 0.491 | | 0.313 | 0.313 | r |
| 110-82-7 | Cyclohexane | 0.632 | | 0.291 | 0.291 | r |
| 142-82-5 | Heptane | 0.824 | | 0.244 | 0.244 | r |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | 0.244 | U | 0.244 | 0.244 | r |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.221 | U | 0.221 | 0.221 | r |
| 108-88-3 | Toluene | 2.46 | | 0.266 | 0.266 | r |
| 591-78-6 | 2-Hexanone(MBK) | 0.244 | U | 0.244 | 0.244 | r |
| 127-18-4 | Tetrachloroethene | 2.49 | | 0.037 | 0.037 | r |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.146 | U | 0.146 | 0.146 | r |
| 108-90-7 | Chlorobenzene | 0.217 | U | 0.217 | 0.217 | r |
| 100-41-4 | Ethylbenzene | 0.513 | | 0.230 | 0.230 | r |
| 179601-23-1 | m,p-Xylene | 2.06 | | 0.230 | 0.230 | r |
| 100-42-5 | Styrene | 0.235 | U | 0.235 | 0.235 | r |
| 95-47-6 | o-Xylene | 0.892 | | 0.230 | 0.230 | r |
| 98-82-8 | Isopropylbenzene | 0.227 | | 0.204 | 0.204 | r |
| 622-96-8 | 4-Ethyltoluene | 1.01 | | 0.204 | 0.204 | r |
| 108-67-8 | 1,3,5-Trimethylbenzene | 1.05 | | 0.204 | 0.204 | r |
| 95-63-6 | 1,2,4-Trimethylbenzene | 3.77 | | 0.204 | 0.204 | r |
| 76-14-2 | 1,2-Dichlorotetrafluoroethane(sim) | 0.143 | U | 0.143 | 0.143 | r |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

AIR ANALYSIS DATA SHEET

CLIENT ID: IA-4

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90508

Canister: 492 Lab File ID: 0409_20.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/09/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 75-01-4 | Vinyl Chloride(sim) | 0.078 | U | 0.078 | 0.078 | r |
| 74-83-9 | Bromomethane(sim) | 0.258 | U | 0.258 | 0.258 | r |
| 107-06-2 | 1,2-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 71-55-6 | 1,1,1-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 56-23-5 | Carbon Tetrachloride(sim) | 0.083 | | 0.032 | 0.032 | r |
| 75-35-4 | 1,1-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 76-13-1 | Trichlorotrifluoroethane(sim) | 0.131 | U | 0.131 | 0.131 | r |
| 156-60-5 | Trans-1,2-Dichloroethene(sim) | 0.252 | U | 0.252 | 0.252 | r |
| 75-34-3 | 1,1-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 156-59-2 | Cis-1,2-Dichloroethene(sim) | 0.055 | | 0.051 | 0.051 | r |
| 67-66-3 | Chloroform(sim) | 0.205 | U | 0.205 | 0.205 | r |
| 78-87-5 | 1,2-dichloropropane(sim) | 0.217 | U | 0.217 | 0.217 | r |
| 75-27-4 | Bromodichloromethane(sim) | 0.149 | U | 0.149 | 0.149 | r |
| 79-01-6 | Trichloroethene(sim) | 0.043 | | 0.037 | 0.037 | r |
| 123-91-1 | 1,4-Dioxane(sim) | 0.278 | U | 0.278 | 0.278 | r |
| 10061-01-5 | cis-1,3-Dichloropropene(sim) | 0.221 | U | 0.221 | 0.221 | r |
| 79-00-5 | 1,1,2-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 124-48-1 | Dibromochloromethane(sim) | 0.118 | U | 0.118 | 0.118 | r |
| 106-93-4 | 1,2-Dibromoethane(EDB)(sim) | 0.130 | U | 0.130 | 0.130 | r |
| 75-25-2 | Bromoform(sim) | 0.097 | U | 0.097 | 0.097 | r |
| 79-34-5 | 1,1,2,2-Tetrachloroethane(sim) | 0.146 | U | 0.146 | 0.146 | r |
| 100-44-7 | Benzyl chloride(sim) | 0.193 | U | 0.193 | 0.193 | r |
| 541-73-1 | 1,3-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 106-46-7 | 1,4-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 135-98-8 | sec-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 99-87-6 | 4-Isopropyltoluene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 95-50-1 | 1,2-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 104-51-8 | n-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 120-82-1 | 1,2,4-Trichlorobenzene(sim) | 0.135 | U | 0.135 | 0.135 | r |
| 87-68-3 | Hexachlorobutadiene(sim) | 0.094 | U | 0.094 | 0.094 | r |
| | | | | | | |
| | | | | | | |
| | | | | | | |
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| | | | | | | |
| | | | | | | |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_20.D
Acq On : 09 Apr 2019 05:56 pm
Operator : CORTEX\ms
Client ID : IA-4
Lab ID : CC90508
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 10:24:18 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration

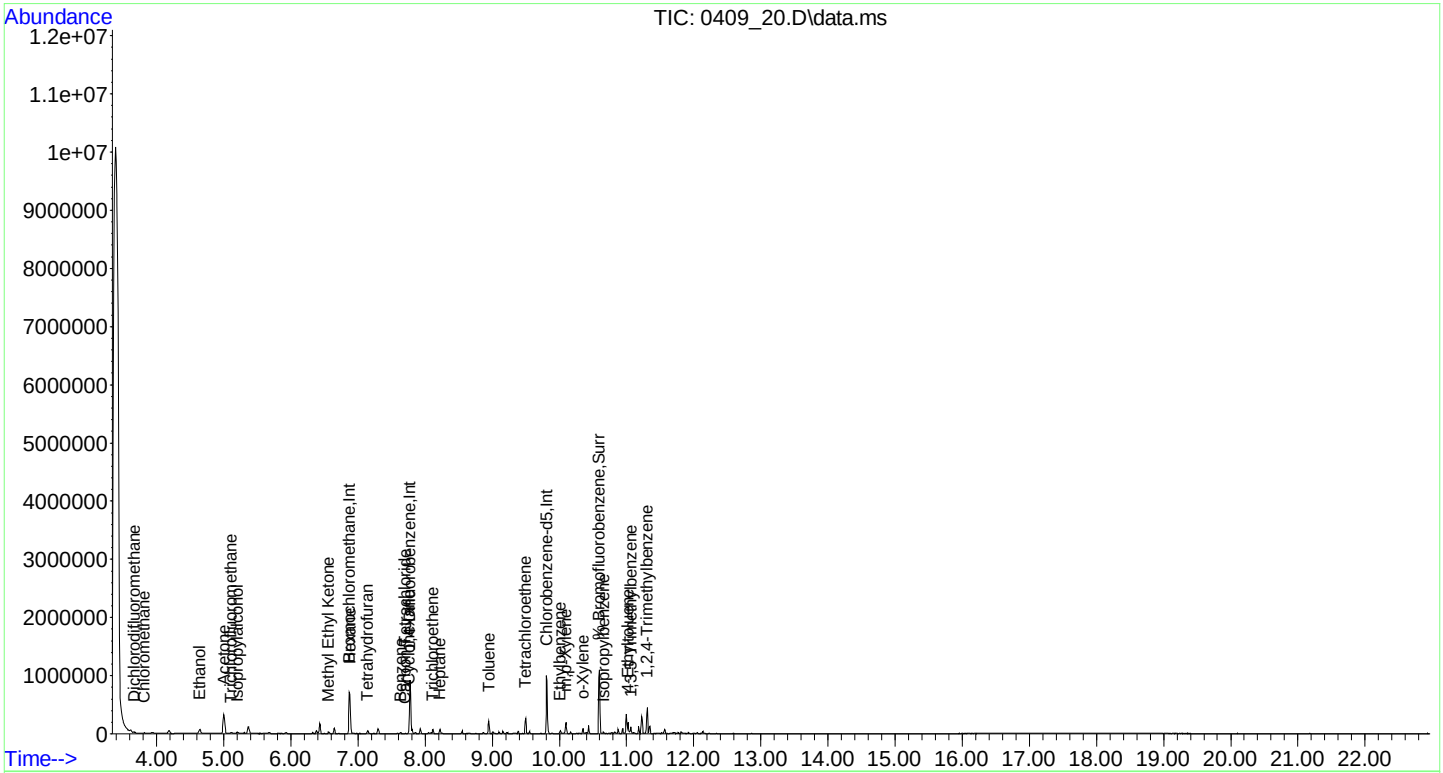
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.871 | 130 | 123417 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.772 | 114 | 397146 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.807 | 82 | 192260 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.874 | 130 | 170484 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 458010 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 196633 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 256551 | 10.179 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 101.80% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 3.670 | 85 | 15124 | 0.478 | ppbv | # | 93 |
| 4) Chloromethane | 3.816 | 50 | 8262 | 0.625 | ppbv | | 93 |
| 11) Ethanol | 4.644 | 45 | 77553 | 14.604 | ppbv | | 96 |
| 12) Acetone | 5.001 | 43 | 204673 | 7.417 | ppbv | # | 72 |
| 13) Trichlorofluoromethane | 5.114 | 101 | 10143 | 0.245 | ppbv | # | 95 |
| 14) Isopropylalcohol | 5.204 | 45 | 22288 | 0.767 | ppbv | # | 96 |
| 25) Methyl Ethyl Ketone | 6.562 | 43 | 35467 | 1.021 | ppbv | # | 75 |
| 26) Cis-1,2-Dichloroethene | 6.786 | 61 | 979 | 0.048 | ppbv | # | 79 |
| 27) Hexane | 6.879 | 57 | 38163 | 1.912 | ppbv | # | 75 |
| 30) Tetrahydrofuran | 7.143 | 42 | 25408 | 1.739 | ppbv | # | 60 |
| 33) Benzene | 7.636 | 78 | 13286 | 0.491 | ppbv | # | 79 |
| 34) Carbon Tetrachloride | 7.704 | 117 | 1833 | 0.079 | ppbv | | 94 |
| 35) Cyclohexane | 7.764 | 41 | 6874 | 0.632 | ppbv | # | 1 |
| 39) Trichloroethene | 8.111 | 130 | 715 | 0.048 | ppbv | # | 80 |
| 43) Heptane | 8.221 | 43 | 16506 | 0.824 | ppbv | # | 70 |
| 48) Toluene | 8.948 | 91 | 79974 | 2.456 | ppbv | # | 98 |
| 52) Tetrachloroethene | 9.497 | 166 | 39325 | 2.494 | ppbv | # | 91 |
| 56) Ethylbenzene | 10.012 | 91 | 23356 | 0.513 | ppbv | | 95 |
| 57) m,p-Xylene | 10.095 | 91 | 71643 | 2.061 | ppbv | | 93 |
| 61) o-Xylene | 10.353 | 91 | 32452 | 0.892 | ppbv | | 94 |
| 64) Isopropylbenzene | 10.656 | 105 | 10847 | 0.227 | ppbv | # | 94 |
| 66) 4-Ethyltoluene | 11.021 | 105 | 48596m | 1.009 | ppbv | | 95 |
| 67) 1,3,5-Trimethylbenzene | 11.066 | 105 | 43469 | 1.048 | ppbv | # | 91 |
| 68) 1,2,4-Trimethylbenzene | 11.309 | 105 | 153116 | 3.772 | ppbv | # | 82 |
| 84) Trichlorofluoromethane... | 5.109 | 101 | 12490 | 0.220 | ppbv | | 100 |
| 87) Carbon Tetrachloride(sim) | 7.704 | 117 | 1833 | 0.083 | ppbv | | 94 |
| 92) Cis-1,2-Dichloroethene... | 6.789 | 61 | 1408 | 0.055 | ppbv | # | 76 |
| 97) Trichloroethene(sim) | 8.111 | 130 | 715 | 0.043 | ppbv | | 90 |
| 103) Tetrachloroethene(sim) | 9.497 | 166 | 39325 | 2.186 | ppbv | | 91 |
| 106) m,p-Xylene(sim) | 10.098 | 91 | 76223 | 2.018 | ppbv | # | 92 |

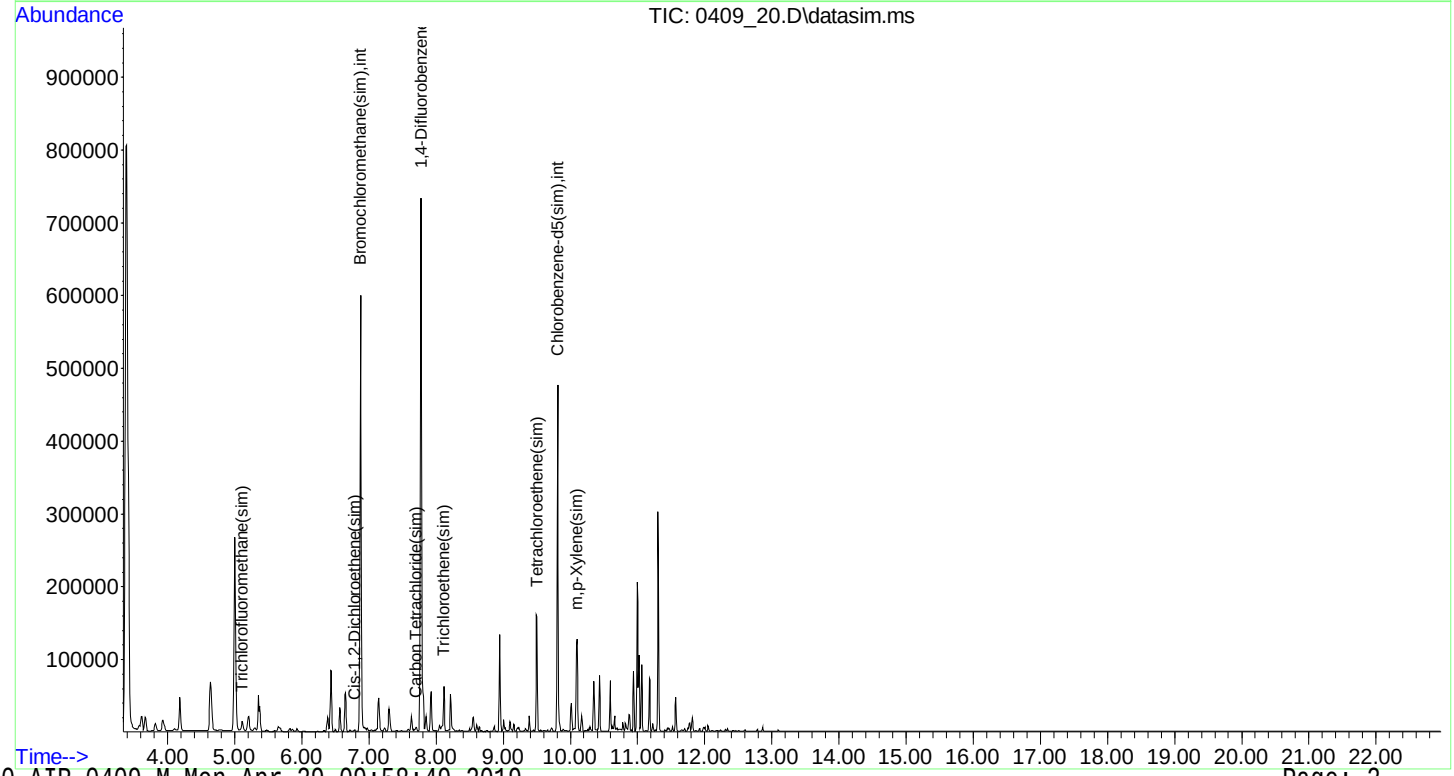
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

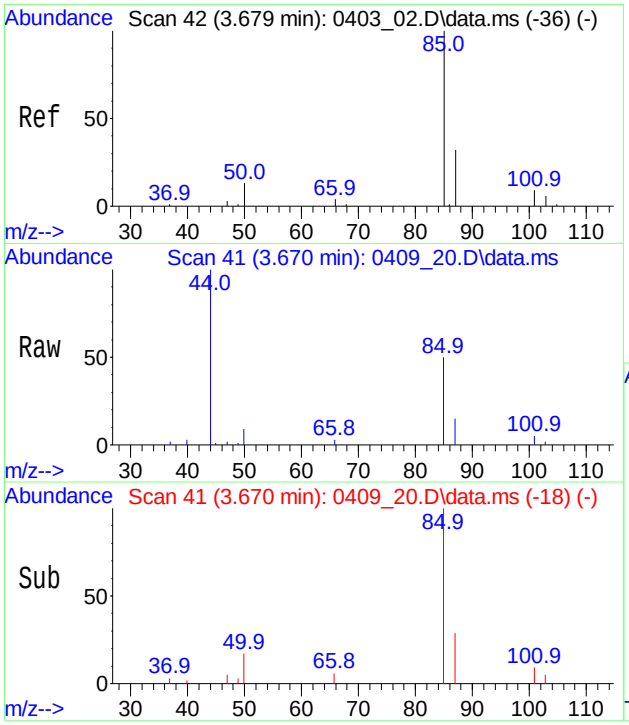
Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_20.D
Acq On : 09 Apr 2019 05:56 pm
Operator : CORTEX\ms
Client ID : IA-4
Lab ID : CC90508
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 10:24:18 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration



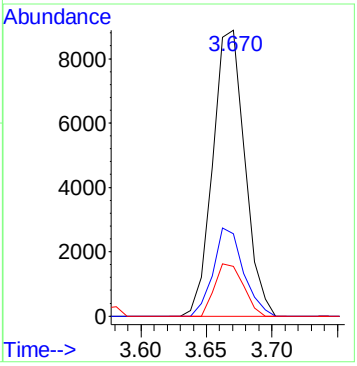



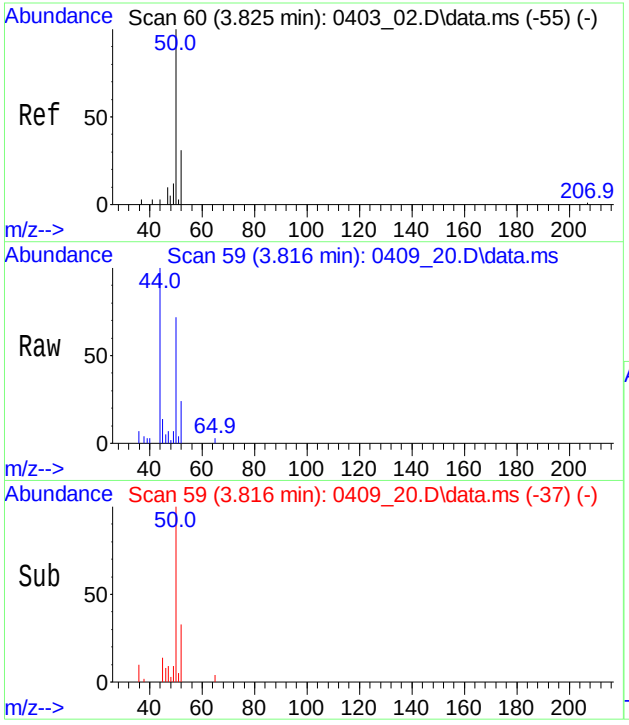



#3
Dichlorodifluoromethane
Conc: 8$  0.478 ppbv
RT:  3.670 min  Scan# 41
Delta R.T.  -0.016 min
Lab File:  0409_20.D
Acq: 09 Apr 2019  05:56 pm

Tgt Ion: 85 Resp:  15124

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 29.1 | 25.6 | 38.4 |
| 50 | 16.4 | 9.4 | 14.2# |

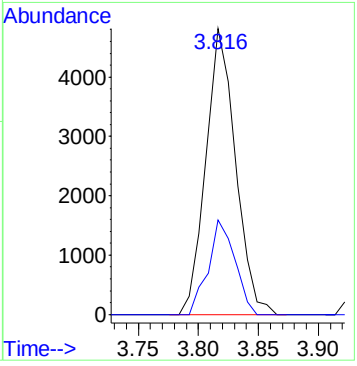


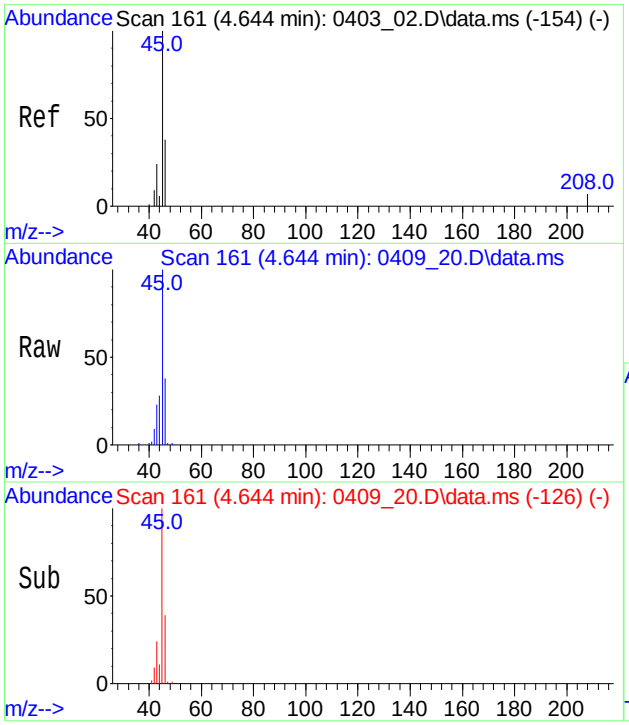




#4
Chloromethane
Conc: 8$  0.625 ppbv
RT:  3.816 min  Scan# 59
Delta R.T.  -0.024 min
Lab File:  0409_20.D
Acq: 09 Apr 2019  05:56 pm

Tgt Ion: 50 Resp:  8262

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 29.5 | 13.6 | 53.6 |

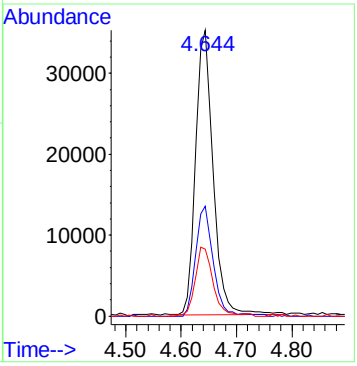


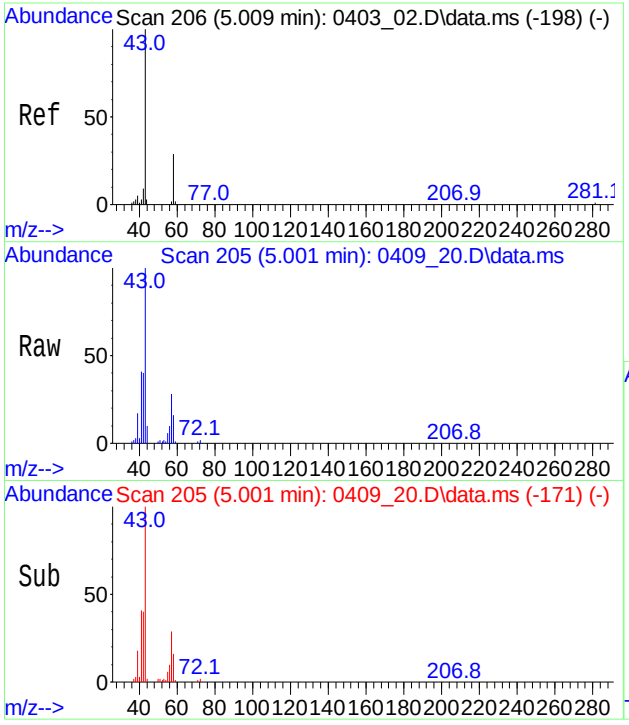



#11
Ethanol
Conc: 8$ 14.604 ppbv
RT: 4.644 min Scan# 161
Delta R.T. -0.016 min
Lab File: 0409_20.D
Acq: 09 Apr 2019 05:56 pm

Tgt Ion: 45 Resp: 77553

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 46 | 38.6 | 29.9 | 44.9 |
| 43 | 24.6 | 22.7 | 34.1 |

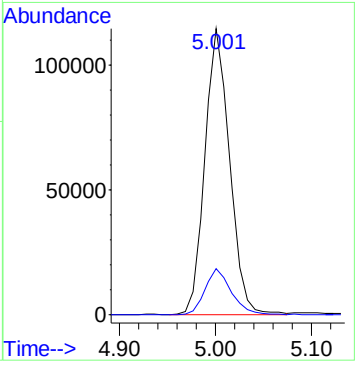


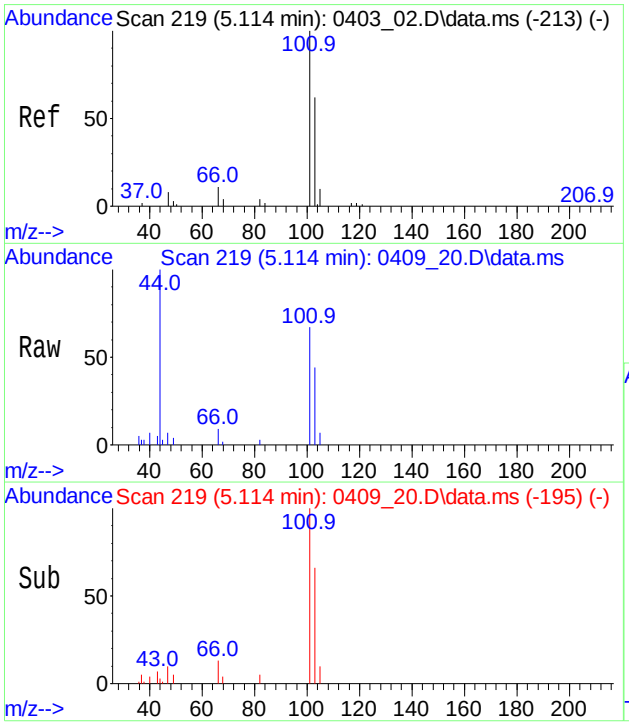




#12
Acetone
Conc: 8$ 7.417 ppbv
RT: 5.001 min Scan# 205
Delta R.T. -0.024 min
Lab File: 0409_20.D
Acq: 09 Apr 2019 05:56 pm

Tgt Ion: 43 Resp: 204673

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 16.8 | 25.9 | 38.9# |

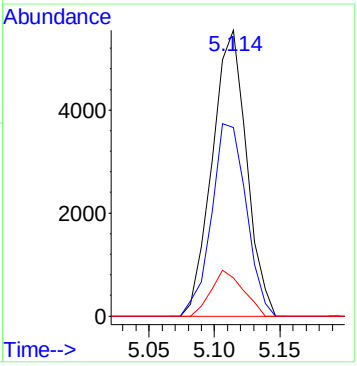


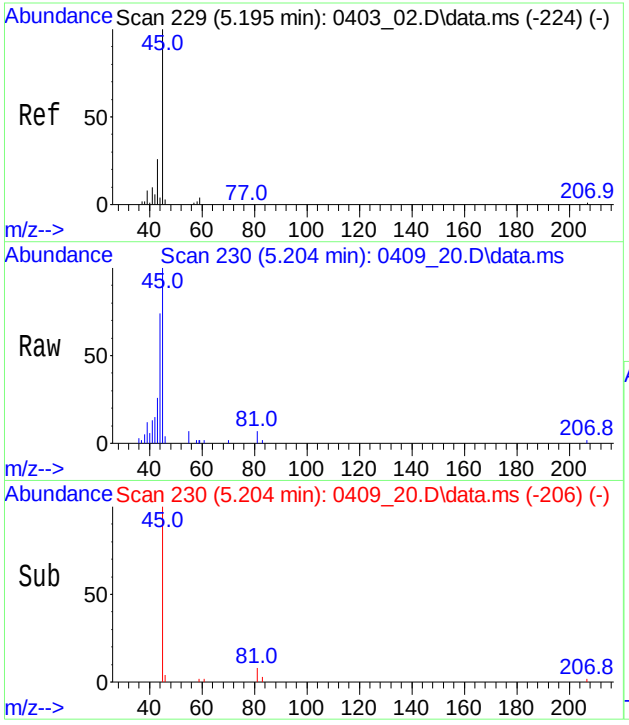



#13
Trichlorofluoromethane
Conc: 8$ 0.245 ppbv
RT: 5.114 min Scan# 219
Delta R.T. -0.008 min
Lab File: 0409_20.D
Acq: 09 Apr 2019 05:56 pm

Tgt Ion:101 Resp: 10143

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 68.0 | 51.6 | 77.4 |
| 66 | 14.9 | 9.4 | 14.0# |

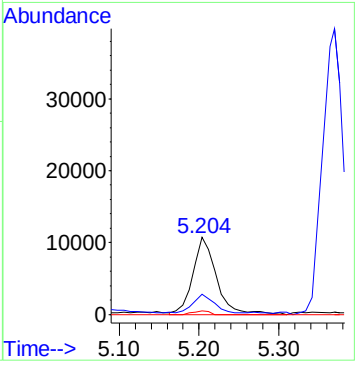


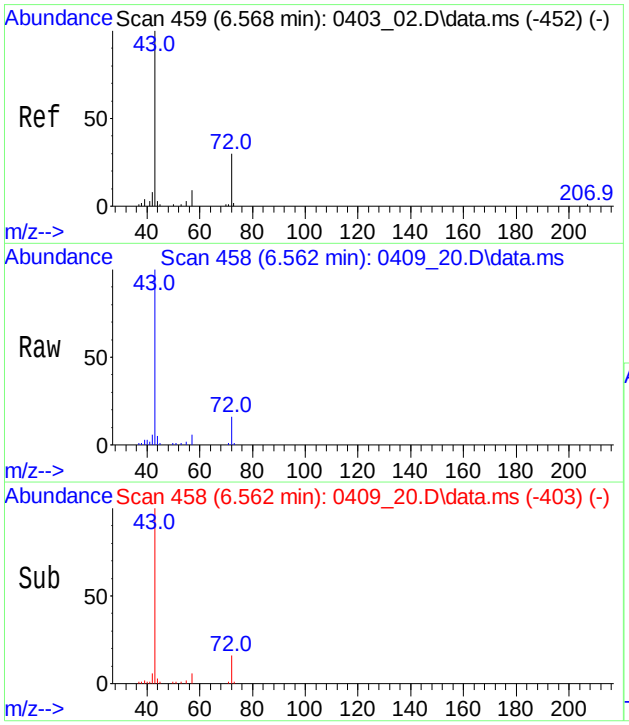




#14
Isopropylalcohol
Conc: 8$ 0.767 ppbv
RT: 5.204 min Scan# 230
Delta R.T. -0.008 min
Lab File: 0409_20.D
Acq: 09 Apr 2019 05:56 pm

Tgt Ion: 45 Resp: 22288

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 43 | 21.1 | 18.6 | 27.8 |
| 59 | 3.0 | 3.7 | 5.5# |

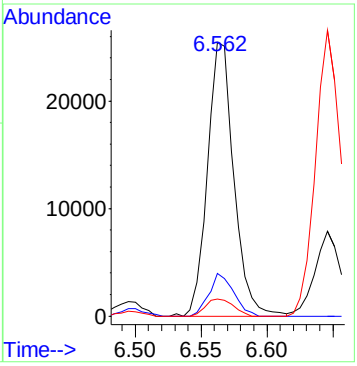


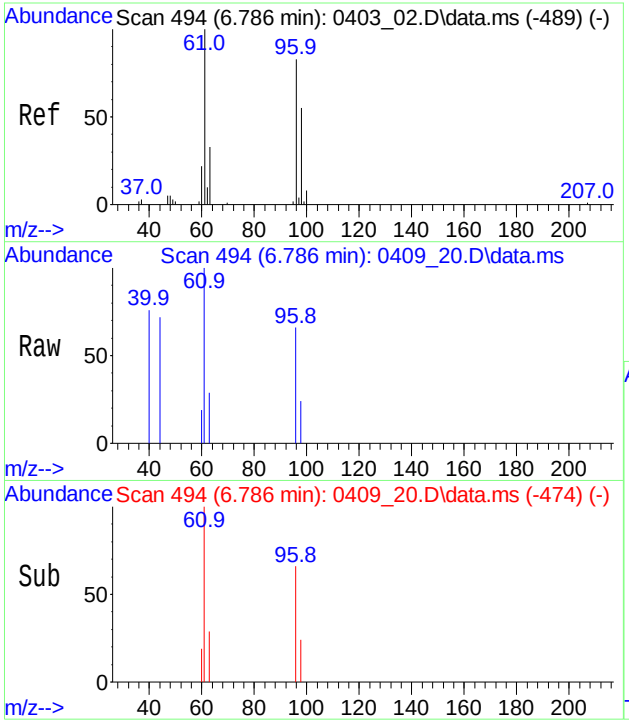



#25
Methyl Ethyl Ketone
Conc: 8$  1.021 ppbv
RT:  6.562 min  Scan# 458
Delta R.T.  -0.011 min
Lab File:  0409_20.D
Acq: 09 Apr 2019  05:56 pm

Tgt Ion: 43 Resp:  35467

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 72 | 14.5 | 24.6 | 37.0# |
| 57 | 6.6 | 7.4 | 11.2# |

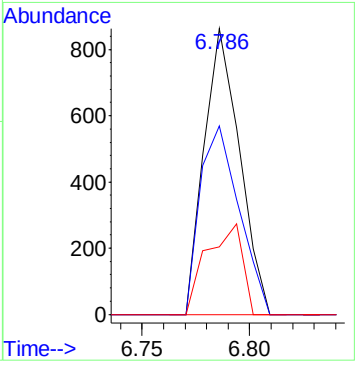


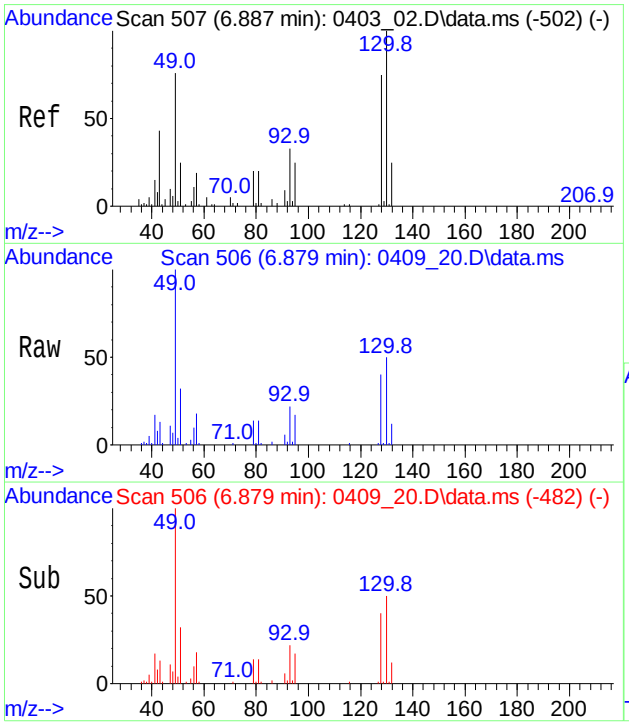




#26
Cis-1,2-Dichloroethene
Conc: 8$  Below Cal
RT:  6.786 min  Scan# 494
Delta R.T.  -0.008 min
Lab File:  0409_20.D
Acq: 09 Apr 2019  05:56 pm

Tgt Ion: 61 Resp:  979

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 72.5 | 67.8 | 101.8 |
| 98 | 31.9 | 43.8 | 65.6# |

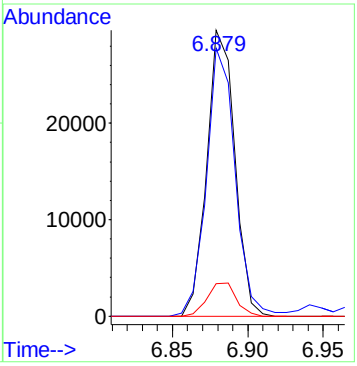


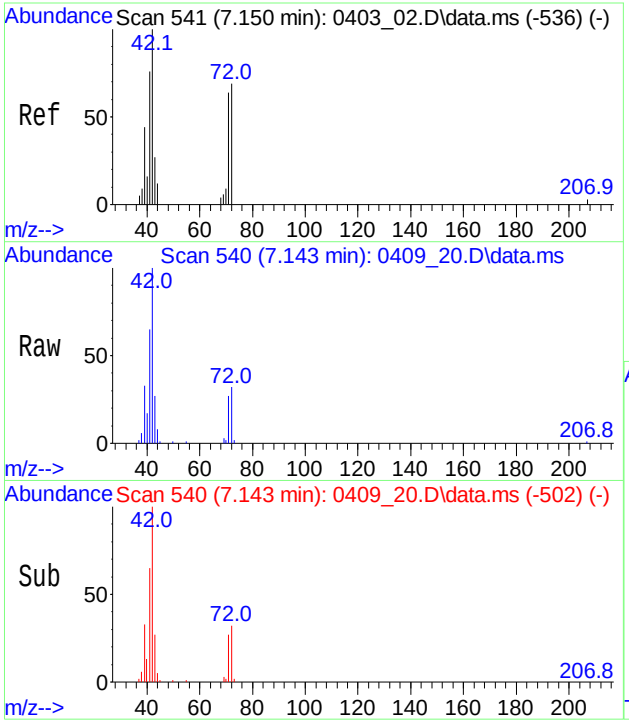



#27
Hexane
Conc: 8$ 1.912 ppbv
RT: 6.879 min Scan# 506
Delta R.T. -0.008 min
Lab File: 0409_20.D
Acq: 09 Apr 2019 05:56 pm

Tgt Ion: 57 Resp: 38163

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 57 | 100 | | |
| 41 | 96.0 | 58.9 | 88.3# |
| 86 | 12.2 | 16.4 | 24.6# |

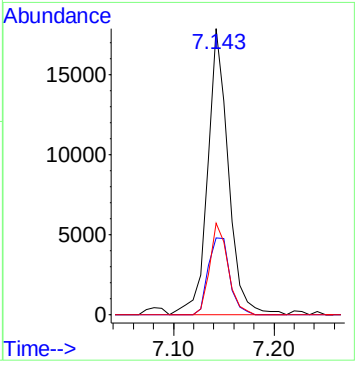


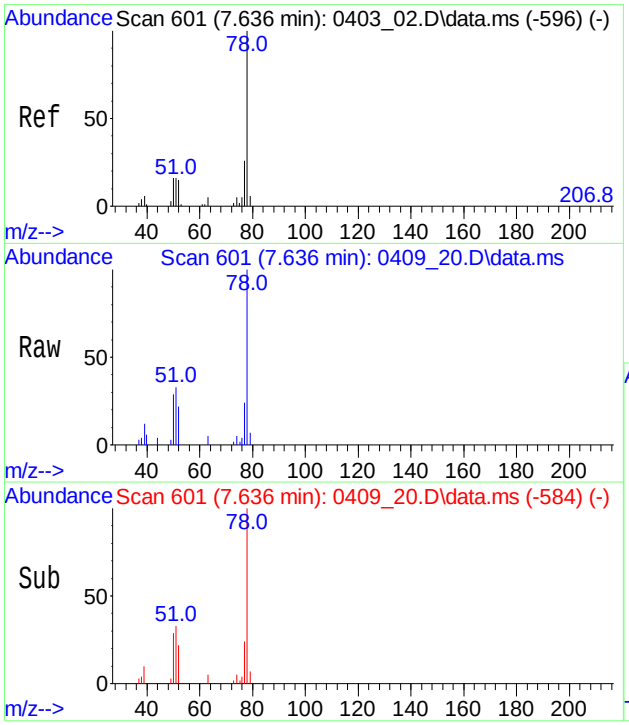




#30
Tetrahydrofuran
Conc: 8$ 1.739 ppbv
RT: 7.143 min Scan# 540
Delta R.T. -0.007 min
Lab File: 0409_20.D
Acq: 09 Apr 2019 05:56 pm

Tgt Ion: 42 Resp: 25408

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 42 | 100 | | |
| 71 | 27.7 | 45.8 | 68.6# |
| 72 | 28.2 | 46.5 | 69.7# |

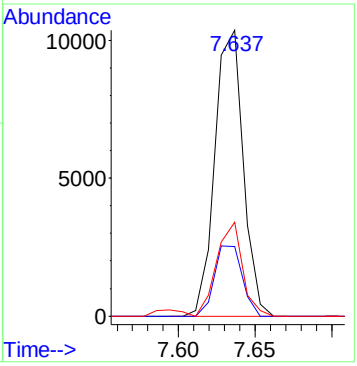


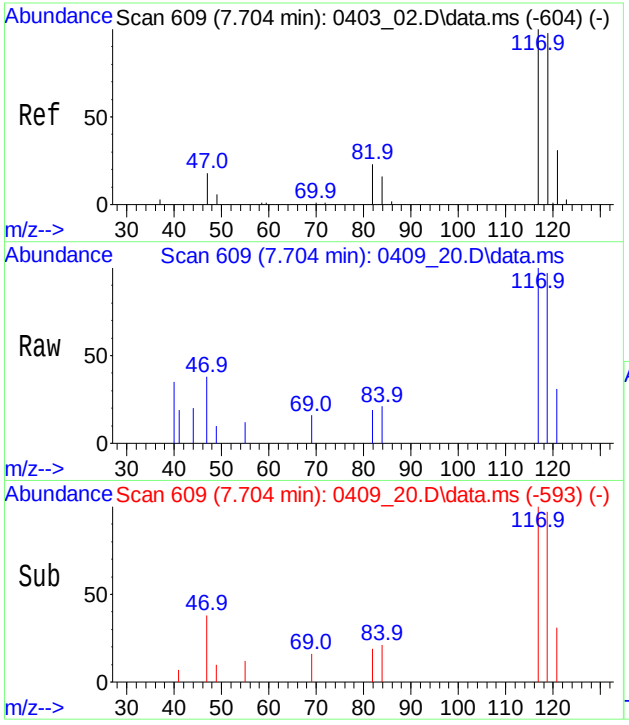



#33
Benzene
Conc: 8$  0.491 ppbv
RT:  7.636 min  Scan# 601
Delta R.T.  0.000 min
Lab File:  0409_20.D
Acq: 09 Apr 2019  05:56 pm

Tgt Ion: 78 Resp:  13286

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 24.0 | 18.6 | 27.8 |
| 51 | 37.0 | 12.9 | 19.3# |

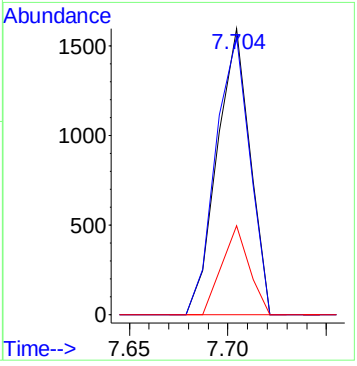


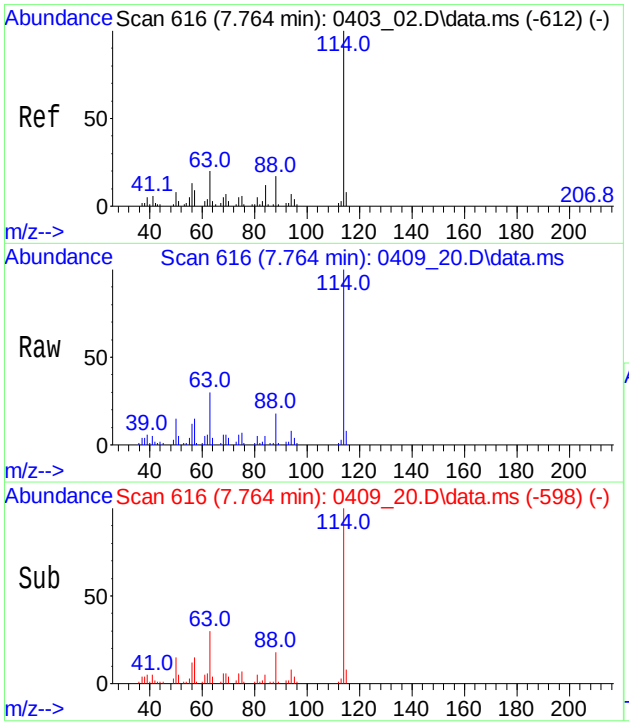




#34
Carbon Tetrachloride
Conc: 8$  Below Cal
RT:  7.704 min  Scan# 609
Delta R.T.  0.000 min
Lab File:  0409_20.D
Acq: 09 Apr 2019  05:56 pm

Tgt Ion:117 Resp:  1833

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 100.8 | 75.8 | 115.8 |
| 121 | 25.9 | 10.7 | 50.7 |

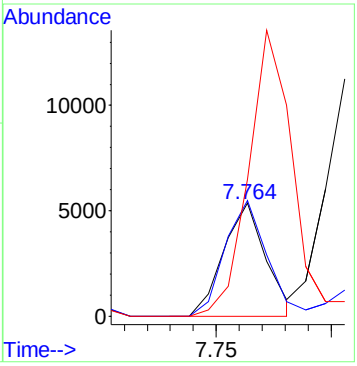


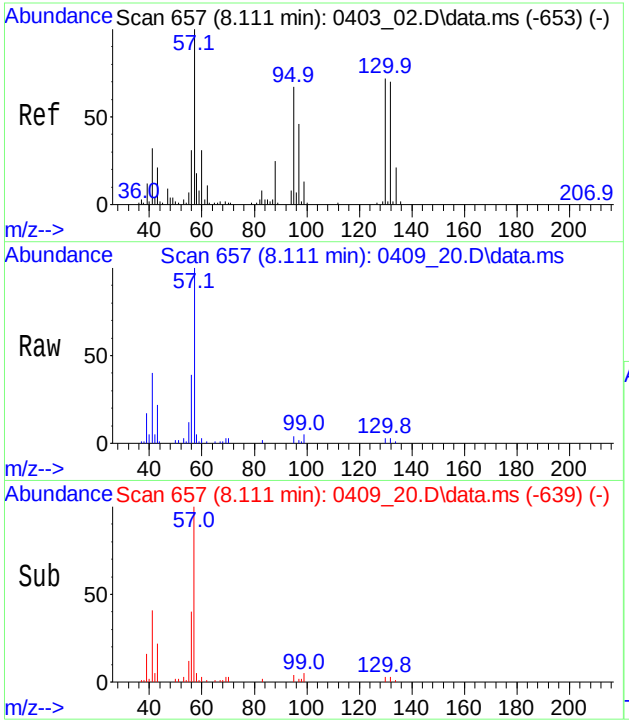



#35
Cyclohexane
Conc: 8$  0.632 ppbv
RT:  7.764 min  Scan# 616
Delta R.T.  0.001 min
Lab File:  0409_20.D
Acq: 09 Apr 2019  05:56 pm

Tgt Ion: 41 Resp:  6874

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 84 | 102.4 | 158.4 | 237.6# |
| 69 | 266.3 | 69.1 | 103.7# |

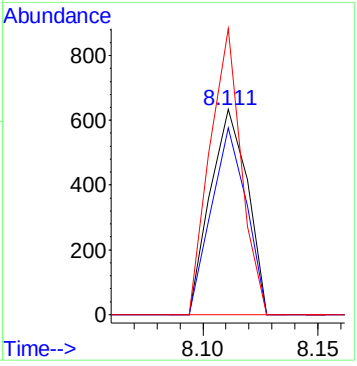


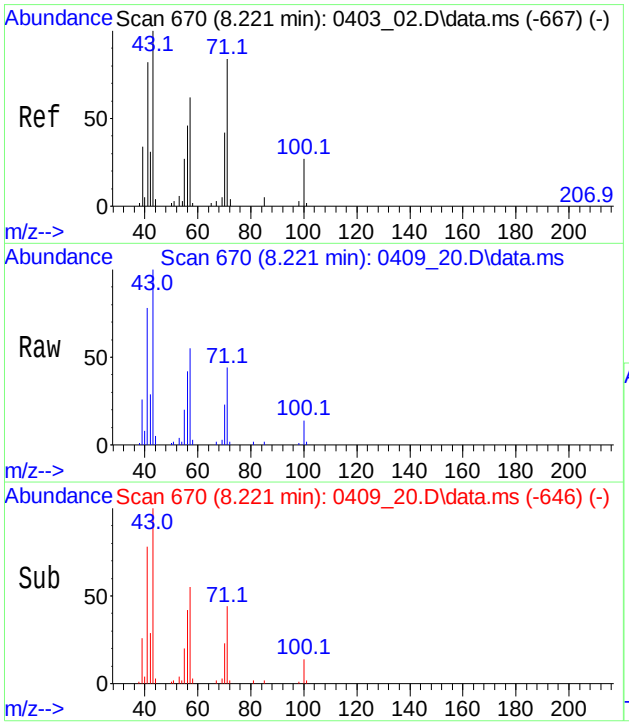




#39
Trichloroethene
Conc: 8$  Below Cal
RT:  8.111 min  Scan# 657
Delta R.T.  -0.000 min
Lab File:  0409_20.D
Acq: 09 Apr 2019  05:56 pm

Tgt Ion:130 Resp:  715

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 85.5 | 78.0 | 117.0 |
| 95 | 117.2 | 73.0 | 109.4# |

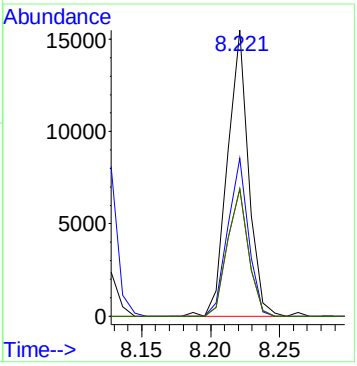


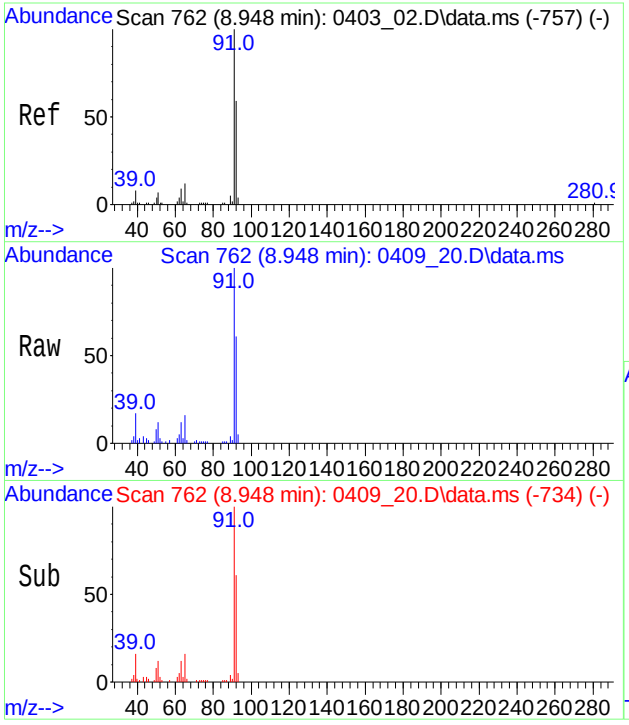



#43
Heptane
Conc: 8$ 0.824 ppbv
RT: 8.221 min Scan# 670
Delta R.T. 0.000 min
Lab File: 0409_20.D
Acq: 09 Apr 2019 05:56 pm

Tgt Ion: 43 Resp: 16506

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 57 | 54.2 | 49.7 | 74.5 |
| 71 | 44.3 | 62.2 | 93.2# |
| 71 | 44.3 | 62.2 | 93.2# |

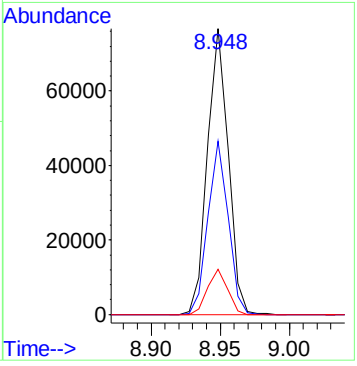


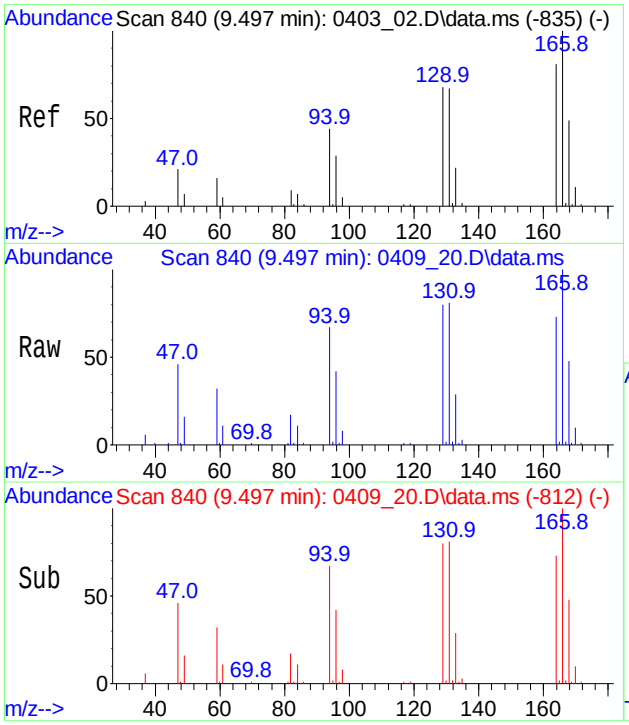




#48
Toluene
Conc: 8$ 2.456 ppbv
RT: 8.948 min Scan# 762
Delta R.T. 0.000 min
Lab File: 0409_20.D
Acq: 09 Apr 2019 05:56 pm

Tgt Ion: 91 Resp: 79974

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 59.0 | 47.7 | 71.5 |
| 65 | 15.2 | 9.3 | 13.9# |

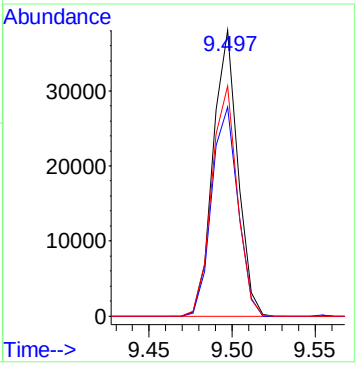


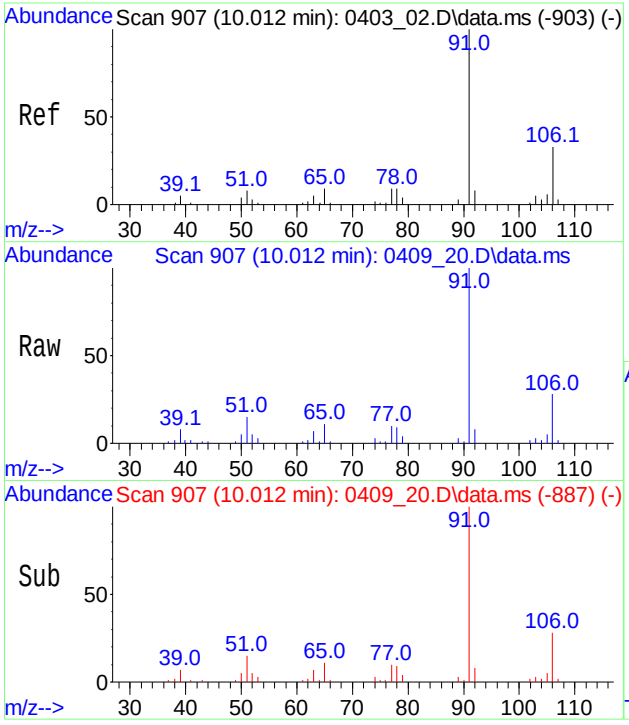



#52
Tetrachloroethene
Conc: 8$ 2.494 ppbv
RT: 9.497 min Scan# 840
Delta R.T. 0.000 min
Lab File: 0409_20.D
Acq: 09 Apr 2019 05:56 pm

Tgt Ion:166 Resp: 39325

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 77.7 | 62.2 | 93.2 |
| 129 | 83.3 | 54.9 | 82.3# |

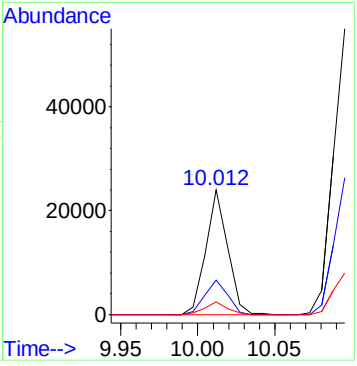


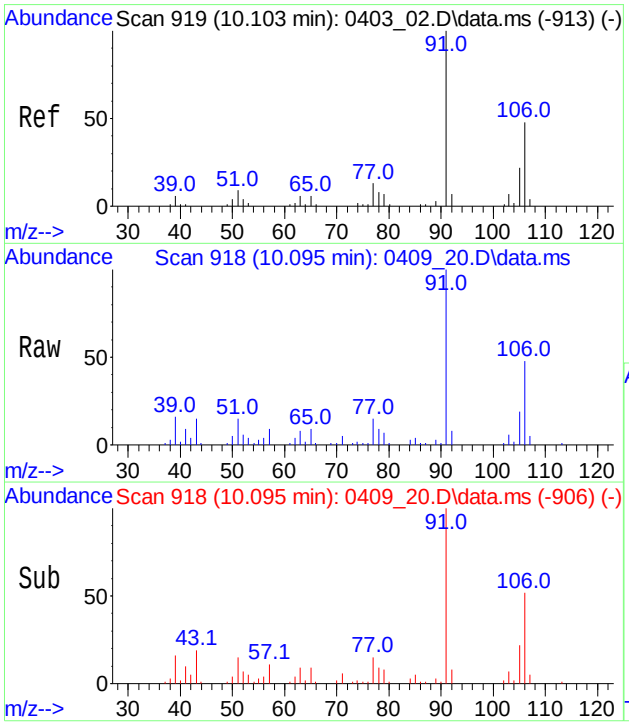




#56
Ethylbenzene
Conc: 8$ 0.513 ppbv
RT: 10.012 min Scan# 907
Delta R.T. 0.000 min
Lab File: 0409_20.D
Acq: 09 Apr 2019 05:56 pm

Tgt Ion: 91 Resp: 23356

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 29.3 | 12.6 | 52.6 |
| 77 | 10.6 | 0.0 | 29.1 |

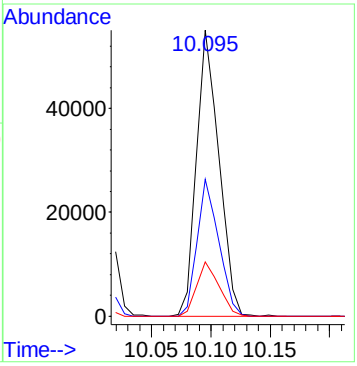


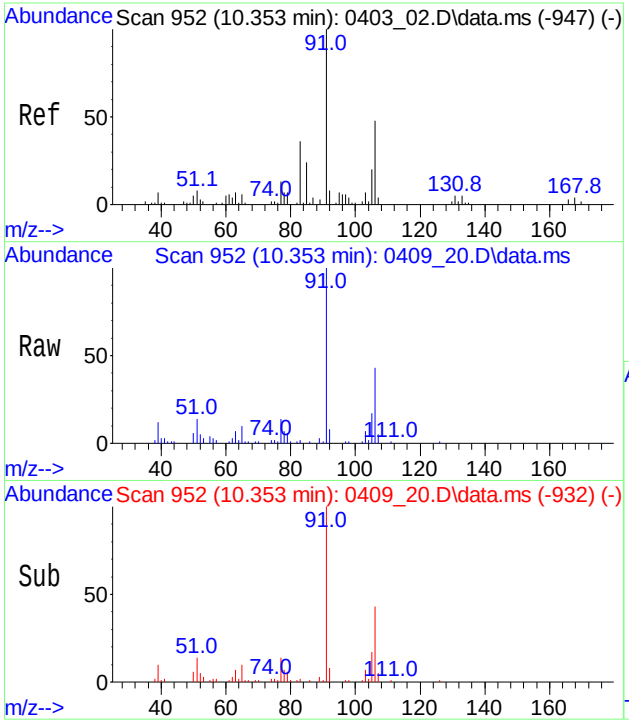



#57
m,p-Xylene
Conc: 8$ 2.061 ppbv
RT: 10.095 min Scan# 918
Delta R.T. -0.007 min
Lab File: 0409_20.D
Acq: 09 Apr 2019 05:56 pm

Tgt Ion: 91 Resp: 71643

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 46.2 | 40.9 | 61.3 |
| 105 | 19.0 | 17.8 | 26.8 |

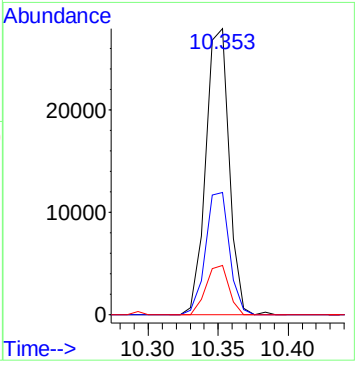


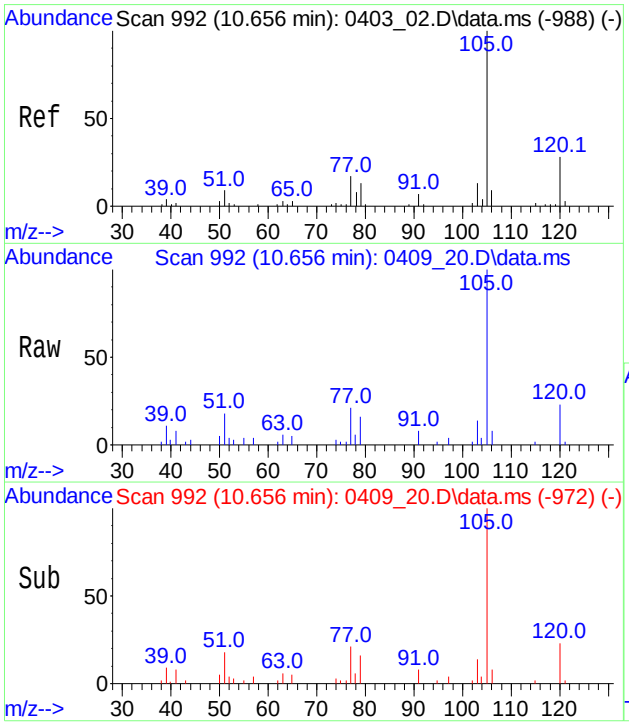




#61
o-Xylene
Conc: 8$ 0.892 ppbv
RT: 10.353 min Scan# 952
Delta R.T. 0.000 min
Lab File: 0409_20.D
Acq: 09 Apr 2019 05:56 pm

Tgt Ion: 91 Resp: 32452

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 43.7 | 38.3 | 57.5 |
| 105 | 16.8 | 15.2 | 22.8 |

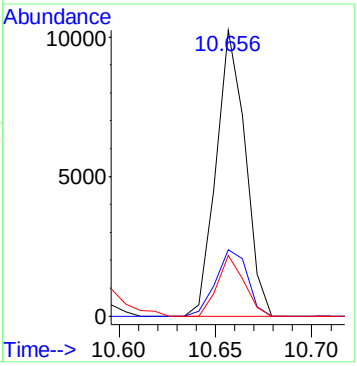


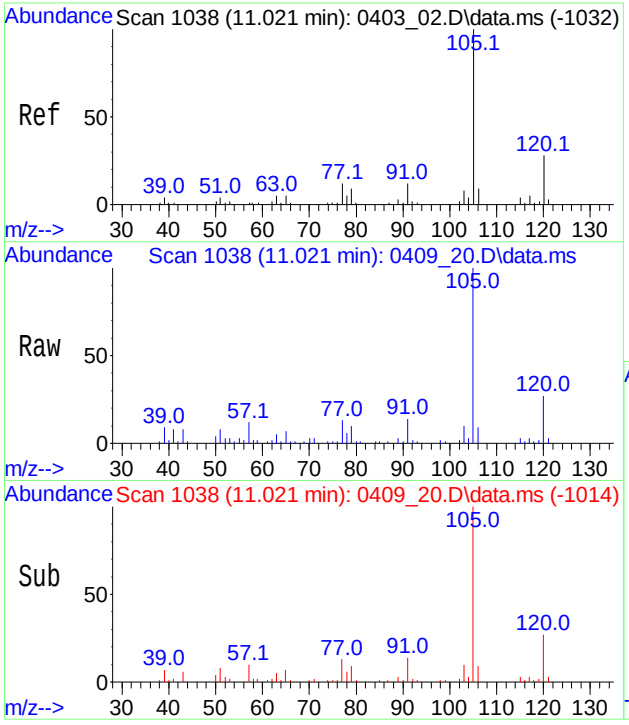



#64
Isopropylbenzene
Conc: 8$ 0.227 ppbv
RT: 10.656 min Scan# 992
Delta R.T. 0.000 min
Lab File: 0409_20.D
Acq: 09 Apr 2019 05:56 pm

Tgt Ion:105 Resp: 10847

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 25.1 | 22.0 | 33.0 |
| 77 | 19.4 | 12.7 | 19.1# |

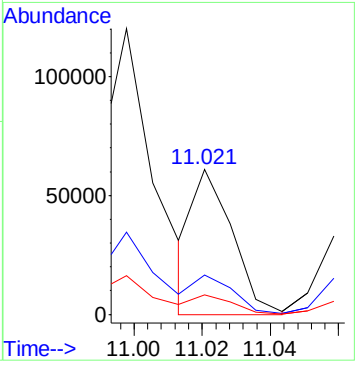


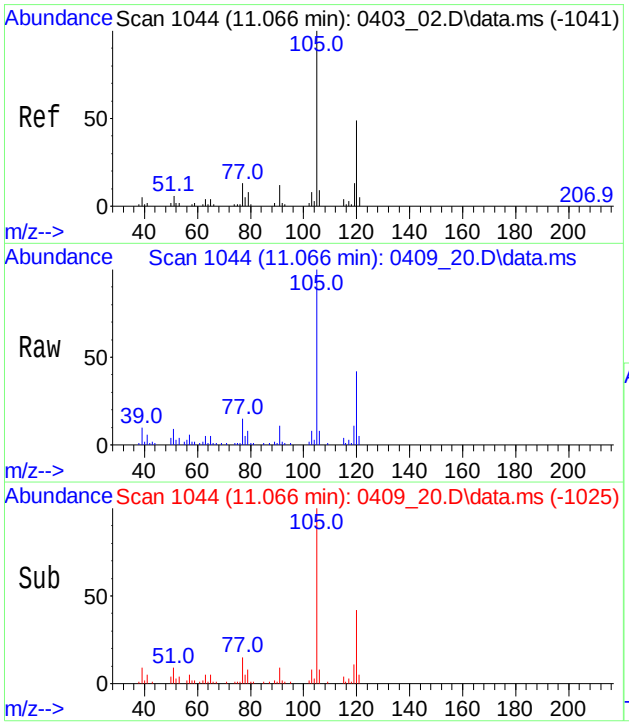




#66
4-Ethyltoluene
Conc: 8$ 1.009 ppbv
RT: 11.021 min Scan# 1038
Delta R.T. 0.000 min
Lab File: 0409_20.D
Acq: 09 Apr 2019 05:56 pm

Tgt Ion:105 Resp: 48596

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 105.3 | 25.0 | 37.4# |
| 77 | 51.4 | 9.4 | 14.0# |

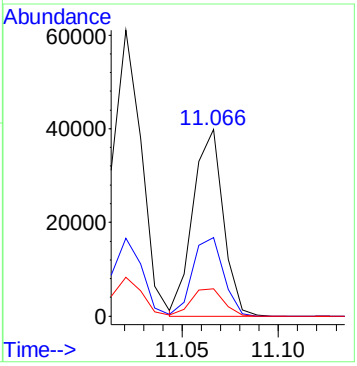


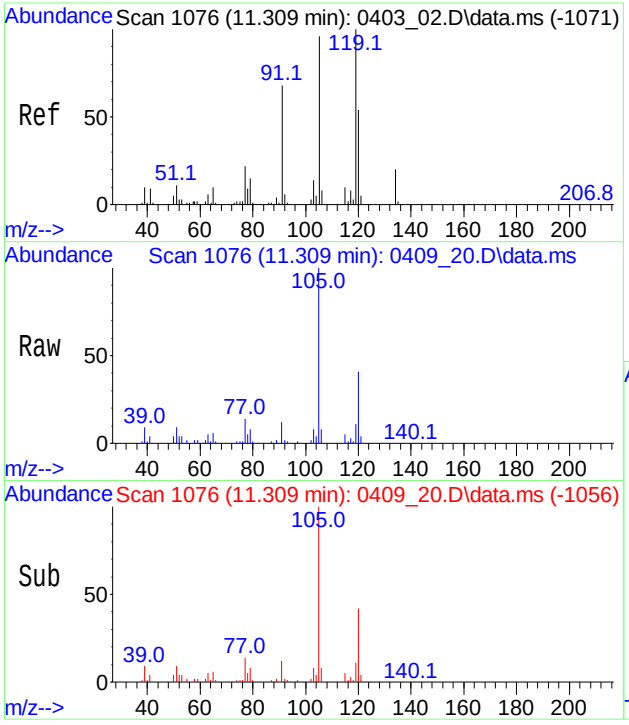



#67
1,3,5-Trimethylbenzene
Conc: 8$ 1.048 ppbv
RT: 11.066 min Scan# 1044
Delta R.T. 0.000 min
Lab File: 0409_20.D
Acq: 09 Apr 2019 05:56 pm

Tgt Ion:105 Resp: 43469

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 43.0 | 39.7 | 59.5 |
| 77 | 15.9 | 10.2 | 15.4# |

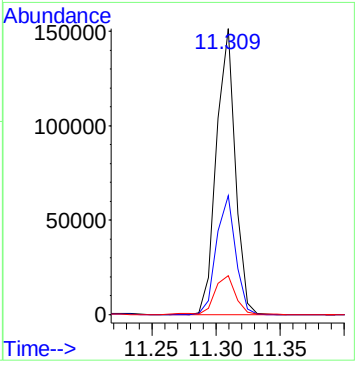


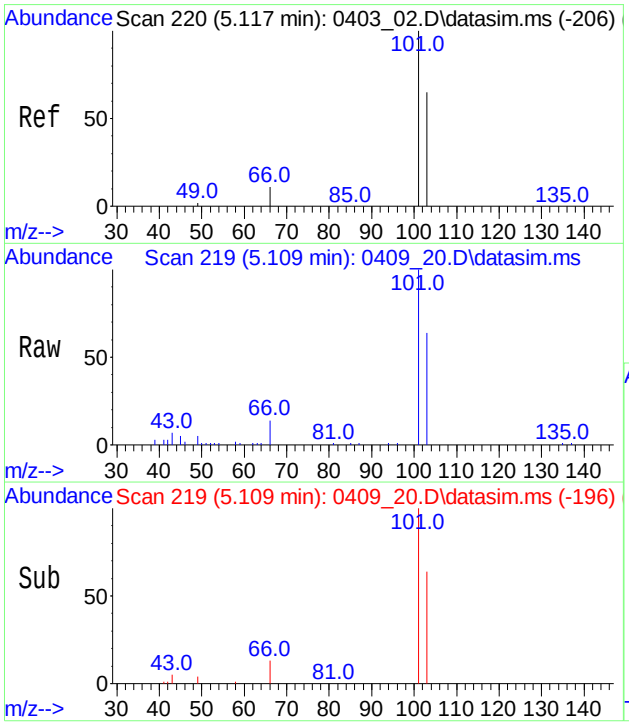




#68
1,2,4-Trimethylbenzene
Conc: 8$ 3.772 ppbv
RT: 11.309 min Scan# 1076
Delta R.T. 0.000 min
Lab File: 0409_20.D
Acq: 09 Apr 2019 05:56 pm

Tgt Ion:105 Resp: 153116

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 42.4 | 44.5 | 66.7# |
| 77 | 15.2 | 19.7 | 29.5# |

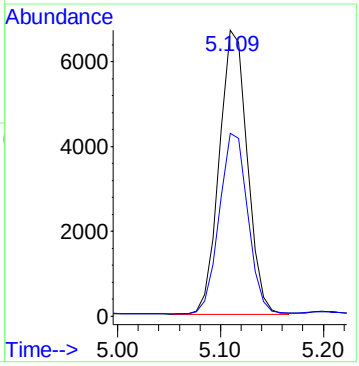


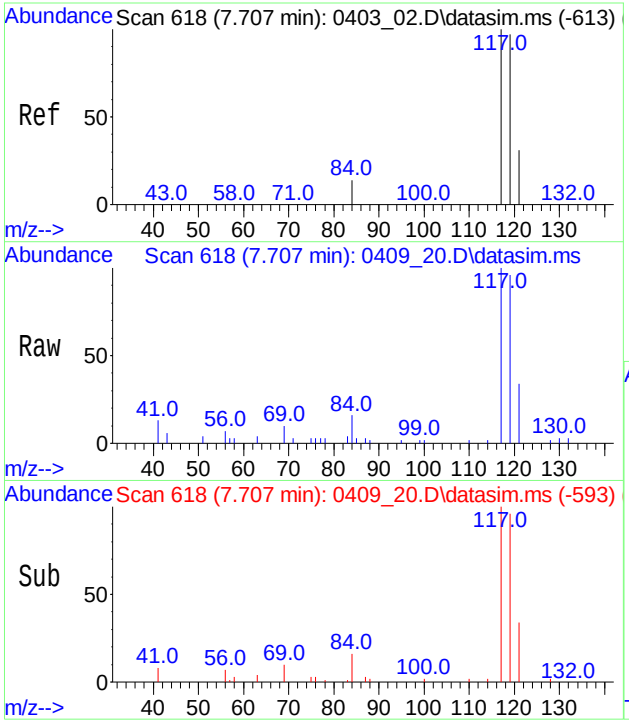



#84
Trichlorofluoromethane(sim)
Conc: 8$ 0.220 ppbv
RT: 5.109 min Scan# 219
Delta R.T. -0.016 min
Lab File: 0409_20.D
Acq: 09 Apr 2019 05:56 pm

Tgt Ion:101 Resp: 12490

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 64.8 | 51.9 | 77.9 |

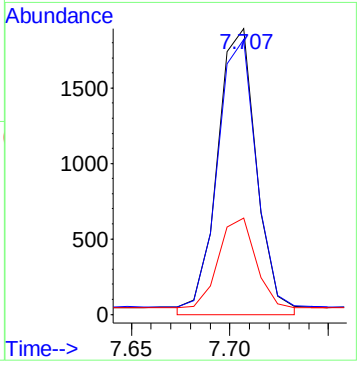


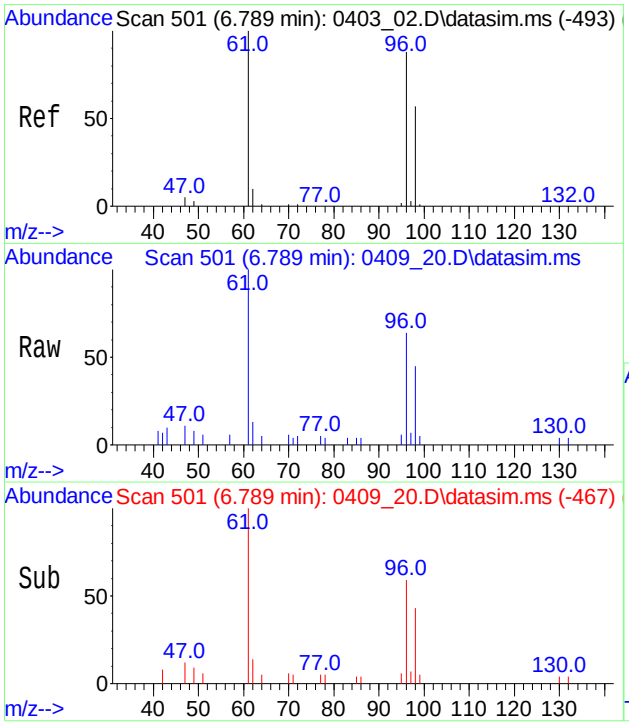




#87
Carbon Tetrachloride(sim)
Conc: 8$ 0.083 ppbv
RT: 7.704 min Scan# 618
Delta R.T. 0.000 min
Lab File: 0409_20.D
Acq: 09 Apr 2019 05:56 pm

Tgt Ion:117 Resp: 1833

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 100.8 | 76.6 | 115.0 |
| 121 | 25.9 | 24.6 | 36.8 |

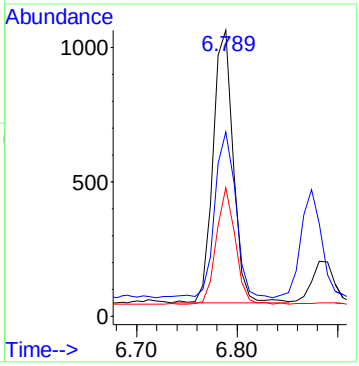


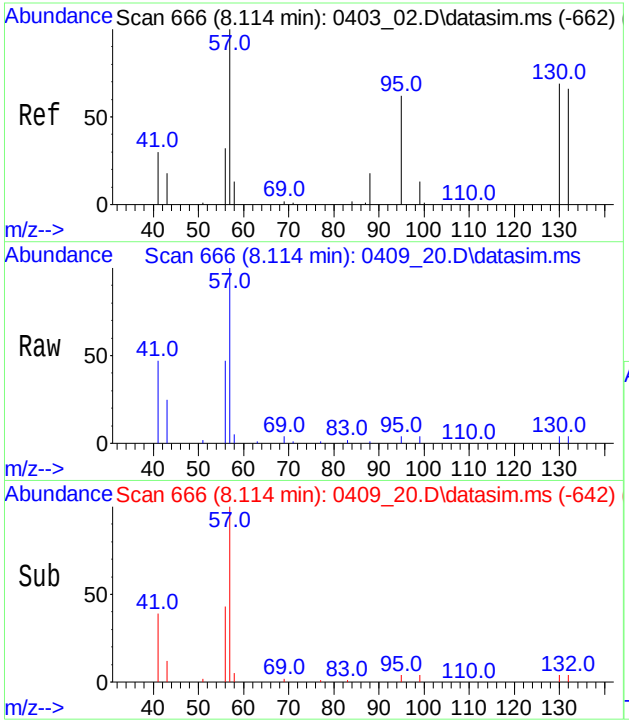



#92
Cis-1,2-Dichloroethene(sim)
Conc: 8$ 0.055 ppbv
RT: 6.789 min Scan# 501
Delta R.T. 0.000 min
Lab File: 0409_20.D
Acq: 09 Apr 2019 05:56 pm

Tgt Ion: 61 Resp: 1408

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 64.1 | 69.7 | 104.5# |
| 98 | 40.3 | 45.3 | 67.9# |

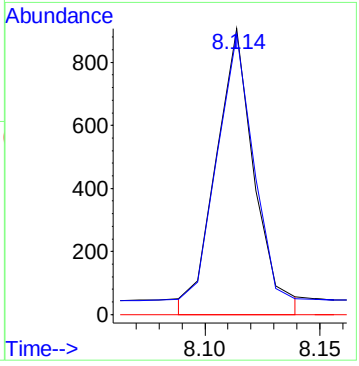


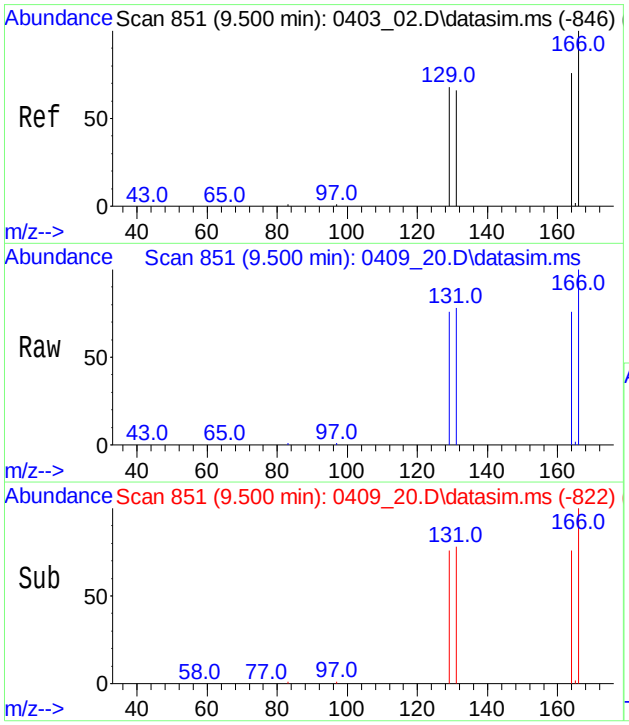




#97
Trichloroethene(sim)
Conc: 8$ 0.043 ppbv
RT: 8.111 min Scan# 666
Delta R.T. 0.000 min
Lab File: 0409_20.D
Acq: 09 Apr 2019 05:56 pm

Tgt Ion:130 Resp: 715

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 85.5 | 78.0 | 117.0 |
| 97 | 62.8 | 47.2 | 70.8 |

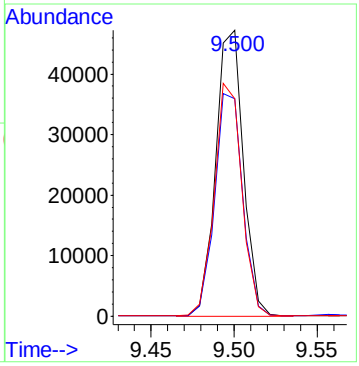


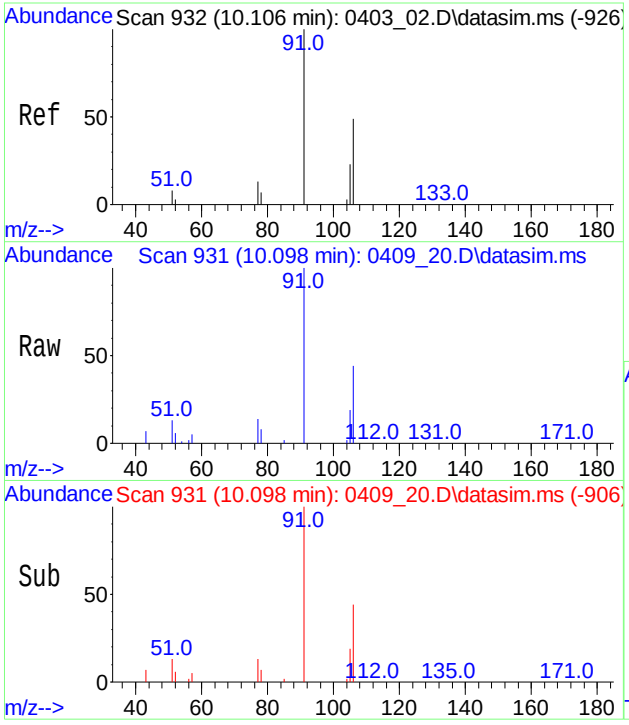



#103
Tetrachloroethene(sim)
Conc: 8$ 2.186 ppbv
RT: 9.497 min Scan# 851
Delta R.T. 0.000 min
Lab File: 0409_20.D
Acq: 09 Apr 2019 05:56 pm

Tgt Ion:166 Resp: 39325

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 77.7 | 57.7 | 97.7 |
| 129 | 83.3 | 48.6 | 88.6 |

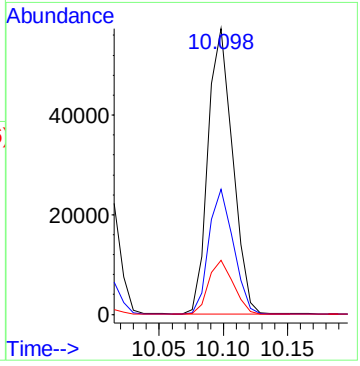



#106
m,p-Xylene(sim)
Conc: 8$ 2.018 ppbv
RT: 10.098 min Scan# 931
Delta R.T. -0.007 min
Lab File: 0409_20.D
Acq: 09 Apr 2019 05:56 pm

Tgt Ion: 91 Resp: 76223

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 43.7 | 44.3 | 54.1# |
| 105 | 19.1 | 17.7 | 26.5 |



1

CLIENT ID

AIR ANALYSIS DATA SHEET

SS-3 5X

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90509 5X

Canister: 21370 Lab File ID: 0409_31.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/10/19

Matrix: AIR Dilution Factor: 5

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 115-07-1 | Propylene | 2.91 | U | 2.91 | 2.91 | r |
| 75-71-8 | Dichlorodifluoromethane | 1.74 | | 1.01 | 1.01 | r |
| 74-87-3 | Chloromethane | 2.42 | U | 2.42 | 2.42 | r |
| 106-99-0 | 1,3-Butadiene | 2.26 | U | 2.26 | 2.26 | r |
| 75-00-3 | Chloroethane | 1.90 | U | 1.90 | 1.90 | r |
| 64-17-5 | Ethanol | 2.66 | U | 2.66 | 2.66 | r |
| 67-64-1 | Acetone | 2.11 | U | 2.11 | 2.11 | r |
| 67-63-0 | Isopropylalcohol | 2.04 | U | 2.04 | 2.04 | r |
| 107-13-1 | Acrylonitrile | 2.31 | U | 2.31 | 2.31 | r |
| 75-09-2 | Methylene Chloride | 4.32 | U | 4.32 | 4.32 | r |
| 75-15-0 | Carbon Disulfide | 1.61 | U | 1.61 | 1.61 | r |
| 156-60-5 | Trans-1,2-Dichloroethene | 10.1 | | 1.26 | 1.26 | r |
| 1634-04-4 | Methyl tert-butyl ether(MTBE) | 1.39 | U | 1.39 | 1.39 | r |
| 78-93-3 | Methyl Ethyl Ketone | 1.70 | U | 1.70 | 1.70 | r |
| 156-59-2 | Cis-1,2-Dichloroethene | 217 | E | 0.252 | 0.252 | |
| 110-54-3 | Hexane | 1.42 | U | 1.42 | 1.42 | r |
| 141-78-6 | Ethyl acetate | 1.39 | U | 1.39 | 1.39 | r |
| 109-99-9 | Tetrahydrofuran | 1.70 | U | 1.70 | 1.70 | r |
| 71-43-2 | Benzene | 1.57 | U | 1.57 | 1.57 | r |
| 110-82-7 | Cyclohexane | 1.45 | U | 1.45 | 1.45 | r |
| 79-01-6 | Trichloroethene | 157 | | 0.186 | 0.186 | r |
| 142-82-5 | Heptane | 1.22 | U | 1.22 | 1.22 | r |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | 1.22 | U | 1.22 | 1.22 | r |
| 10061-02-6 | trans-1,3-Dichloropropene | 1.10 | U | 1.10 | 1.10 | r |
| 108-88-3 | Toluene | 1.48 | | 1.33 | 1.33 | r |
| 591-78-6 | 2-Hexanone(MBK) | 1.22 | U | 1.22 | 1.22 | r |
| 127-18-4 | Tetrachloroethene | 742 | E | 0.184 | 0.184 | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.729 | U | 0.729 | 0.729 | r |
| 108-90-7 | Chlorobenzene | 1.09 | U | 1.09 | 1.09 | r |
| 100-41-4 | Ethylbenzene | 1.15 | U | 1.15 | 1.15 | r |
| 100-42-5 | Styrene | 1.17 | U | 1.17 | 1.17 | r |
| 95-47-6 | o-Xylene | 1.15 | U | 1.15 | 1.15 | r |
| 98-82-8 | Isopropylbenzene | 1.02 | U | 1.02 | 1.02 | r |
| 622-96-8 | 4-Ethyltoluene | 1.02 | U | 1.02 | 1.02 | r |
| 108-67-8 | 1,3,5-Trimethylbenzene | 1.02 | U | 1.02 | 1.02 | r |
| 95-63-6 | 1,2,4-Trimethylbenzene | 1.02 | U | 1.02 | 1.02 | r |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

1

CLIENT ID

AIR ANALYSIS DATA SHEET

SS-3 5X

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90509 5X

Canister: 21370 Lab File ID: 0409_31.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/10/19

Matrix: AIR Dilution Factor: 5

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 76-14-2 | 1,2-Dichlorotetrafluoroethane(sim) | 0.716 | U | 0.716 | 0.716 | r |
| 75-01-4 | Vinyl Chloride(sim) | 0.391 | U | 0.391 | 0.391 | r |
| 74-83-9 | Bromomethane(sim) | 1.29 | U | 1.29 | 1.29 | r |
| 75-69-4 | Trichlorofluoromethane(sim) | 0.891 | U | 0.891 | 0.891 | r |
| 107-06-2 | 1,2-Dichloroethane(sim) | 1.24 | U | 1.24 | 1.24 | r |
| 71-55-6 | 1,1,1-Trichloroethane(sim) | 0.917 | U | 0.917 | 0.917 | r |
| 56-23-5 | Carbon Tetrachloride(sim) | 0.159 | U | 0.159 | 0.159 | r |
| 75-35-4 | 1,1-Dichloroethene(sim) | 0.252 | U | 0.252 | 0.252 | r |
| 76-13-1 | Trichlorotrifluoroethane(sim) | 0.653 | U | 0.653 | 0.653 | r |
| 75-34-3 | 1,1-Dichloroethane(sim) | 1.24 | U | 1.24 | 1.24 | r |
| 67-66-3 | Chloroform(sim) | 1.02 | U | 1.02 | 1.02 | r |
| 78-87-5 | 1,2-dichloropropane(sim) | 1.08 | U | 1.08 | 1.08 | r |
| 75-27-4 | Bromodichloromethane(sim) | 0.747 | U | 0.747 | 0.747 | r |
| 123-91-1 | 1,4-Dioxane(sim) | 1.39 | U | 1.39 | 1.39 | r |
| 10061-01-5 | cis-1,3-Dichloropropene(sim) | 1.10 | U | 1.10 | 1.10 | r |
| 79-00-5 | 1,1,2-Trichloroethane(sim) | 0.917 | U | 0.917 | 0.917 | r |
| 124-48-1 | Dibromochloromethane(sim) | 0.587 | U | 0.587 | 0.587 | r |
| 106-93-4 | 1,2-Dibromoethane(EDB)(sim) | 0.651 | U | 0.651 | 0.651 | r |
| 75-25-2 | Bromoform(sim) | 0.484 | U | 0.484 | 0.484 | r |
| 179601-23-1 | m,p-Xylene(sim) | 1.44 | | 1.15 | 1.15 | r |
| 79-34-5 | 1,1,2,2-Tetrachloroethane(sim) | 0.729 | U | 0.729 | 0.729 | r |
| 100-44-7 | Benzyl chloride(sim) | 0.966 | U | 0.966 | 0.966 | r |
| 541-73-1 | 1,3-Dichlorobenzene(sim) | 0.832 | U | 0.832 | 0.832 | r |
| 106-46-7 | 1,4-Dichlorobenzene(sim) | 0.832 | U | 0.832 | 0.832 | r |
| 135-98-8 | sec-Butylbenzene(sim) | 0.911 | U | 0.911 | 0.911 | r |
| 99-87-6 | 4-Isopropyltoluene(sim) | 0.911 | U | 0.911 | 0.911 | r |
| 95-50-1 | 1,2-Dichlorobenzene(sim) | 0.832 | U | 0.832 | 0.832 | r |
| 104-51-8 | n-Butylbenzene(sim) | 0.911 | U | 0.911 | 0.911 | r |
| 120-82-1 | 1,2,4-Trichlorobenzene(sim) | 0.674 | U | 0.674 | 0.674 | r |
| 87-68-3 | Hexachlorobutadiene(sim) | 0.469 | U | 0.469 | 0.469 | r |
| | | | | | | |
| | | | | | | |
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| | | | | | | |
| | | | | | | |
| | | | | | | |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_31.D
Acq On : 10 Apr 2019 01:24 am
Operator : CORTEX\ms
Client ID : SS-3 5X
Lab ID : CC90509 5X
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 10:28:20 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration

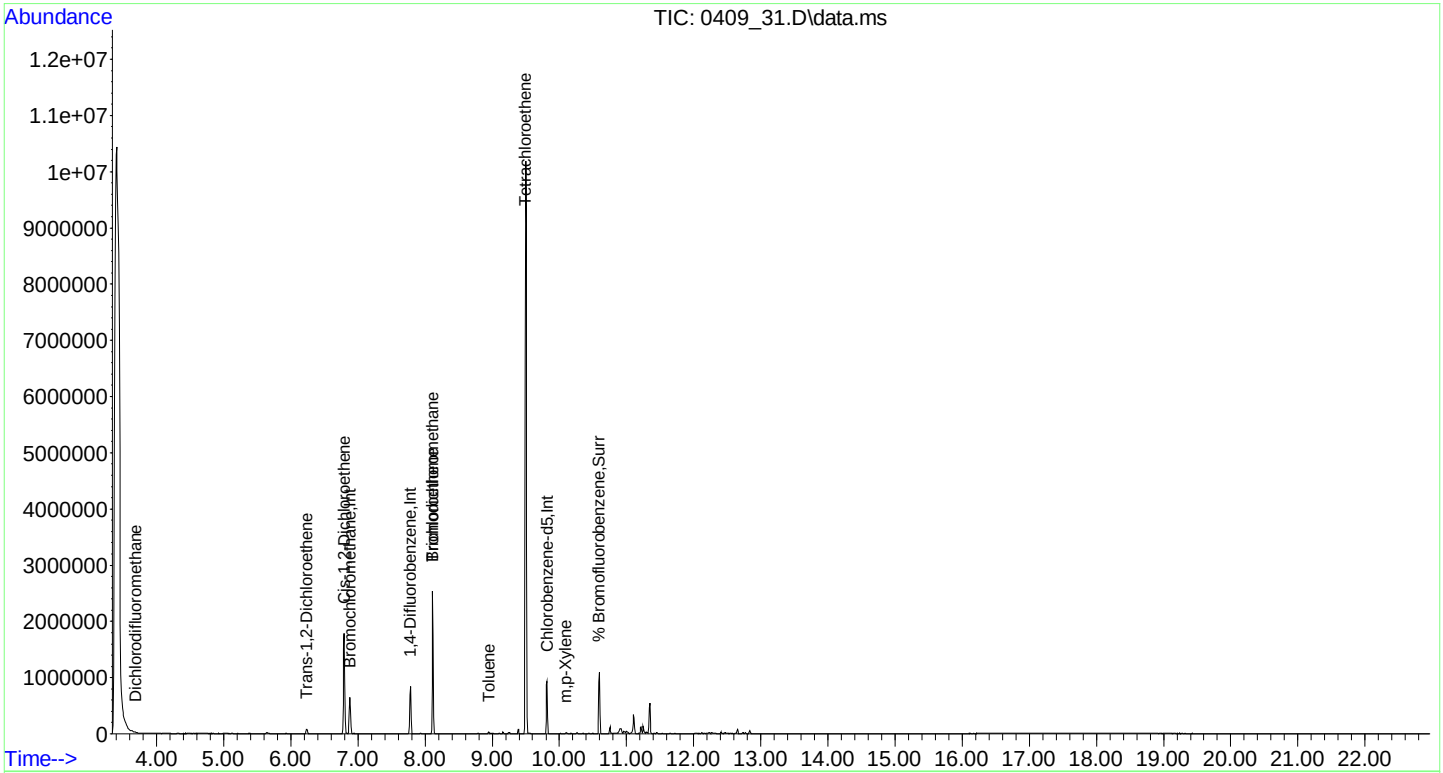
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.879 | 130 | 113392 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.781 | 114 | 368048 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.815 | 82 | 177037 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.882 | 130 | 155825 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 428062 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 181597 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 242887 | 10.465 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 104.70% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 3.687 | 85 | 10111 | 0.348 | ppbv | # | 94 |
| 22) Trans-1,2-Dichloroethene | 6.234 | 61 | 39307 | 2.027 | ppbv | # | 78 |
| 26) Cis-1,2-Dichloroethene | 6.794 | 61 | 807684 | 43.376 | ppbv | # | 69 |
| 38) Bromodichloromethane | 8.111 | 83 | 5802 | 0.241 | ppbv | # | 78 |
| 39) Trichloroethene | 8.111 | 130 | 434986 | 31.480 | ppbv | | 89 |
| 48) Toluene | 8.949 | 91 | 8934 | 0.296 | ppbv | # | 96 |
| 52) Tetrachloroethene | 9.498 | 166 | 2169603 | 148.451 | ppbv | | 91 |
| 57) m,p-Xylene | 10.095 | 91 | 9115 | 0.285 | ppbv | | 92 |
| 90] Trans-1,2-Dichloroethe... | 6.237 | 61 | 45157 | 1.809 | ppbv | # | 78 |
| 92] Cis-1,2-Dichloroethene... | 6.789 | 61 | 941141 | 39.999 | ppbv | # | 71 |
| 97] Trichloroethene(sim) | 8.111 | 130 | 434975 | 28.205 | ppbv | | 92 |
| 103] Tetrachloroethene(sim) | 9.498 | 166 | 2169785 | 129.047 | ppbv | | 91 |
| 106] m,p-Xylene(sim) | 10.098 | 91 | 9587 | 0.287 | ppbv | # | 93 |

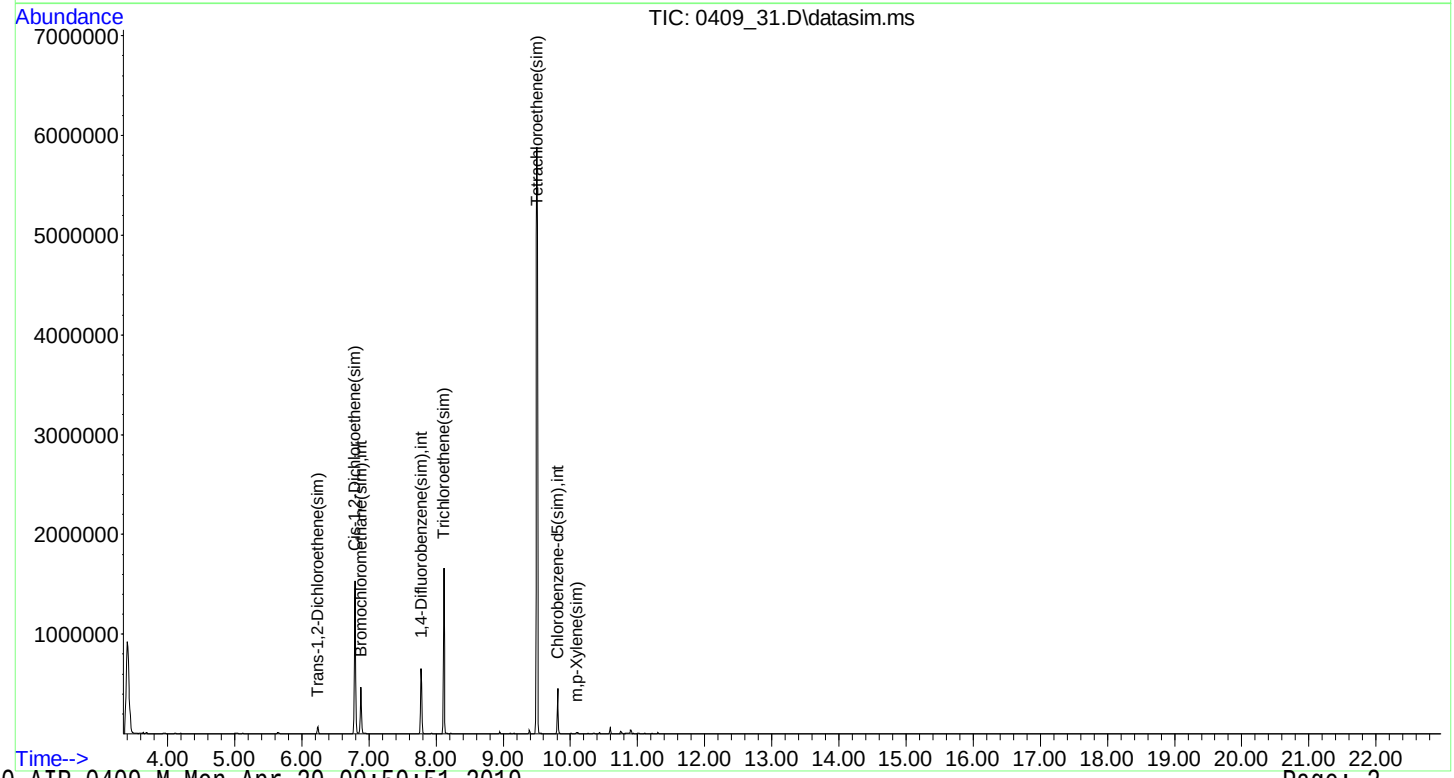
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

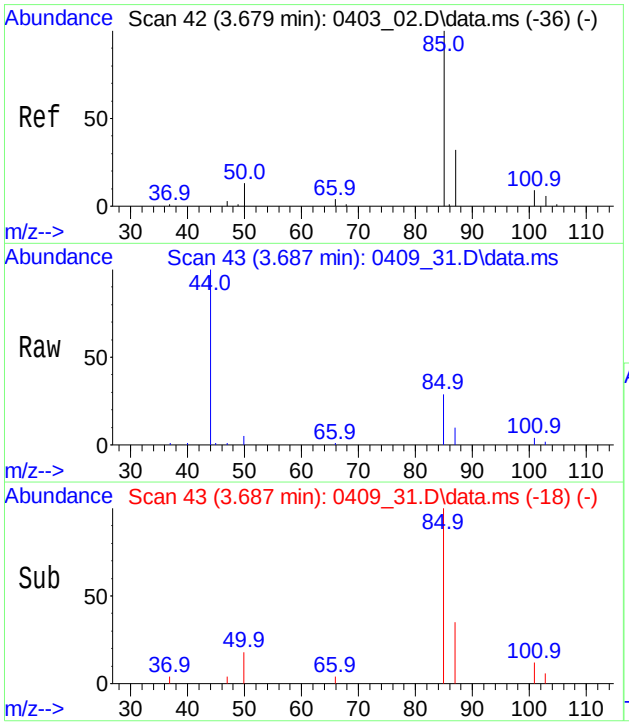
Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_31.D
Acq On : 10 Apr 2019 01:24 am
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Lab ID : CC90509 5X
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 10:28:20 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration



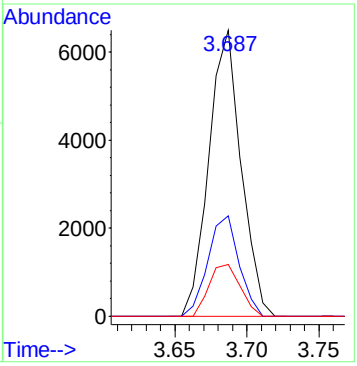



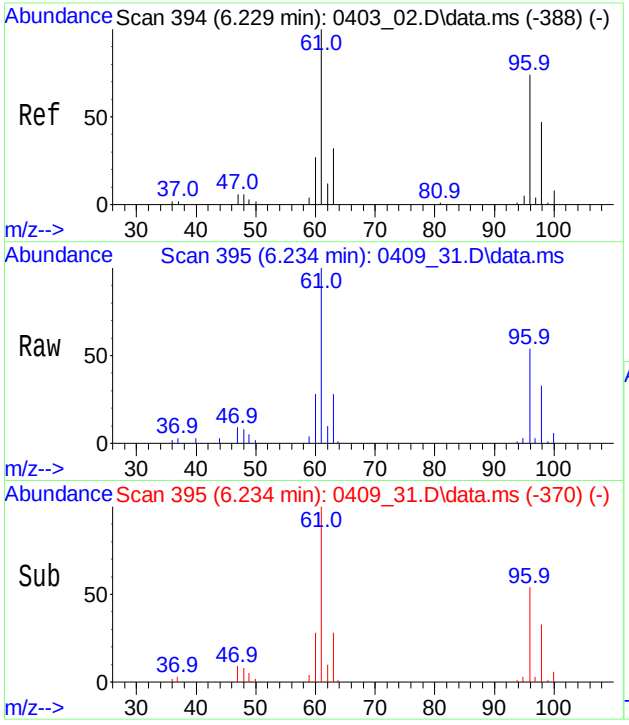



#3
Dichlorodifluoromethane
Conc: 8$ 0.348 ppbv
RT: 3.687 min Scan# 43
Delta R.T. 0.000 min
Lab File: 0409_31.D
Acq: 10 Apr 2019 01:24 am

Tgt Ion: 85 Resp: 10111

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 33.7 | 25.6 | 38.4 |
| 50 | 17.4 | 9.4 | 14.2# |

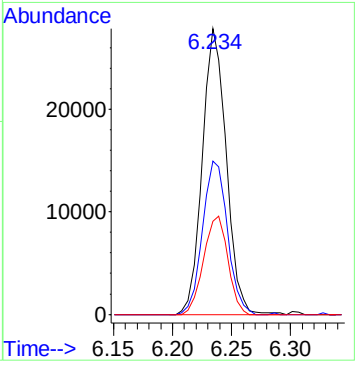


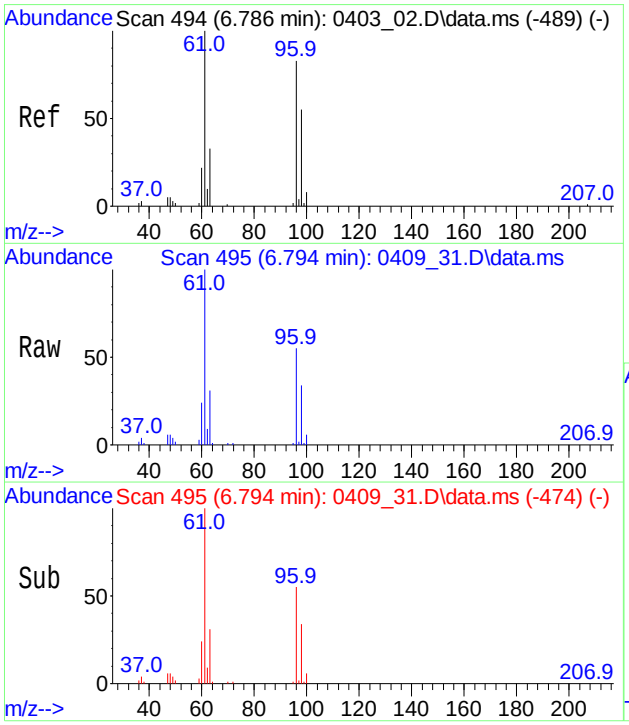




#22
Trans-1,2-Dichloroethene
Conc: 8$ 2.027 ppbv
RT: 6.234 min Scan# 395
Delta R.T. -0.005 min
Lab File: 0409_31.D
Acq: 10 Apr 2019 01:24 am

Tgt Ion: 61 Resp: 39307

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 55.9 | 60.6 | 90.8# |
| 98 | 34.8 | 38.9 | 58.3# |

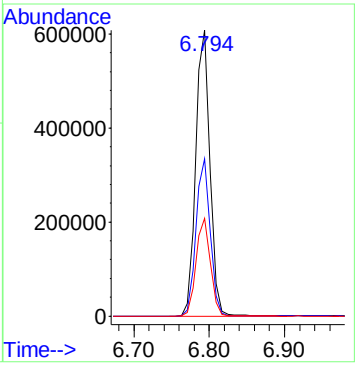


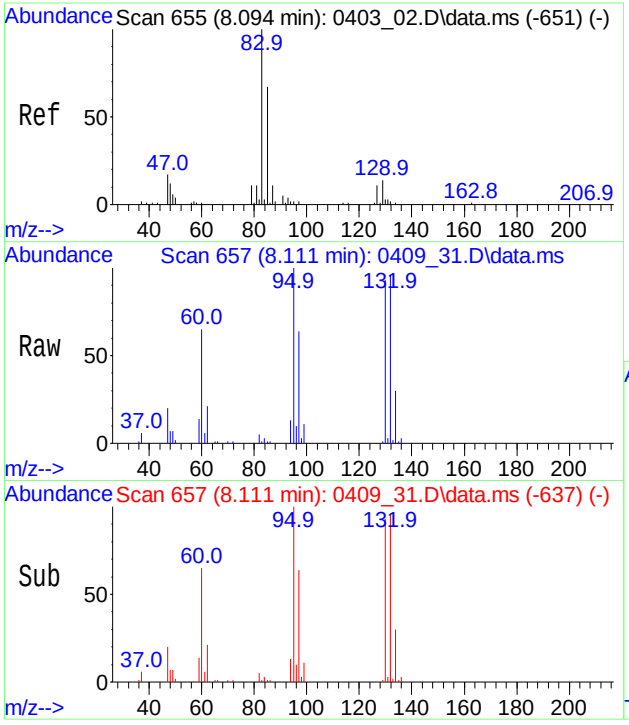



#26
Cis-1,2-Dichloroethene
Conc: 8$ 43.376 ppbv
RT: 6.794 min Scan# 495
Delta R.T. -0.000 min
Lab File: 0409_31.D
Acq: 10 Apr 2019 01:24 am

Tgt Ion: 61 Resp: 807684

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 55.2 | 67.8 | 101.8# |
| 98 | 34.4 | 43.8 | 65.6# |

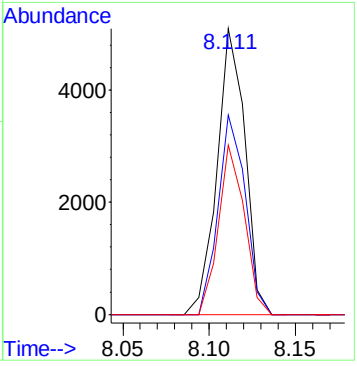


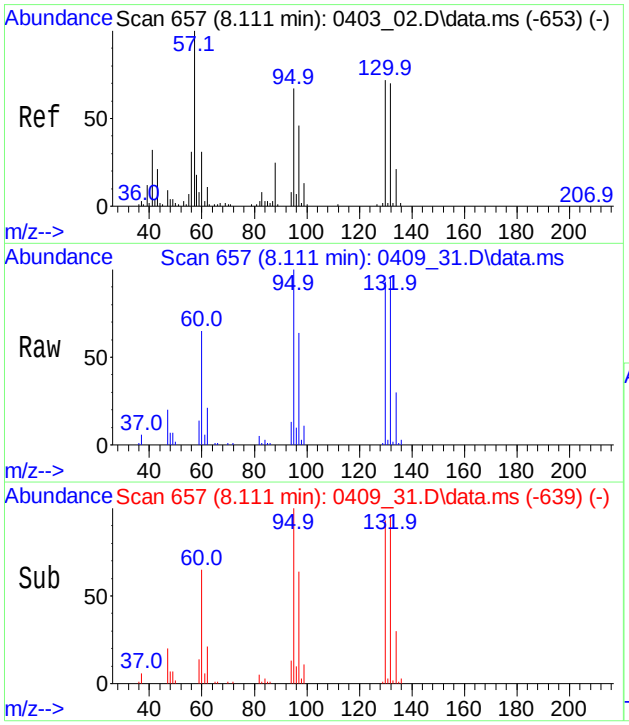




#38
Bromodichloromethane
Conc: 8$ 0.241 ppbv
RT: 8.111 min Scan# 657
Delta R.T. 0.017 min
Lab File: 0409_31.D
Acq: 10 Apr 2019 01:24 am

Tgt Ion: 83 Resp: 5802

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 67.7 | 44.1 | 84.1 |
| 129 | 54.9 | 0.0 | 32.9# |

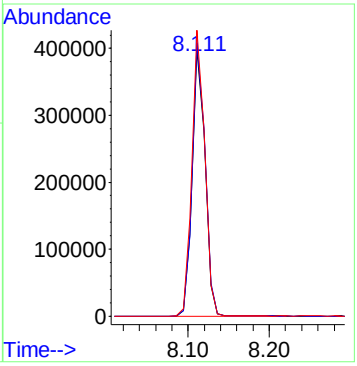


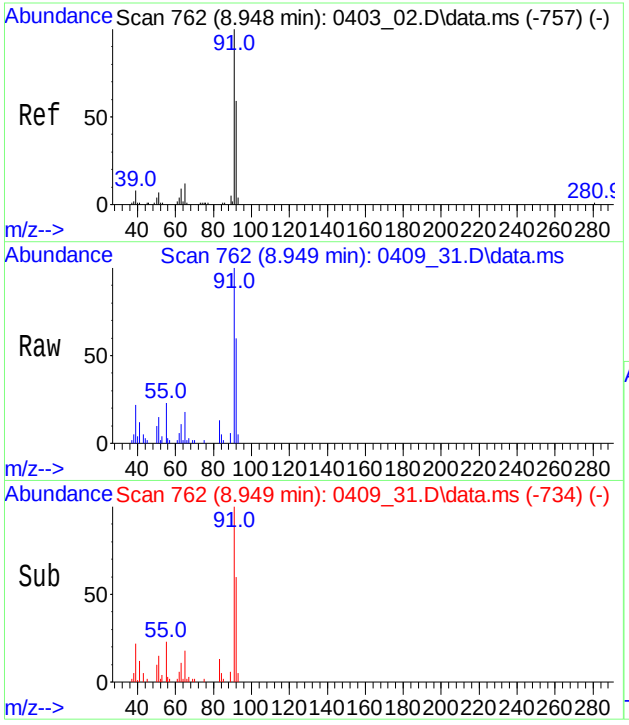



#39
Trichloroethene
Conc: 8$ 31.480 ppbv
RT: 8.111 min Scan# 657
Delta R.T. -0.000 min
Lab File: 0409_31.D
Acq: 10 Apr 2019 01:24 am

Tgt Ion:130 Resp: 434986

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 102.1 | 78.0 | 117.0 |
| 95 | 107.1 | 73.0 | 109.4 |

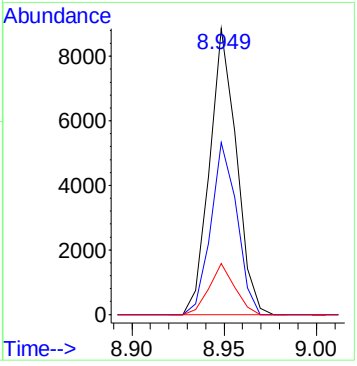


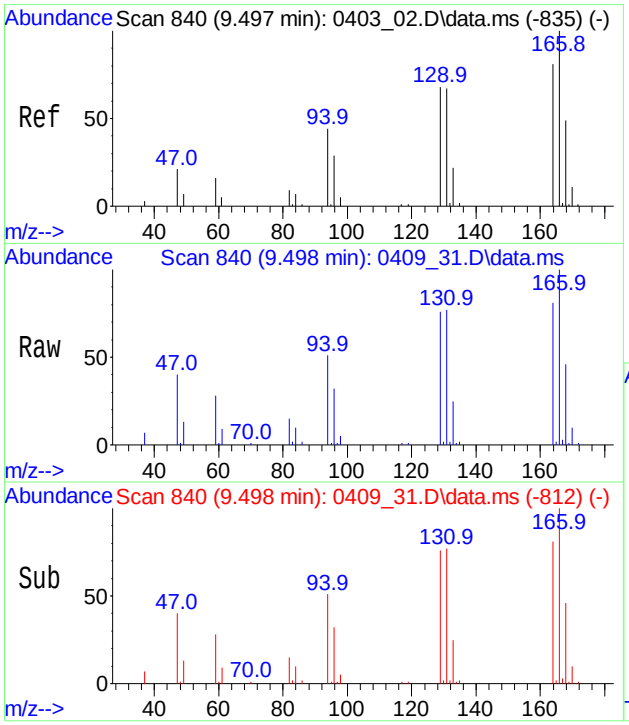




#48
Toluene
Conc: 8$ 0.296 ppbv
RT: 8.949 min Scan# 762
Delta R.T. 0.000 min
Lab File: 0409_31.D
Acq: 10 Apr 2019 01:24 am

Tgt Ion: 91 Resp: 8934

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 58.3 | 47.7 | 71.5 |
| 65 | 17.0 | 9.3 | 13.9# |

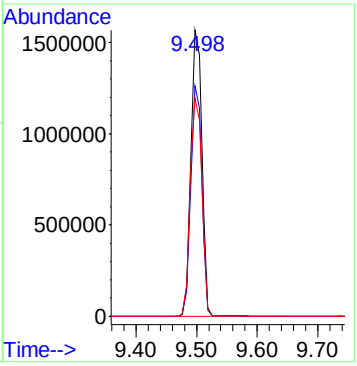


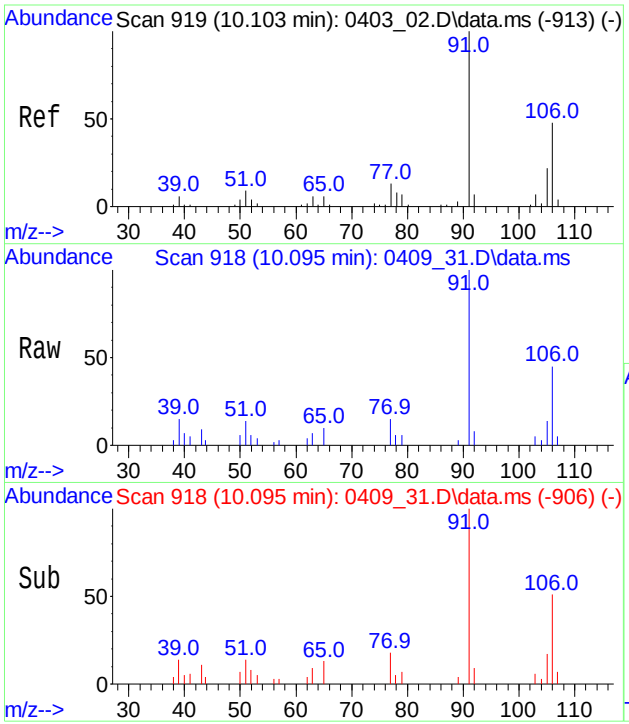



#52
Tetrachloroethene
Conc: 8$ 148.451 ppbv
RT: 9.498 min Scan# 840
Delta R.T. 0.000 min
Lab File: 0409_31.D
Acq: 10 Apr 2019 01:24 am

Tgt Ion:166 Resp: 2169603

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 80.5 | 62.2 | 93.2 |
| 129 | 80.6 | 54.9 | 82.3 |

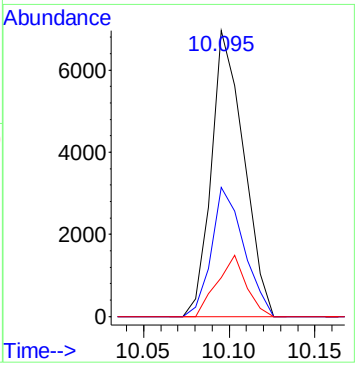


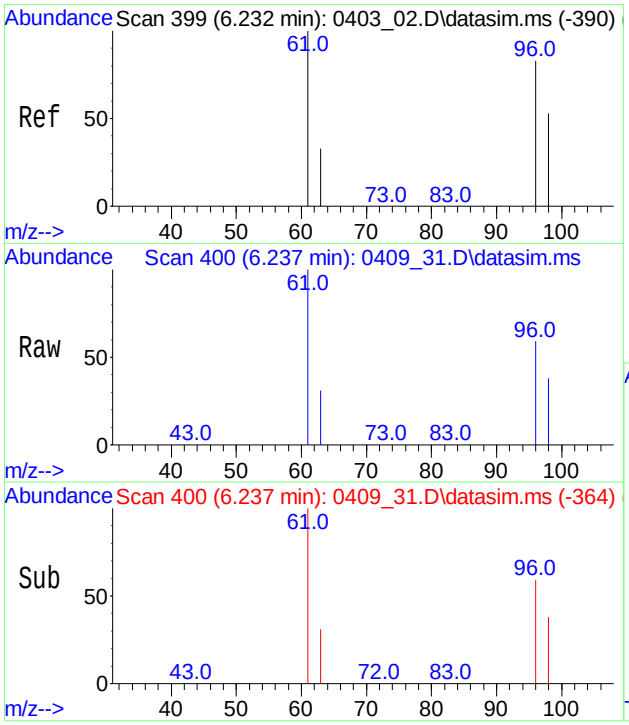




#57
m,p-Xylene
Conc: 8$ 0.285 ppbv
RT: 10.095 min Scan# 918
Delta R.T. -0.007 min
Lab File: 0409_31.D
Acq: 10 Apr 2019 01:24 am

Tgt Ion: 91 Resp: 9115

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 45.3 | 40.9 | 61.3 |
| 105 | 19.3 | 17.8 | 26.8 |

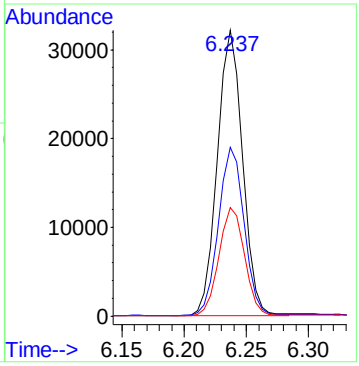


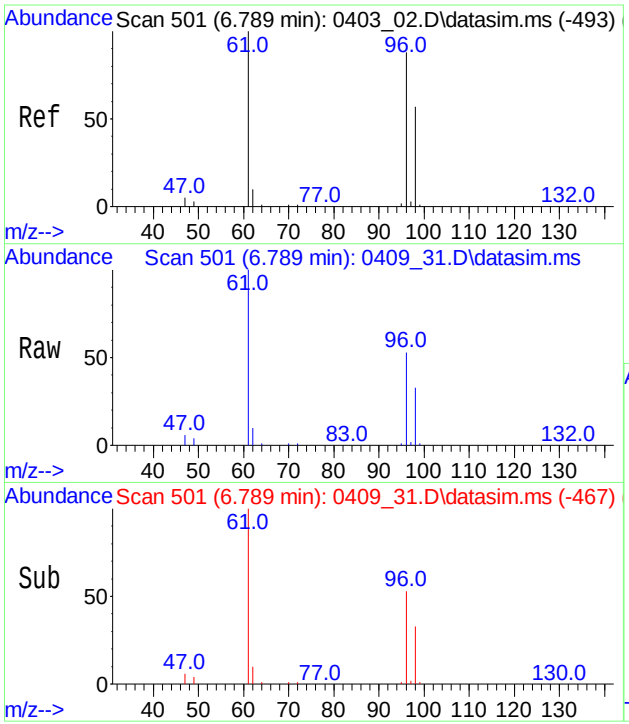



#90
Trans-1,2-Dichloroethene(sim)
Conc: 8$ 1.809 ppbv
RT: 6.237 min Scan# 400
Delta R.T. 0.000 min
Lab File: 0409_31.D
Acq: 10 Apr 2019 01:24 am

Tgt Ion: 61 Resp: 45157

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 59.7 | 64.6 | 97.0# |
| 98 | 38.5 | 41.7 | 62.5# |

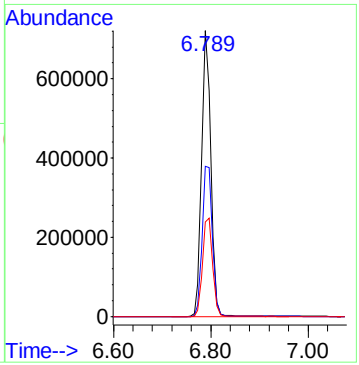


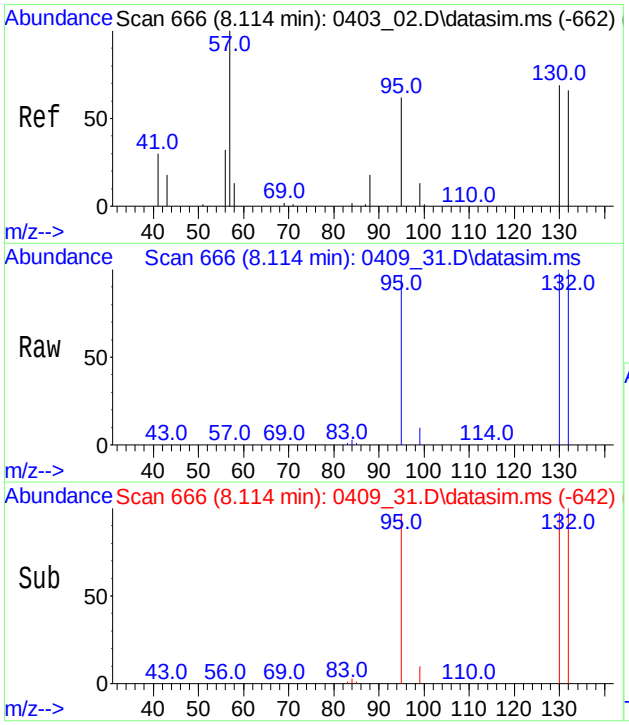




#92
Cis-1,2-Dichloroethene(sim)
Conc: 8$ 39.999 ppbv
RT: 6.789 min Scan# 501
Delta R.T. 0.000 min
Lab File: 0409_31.D
Acq: 10 Apr 2019 01:24 am

Tgt Ion: 61 Resp: 941141

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 58.0 | 69.7 | 104.5# |
| 98 | 37.3 | 45.3 | 67.9# |

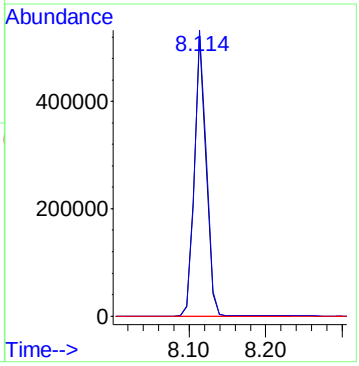


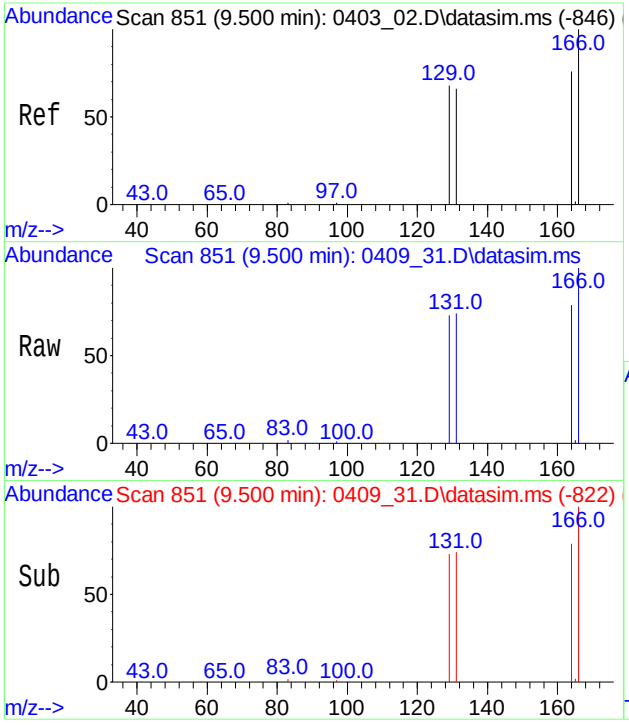



#97
Trichloroethene(sim)
Conc: 8$  28.205 ppbv
RT:  8.111 min  Scan# 666
Delta R.T.  0.000 min
Lab File:  0409_31.D
Acq: 10 Apr 2019  01:24 am

Tgt Ion:130 Resp:  434975

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 102.2 | 78.0 | 117.0 |
| 97 | 69.1 | 47.2 | 70.8 |

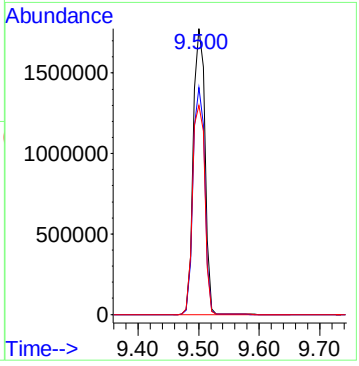


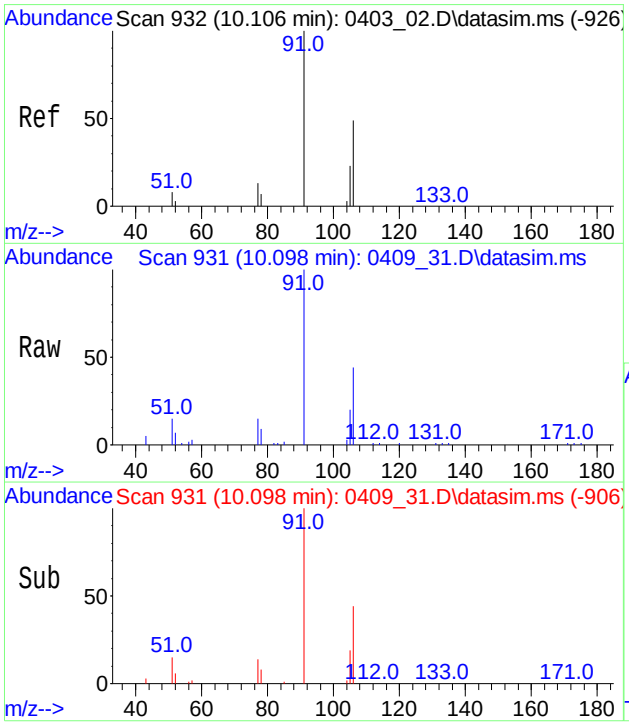




#103
Tetrachloroethene(sim)
Conc: 8$  129.047 ppbv
RT:  9.498 min  Scan# 851
Delta R.T.  0.000 min
Lab File:  0409_31.D
Acq: 10 Apr 2019  01:24 am

Tgt Ion:166 Resp: 2169785

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 80.5 | 57.7 | 97.7 |
| 129 | 80.6 | 48.6 | 88.6 |

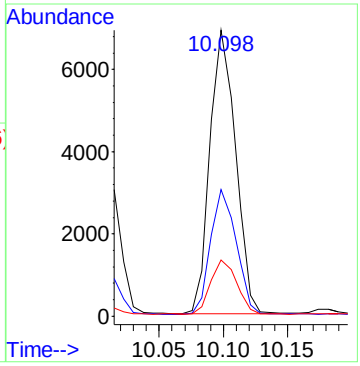





#106
m,p-Xylene(sim)
Conc: 8$  0.287 ppbv
RT:  10.098 min  Scan# 931
Delta R.T.  -0.007 min
Lab File:  0409_31.D
Acq: 10 Apr 2019  01:24 am

Tgt Ion: 91 Resp:  9587

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 43.9 | 44.3 | 54.1# |
| 105 | 19.6 | 17.7 | 26.5 |



1

CLIENT ID

AIR ANALYSIS DATA SHEET

SS-3 75X

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90509 75X

Canister: 21370 Lab File ID: 0409_47.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/10/19

Matrix: AIR Dilution Factor: 75

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 15.2 | U | 15.2 | 15.2 | |
| 156-59-2 | Cis-1,2-Dichloroethene | 165 | D | 3.79 | 3.79 | r |
| 79-01-6 | Trichloroethene | 114 | X | 2.79 | 2.79 | |
| 108-88-3 | Toluene | 19.9 | U | 19.9 | 19.9 | |
| 127-18-4 | Tetrachloroethene | 674 | D | 2.77 | 2.77 | r |
| 156-60-5 | Trans-1,2-Dichloroethene(sim) | 18.9 | U | 18.9 | 18.9 | |
| 179601-23-1 | m,p-Xylene(sim) | 17.3 | U | 17.3 | 17.3 | |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

This form 1 and the associated quantitation report are filtered for detected compounds in the undiluted analysis.

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_47.D
Acq On : 10 Apr 2019 12:05 pm
Operator : CORTEX\ms
Client ID : SS-3 75X
Lab ID : CC90509 75X
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 16:00:20 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:42:38 2019
Response via : Initial Calibration

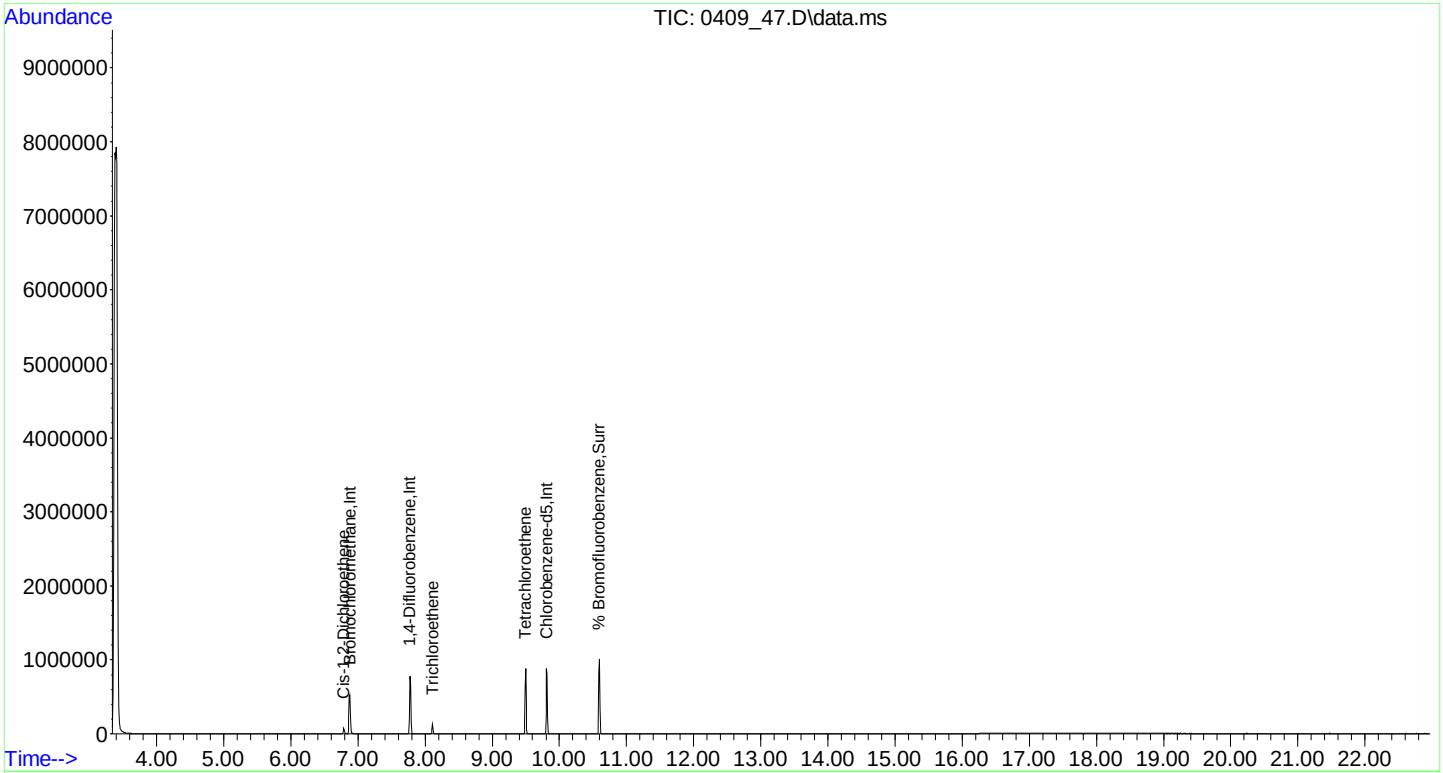
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.879 | 130 | 97780 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.772 | 114 | 332148 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.807 | 82 | 165153 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.874 | 130 | 137584 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 382802 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 167035 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 214932 | 9.927 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 99.30% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 26) Cis-1,2-Dichloroethene | 6.786 | 61 | 35325 | 2.200 | ppbv | # | 70 |
| 39) Trichloroethene | 8.111 | 130 | 18972 | 1.521 | ppbv | # | 83 |
| 52) Tetrachloroethene | 9.498 | 166 | 118474 | 8.983 | ppbv | # | 86 |
| 92) Cis-1,2-Dichloroethene... | 6.789 | 61 | 41164 | 1.981 | ppbv | # | 72 |
| 97) Trichloroethene(sim) | 8.111 | 130 | 18972 | 1.376 | ppbv | # | 89 |
| 103) Tetrachloroethene(sim) | 9.498 | 166 | 118474 | 7.879 | ppbv | # | 86 |

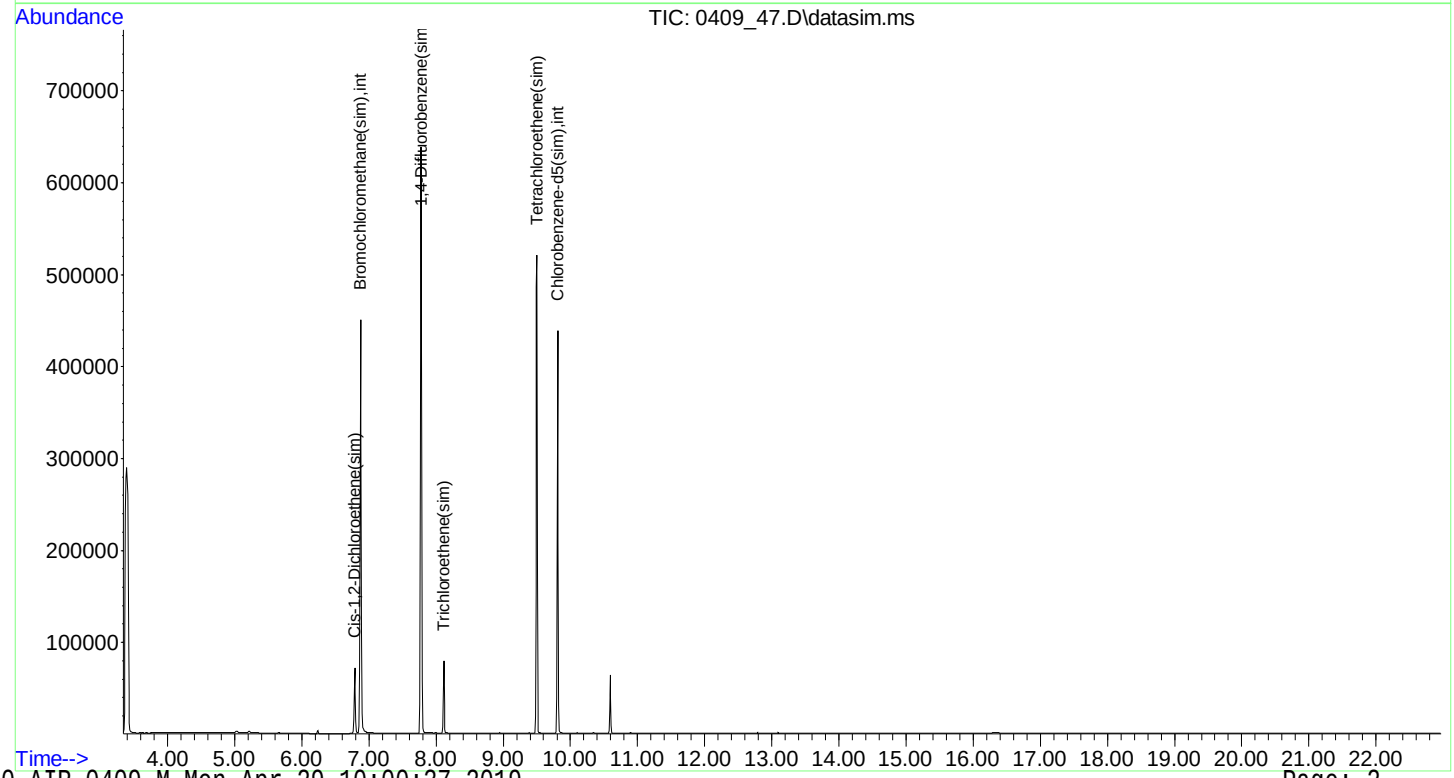
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

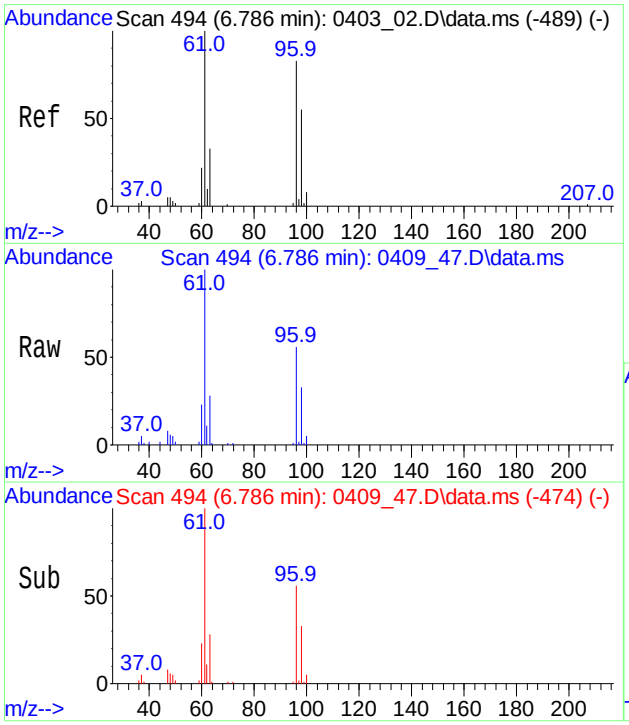
Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_47.D
Acq On : 10 Apr 2019 12:05 pm
Operator : CORTEX\ms
Client ID : SS-3 75X
Lab ID : CC90509 75X
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 16:00:20 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:42:38 2019
Response via : Initial Calibration



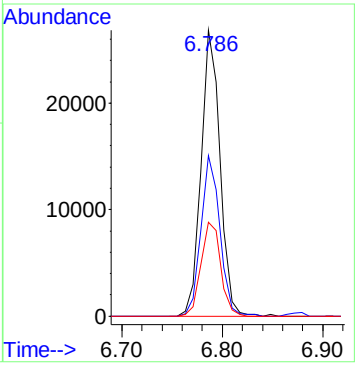



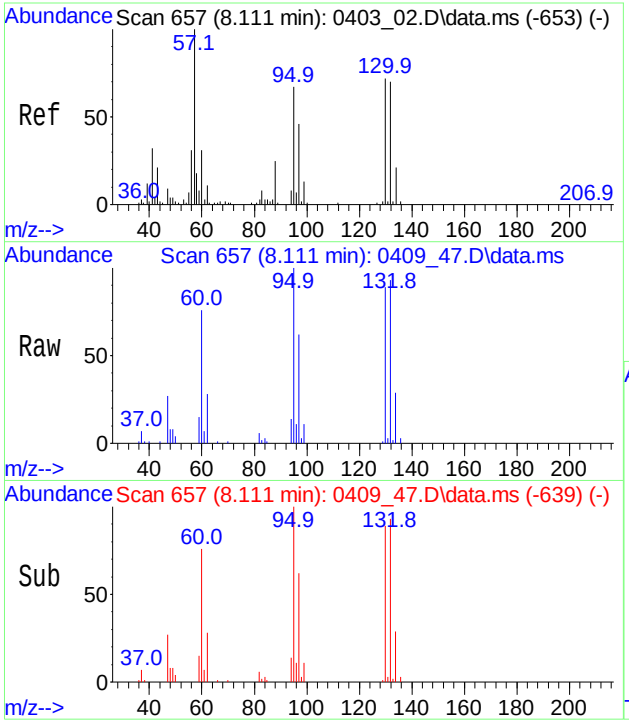



#26
Cis-1,2-Dichloroethene
Conc: 8$ 2.200 ppbv
RT: 6.786 min Scan# 494
Delta R.T. -0.008 min
Lab File: 0409_47.D
Acq: 10 Apr 2019 12:05 pm

Tgt Ion: 61 Resp: 35325

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 56.2 | 67.8 | 101.8# |
| 98 | 34.2 | 43.8 | 65.6# |

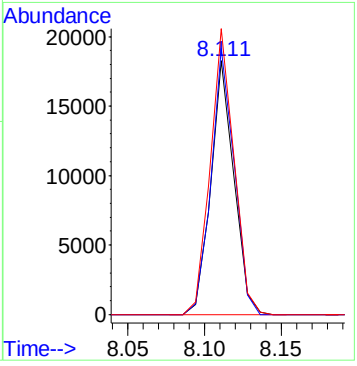


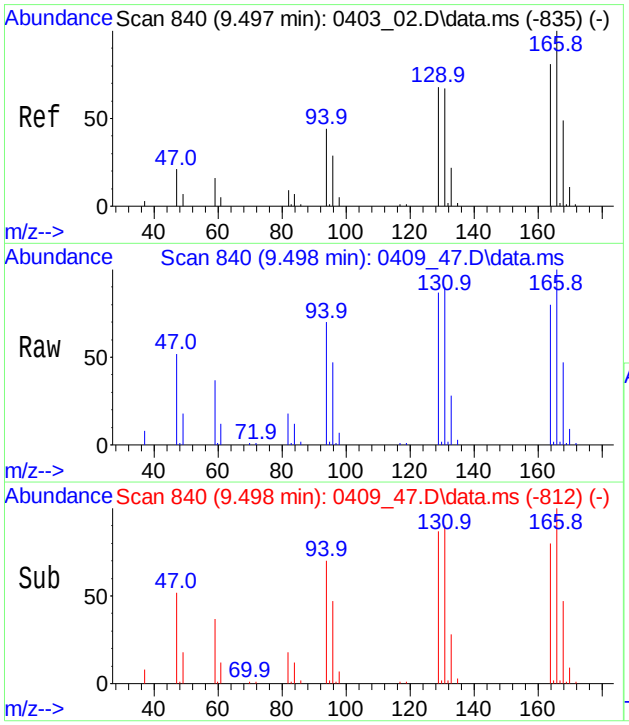




#39
Trichloroethene
Conc: 8$ 1.521 ppbv
RT: 8.111 min Scan# 657
Delta R.T. -0.000 min
Lab File: 0409_47.D
Acq: 10 Apr 2019 12:05 pm

Tgt Ion:130 Resp: 18972

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 105.1 | 78.0 | 117.0 |
| 95 | 115.8 | 73.0 | 109.4# |

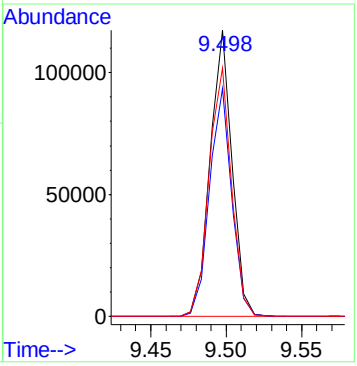


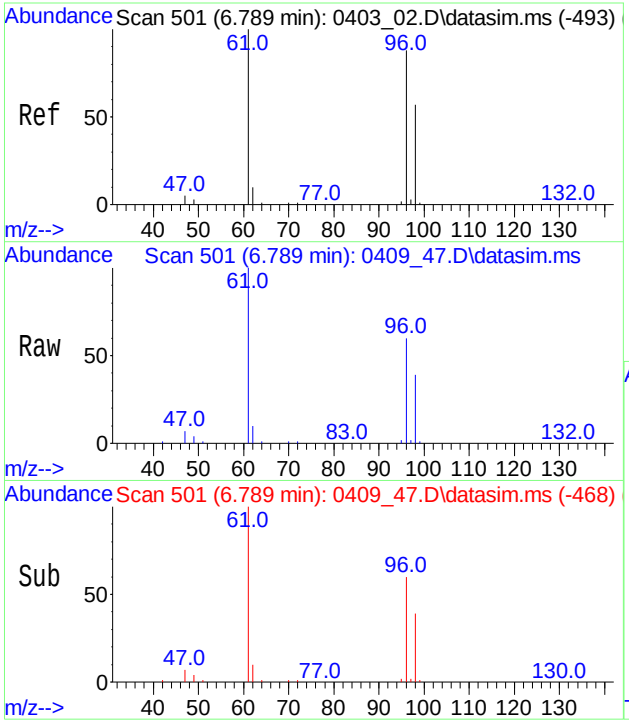



#52
Tetrachloroethene
Conc: 8$ 8.983 ppbv
RT: 9.498 min Scan# 840
Delta R.T. 0.001 min
Lab File: 0409_47.D
Acq: 10 Apr 2019 12:05 pm

Tgt Ion:166 Resp: 118474

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 80.3 | 62.2 | 93.2 |
| 129 | 89.2 | 54.9 | 82.3# |

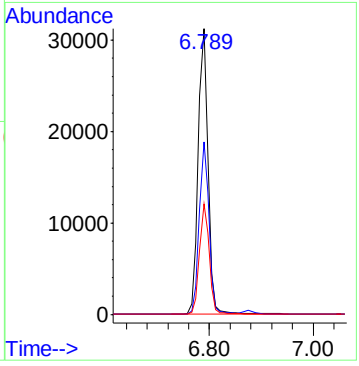


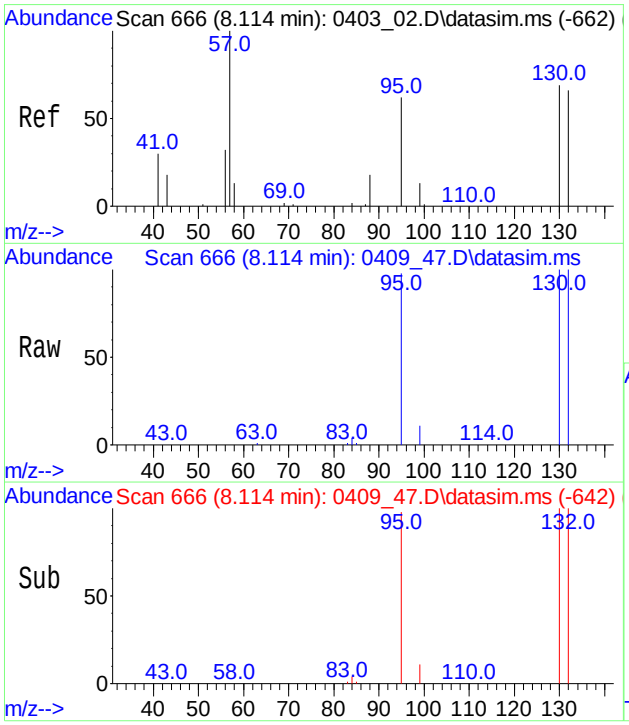




#92
Cis-1,2-Dichloroethene(sim)
Conc: 8$ 1.981 ppbv
RT: 6.789 min Scan# 501
Delta R.T. 0.000 min
Lab File: 0409_47.D
Acq: 10 Apr 2019 12:05 pm

Tgt Ion: 61 Resp: 41164

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 59.4 | 69.7 | 104.5# |
| 98 | 38.4 | 45.3 | 67.9# |

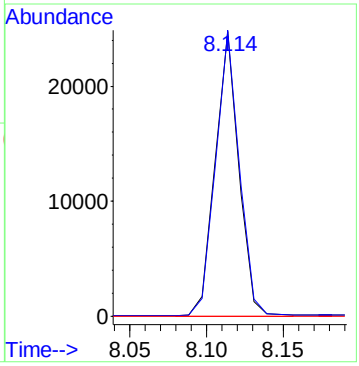


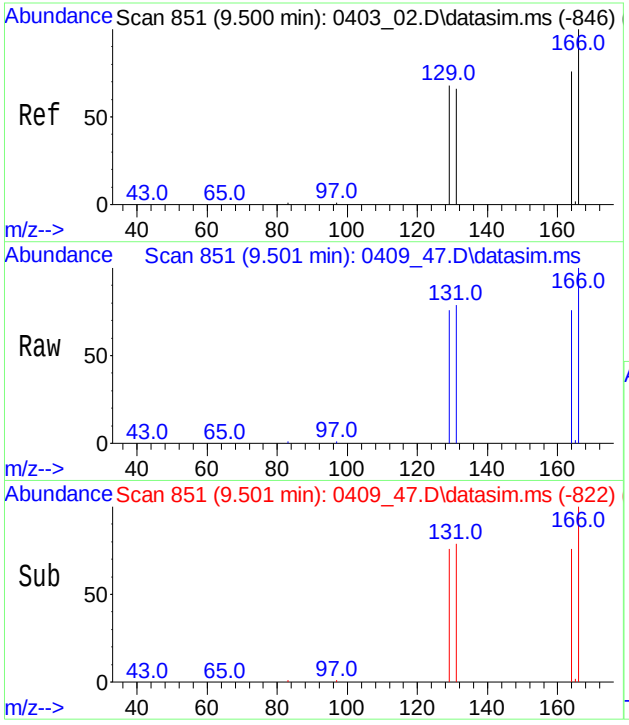



#97
Trichloroethene(sim)
Conc: 8$ 1.376 ppbv
RT: 8.111 min Scan# 666
Delta R.T. -0.000 min
Lab File: 0409_47.D
Acq: 10 Apr 2019 12:05 pm

Tgt Ion:130 Resp: 18972

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 105.1 | 78.0 | 117.0 |
| 97 | 71.9 | 47.2 | 70.8# |

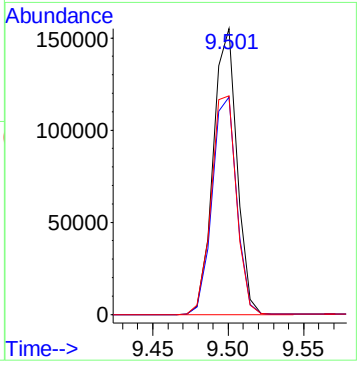



#103
Tetrachloroethene(sim)
Conc: 8$ 7.879 ppbv
RT: 9.498 min Scan# 851
Delta R.T. 0.001 min
Lab File: 0409_47.D
Acq: 10 Apr 2019 12:05 pm

Tgt Ion:166 Resp: 118474

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 80.3 | 57.7 | 97.7 |
| 129 | 89.2 | 48.6 | 88.6# |



AIR ANALYSIS DATA SHEET

CLIENT ID: SS-7

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90510

Canister: 11291 Lab File ID: 0409_39.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/10/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 115-07-1 | Propylene | 0.581 | U | 0.581 | 0.581 | r |
| 75-71-8 | Dichlorodifluoromethane | 0.473 | | 0.202 | 0.202 | r |
| 74-87-3 | Chloromethane | 0.485 | U | 0.485 | 0.485 | r |
| 106-99-0 | 1,3-Butadiene | 0.452 | U | 0.452 | 0.452 | r |
| 75-00-3 | Chloroethane | 0.379 | U | 0.379 | 0.379 | r |
| 64-17-5 | Ethanol | 2.12 | S | 0.531 | 0.531 | r |
| 67-64-1 | Acetone | 2.54 | S | 0.421 | 0.421 | r |
| 75-69-4 | Trichlorofluoromethane | 0.266 | | 0.178 | 0.178 | r |
| 67-63-0 | Isopropylalcohol | 0.407 | U | 0.407 | 0.407 | r |
| 107-13-1 | Acrylonitrile | 0.461 | U | 0.461 | 0.461 | r |
| 75-09-2 | Methylene Chloride | 0.864 | U | 0.864 | 0.864 | r |
| 75-15-0 | Carbon Disulfide | 0.321 | U | 0.321 | 0.321 | r |
| 1634-04-4 | Methyl tert-butyl ether(MTBE) | 0.278 | U | 0.278 | 0.278 | r |
| 78-93-3 | Methyl Ethyl Ketone | 0.395 | | 0.339 | 0.339 | r |
| 110-54-3 | Hexane | 0.284 | U | 0.284 | 0.284 | r |
| 67-66-3 | Chloroform | 0.302 | | 0.205 | 0.205 | r |
| 141-78-6 | Ethyl acetate | 0.278 | U | 0.278 | 0.278 | r |
| 109-99-9 | Tetrahydrofuran | 0.339 | U | 0.339 | 0.339 | r |
| 71-43-2 | Benzene | 0.313 | U | 0.313 | 0.313 | r |
| 110-82-7 | Cyclohexane | 0.291 | U | 0.291 | 0.291 | r |
| 142-82-5 | Heptane | 0.288 | | 0.244 | 0.244 | r |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | 0.244 | U | 0.244 | 0.244 | r |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.221 | U | 0.221 | 0.221 | r |
| 108-88-3 | Toluene | 2.75 | | 0.266 | 0.266 | r |
| 591-78-6 | 2-Hexanone(MBK) | 0.244 | U | 0.244 | 0.244 | r |
| 127-18-4 | Tetrachloroethene | 20.64 | | 0.037 | 0.037 | r |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.146 | U | 0.146 | 0.146 | r |
| 108-90-7 | Chlorobenzene | 0.217 | U | 0.217 | 0.217 | r |
| 100-41-4 | Ethylbenzene | 0.451 | | 0.230 | 0.230 | r |
| 179601-23-1 | m,p-Xylene | 1.90 | | 0.230 | 0.230 | r |
| 100-42-5 | Styrene | 0.441 | | 0.235 | 0.235 | r |
| 95-47-6 | o-Xylene | 0.440 | | 0.230 | 0.230 | r |
| 98-82-8 | Isopropylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 622-96-8 | 4-Ethyltoluene | 0.204 | U | 0.204 | 0.204 | r |
| 108-67-8 | 1,3,5-Trimethylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.403 | | 0.204 | 0.204 | r |
| 76-14-2 | 1,2-Dichlorotetrafluoroethane(sim) | 0.143 | U | 0.143 | 0.143 | r |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

1

AIR ANALYSIS DATA SHEET

CLIENT ID: SS-7

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90510

Canister: 11291 Lab File ID: 0409_39.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/10/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 75-01-4 | Vinyl Chloride(sim) | 0.078 | U | 0.078 | 0.078 | r |
| 74-83-9 | Bromomethane(sim) | 0.258 | U | 0.258 | 0.258 | r |
| 107-06-2 | 1,2-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 71-55-6 | 1,1,1-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 56-23-5 | Carbon Tetrachloride(sim) | 0.032 | U | 0.032 | 0.032 | r |
| 75-35-4 | 1,1-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 76-13-1 | Trichlorotrifluoroethane(sim) | 0.131 | U | 0.131 | 0.131 | r |
| 156-60-5 | Trans-1,2-Dichloroethene(sim) | 0.252 | U | 0.252 | 0.252 | r |
| 75-34-3 | 1,1-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 156-59-2 | Cis-1,2-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 78-87-5 | 1,2-dichloropropane(sim) | 0.217 | U | 0.217 | 0.217 | r |
| 75-27-4 | Bromodichloromethane(sim) | 0.149 | U | 0.149 | 0.149 | r |
| 79-01-6 | Trichloroethene(sim) | 0.037 | U | 0.037 | 0.037 | r |
| 123-91-1 | 1,4-Dioxane(sim) | 0.278 | U | 0.278 | 0.278 | r |
| 10061-01-5 | cis-1,3-Dichloropropene(sim) | 0.221 | U | 0.221 | 0.221 | r |
| 79-00-5 | 1,1,2-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 124-48-1 | Dibromochloromethane(sim) | 0.118 | U | 0.118 | 0.118 | r |
| 106-93-4 | 1,2-Dibromoethane(EDB)(sim) | 0.130 | U | 0.130 | 0.130 | r |
| 75-25-2 | Bromoform(sim) | 0.097 | U | 0.097 | 0.097 | r |
| 79-34-5 | 1,1,2,2-Tetrachloroethane(sim) | 0.146 | U | 0.146 | 0.146 | r |
| 100-44-7 | Benzyl chloride(sim) | 0.193 | U | 0.193 | 0.193 | r |
| 541-73-1 | 1,3-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 106-46-7 | 1,4-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 135-98-8 | sec-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 99-87-6 | 4-Isopropyltoluene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 95-50-1 | 1,2-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 104-51-8 | n-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 120-82-1 | 1,2,4-Trichlorobenzene(sim) | 0.135 | U | 0.135 | 0.135 | r |
| 87-68-3 | Hexachlorobutadiene(sim) | 0.094 | U | 0.094 | 0.094 | r |
| | | | | | | |
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FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_39.D
Acq On : 10 Apr 2019 06:28 am
Operator : CORTEX\ms
Client ID : SS-7
Lab ID : CC90510
ALS Vial : 1 Sample Multiplier: 1

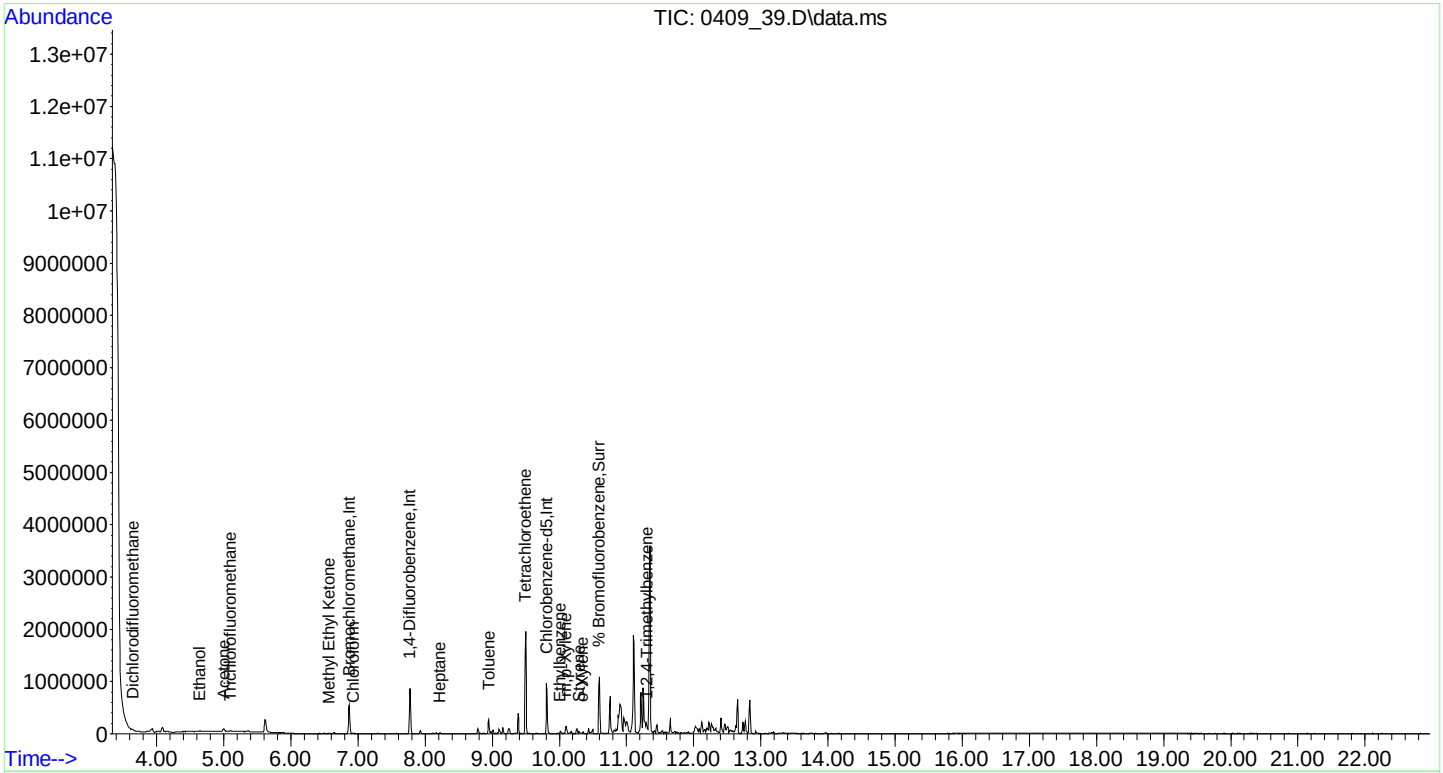
Quant Time: Apr 27 06:56:53 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration

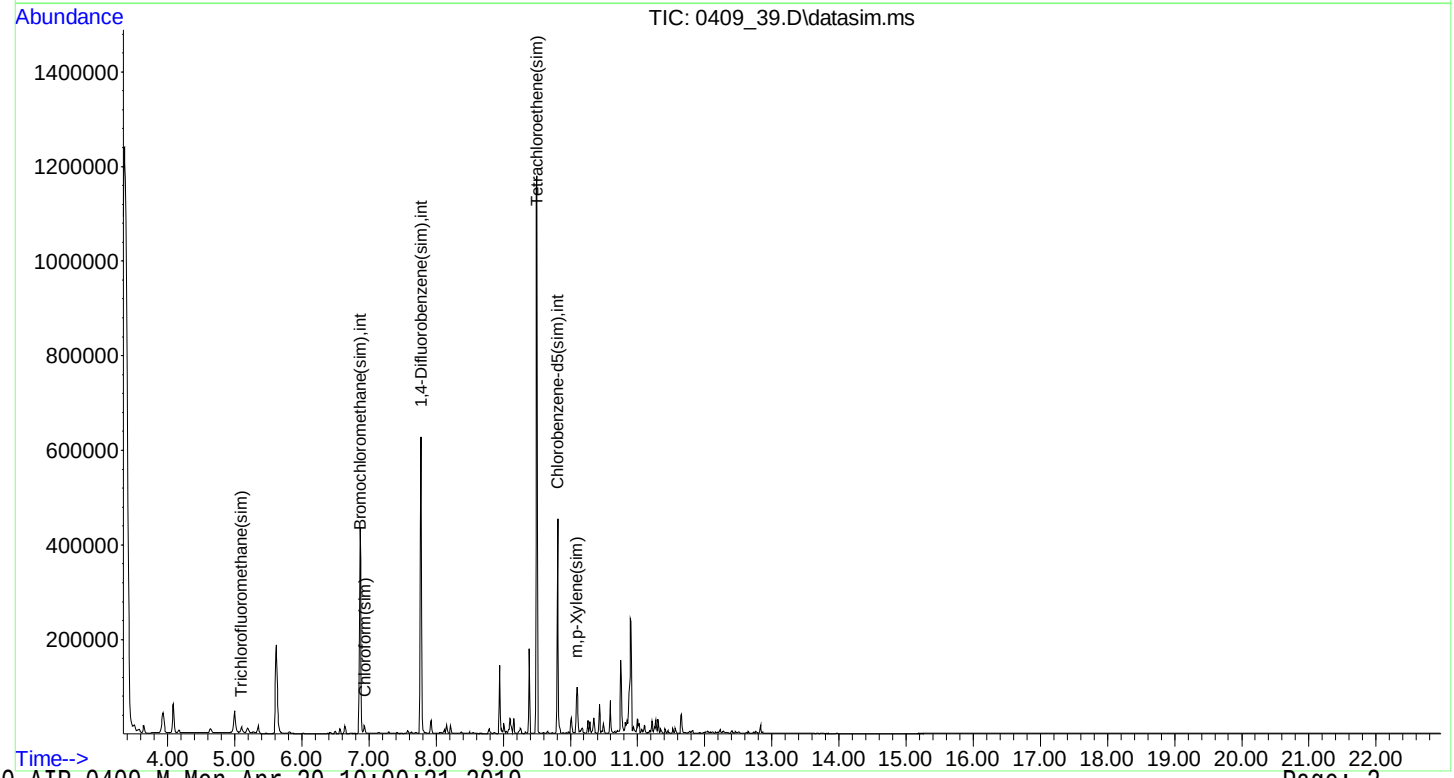
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.871 | 130 | 103792 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.772 | 114 | 347939 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.807 | 82 | 181935 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.874 | 130 | 144640 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 403962 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 181982 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 241234 | 10.114 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 101.10% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 3.646 | 85 | 12587 | 0.473 | ppbv | # | 96 |
| 11) Ethanol | 4.644 | 45 | 9482 | 2.123 | ppbv | | 96 |
| 12) Acetone | 5.001 | 43 | 58999 | 2.542 | ppbv | | 93 |
| 13) Trichlorofluoromethane | 5.098 | 101 | 9245 | 0.266 | ppbv | | 99 |
| 25) Methyl Ethyl Ketone | 6.568 | 43 | 11529 | 0.395 | ppbv | # | 73 |
| 28) Chloroform | 6.933 | 83 | 7288 | 0.302 | ppbv | # | 83 |
| 43) Heptane | 8.221 | 43 | 5060 | 0.288 | ppbv | # | 70 |
| 48) Toluene | 8.948 | 91 | 78411 | 2.748 | ppbv | # | 97 |
| 52) Tetrachloroethene | 9.497 | 166 | 285264 | 20.647 | ppbv | # | 87 |
| 56) Ethylbenzene | 10.012 | 91 | 19447 | 0.451 | ppbv | | 95 |
| 57) m,p-Xylene | 10.095 | 91 | 62552 | 1.902 | ppbv | | 91 |
| 59) Styrene | 10.293 | 104 | 10533 | 0.441 | ppbv | # | 78 |
| 61) o-Xylene | 10.346 | 91 | 15145 | 0.440 | ppbv | | 95 |
| 68) 1,2,4-Trimethylbenzene | 11.309 | 105 | 15492 | 0.403 | ppbv | # | 79 |
| 84) Trichlorofluoromethane... | 5.101 | 101 | 11649 | 0.241 | ppbv | | 99 |
| 93) Chloroform(sim) | 6.933 | 83 | 7288 | 0.266 | ppbv | # | 83 |
| 103) Tetrachloroethene(sim) | 9.500 | 166 | 400882m | 25.265 | ppbv | | 84 |
| 106) m,p-Xylene(sim) | 10.098 | 91 | 65235 | 1.872 | ppbv | # | 92 |

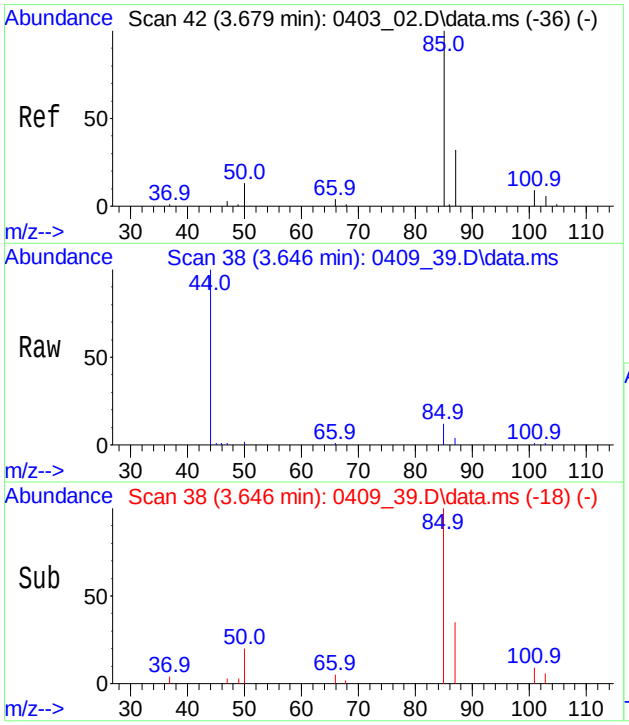
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_39.D
Acq On : 10 Apr 2019 06:28 am
Operator : CORTEX\ms
Client ID : SS-7
Lab ID : CC90510
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 27 06:56:53 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration



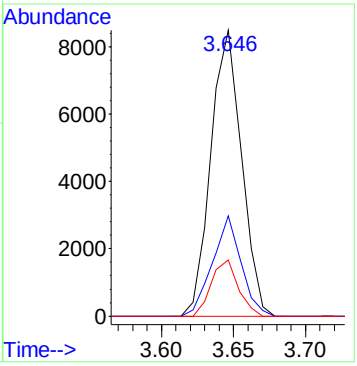



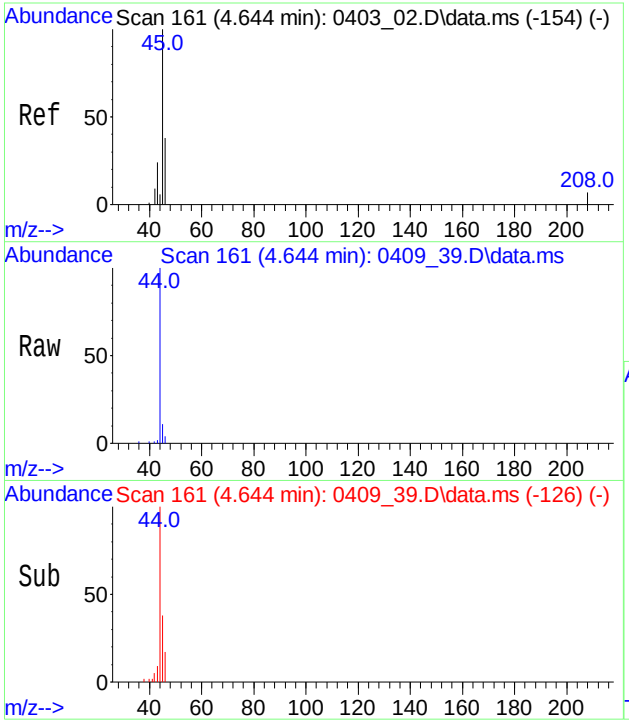



#3
Dichlorodifluoromethane
Conc: 8$  0.473 ppbv
RT:  3.646 min  Scan# 38
Delta R.T.  -0.040 min
Lab File:  0409_39.D
Acq: 10 Apr 2019  06:28 am

Tgt Ion: 85 Resp:  12587

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 32.6 | 25.6 | 38.4 |
| 50 | 17.1 | 9.4 | 14.2# |

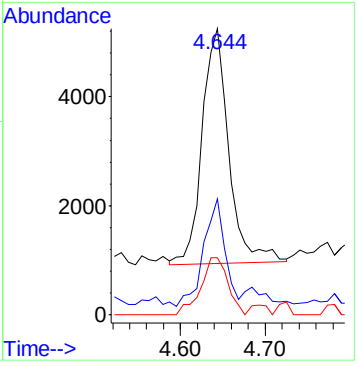


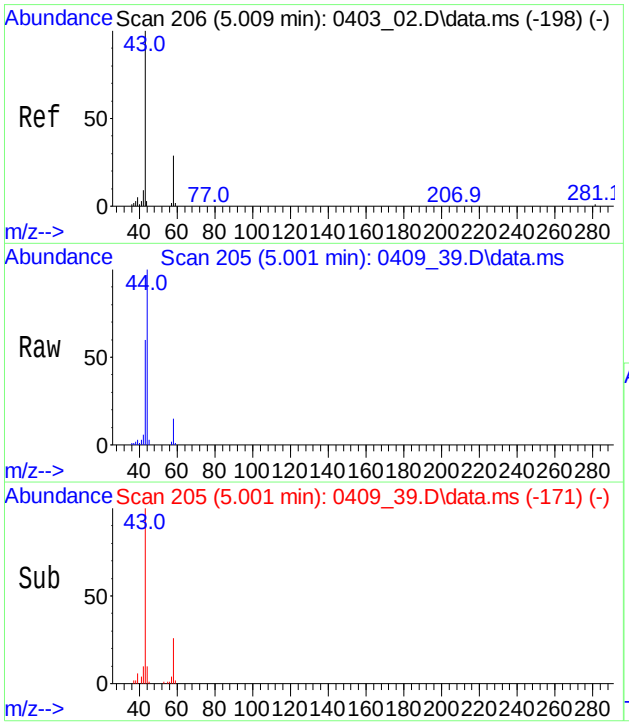




#11
Ethanol
Conc: 8$  2.123 ppbv
RT:  4.644 min  Scan# 161
Delta R.T.  -0.016 min
Lab File:  0409_39.D
Acq: 10 Apr 2019  06:28 am

Tgt Ion: 45 Resp:  9482

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 46 | 36.4 | 29.9 | 44.9 |
| 43 | 24.2 | 22.7 | 34.1 |

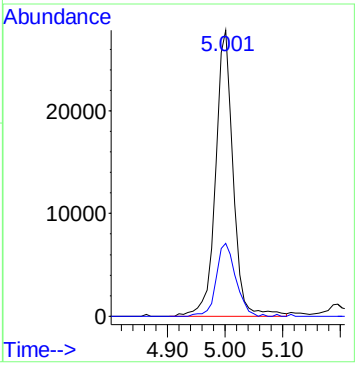


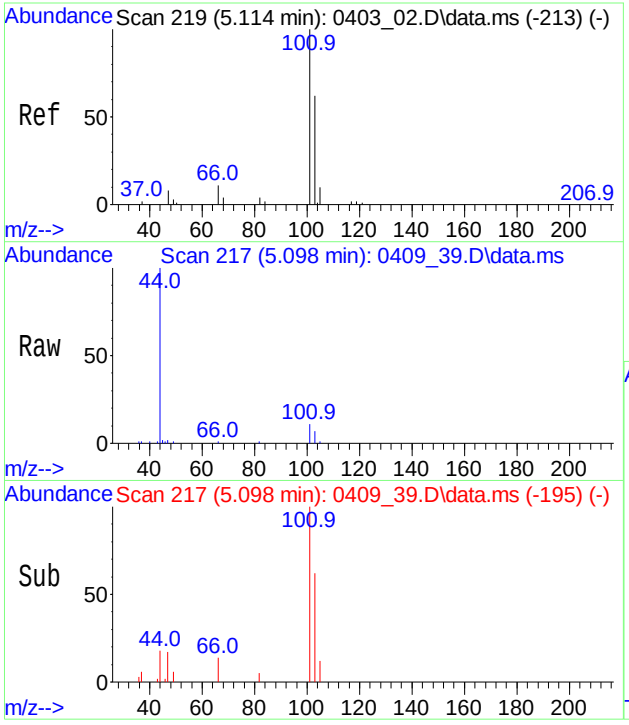



#12
Acetone
Conc: 8$ 2.542 ppbv
RT: 5.001 min Scan# 205
Delta R.T. -0.024 min
Lab File: 0409_39.D
Acq: 10 Apr 2019 06:28 am

Tgt Ion: 43 Resp: 58999

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 28.4 | 25.9 | 38.9 |

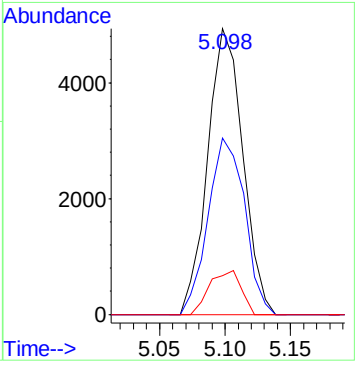


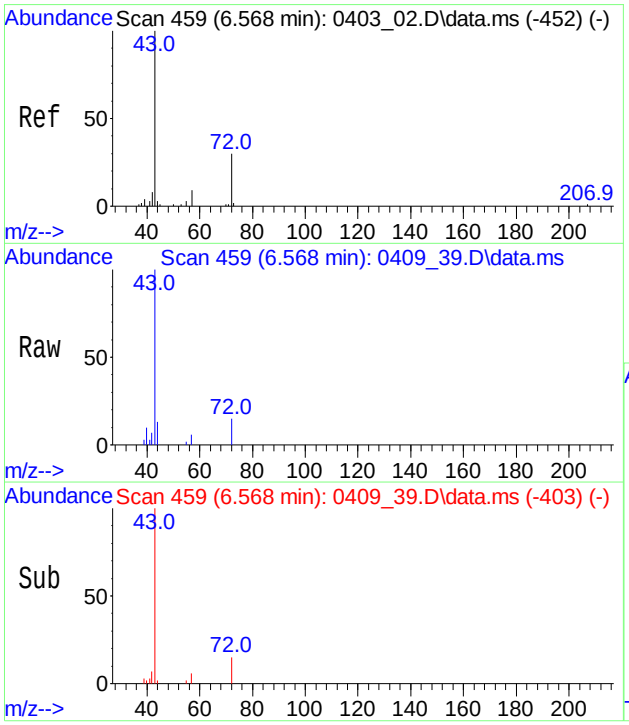




#13
Trichlorofluoromethane
Conc: 8$ 0.266 ppbv
RT: 5.098 min Scan# 217
Delta R.T. -0.024 min
Lab File: 0409_39.D
Acq: 10 Apr 2019 06:28 am

Tgt Ion:101 Resp: 9245

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 64.1 | 51.6 | 77.4 |
| 66 | 13.8 | 9.4 | 14.0 |

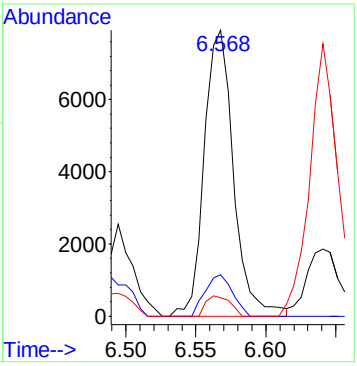


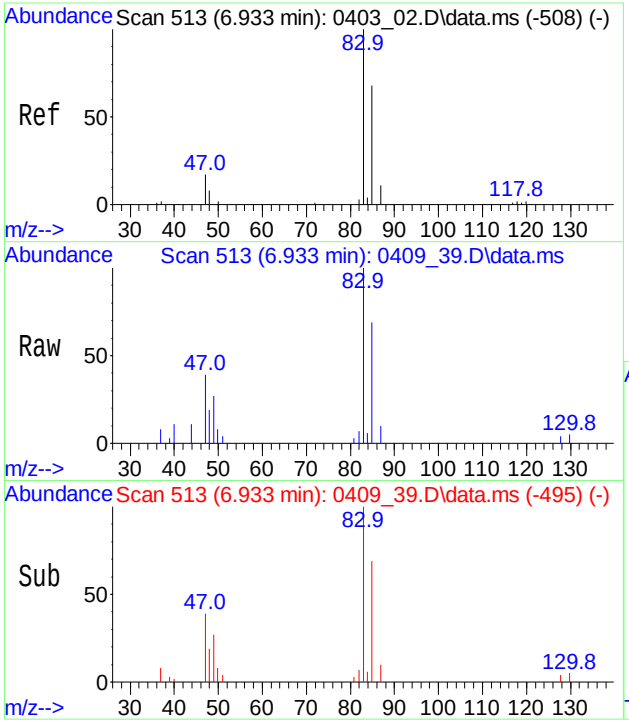



#25
Methyl Ethyl Ketone
Conc: 8$ 0.395 ppbv
RT: 6.568 min Scan# 459
Delta R.T. -0.005 min
Lab File: 0409_39.D
Acq: 10 Apr 2019 06:28 am

Tgt Ion: 43 Resp: 11529

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 72 | 13.4 | 24.6 | 37.0# |
| 57 | 5.8 | 7.4 | 11.2# |

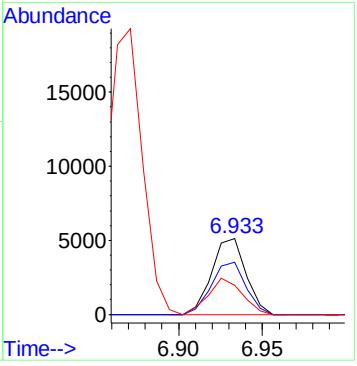


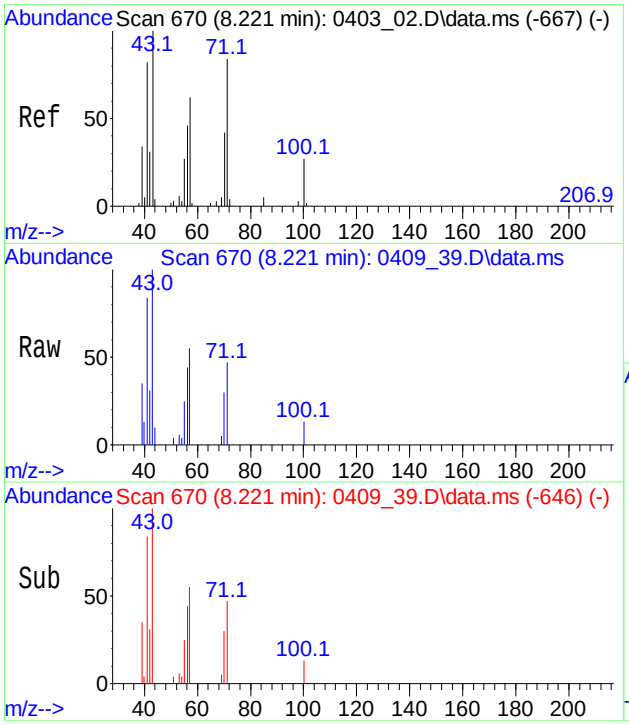




#28
Chloroform
Conc: 8$ 0.302 ppbv
RT: 6.933 min Scan# 513
Delta R.T. -0.008 min
Lab File: 0409_39.D
Acq: 10 Apr 2019 06:28 am

Tgt Ion: 83 Resp: 7288

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 68.8 | 45.9 | 85.9 |
| 47 | 47.5 | 0.8 | 40.8# |

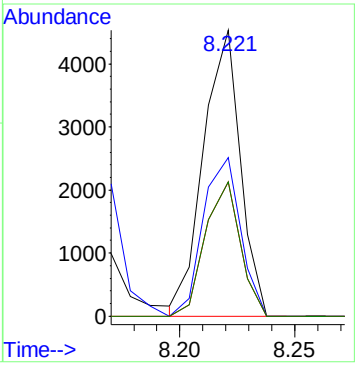


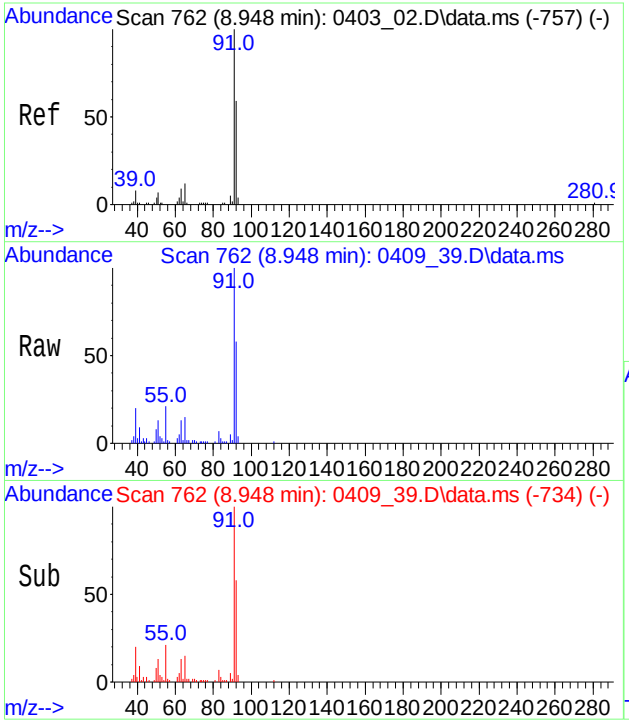



#43
Heptane
Conc: 8$ 0.288 ppbv
RT: 8.221 min Scan# 670
Delta R.T. 0.000 min
Lab File: 0409_39.D
Acq: 10 Apr 2019 06:28 am

Tgt Ion: 43 Resp: 5060

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 57 | 56.1 | 49.7 | 74.5 |
| 71 | 44.5 | 62.2 | 93.2# |
| 71 | 44.5 | 62.2 | 93.2# |

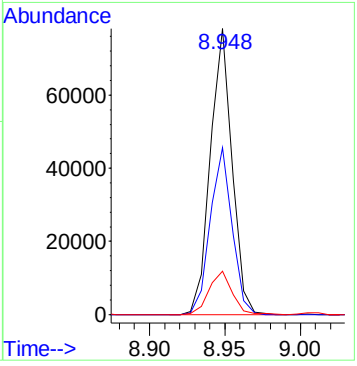


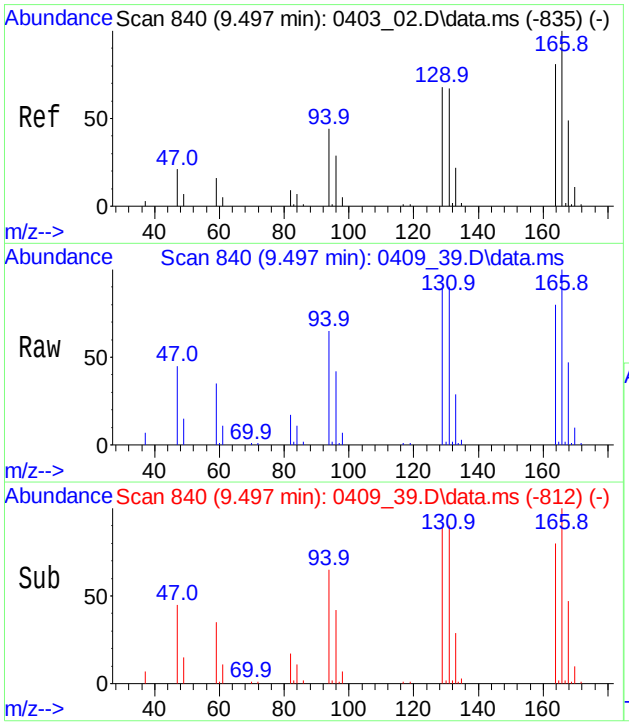




#48
Toluene
Conc: 8$ 2.748 ppbv
RT: 8.948 min Scan# 762
Delta R.T. 0.000 min
Lab File: 0409_39.D
Acq: 10 Apr 2019 06:28 am

Tgt Ion: 91 Resp: 78411

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 58.6 | 47.7 | 71.5 |
| 65 | 16.2 | 9.3 | 13.9# |

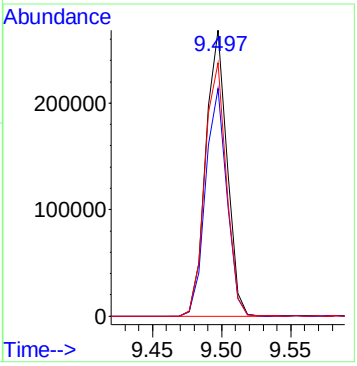


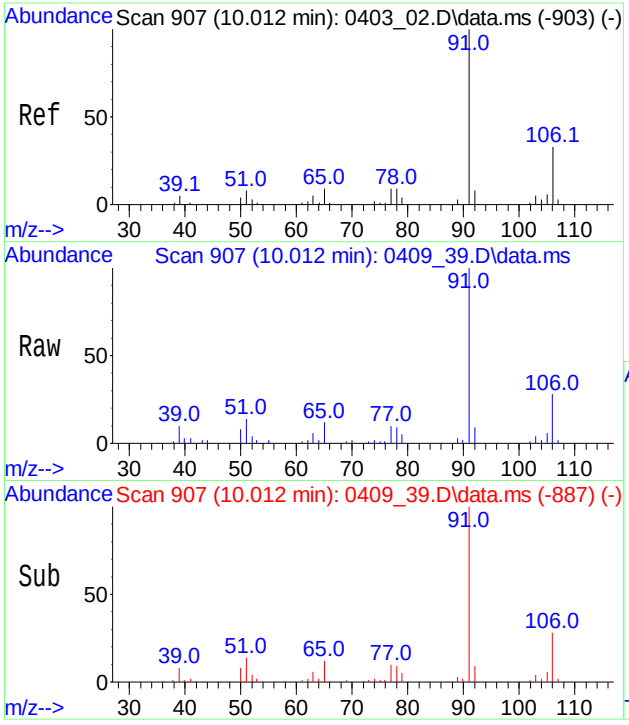



#52
Tetrachloroethene
Conc: 8$ 20.647 ppbv
RT: 9.497 min Scan# 840
Delta R.T. 0.000 min
Lab File: 0409_39.D
Acq: 10 Apr 2019 06:28 am

Tgt Ion:166 Resp: 285264

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 79.7 | 62.2 | 93.2 |
| 129 | 89.7 | 54.9 | 82.3# |

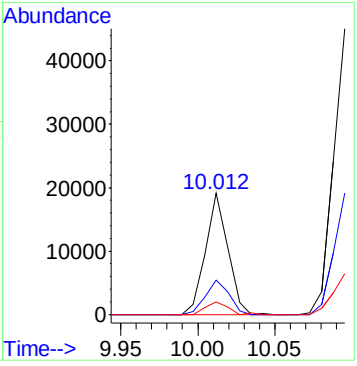


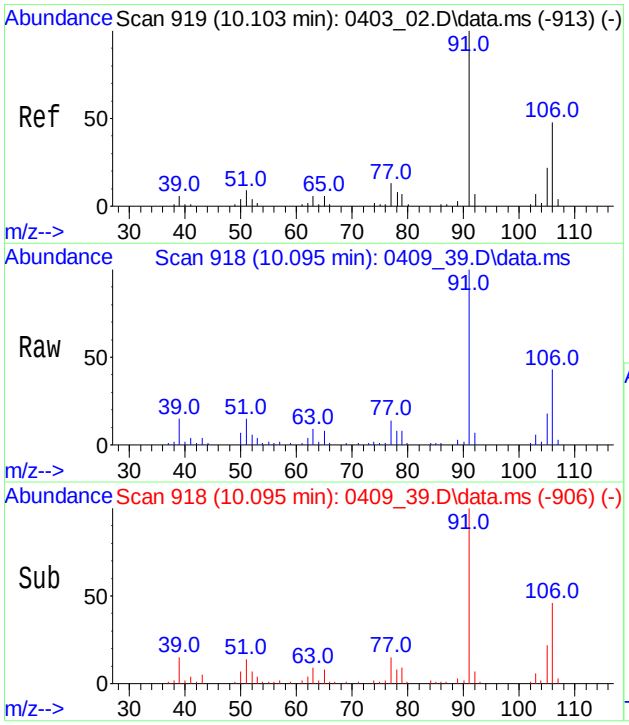




#56
Ethylbenzene
Conc: 8$ 0.451 ppbv
RT: 10.012 min Scan# 907
Delta R.T. 0.000 min
Lab File: 0409_39.D
Acq: 10 Apr 2019 06:28 am

Tgt Ion: 91 Resp: 19447

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 29.7 | 12.6 | 52.6 |
| 77 | 10.5 | 0.0 | 29.1 |

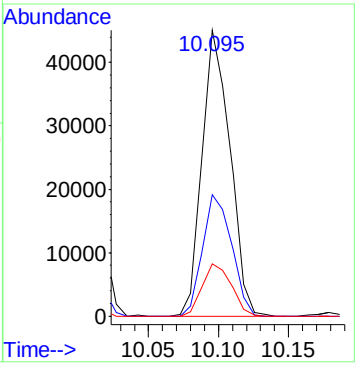


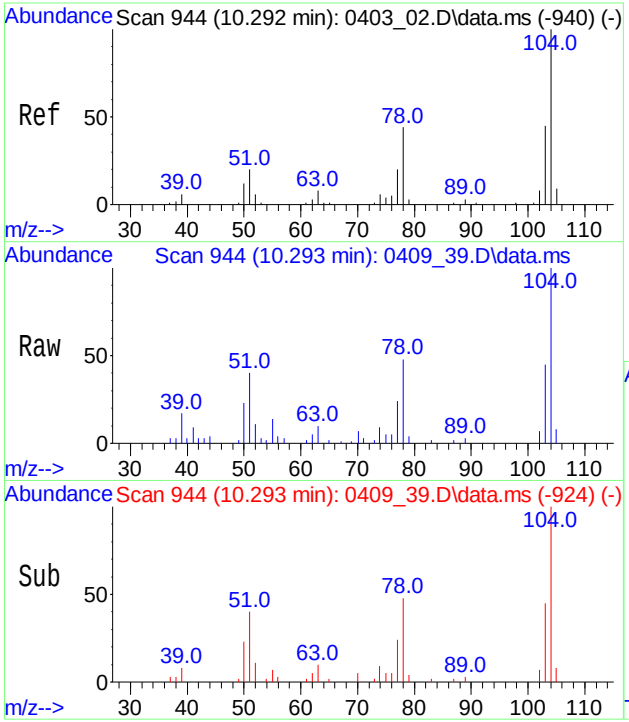



#57
m,p-Xylene
Conc: 8$  1.902 ppbv
RT:  10.095 min  Scan# 918
Delta R.T.  -0.007 min
Lab File:  0409_39.D
Acq: 10 Apr 2019  06:28 am

Tgt Ion: 91 Resp:  62552

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 44.3 | 40.9 | 61.3 |
| 105 | 19.1 | 17.8 | 26.8 |

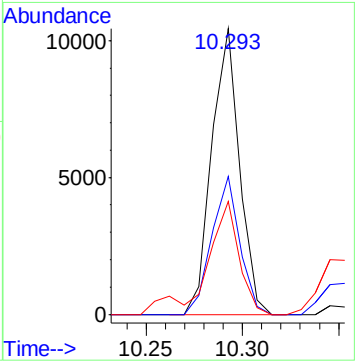


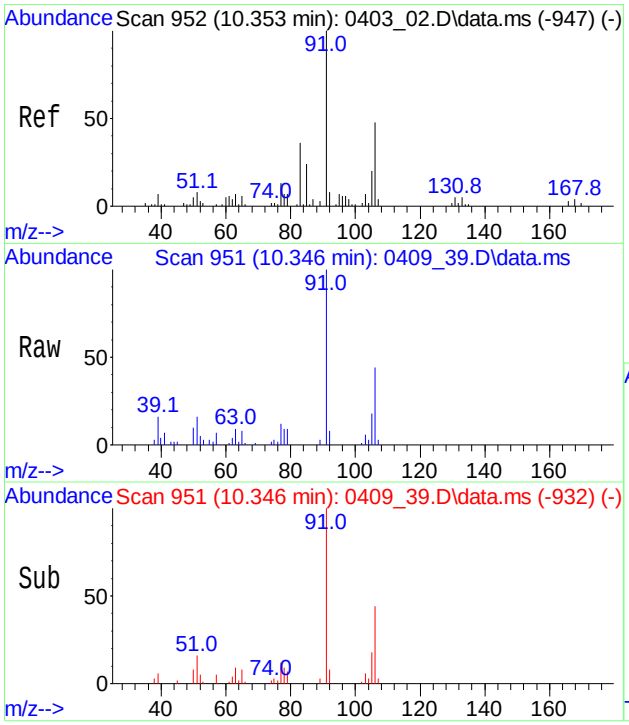




#59
Styrene
Conc: 8$  0.441 ppbv
RT:  10.293 min  Scan# 944
Delta R.T.  0.001 min
Lab File:  0409_39.D
Acq: 10 Apr 2019  06:28 am

Tgt Ion:104 Resp:  10533

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 104 | 100 | | |
| 78 | 48.8 | 35.9 | 53.9 |
| 51 | 46.5 | 15.8 | 23.8# |

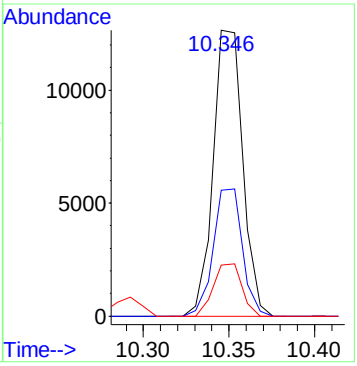


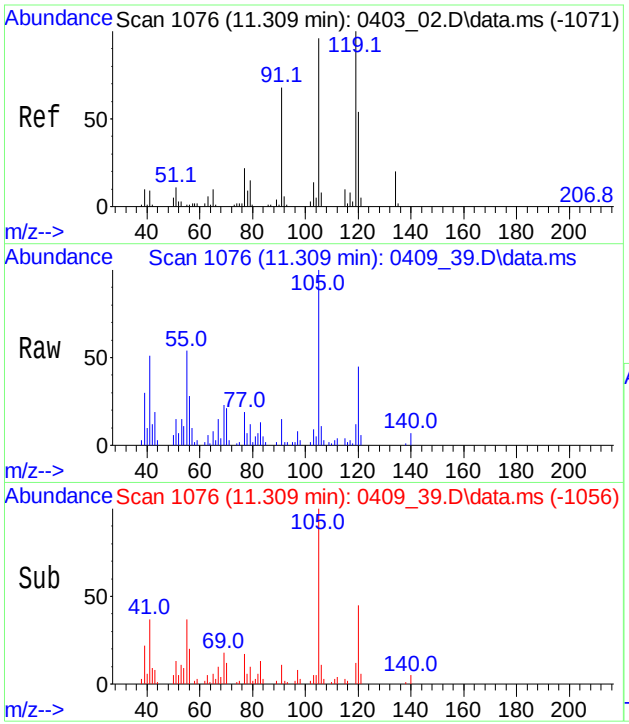



#61
o-Xylene
Conc: 8$ 0.440 ppbv
RT: 10.346 min Scan# 951
Delta R.T. -0.007 min
Lab File: 0409_39.D
Acq: 10 Apr 2019 06:28 am

Tgt Ion: 91 Resp: 15145

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 43.8 | 38.3 | 57.5 |
| 105 | 17.6 | 15.2 | 22.8 |

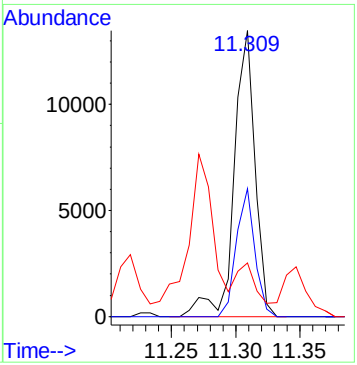


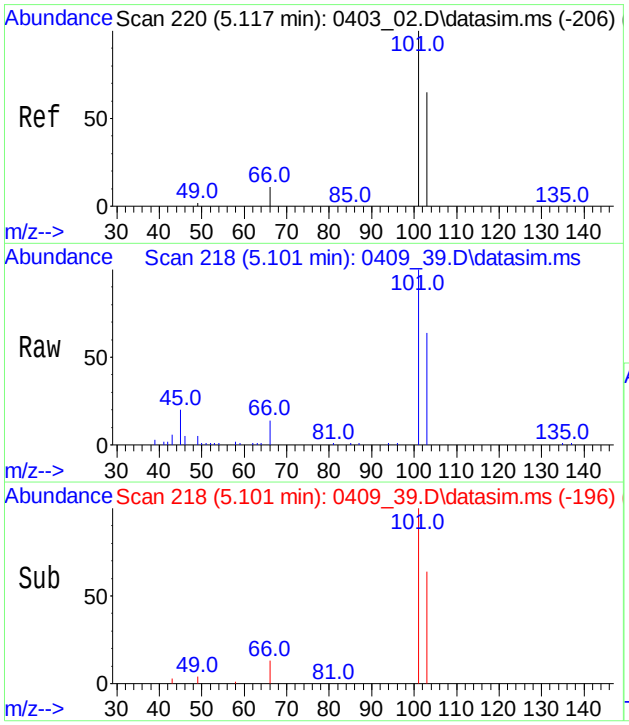




#68
1,2,4-Trimethylbenzene
Conc: 8$ 0.403 ppbv
RT: 11.309 min Scan# 1076
Delta R.T. 0.000 min
Lab File: 0409_39.D
Acq: 10 Apr 2019 06:28 am

Tgt Ion:105 Resp: 15492

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 39.4 | 44.5 | 66.7# |
| 77 | 14.8 | 19.7 | 29.5# |

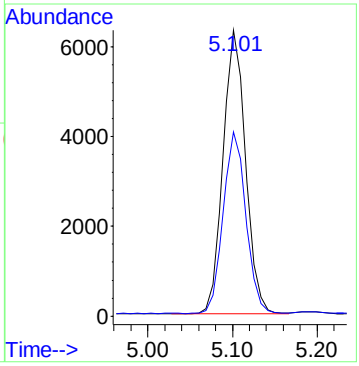


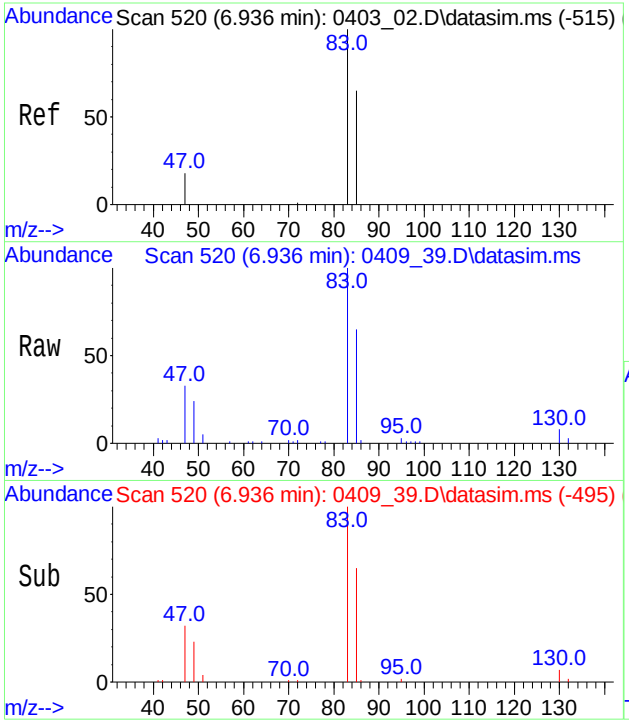



#84
Trichlorofluoromethane(sim)
Conc: 8$ 0.241 ppbv
RT: 5.101 min Scan# 218
Delta R.T. -0.024 min
Lab File: 0409_39.D
Acq: 10 Apr 2019 06:28 am

Tgt Ion:101 Resp: 11649

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 64.4 | 51.9 | 77.9 |

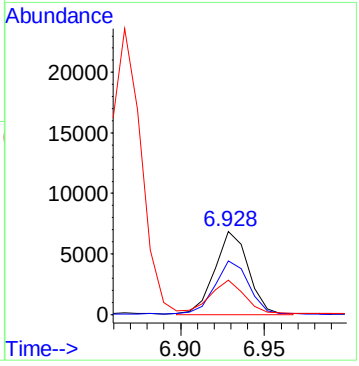


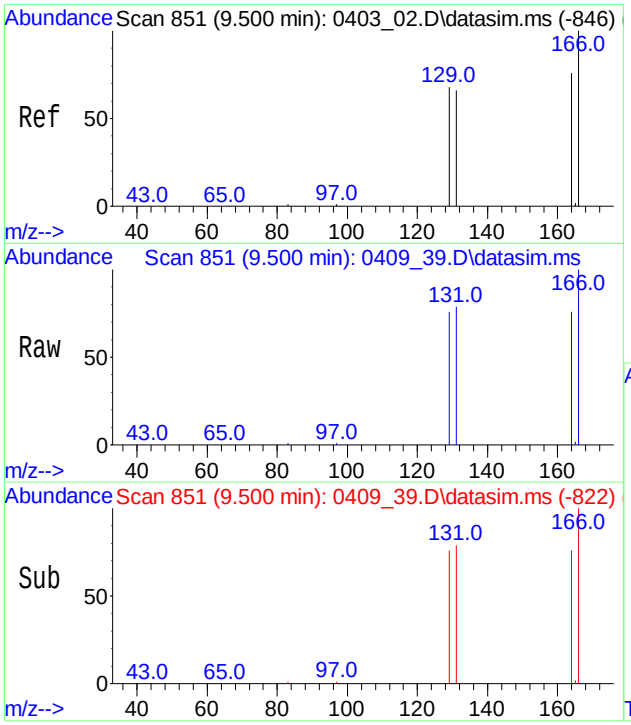




#93
Chloroform(sim)
Conc: 8$ 0.266 ppbv
RT: 6.933 min Scan# 520
Delta R.T. -0.008 min
Lab File: 0409_39.D
Acq: 10 Apr 2019 06:28 am

Tgt Ion: 83 Resp: 7288

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 68.8 | 52.7 | 79.1 |
| 47 | 47.5 | 16.6 | 25.0# |

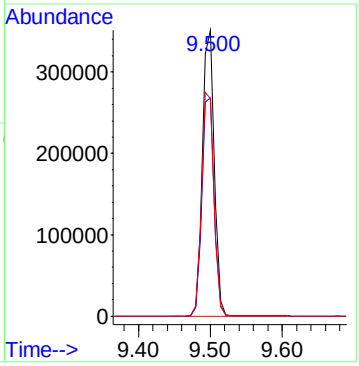


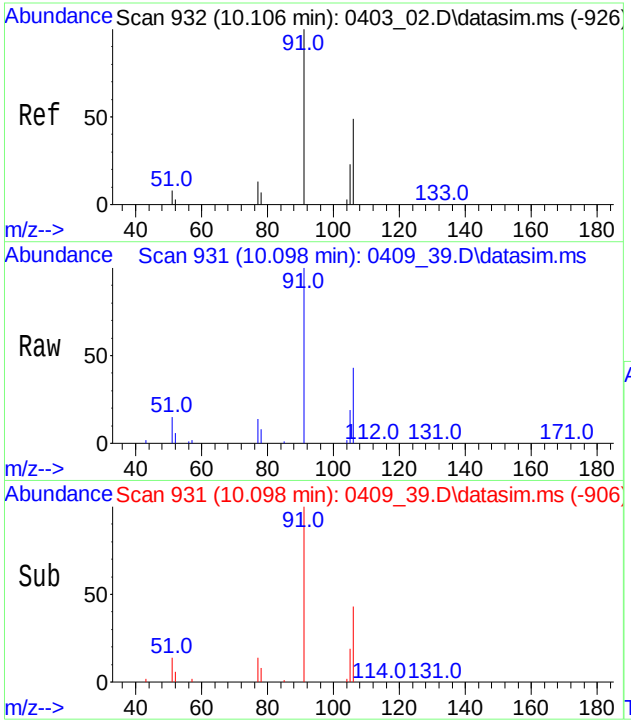



#103
Tetrachloroethene(sim)
Conc: 8$ 25.265 ppbv
RT: 9.500 min Scan# 851
Delta R.T. 0.003 min
Lab File: 0409_39.D
Acq: 10 Apr 2019 06:28 am

Tgt Ion:166 Resp: 400882

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 0.0 | 57.7 | 97.7# |
| 129 | 0.0 | 48.6 | 88.6# |

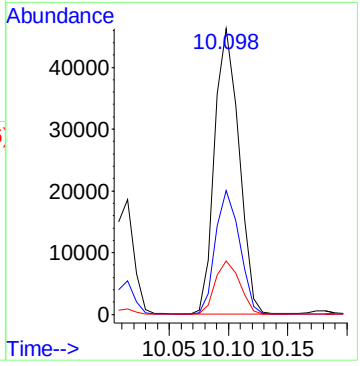



#106
m,p-Xylene(sim)
Conc: 8$ 1.872 ppbv
RT: 10.098 min Scan# 931
Delta R.T. -0.007 min
Lab File: 0409_39.D
Acq: 10 Apr 2019 06:28 am

Tgt Ion: 91 Resp: 65235

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 43.2 | 44.3 | 54.1# |
| 105 | 18.8 | 17.7 | 26.5 |



1

CLIENT ID

AIR ANALYSIS DATA SHEET

SS-4 5X

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90511 5X

Canister: 230 Lab File ID: 0409_33.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/10/19

Matrix: AIR Dilution Factor: 5

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 115-07-1 | Propylene | 2.91 | U | 2.91 | 2.91 | r |
| 75-71-8 | Dichlorodifluoromethane | 1.01 | U | 1.01 | 1.01 | r |
| 74-87-3 | Chloromethane | 2.42 | U | 2.42 | 2.42 | r |
| 106-99-0 | 1,3-Butadiene | 2.26 | U | 2.26 | 2.26 | r |
| 75-00-3 | Chloroethane | 1.90 | U | 1.90 | 1.90 | r |
| 64-17-5 | Ethanol | 2.66 | U | 2.66 | 2.66 | r |
| 67-64-1 | Acetone | 2.39 | S | 2.11 | 2.11 | r |
| 67-63-0 | Isopropylalcohol | 2.04 | U | 2.04 | 2.04 | r |
| 107-13-1 | Acrylonitrile | 2.31 | U | 2.31 | 2.31 | r |
| 75-09-2 | Methylene Chloride | 4.32 | U | 4.32 | 4.32 | r |
| 75-15-0 | Carbon Disulfide | 1.61 | U | 1.61 | 1.61 | r |
| 156-60-5 | Trans-1,2-Dichloroethene | 20.2 | | 1.26 | 1.26 | r |
| 1634-04-4 | Methyl tert-butyl ether(MTBE) | 1.39 | U | 1.39 | 1.39 | r |
| 78-93-3 | Methyl Ethyl Ketone | 1.70 | U | 1.70 | 1.70 | r |
| 156-59-2 | Cis-1,2-Dichloroethene | 539 | E | 0.252 | 0.252 | |
| 110-54-3 | Hexane | 1.42 | U | 1.42 | 1.42 | r |
| 67-66-3 | Chloroform | 2.11 | | 1.02 | 1.02 | r |
| 141-78-6 | Ethyl acetate | 1.39 | U | 1.39 | 1.39 | r |
| 109-99-9 | Tetrahydrofuran | 1.70 | U | 1.70 | 1.70 | r |
| 71-43-2 | Benzene | 1.57 | U | 1.57 | 1.57 | r |
| 110-82-7 | Cyclohexane | 1.45 | U | 1.45 | 1.45 | r |
| 79-01-6 | Trichloroethene | 302 | E | 0.186 | 0.186 | |
| 142-82-5 | Heptane | 1.22 | U | 1.22 | 1.22 | r |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | 1.22 | U | 1.22 | 1.22 | r |
| 10061-02-6 | trans-1,3-Dichloropropene | 1.10 | U | 1.10 | 1.10 | r |
| 108-88-3 | Toluene | 2.76 | | 1.33 | 1.33 | r |
| 591-78-6 | 2-Hexanone(MBK) | 1.22 | U | 1.22 | 1.22 | r |
| 127-18-4 | Tetrachloroethene | 1800 | E | 0.184 | 0.184 | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.729 | U | 0.729 | 0.729 | r |
| 108-90-7 | Chlorobenzene | 1.09 | U | 1.09 | 1.09 | r |
| 100-41-4 | Ethylbenzene | 1.15 | U | 1.15 | 1.15 | r |
| 100-42-5 | Styrene | 1.17 | U | 1.17 | 1.17 | r |
| 95-47-6 | o-Xylene | 1.15 | U | 1.15 | 1.15 | r |
| 98-82-8 | Isopropylbenzene | 1.02 | U | 1.02 | 1.02 | r |
| 622-96-8 | 4-Ethyltoluene | 1.02 | U | 1.02 | 1.02 | r |
| 108-67-8 | 1,3,5-Trimethylbenzene | 1.02 | U | 1.02 | 1.02 | r |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

1

AIR ANALYSIS DATA SHEET

CLIENT ID: SS-4 5X

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90511 5X

Canister: 230 Lab File ID: 0409_33.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/10/19

Matrix: AIR Dilution Factor: 5

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | 1.02 | U | 1.02 | 1.02 | r |
| 76-14-2 | 1,2-Dichlorotetrafluoroethane(sim) | 0.716 | U | 0.716 | 0.716 | r |
| 75-01-4 | Vinyl Chloride(sim) | 0.490 | | 0.391 | 0.391 | r |
| 74-83-9 | Bromomethane(sim) | 1.29 | U | 1.29 | 1.29 | r |
| 75-69-4 | Trichlorofluoromethane(sim) | 0.891 | U | 0.891 | 0.891 | r |
| 107-06-2 | 1,2-Dichloroethane(sim) | 1.24 | U | 1.24 | 1.24 | r |
| 71-55-6 | 1,1,1-Trichloroethane(sim) | 0.917 | U | 0.917 | 0.917 | r |
| 56-23-5 | Carbon Tetrachloride(sim) | 0.159 | U | 0.159 | 0.159 | r |
| 75-35-4 | 1,1-Dichloroethene(sim) | 0.252 | U | 0.252 | 0.252 | r |
| 76-13-1 | Trichlorotrifluoroethane(sim) | 0.653 | U | 0.653 | 0.653 | r |
| 75-34-3 | 1,1-Dichloroethane(sim) | 1.24 | U | 1.24 | 1.24 | r |
| 78-87-5 | 1,2-dichloropropane(sim) | 1.08 | U | 1.08 | 1.08 | r |
| 75-27-4 | Bromodichloromethane(sim) | 0.747 | U | 0.747 | 0.747 | r |
| 123-91-1 | 1,4-Dioxane(sim) | 1.39 | U | 1.39 | 1.39 | r |
| 10061-01-5 | cis-1,3-Dichloropropene(sim) | 1.10 | U | 1.10 | 1.10 | r |
| 79-00-5 | 1,1,2-Trichloroethane(sim) | 0.917 | U | 0.917 | 0.917 | r |
| 124-48-1 | Dibromochloromethane(sim) | 0.587 | U | 0.587 | 0.587 | r |
| 106-93-4 | 1,2-Dibromoethane(EDB)(sim) | 0.651 | U | 0.651 | 0.651 | r |
| 75-25-2 | Bromoform(sim) | 0.484 | U | 0.484 | 0.484 | r |
| 179601-23-1 | m,p-Xylene(sim) | 1.75 | | 1.15 | 1.15 | r |
| 79-34-5 | 1,1,2,2-Tetrachloroethane(sim) | 0.729 | U | 0.729 | 0.729 | r |
| 100-44-7 | Benzyl chloride(sim) | 0.966 | U | 0.966 | 0.966 | r |
| 541-73-1 | 1,3-Dichlorobenzene(sim) | 0.832 | U | 0.832 | 0.832 | r |
| 106-46-7 | 1,4-Dichlorobenzene(sim) | 0.832 | U | 0.832 | 0.832 | r |
| 135-98-8 | sec-Butylbenzene(sim) | 0.911 | U | 0.911 | 0.911 | r |
| 99-87-6 | 4-Isopropyltoluene(sim) | 0.911 | U | 0.911 | 0.911 | r |
| 95-50-1 | 1,2-Dichlorobenzene(sim) | 0.832 | U | 0.832 | 0.832 | r |
| 104-51-8 | n-Butylbenzene(sim) | 0.911 | U | 0.911 | 0.911 | r |
| 120-82-1 | 1,2,4-Trichlorobenzene(sim) | 0.674 | U | 0.674 | 0.674 | r |
| 87-68-3 | Hexachlorobutadiene(sim) | 0.469 | U | 0.469 | 0.469 | r |
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FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_33.D
Acq On : 10 Apr 2019 02:40 am
Operator : CORTEX\ms
Client ID : SS-4 5X
Lab ID : CC90511 5X
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 09:40:05 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration

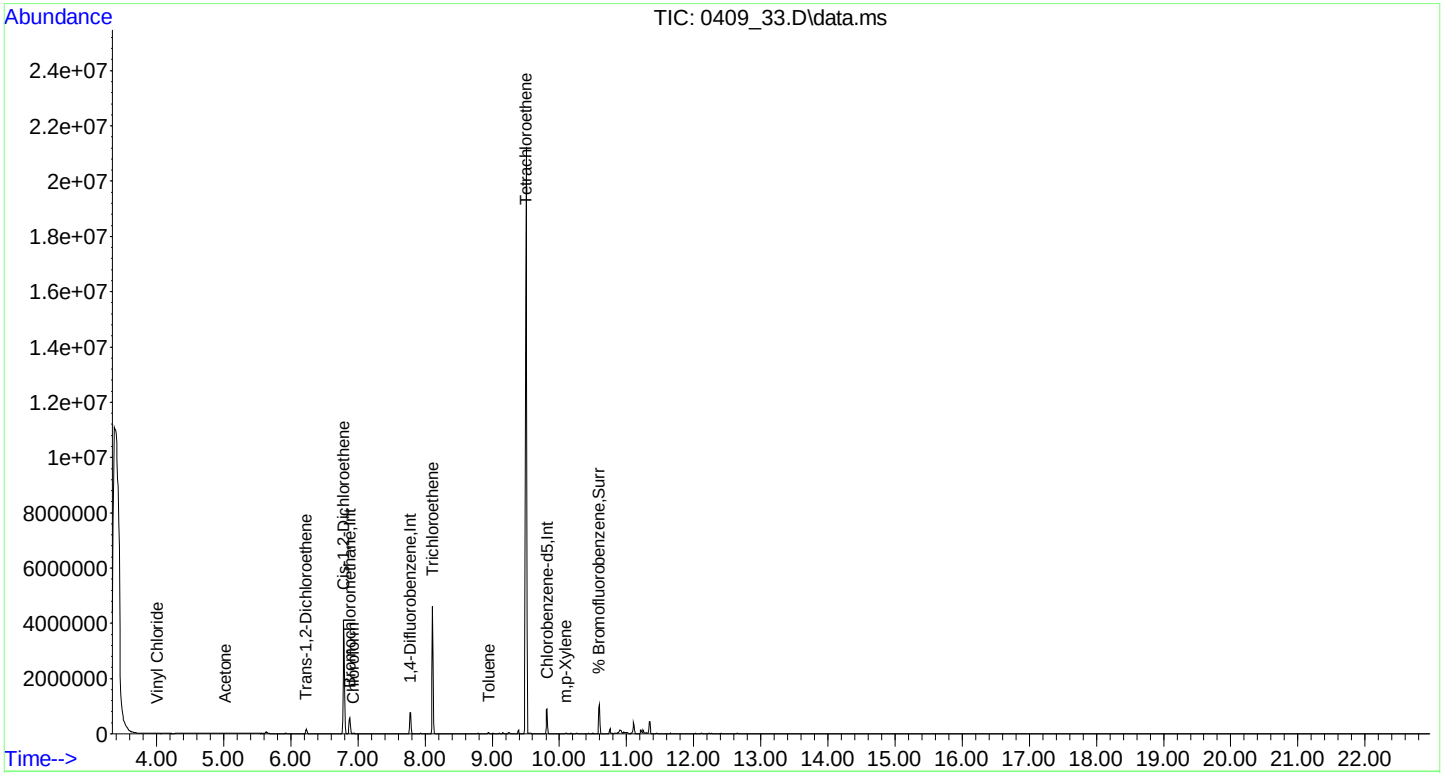
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.879 | 130 | 108129 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.781 | 114 | 363783 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.815 | 82 | 176076 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.882 | 130 | 148494 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 416872 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 179264 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 244296 | 10.583 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 105.80% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 6) Vinyl Chloride | 4.011 | 62 | 1007 | 0.090 | ppbv | | 71 |
| 12) Acetone | 5.025 | 43 | 11554 | 0.478 | ppbv | # | 88 |
| 22) Trans-1,2-Dichloroethene | 6.229 | 61 | 74832 | 4.047 | ppbv | # | 78 |
| 26) Cis-1,2-Dichloroethene | 6.786 | 61 | 1914779 | 107.836 | ppbv | # | 67 |
| 28) Chloroform | 6.933 | 83 | 10583 | 0.421 | ppbv | # | 85 |
| 39) Trichloroethene | 8.111 | 130 | 824338 | 60.356 | ppbv | | 94 |
| 48) Toluene | 8.949 | 91 | 16452 | 0.552 | ppbv | # | 94 |
| 52) Tetrachloroethene | 9.505 | 166 | 5203462 | 360.211 | ppbv | | 98 |
| 57) m,p-Xylene | 10.095 | 91 | 11172 | 0.351 | ppbv | | 92 |
| 82] Vinyl Chloride(sim) | 4.014 | 62 | 1403 | 0.098 | ppbv | | 96 |
| 90] Trans-1,2-Dichloroethe... | 6.232 | 61 | 87551 | 3.681 | ppbv | # | 77 |
| 92] Cis-1,2-Dichloroethene... | 6.789 | 61 | 2145859 | 95.702 | ppbv | # | 71 |
| 93] Chloroform(sim) | 6.933 | 83 | 10583 | 0.376 | ppbv | # | 85 |
| 97] Trichloroethene(sim) | 8.111 | 130 | 824538 | 54.901 | ppbv | | 95 |
| 103] Tetrachloroethene(sim) | 9.505 | 166 | 5203462 | 317.782 | ppbv | | 98 |
| 106] m,p-Xylene(sim) | 10.098 | 91 | 11570 | 0.349 | ppbv | # | 93 |

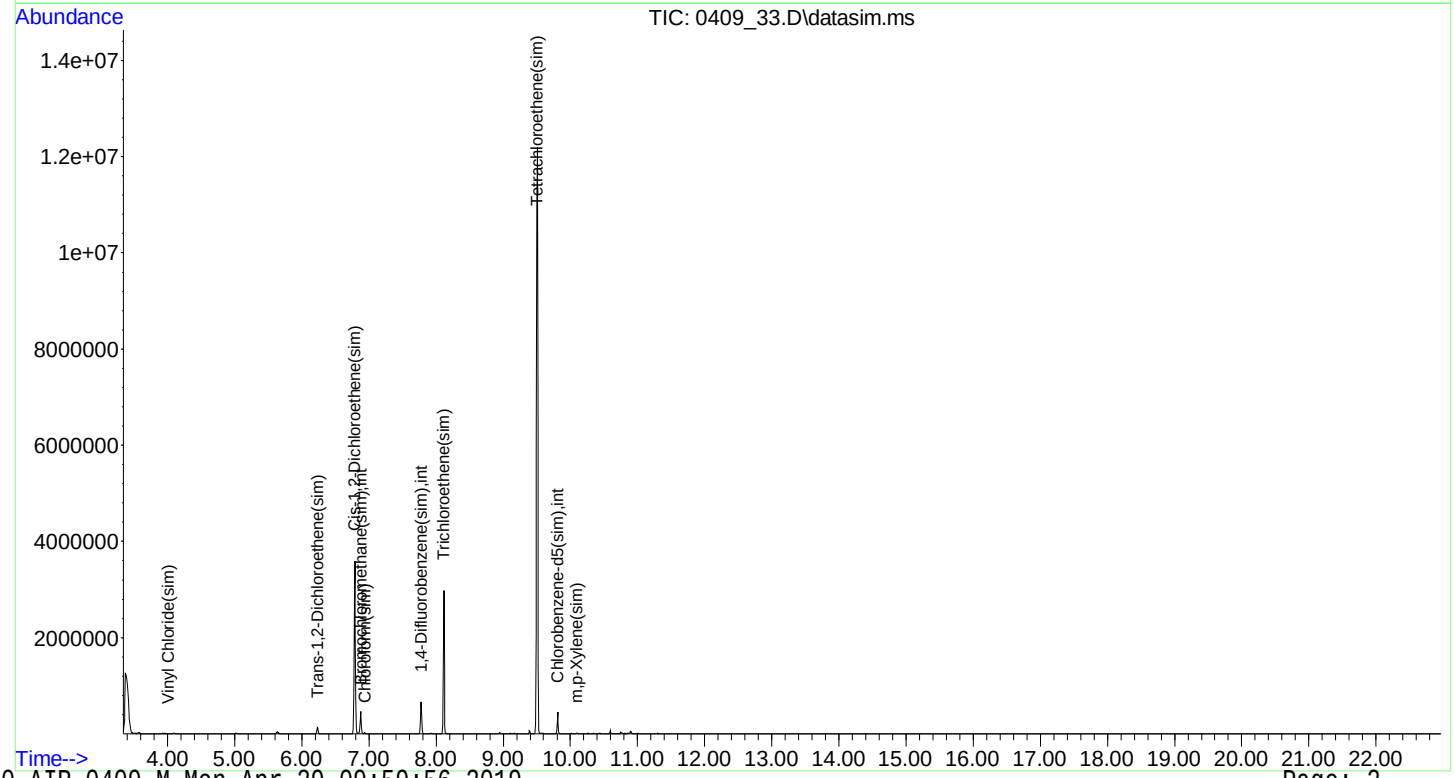
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

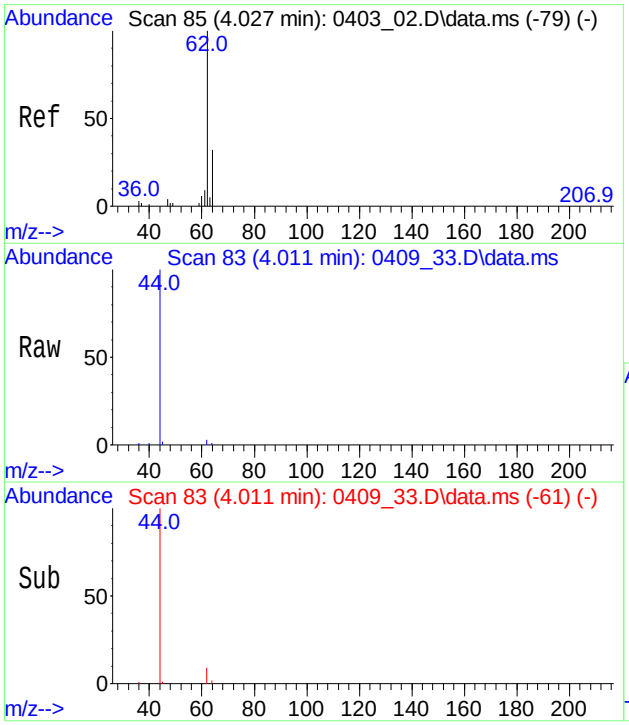
Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_33.D
Acq On : 10 Apr 2019 02:40 am
Operator : CORTEX\ms
Client ID : SS-4 5X
Lab ID : CC90511 5X
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 09:40:05 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration



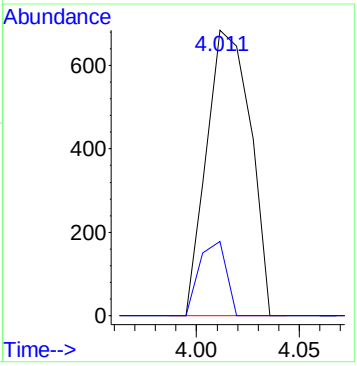



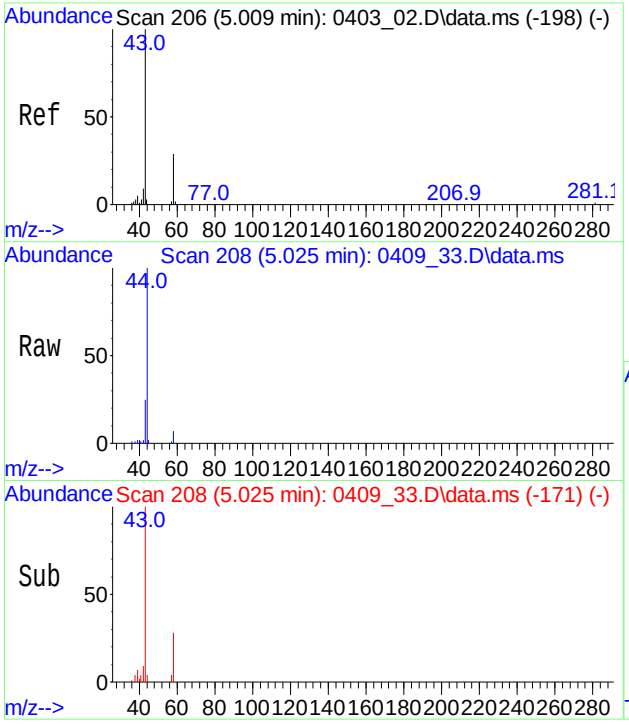



#6
Vinyl Chloride
Conc: 8$  Below Cal
RT:  4.011 min  Scan# 83
Delta R.T.  -0.024 min
Lab File:  0409_33.D
Acq: 10 Apr 2019  02:40 am

Tgt Ion: 62 Resp:  1007

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 16.0 | 12.3 | 52.3 |

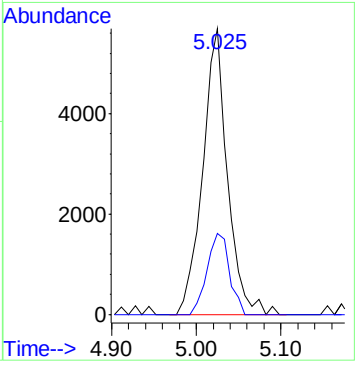


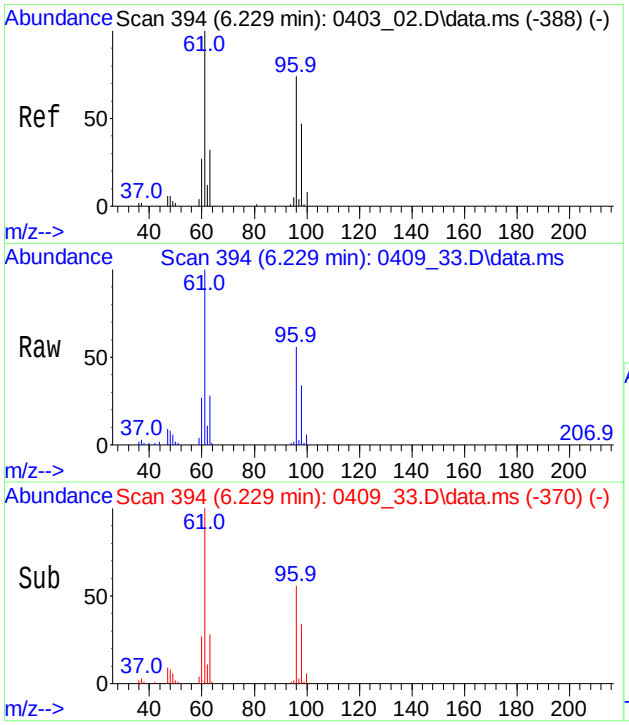




#12
Acetone
Conc: 8$  0.478 ppbv
RT:  5.025 min  Scan# 208
Delta R.T.  0.000 min
Lab File:  0409_33.D
Acq: 10 Apr 2019  02:40 am

Tgt Ion: 43 Resp:  11554

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 25.6 | 25.9 | 38.9# |

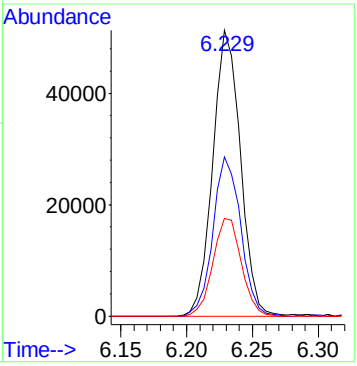


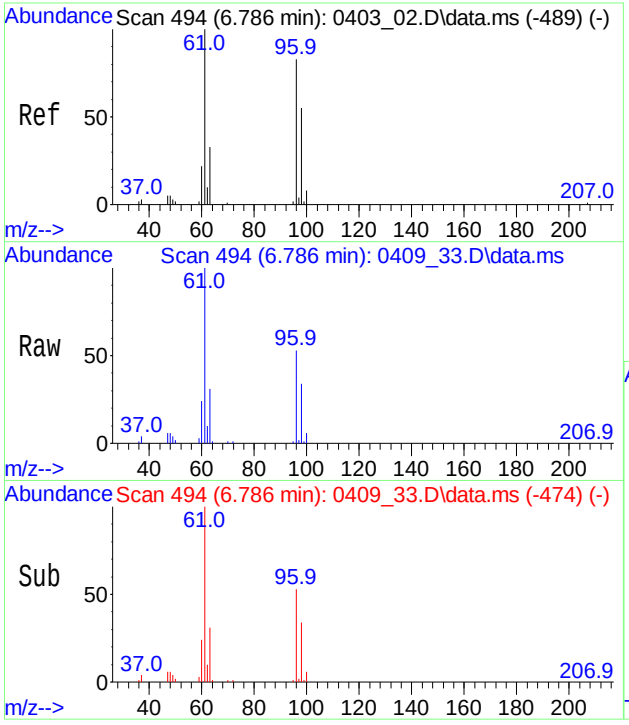



#22
Trans-1,2-Dichloroethene
Conc: 8$  4.047 ppbv
RT:  6.229 min  Scan# 394
Delta R.T.  -0.010 min
Lab File:  0409_33.D
Acq: 10 Apr 2019  02:40 am

Tgt Ion: 61 Resp:  74832

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 55.8 | 60.6 | 90.8# |
| 98 | 35.0 | 38.9 | 58.3# |

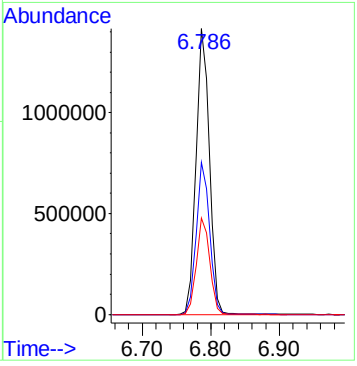


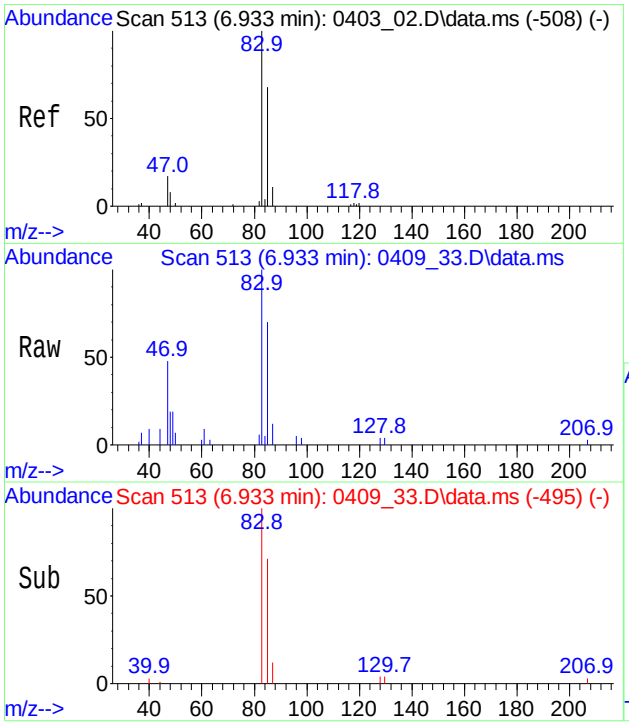




#26
Cis-1,2-Dichloroethene
Conc: 8$  107.836 ppbv
RT:  6.786 min  Scan# 494
Delta R.T.  -0.008 min
Lab File:  0409_33.D
Acq: 10 Apr 2019  02:40 am

Tgt Ion: 61 Resp: 1914779

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 53.1 | 67.8 | 101.8# |
| 98 | 33.6 | 43.8 | 65.6# |

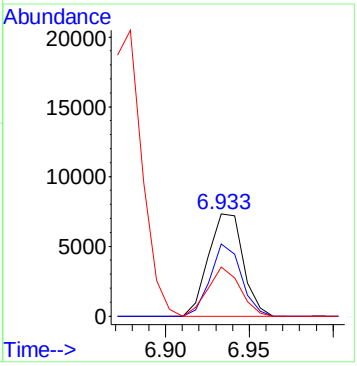


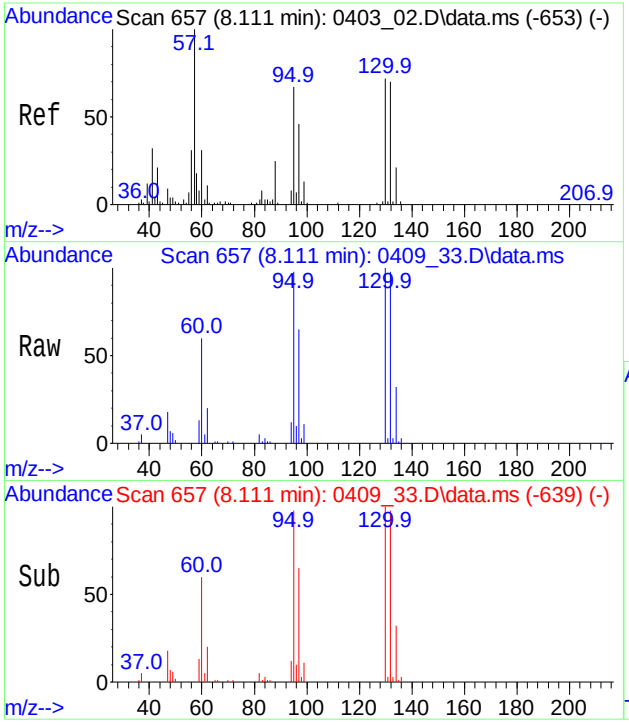



#28
Chloroform
Conc: 8$ 0.421 ppbv
RT: 6.933 min Scan# 513
Delta R.T. -0.008 min
Lab File: 0409_33.D
Acq: 10 Apr 2019 02:40 am

Tgt Ion: 83 Resp: 10583

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 62.7 | 45.9 | 85.9 |
| 47 | 44.5 | 0.8 | 40.8# |

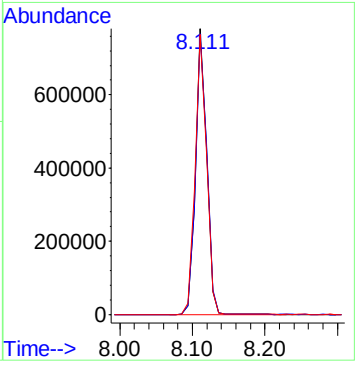


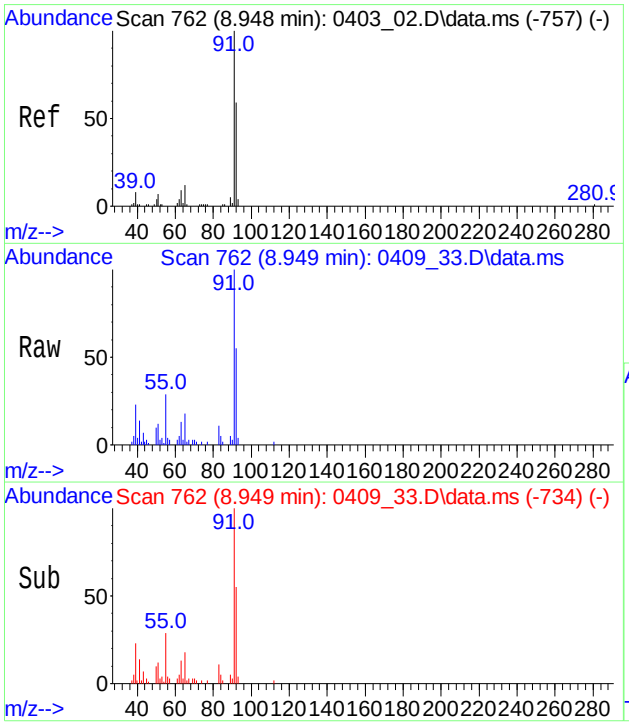




#39
Trichloroethene
Conc: 8$ 60.356 ppbv
RT: 8.111 min Scan# 657
Delta R.T. -0.000 min
Lab File: 0409_33.D
Acq: 10 Apr 2019 02:40 am

Tgt Ion:130 Resp: 824338

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 99.8 | 78.0 | 117.0 |
| 95 | 101.4 | 73.0 | 109.4 |

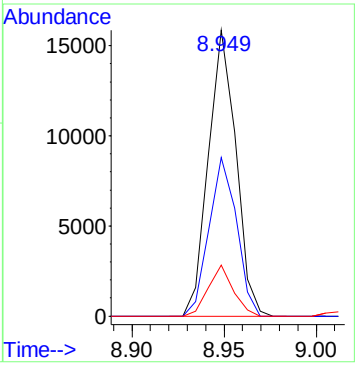


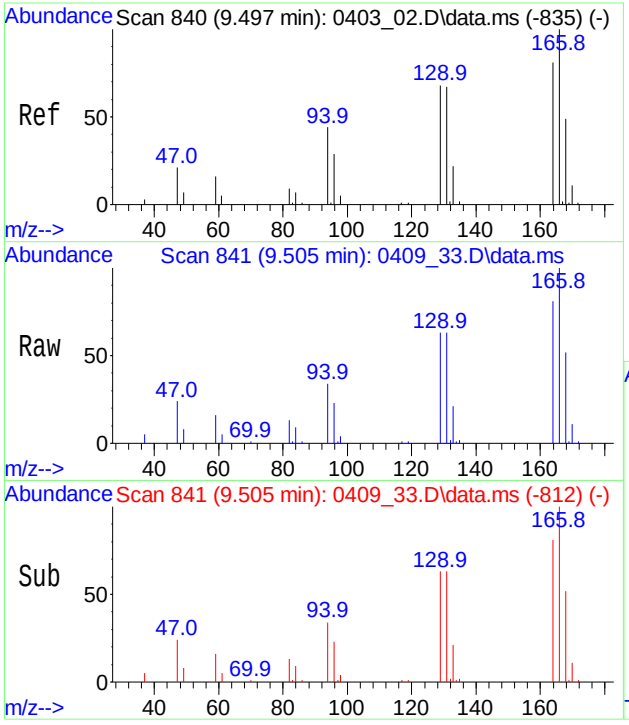



#48
Toluene
Conc: 8$ 0.552 ppbv
RT: 8.949 min Scan# 762
Delta R.T. 0.000 min
Lab File: 0409_33.D
Acq: 10 Apr 2019 02:40 am

Tgt Ion: 91 Resp: 16452

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 55.6 | 47.7 | 71.5 |
| 65 | 16.2 | 9.3 | 13.9# |

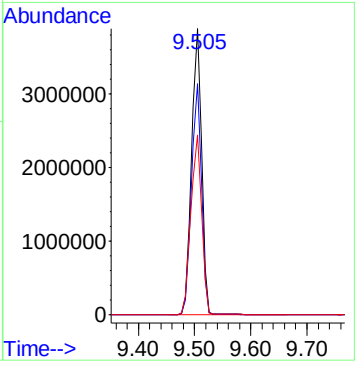


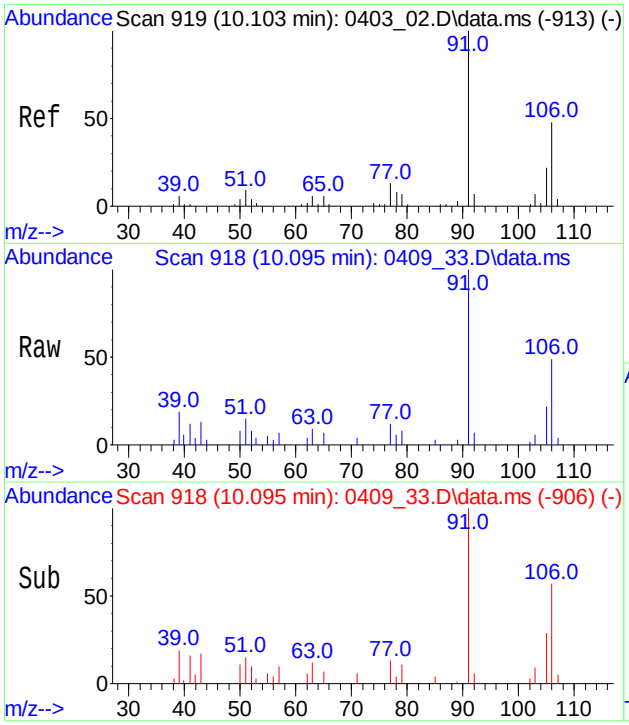




#52
Tetrachloroethene
Conc: 8$ 360.211 ppbv
RT: 9.505 min Scan# 841
Delta R.T. 0.007 min
Lab File: 0409_33.D
Acq: 10 Apr 2019 02:40 am

Tgt Ion:166 Resp: 5203462

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 80.6 | 62.2 | 93.2 |
| 129 | 67.6 | 54.9 | 82.3 |

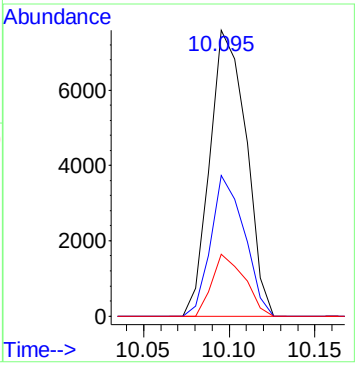


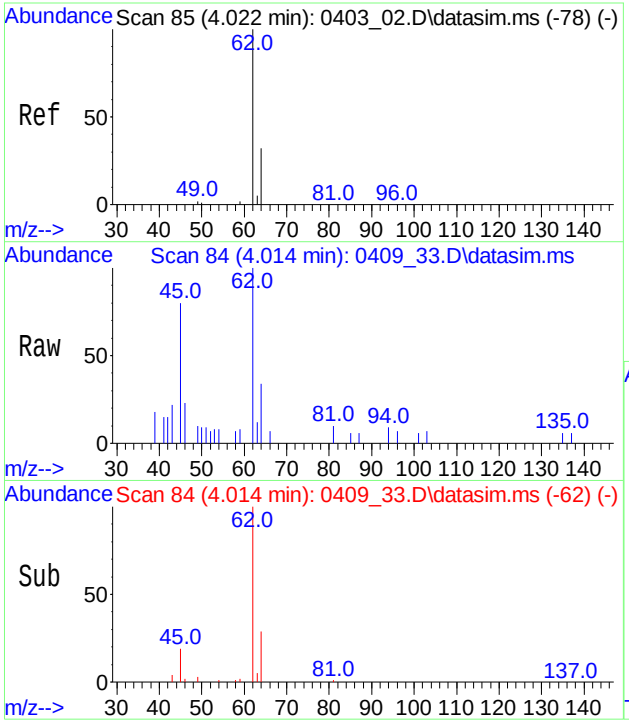



#57
m,p-Xylene
Conc: 8$ 0.351 ppbv
RT: 10.095 min Scan# 918
Delta R.T. -0.007 min
Lab File: 0409_33.D
Acq: 10 Apr 2019 02:40 am

Tgt Ion: 91 Resp: 11172

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 45.5 | 40.9 | 61.3 |
| 105 | 19.2 | 17.8 | 26.8 |

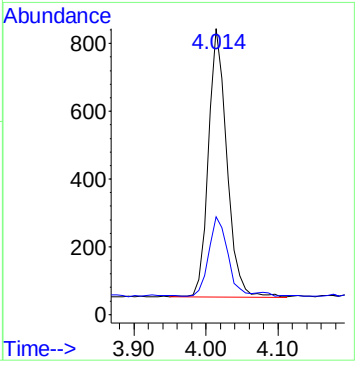


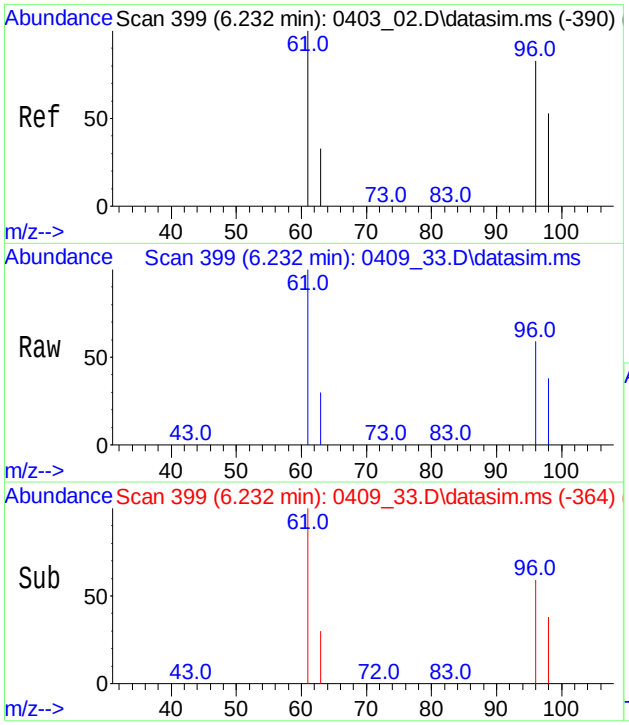




#82
Vinyl Chloride(sim)
Conc: 8$ 0.098 ppbv
RT: 4.014 min Scan# 84
Delta R.T. -0.024 min
Lab File: 0409_33.D
Acq: 10 Apr 2019 02:40 am

Tgt Ion: 62 Resp: 1403

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 30.4 | 26.2 | 39.2 |

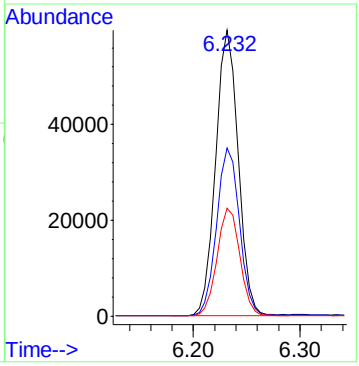


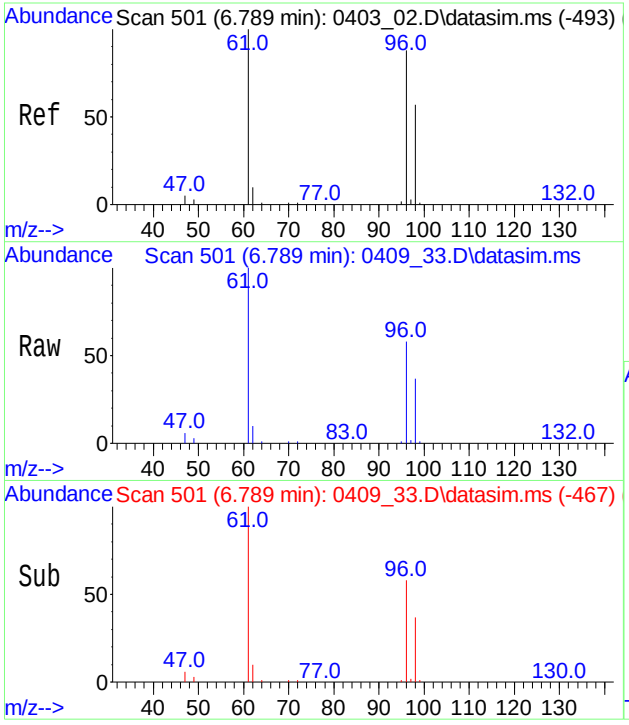



#90
Trans-1,2-Dichloroethene(sim)
Conc: 8$ 3.681 ppbv
RT: 6.232 min Scan# 399
Delta R.T. -0.005 min
Lab File: 0409_33.D
Acq: 10 Apr 2019 02:40 am

Tgt Ion: 61 Resp: 87551

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 59.4 | 64.6 | 97.0# |
| 98 | 38.0 | 41.7 | 62.5# |

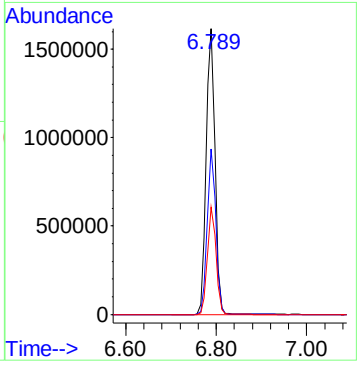


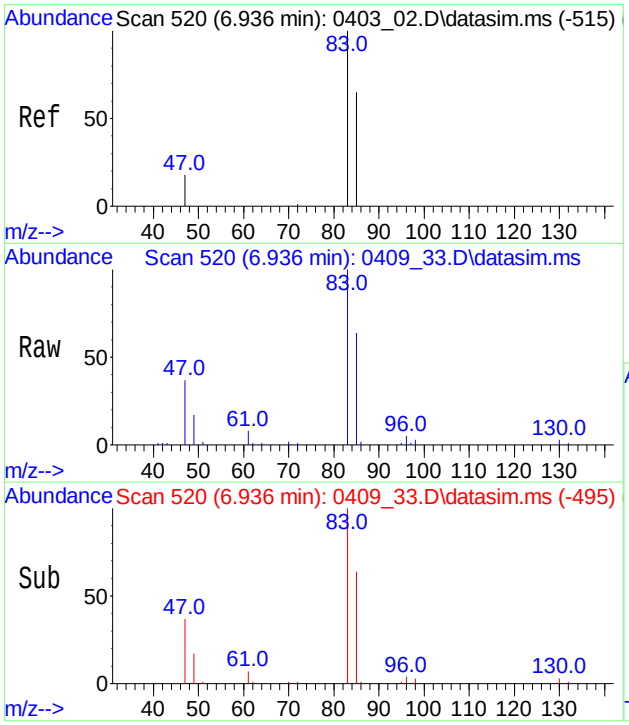




#92
Cis-1,2-Dichloroethene(sim)
Conc: 8$ 95.702 ppbv
RT: 6.789 min Scan# 501
Delta R.T. 0.000 min
Lab File: 0409_33.D
Acq: 10 Apr 2019 02:40 am

Tgt Ion: 61 Resp: 2145859

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 57.9 | 69.7 | 104.5# |
| 98 | 37.5 | 45.3 | 67.9# |

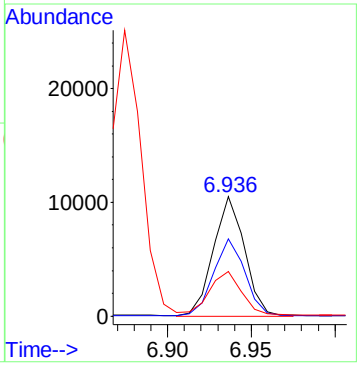


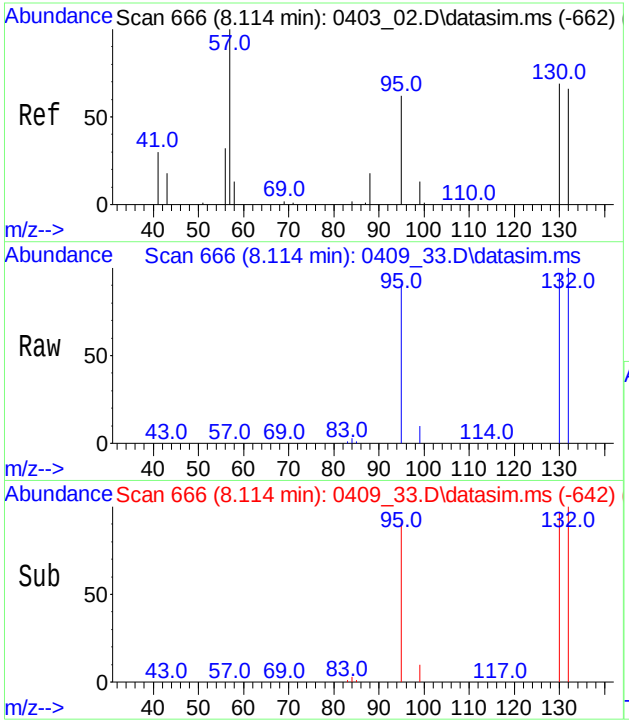



#93
Chloroform(sim)
Conc: 8$  0.376 ppbv
RT:  6.933 min  Scan# 520
Delta R.T.  -0.008 min
Lab File:  0409_33.D
Acq: 10 Apr 2019  02:40 am

Tgt Ion: 83 Resp:  10583

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 62.7 | 52.7 | 79.1 |
| 47 | 44.5 | 16.6 | 25.0# |

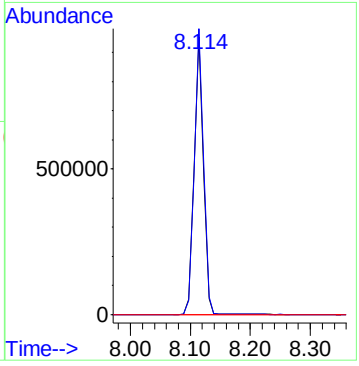


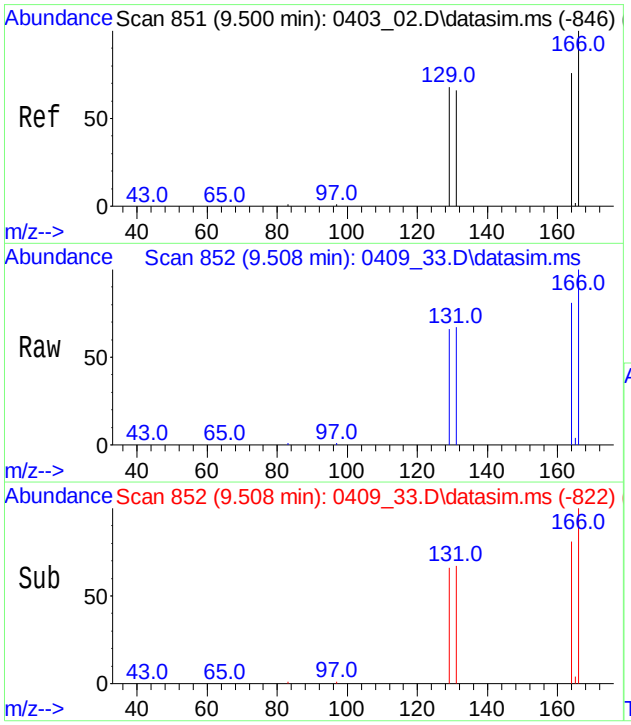




#97
Trichloroethene(sim)
Conc: 8$  54.901 ppbv
RT:  8.111 min  Scan# 666
Delta R.T.  0.000 min
Lab File:  0409_33.D
Acq: 10 Apr 2019  02:40 am

Tgt Ion:130 Resp:  824538

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 99.8 | 78.0 | 117.0 |
| 97 | 66.4 | 47.2 | 70.8 |

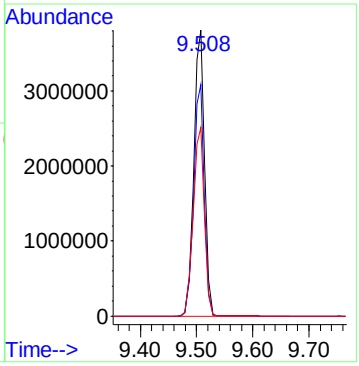


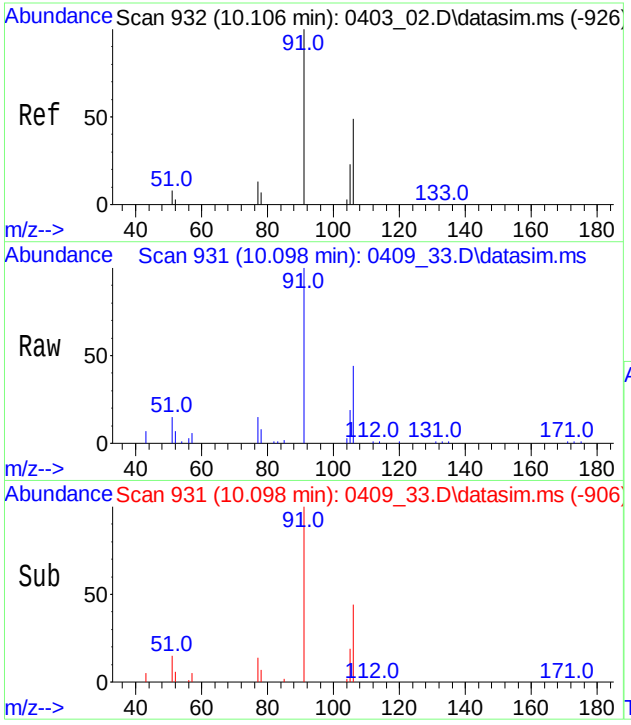



#103
Tetrachloroethene(sim)
Conc: 8$ 317.782 ppbv
RT: 9.505 min Scan# 852
Delta R.T. 0.007 min
Lab File: 0409_33.D
Acq: 10 Apr 2019 02:40 am

Tgt Ion:166 Resp: 5203462

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 80.6 | 57.7 | 97.7 |
| 129 | 67.6 | 48.6 | 88.6 |

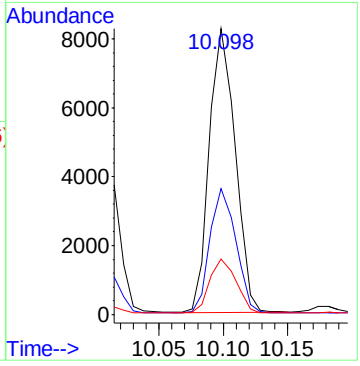



#106
m,p-Xylene(sim)
Conc: 8$ 0.349 ppbv
RT: 10.098 min Scan# 931
Delta R.T. -0.007 min
Lab File: 0409_33.D
Acq: 10 Apr 2019 02:40 am

Tgt Ion: 91 Resp: 11570

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 43.6 | 44.3 | 54.1# |
| 105 | 19.4 | 17.7 | 26.5 |



1

AIR ANALYSIS DATA SHEET

CLIENT ID: SS-4 75X

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90511 75X

Canister: 230 Lab File ID: 0409_48.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/10/19

Matrix: AIR Dilution Factor: 75

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | 31.6 | U | 31.6 | 31.6 | |
| 156-59-2 | Cis-1,2-Dichloroethene | 391 | D | 3.79 | 3.79 | r |
| 79-01-6 | Trichloroethene | 217 | D | 2.79 | 2.79 | r |
| 108-88-3 | Toluene | 19.9 | U | 19.9 | 19.9 | |
| 127-18-4 | Tetrachloroethene | 2150 | D | 2.77 | 2.77 | r |
| 75-01-4 | Vinyl Chloride(sim) | 5.87 | U | 5.87 | 5.87 | |
| 156-60-5 | Trans-1,2-Dichloroethene(sim) | 18.9 | U | 18.9 | 18.9 | |
| 67-66-3 | Chloroform(sim) | 15.4 | U | 15.4 | 15.4 | |
| 179601-23-1 | m,p-Xylene(sim) | 17.3 | U | 17.3 | 17.3 | |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

This form 1 and the associated quantitation report are filtered for detected compounds in the undiluted analysis.

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_48.D
Acq On : 10 Apr 2019 12:42 pm
Operator : CORTEX\ms
Client ID : SS-4 75X
Lab ID : CC90511 75X
ALS Vial : 1 Sample Multiplier: 1

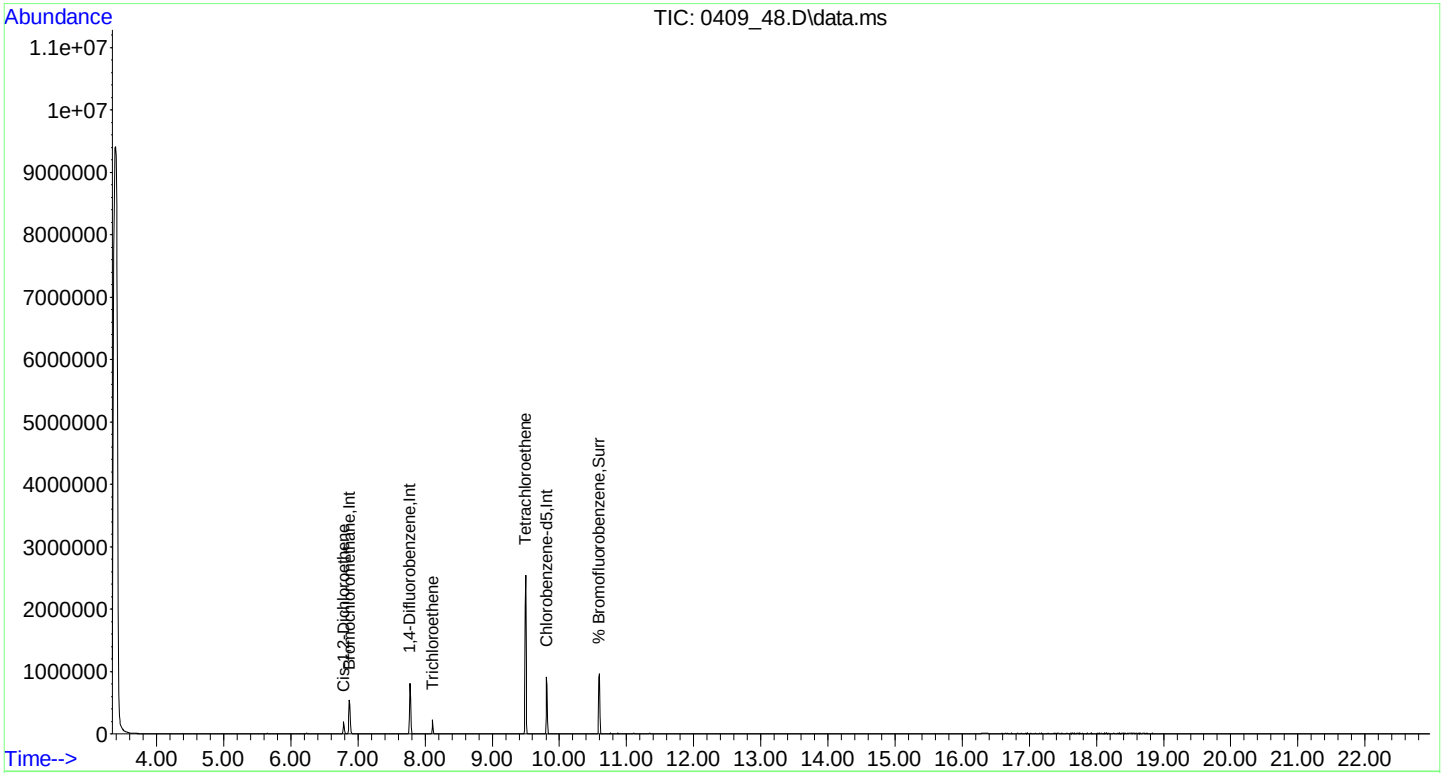
Quant Time: Apr 10 16:00:24 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:42:38 2019
Response via : Initial Calibration

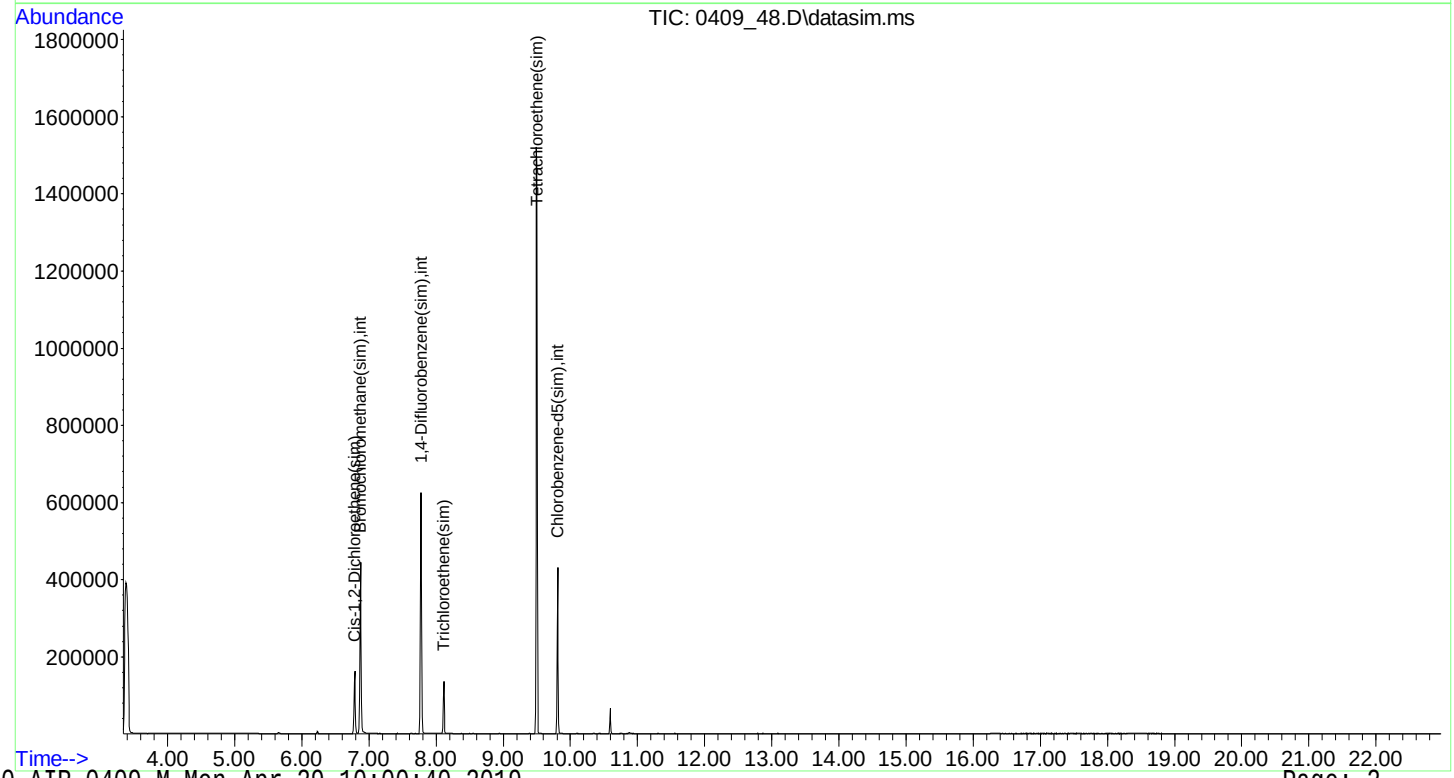
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.871 | 130 | 97046 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.772 | 114 | 324029 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.807 | 82 | 164483 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.874 | 130 | 135711 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 375973 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 165386 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 218549 | 10.135 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 101.40% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 26) Cis-1,2-Dichloroethene | 6.786 | 61 | 83041 | 5.211 | ppbv | # | 69 |
| 39) Trichloroethene | 8.111 | 130 | 35120 | 2.887 | ppbv | # | 88 |
| 52) Tetrachloroethene | 9.498 | 166 | 368631 | 28.649 | ppbv | # | 89 |
| 92] Cis-1,2-Dichloroethene... | 6.789 | 61 | 96771 | 4.722 | ppbv | # | 71 |
| 97] Trichloroethene(sim) | 8.111 | 130 | 35120 | 2.593 | ppbv | # | 92 |
| 103] Tetrachloroethene(sim) | 9.498 | 166 | 368631 | 24.962 | ppbv | | 89 |

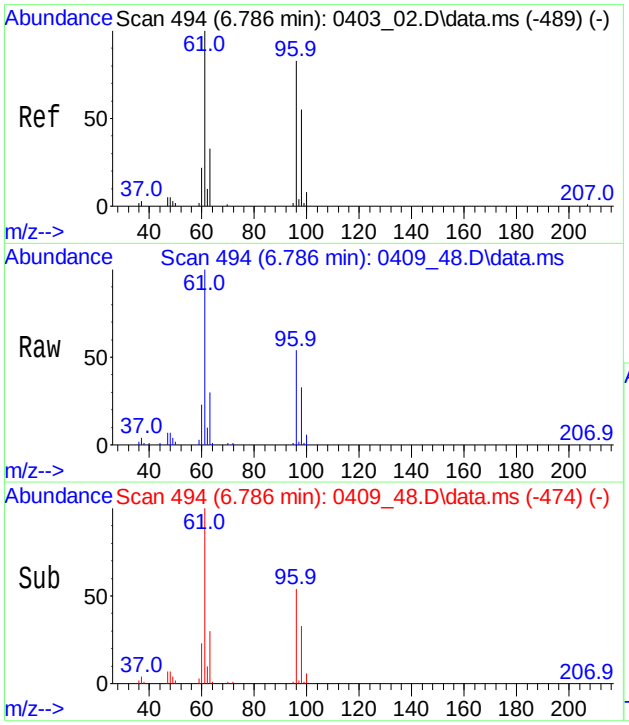
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_48.D
Acq On : 10 Apr 2019 12:42 pm
Operator : CORTEX\ms
Client ID : SS-4 75X
Lab ID : CC90511 75X
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 16:00:24 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:42:38 2019
Response via : Initial Calibration



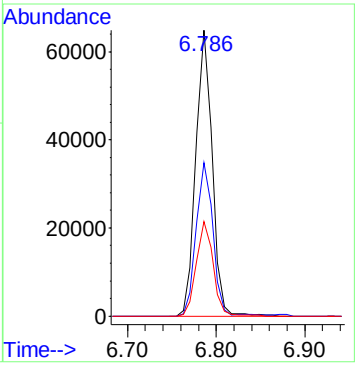



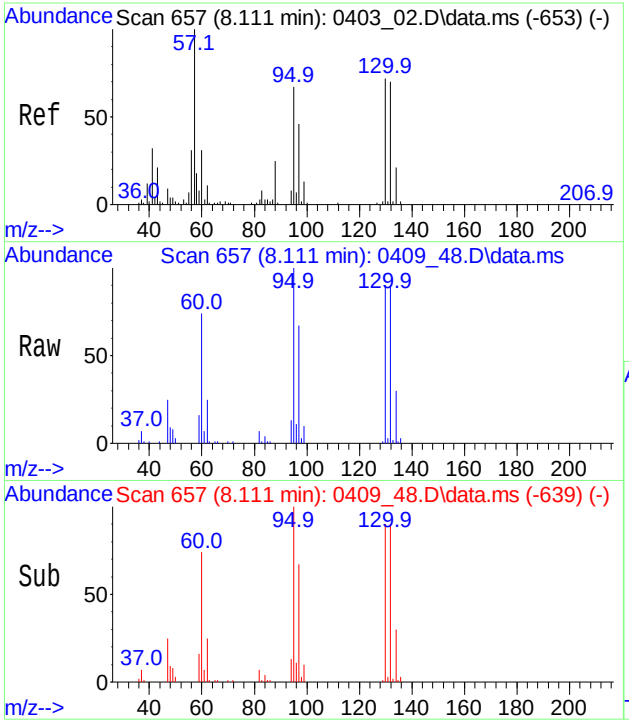



#26
Cis-1,2-Dichloroethene
Conc: 8$ 5.211 ppbv
RT: 6.786 min Scan# 494
Delta R.T. -0.008 min
Lab File: 0409_48.D
Acq: 10 Apr 2019 12:42 pm

Tgt Ion: 61 Resp: 83041

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 54.6 | 67.8 | 101.8# |
| 98 | 34.1 | 43.8 | 65.6# |

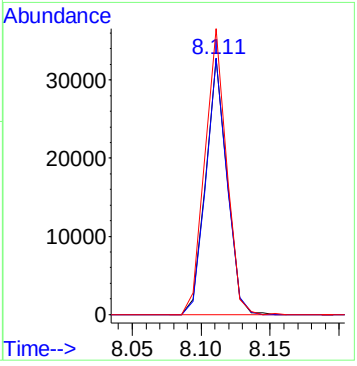


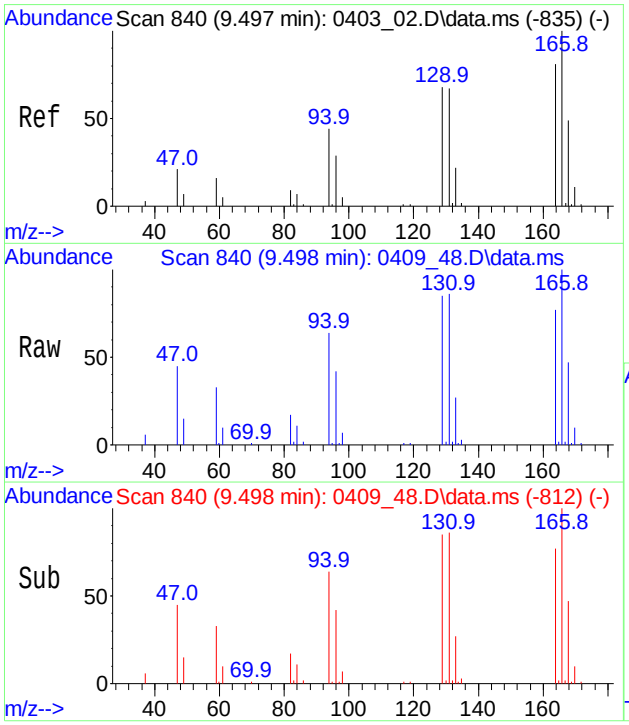




#39
Trichloroethene
Conc: 8$ 2.887 ppbv
RT: 8.111 min Scan# 657
Delta R.T. -0.000 min
Lab File: 0409_48.D
Acq: 10 Apr 2019 12:42 pm

Tgt Ion:130 Resp: 35120

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 98.5 | 78.0 | 117.0 |
| 95 | 113.5 | 73.0 | 109.4# |

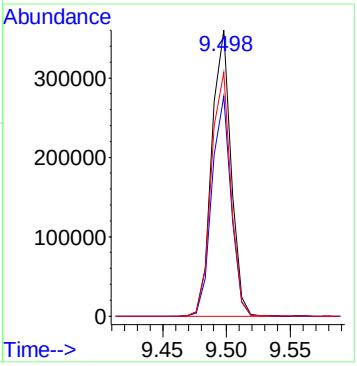


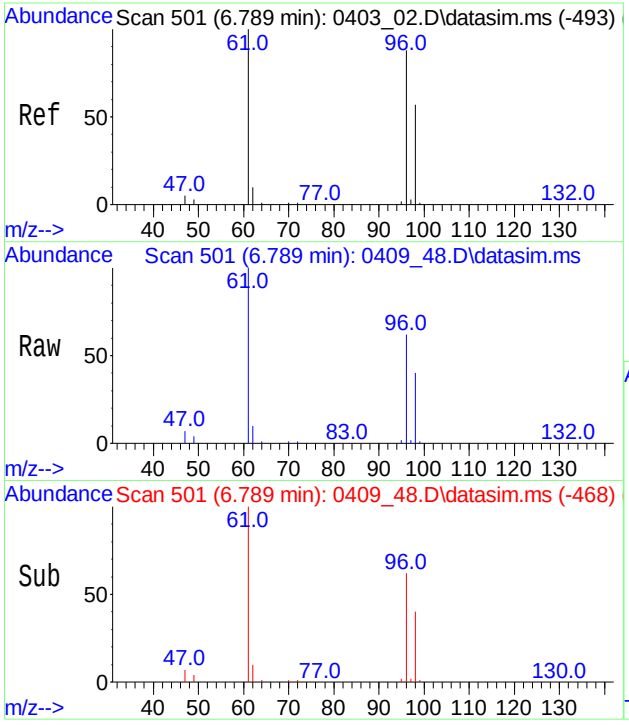



#52
Tetrachloroethene
Conc: 8$ 28.649 ppbv
RT: 9.498 min Scan# 840
Delta R.T. 0.001 min
Lab File: 0409_48.D
Acq: 10 Apr 2019 12:42 pm

Tgt Ion:166 Resp: 368631

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 76.7 | 62.2 | 93.2 |
| 129 | 86.7 | 54.9 | 82.3# |

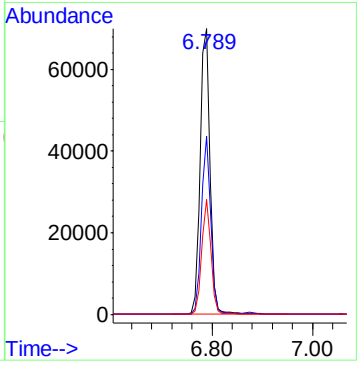


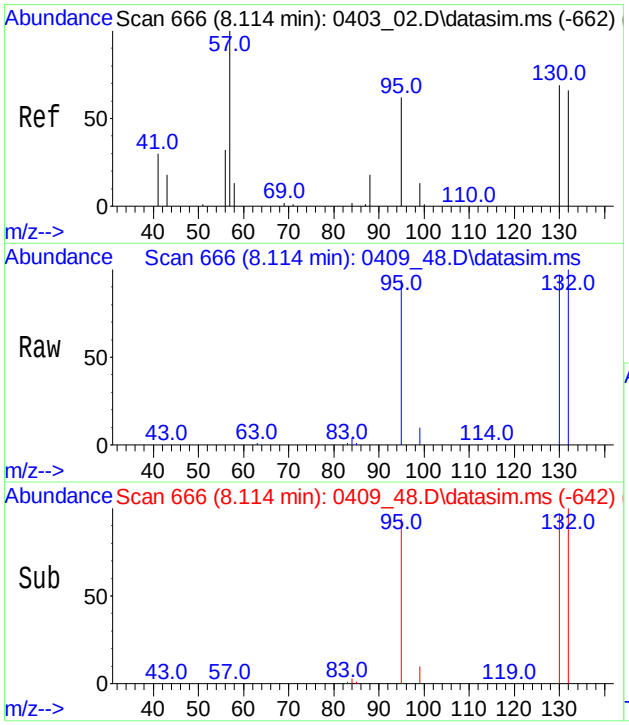




#92
Cis-1,2-Dichloroethene(sim)
Conc: 8$ 4.722 ppbv
RT: 6.789 min Scan# 501
Delta R.T. 0.000 min
Lab File: 0409_48.D
Acq: 10 Apr 2019 12:42 pm

Tgt Ion: 61 Resp: 96771

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 58.5 | 69.7 | 104.5# |
| 98 | 37.8 | 45.3 | 67.9# |

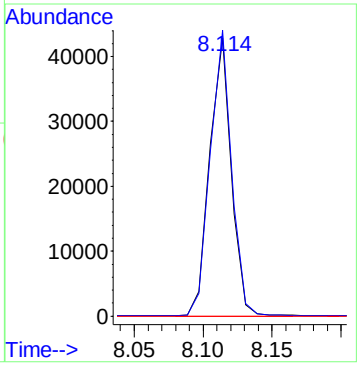


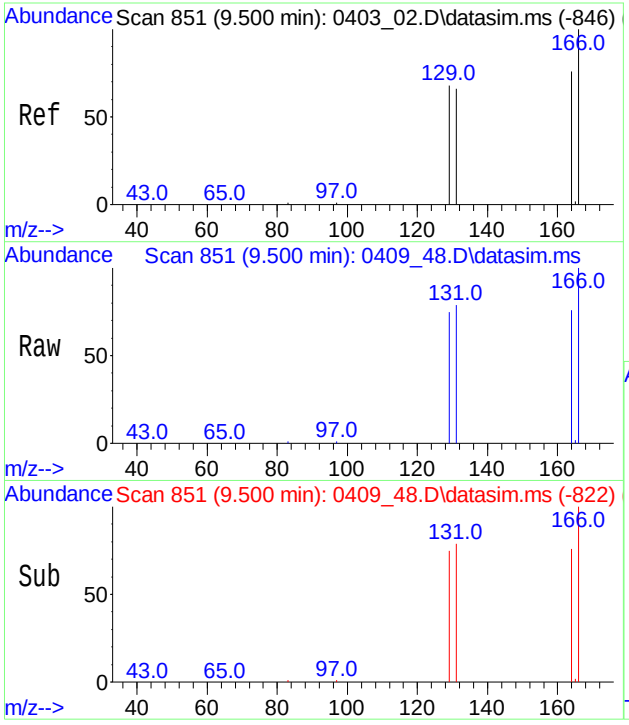



#97
Trichloroethene(sim)
Conc: 8$ 2.593 ppbv
RT: 8.111 min Scan# 666
Delta R.T. -0.000 min
Lab File: 0409_48.D
Acq: 10 Apr 2019 12:42 pm

Tgt Ion:130 Resp: 35120

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 98.5 | 78.0 | 117.0 |
| 97 | 73.3 | 47.2 | 70.8# |

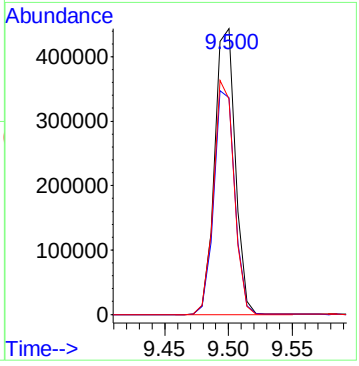



#103
Tetrachloroethene(sim)
Conc: 8$ 24.962 ppbv
RT: 9.498 min Scan# 851
Delta R.T. 0.001 min
Lab File: 0409_48.D
Acq: 10 Apr 2019 12:42 pm

Tgt Ion:166 Resp: 368631

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 76.7 | 57.7 | 97.7 |
| 129 | 86.7 | 48.6 | 88.6 |



1

AIR ANALYSIS DATA SHEET

CLIENT ID: SS-DUP 5X

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90512 5X

Canister: 215 Lab File ID: 0409_34.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/10/19

Matrix: AIR Dilution Factor: 5

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 115-07-1 | Propylene | 2.91 | U | 2.91 | 2.91 | r |
| 75-71-8 | Dichlorodifluoromethane | 1.01 | U | 1.01 | 1.01 | r |
| 74-87-3 | Chloromethane | 2.42 | U | 2.42 | 2.42 | r |
| 106-99-0 | 1,3-Butadiene | 2.26 | U | 2.26 | 2.26 | r |
| 75-00-3 | Chloroethane | 1.90 | U | 1.90 | 1.90 | r |
| 64-17-5 | Ethanol | 2.66 | U | 2.66 | 2.66 | r |
| 67-64-1 | Acetone | 3.59 | S | 2.11 | 2.11 | r |
| 67-63-0 | Isopropylalcohol | 2.04 | U | 2.04 | 2.04 | r |
| 107-13-1 | Acrylonitrile | 2.31 | U | 2.31 | 2.31 | r |
| 75-09-2 | Methylene Chloride | 4.32 | U | 4.32 | 4.32 | r |
| 75-15-0 | Carbon Disulfide | 1.61 | U | 1.61 | 1.61 | r |
| 156-60-5 | Trans-1,2-Dichloroethene | 4.16 | | 1.26 | 1.26 | r |
| 1634-04-4 | Methyl tert-butyl ether(MTBE) | 1.39 | U | 1.39 | 1.39 | r |
| 78-93-3 | Methyl Ethyl Ketone | 1.70 | U | 1.70 | 1.70 | r |
| 156-59-2 | Cis-1,2-Dichloroethene | 84.8 | | 0.252 | 0.252 | r |
| 110-54-3 | Hexane | 1.42 | U | 1.42 | 1.42 | r |
| 67-66-3 | Chloroform | 1.59 | | 1.02 | 1.02 | r |
| 141-78-6 | Ethyl acetate | 1.39 | U | 1.39 | 1.39 | r |
| 109-99-9 | Tetrahydrofuran | 1.70 | U | 1.70 | 1.70 | r |
| 71-43-2 | Benzene | 1.57 | U | 1.57 | 1.57 | r |
| 110-82-7 | Cyclohexane | 1.45 | U | 1.45 | 1.45 | r |
| 79-01-6 | Trichloroethene | 49.4 | | 0.186 | 0.186 | r |
| 142-82-5 | Heptane | 1.22 | U | 1.22 | 1.22 | r |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | 1.22 | U | 1.22 | 1.22 | r |
| 10061-02-6 | trans-1,3-Dichloropropene | 1.10 | U | 1.10 | 1.10 | r |
| 108-88-3 | Toluene | 2.83 | | 1.33 | 1.33 | r |
| 591-78-6 | 2-Hexanone(MBK) | 1.22 | U | 1.22 | 1.22 | r |
| 127-18-4 | Tetrachloroethene | 1510 | E | 0.184 | 0.184 | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.729 | U | 0.729 | 0.729 | r |
| 108-90-7 | Chlorobenzene | 1.09 | U | 1.09 | 1.09 | r |
| 100-41-4 | Ethylbenzene | 1.15 | U | 1.15 | 1.15 | r |
| 100-42-5 | Styrene | 1.17 | U | 1.17 | 1.17 | r |
| 95-47-6 | o-Xylene | 1.15 | U | 1.15 | 1.15 | r |
| 98-82-8 | Isopropylbenzene | 1.02 | U | 1.02 | 1.02 | r |
| 622-96-8 | 4-Ethyltoluene | 1.02 | U | 1.02 | 1.02 | r |
| 108-67-8 | 1,3,5-Trimethylbenzene | 1.02 | U | 1.02 | 1.02 | r |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

AIR ANALYSIS DATA SHEET

CLIENT ID: SS-DUP 5X

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90512 5X

Canister: 215 Lab File ID: 0409_34.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/10/19

Matrix: AIR Dilution Factor: 5

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | 1.02 | U | 1.02 | 1.02 | r |
| 76-14-2 | 1,2-Dichlorotetrafluoroethane(sim) | 0.716 | U | 0.716 | 0.716 | r |
| 75-01-4 | Vinyl Chloride(sim) | 0.391 | U | 0.391 | 0.391 | r |
| 74-83-9 | Bromomethane(sim) | 1.29 | U | 1.29 | 1.29 | r |
| 75-69-4 | Trichlorofluoromethane(sim) | 0.891 | U | 0.891 | 0.891 | r |
| 107-06-2 | 1,2-Dichloroethane(sim) | 1.24 | U | 1.24 | 1.24 | r |
| 71-55-6 | 1,1,1-Trichloroethane(sim) | 0.917 | U | 0.917 | 0.917 | r |
| 56-23-5 | Carbon Tetrachloride(sim) | 0.159 | U | 0.159 | 0.159 | r |
| 75-35-4 | 1,1-Dichloroethene(sim) | 0.252 | U | 0.252 | 0.252 | r |
| 76-13-1 | Trichlorotrifluoroethane(sim) | 0.653 | U | 0.653 | 0.653 | r |
| 75-34-3 | 1,1-Dichloroethane(sim) | 1.24 | U | 1.24 | 1.24 | r |
| 78-87-5 | 1,2-dichloropropane(sim) | 1.08 | U | 1.08 | 1.08 | r |
| 75-27-4 | Bromodichloromethane(sim) | 0.747 | U | 0.747 | 0.747 | r |
| 123-91-1 | 1,4-Dioxane(sim) | 1.39 | U | 1.39 | 1.39 | r |
| 10061-01-5 | cis-1,3-Dichloropropene(sim) | 1.10 | U | 1.10 | 1.10 | r |
| 79-00-5 | 1,1,2-Trichloroethane(sim) | 0.917 | U | 0.917 | 0.917 | r |
| 124-48-1 | Dibromochloromethane(sim) | 0.587 | U | 0.587 | 0.587 | r |
| 106-93-4 | 1,2-Dibromoethane(EDB)(sim) | 0.651 | U | 0.651 | 0.651 | r |
| 75-25-2 | Bromoform(sim) | 0.484 | U | 0.484 | 0.484 | r |
| 179601-23-1 | m,p-Xylene(sim) | 1.80 | | 1.15 | 1.15 | r |
| 79-34-5 | 1,1,2,2-Tetrachloroethane(sim) | 0.729 | U | 0.729 | 0.729 | r |
| 100-44-7 | Benzyl chloride(sim) | 0.966 | U | 0.966 | 0.966 | r |
| 541-73-1 | 1,3-Dichlorobenzene(sim) | 0.832 | U | 0.832 | 0.832 | r |
| 106-46-7 | 1,4-Dichlorobenzene(sim) | 0.832 | U | 0.832 | 0.832 | r |
| 135-98-8 | sec-Butylbenzene(sim) | 0.911 | U | 0.911 | 0.911 | r |
| 99-87-6 | 4-Isopropyltoluene(sim) | 0.911 | U | 0.911 | 0.911 | r |
| 95-50-1 | 1,2-Dichlorobenzene(sim) | 0.832 | U | 0.832 | 0.832 | r |
| 104-51-8 | n-Butylbenzene(sim) | 0.911 | U | 0.911 | 0.911 | r |
| 120-82-1 | 1,2,4-Trichlorobenzene(sim) | 0.674 | U | 0.674 | 0.674 | r |
| 87-68-3 | Hexachlorobutadiene(sim) | 0.469 | U | 0.469 | 0.469 | r |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_34.D
Acq On : 10 Apr 2019 03:18 am
Operator : CORTEX\ms
Client ID : SS-DUP 5X
Lab ID : CC90512 5X
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 10:28:51 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration

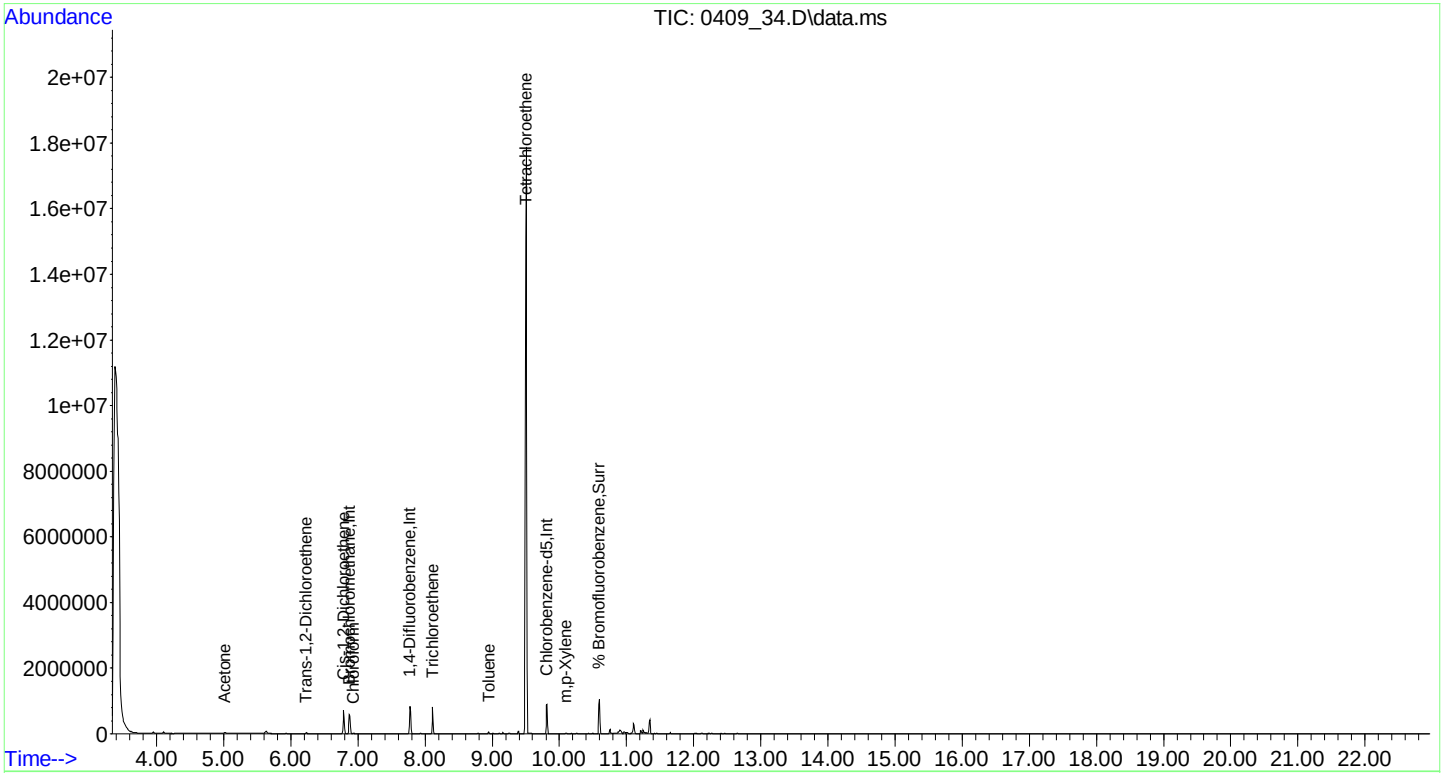
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.871 | 130 | 110428 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.772 | 114 | 361275 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.807 | 82 | 175180 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.874 | 130 | 153174 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 416485 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 176329 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 233104 | 10.150 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 101.50% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 12) Acetone | 5.017 | 43 | 17714 | 0.717 | ppbv | | 95 |
| 22) Trans-1,2-Dichloroethene | 6.229 | 61 | 15713 | 0.832 | ppbv# | | 80 |
| 26) Cis-1,2-Dichloroethene | 6.786 | 61 | 307588 | 16.962 | ppbv# | | 70 |
| 28) Chloroform | 6.933 | 83 | 8139 | 0.317 | ppbv# | | 86 |
| 39) Trichloroethene | 8.111 | 130 | 134125 | 9.888 | ppbv | | 91 |
| 48) Toluene | 8.949 | 91 | 16750 | 0.565 | ppbv# | | 98 |
| 52) Tetrachloroethene | 9.505 | 166 | 4327360 | 301.642 | ppbv | | 98 |
| 57) m,p-Xylene | 10.095 | 91 | 11102 | 0.351 | ppbv | | 92 |
| 90] Trans-1,2-Dichloroethe... | 6.232 | 61 | 18438 | 0.751 | ppbv# | | 79 |
| 92] Cis-1,2-Dichloroethene... | 6.789 | 61 | 359688 | 15.551 | ppbv# | | 71 |
| 93] Chloroform(sim) | 6.933 | 83 | 8139 | 0.280 | ppbv# | | 86 |
| 97] Trichloroethene(sim) | 8.111 | 130 | 134125 | 8.939 | ppbv | | 95 |
| 103] Tetrachloroethene(sim) | 9.505 | 166 | 4324814 | 264.367 | ppbv | | 98 |
| 106] m,p-Xylene(sim) | 10.098 | 91 | 11680 | 0.359 | ppbv# | | 93 |

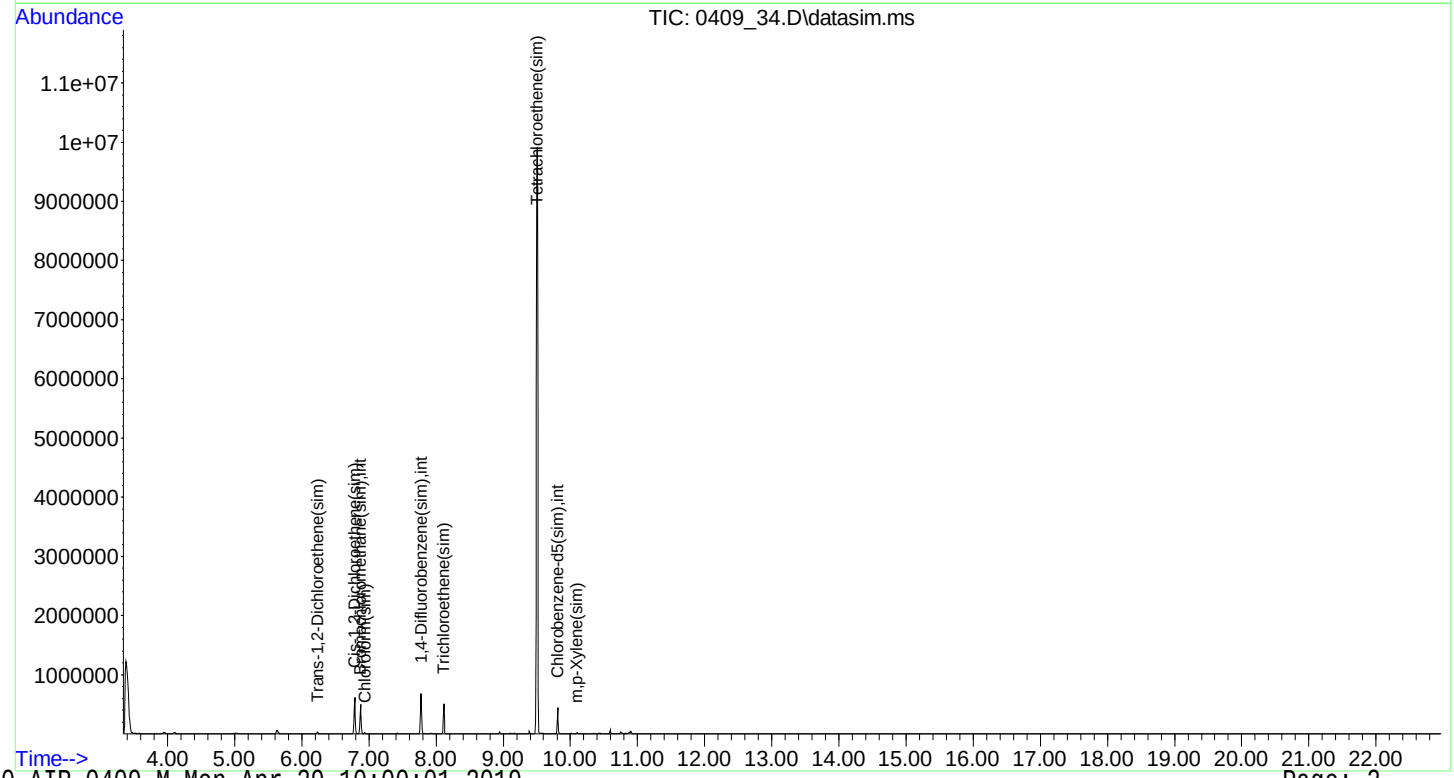
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

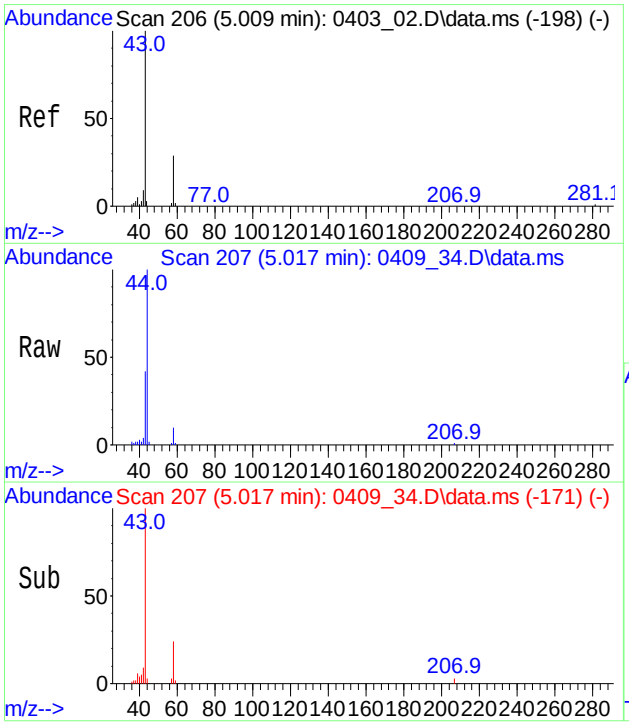
Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_34.D
Acq On : 10 Apr 2019 03:18 am
Operator : CORTEX\ms
Client ID : SS-DUP 5X
Lab ID : CC90512 5X
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 10:28:51 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration



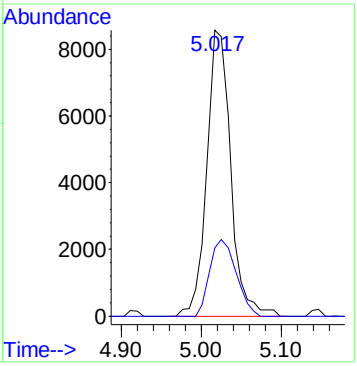



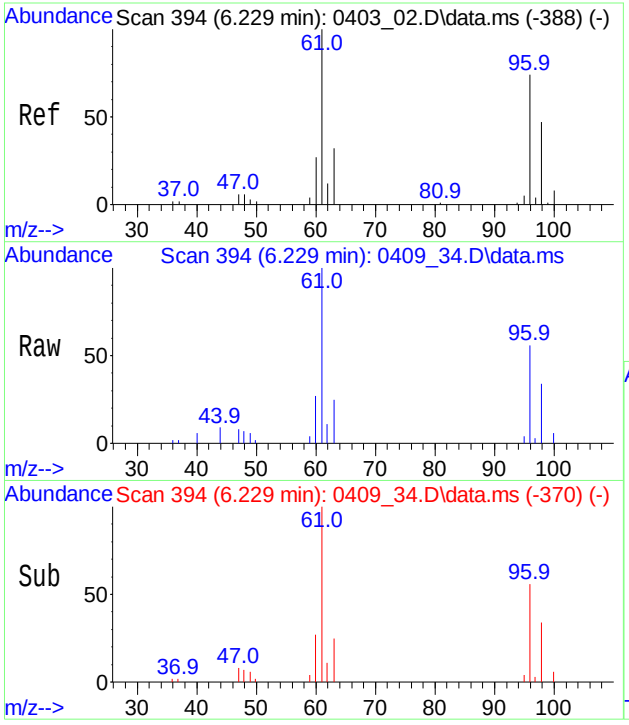



#12
Acetone
Conc: 8$ 0.717 ppbv
RT: 5.017 min Scan# 207
Delta R.T. -0.008 min
Lab File: 0409_34.D
Acq: 10 Apr 2019 03:18 am

Tgt Ion: 43 Resp: 17714

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 29.6 | 25.9 | 38.9 |

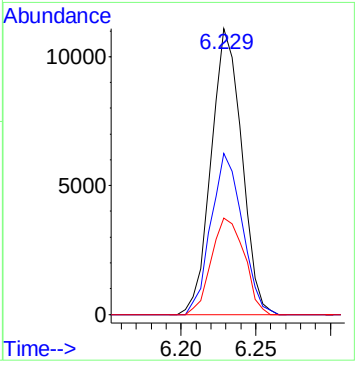


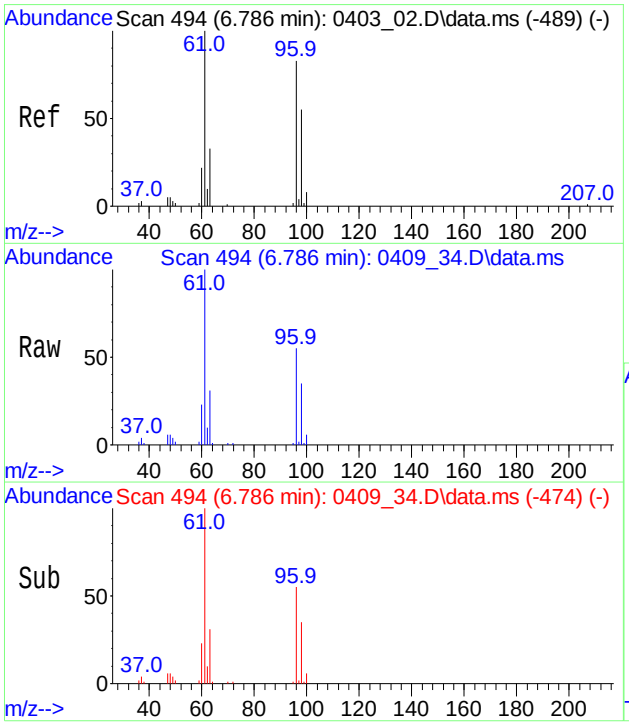




#22
Trans-1,2-Dichloroethene
Conc: 8$ 0.832 ppbv
RT: 6.229 min Scan# 394
Delta R.T. -0.010 min
Lab File: 0409_34.D
Acq: 10 Apr 2019 03:18 am

Tgt Ion: 61 Resp: 15713

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 57.8 | 60.6 | 90.8# |
| 98 | 36.5 | 38.9 | 58.3# |

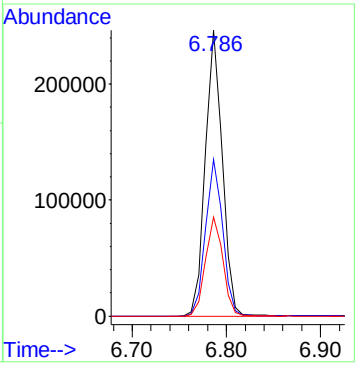


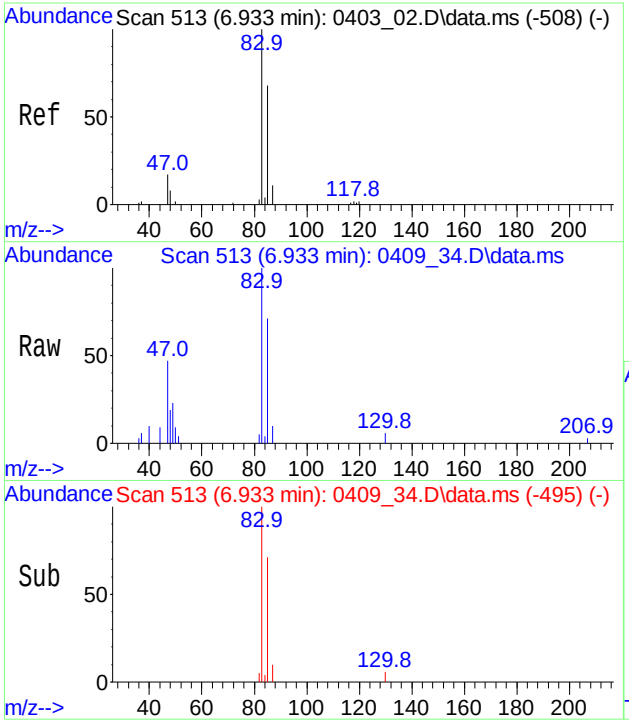



#26
Cis-1,2-Dichloroethene
Conc: 8$ 16.962 ppbv
RT: 6.786 min Scan# 494
Delta R.T. -0.008 min
Lab File: 0409_34.D
Acq: 10 Apr 2019 03:18 am

Tgt Ion: 61 Resp: 307588

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 55.3 | 67.8 | 101.8# |
| 98 | 35.6 | 43.8 | 65.6# |

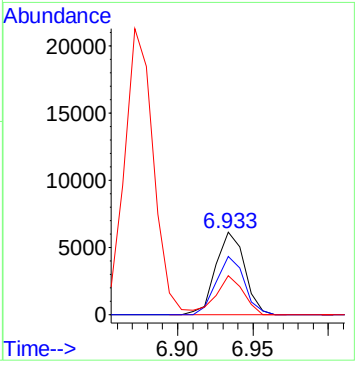


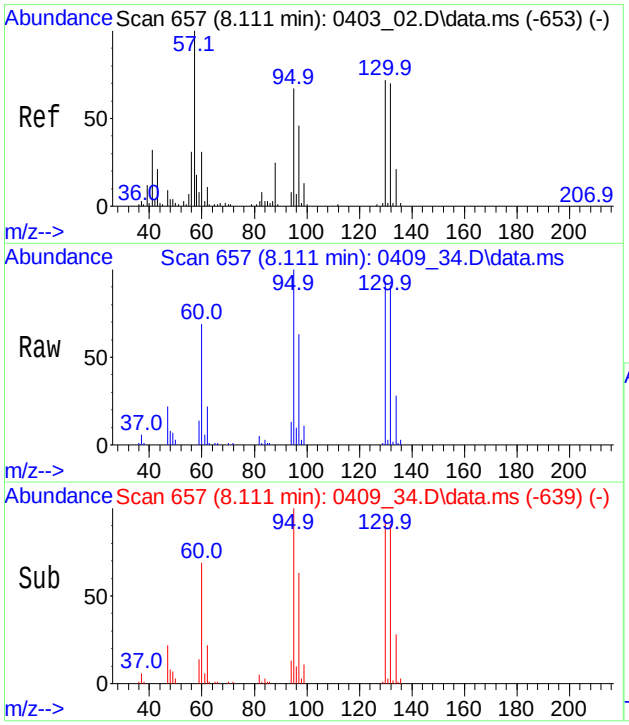




#28
Chloroform
Conc: 8$ 0.317 ppbv
RT: 6.933 min Scan# 513
Delta R.T. -0.008 min
Lab File: 0409_34.D
Acq: 10 Apr 2019 03:18 am

Tgt Ion: 83 Resp: 8139

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 68.3 | 45.9 | 85.9 |
| 47 | 43.7 | 0.8 | 40.8# |

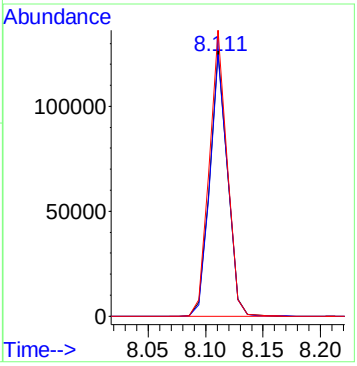


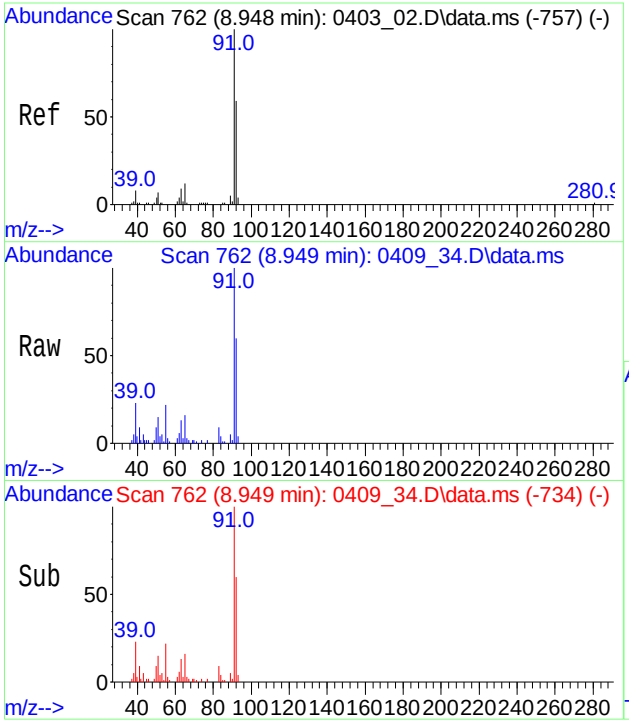



#39
Trichloroethene
Conc: 8$ 9.888 ppbv
RT: 8.111 min Scan# 657
Delta R.T. -0.000 min
Lab File: 0409_34.D
Acq: 10 Apr 2019 03:18 am

Tgt Ion:130 Resp: 134125

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 98.3 | 78.0 | 117.0 |
| 95 | 108.7 | 73.0 | 109.4 |

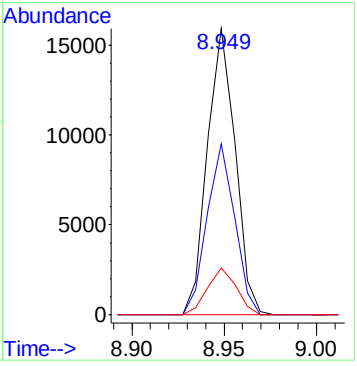


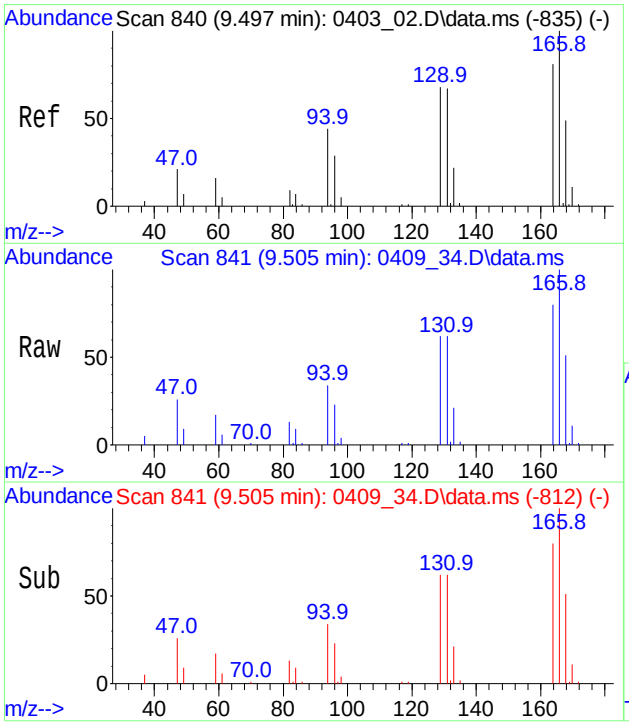




#48
Toluene
Conc: 8$ 0.565 ppbv
RT: 8.949 min Scan# 762
Delta R.T. 0.000 min
Lab File: 0409_34.D
Acq: 10 Apr 2019 03:18 am

Tgt Ion: 91 Resp: 16750

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 59.4 | 47.7 | 71.5 |
| 65 | 16.8 | 9.3 | 13.9# |

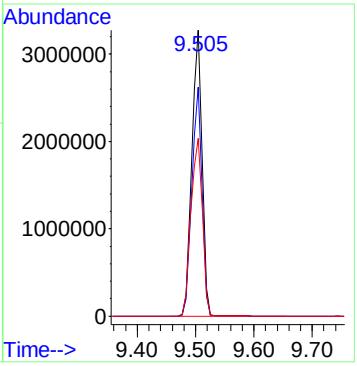


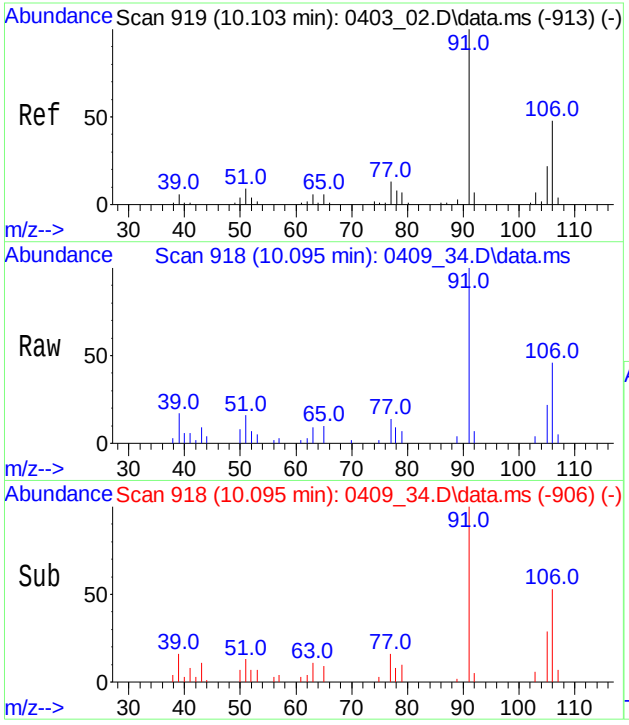



#52
Tetrachloroethene
Conc: 8$ 301.642 ppbv
RT: 9.505 min Scan# 841
Delta R.T. 0.007 min
Lab File: 0409_34.D
Acq: 10 Apr 2019 03:18 am

Tgt Ion:166 Resp: 4327360

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 79.7 | 62.2 | 93.2 |
| 129 | 69.4 | 54.9 | 82.3 |

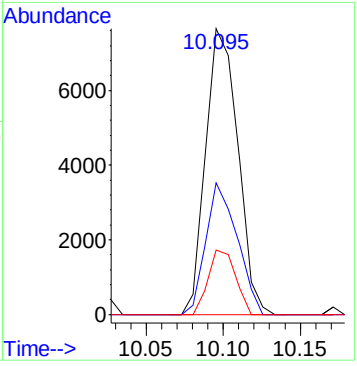


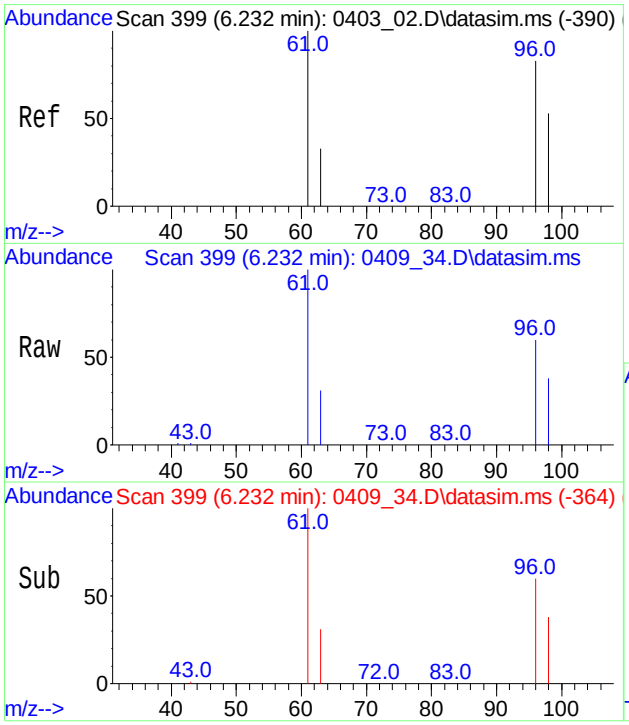




#57
m,p-Xylene
Conc: 8$ 0.351 ppbv
RT: 10.095 min Scan# 918
Delta R.T. -0.007 min
Lab File: 0409_34.D
Acq: 10 Apr 2019 03:18 am

Tgt Ion: 91 Resp: 11102

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 44.8 | 40.9 | 61.3 |
| 105 | 19.0 | 17.8 | 26.8 |

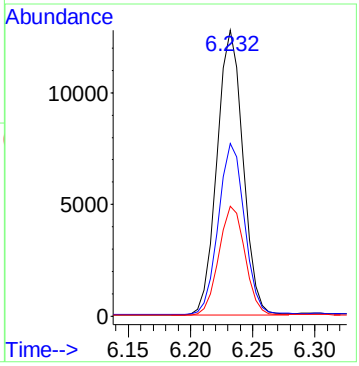


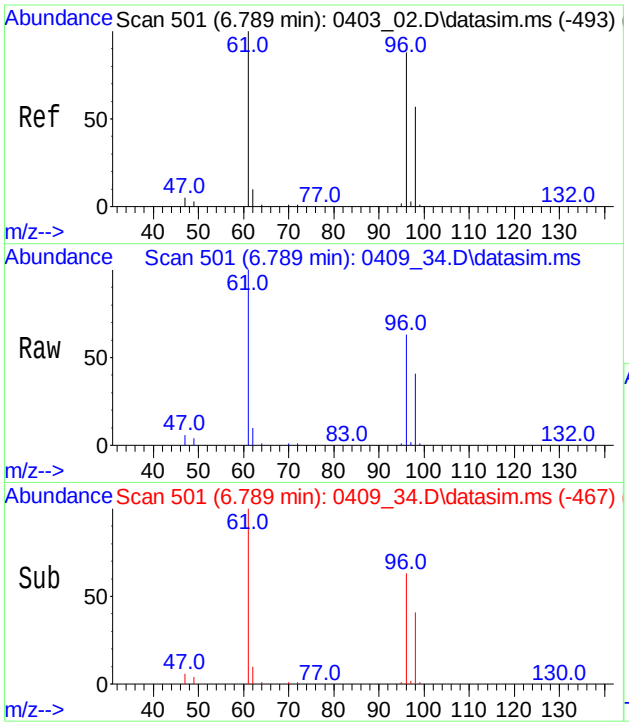



#90
Trans-1,2-Dichloroethene(sim)
Conc: 8$ 0.751 ppbv
RT: 6.232 min Scan# 399
Delta R.T. -0.005 min
Lab File: 0409_34.D
Acq: 10 Apr 2019 03:18 am

Tgt Ion: 61 Resp: 18438

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 60.5 | 64.6 | 97.0# |
| 98 | 38.7 | 41.7 | 62.5# |

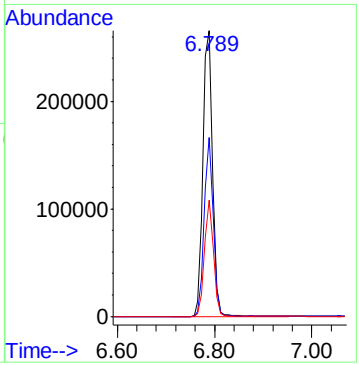


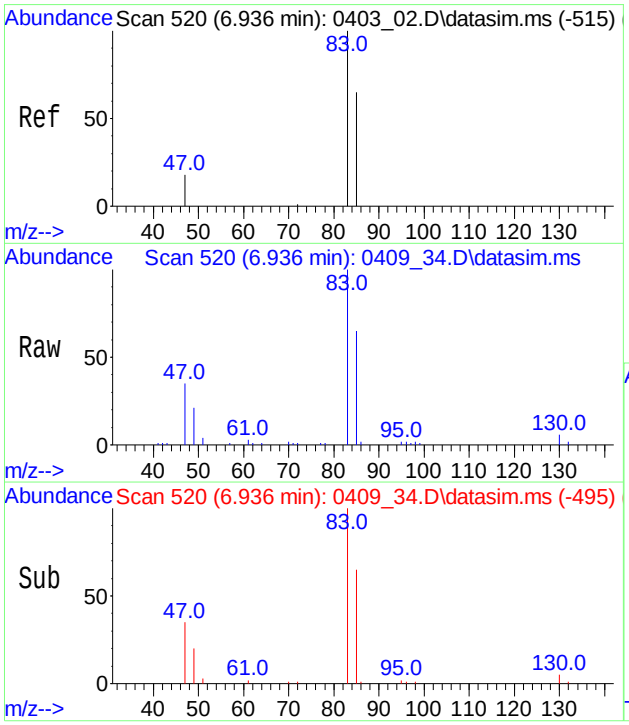




#92
Cis-1,2-Dichloroethene(sim)
Conc: 8$ 15.551 ppbv
RT: 6.789 min Scan# 501
Delta R.T. 0.000 min
Lab File: 0409_34.D
Acq: 10 Apr 2019 03:18 am

Tgt Ion: 61 Resp: 359688

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 57.1 | 69.7 | 104.5# |
| 98 | 38.3 | 45.3 | 67.9# |

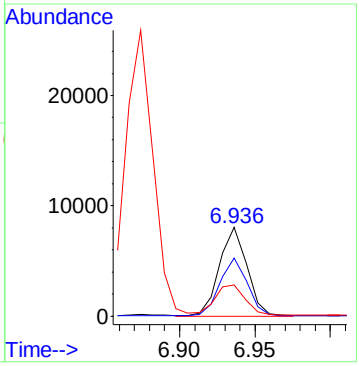


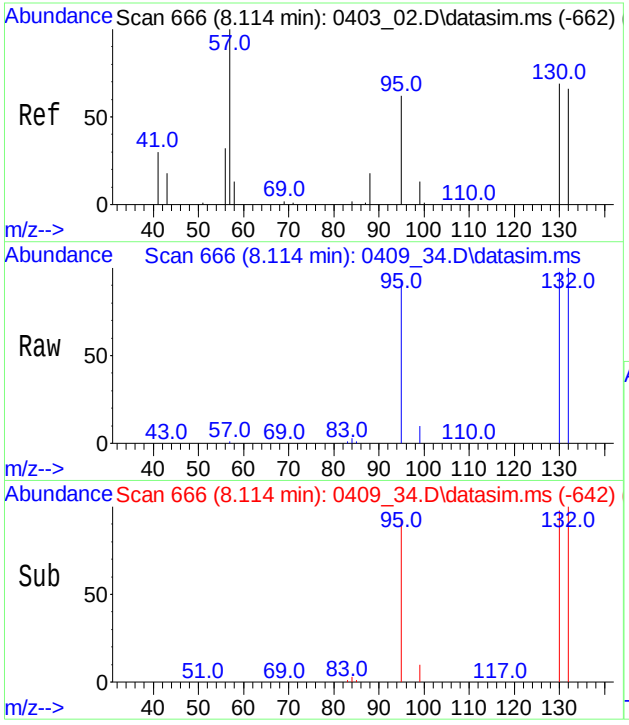



#93
Chloroform(sim)
Conc: 8$ 0.280 ppbv
RT: 6.933 min Scan# 520
Delta R.T. -0.008 min
Lab File: 0409_34.D
Acq: 10 Apr 2019 03:18 am

Tgt Ion: 83 Resp: 8139

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 68.3 | 52.7 | 79.1 |
| 47 | 43.7 | 16.6 | 25.0# |

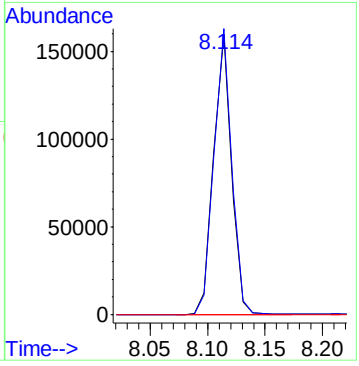


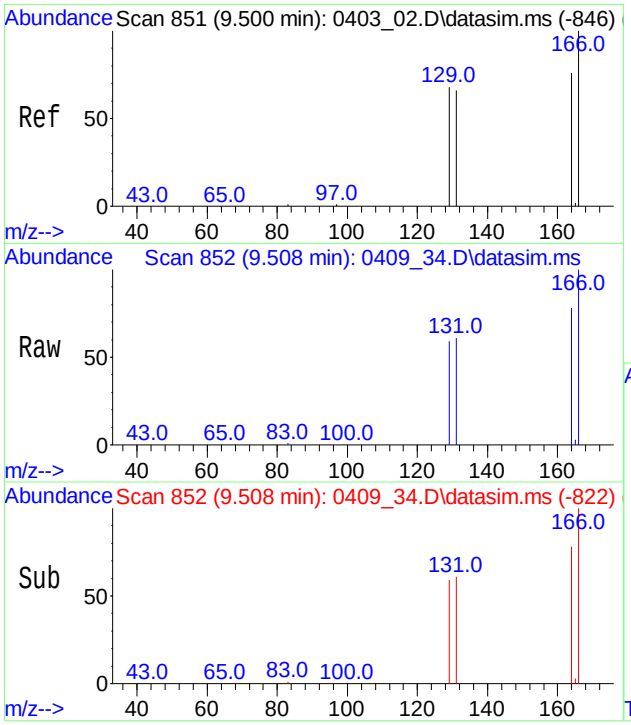




#97
Trichloroethene(sim)
Conc: 8$ 8.939 ppbv
RT: 8.111 min Scan# 666
Delta R.T. 0.000 min
Lab File: 0409_34.D
Acq: 10 Apr 2019 03:18 am

Tgt Ion:130 Resp: 134125

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 98.3 | 78.0 | 117.0 |
| 97 | 68.8 | 47.2 | 70.8 |

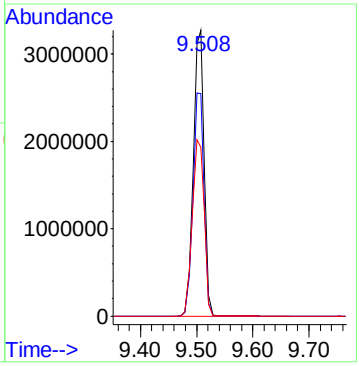


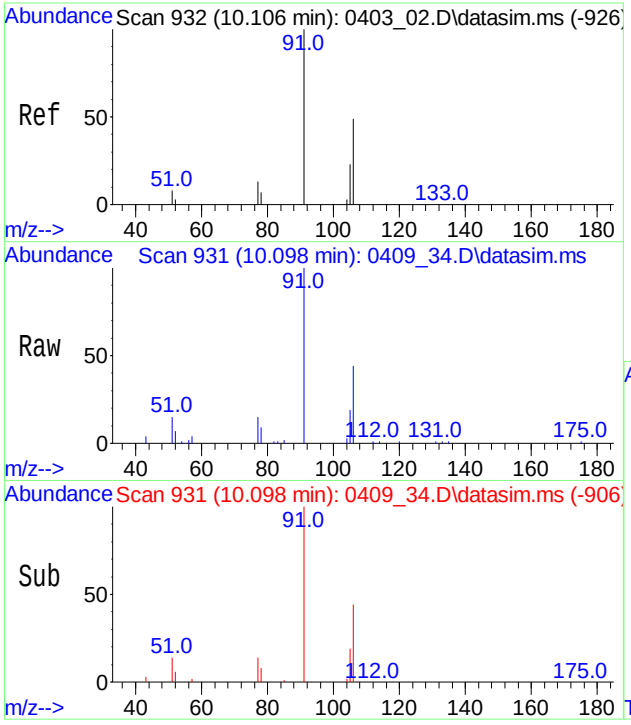



#103
Tetrachloroethene(sim)
Conc: 8$ 264.367 ppbv
RT: 9.505 min Scan# 852
Delta R.T. 0.007 min
Lab File: 0409_34.D
Acq: 10 Apr 2019 03:18 am

Tgt Ion:166 Resp: 4324814

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 79.7 | 57.7 | 97.7 |
| 129 | 69.4 | 48.6 | 88.6 |

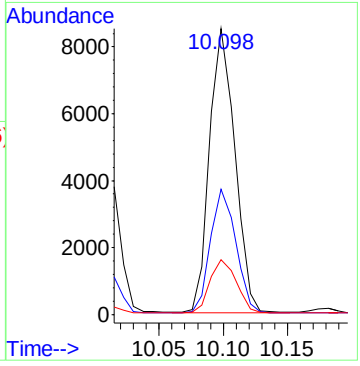



#106
m,p-Xylene(sim)
Conc: 8$ 0.359 ppbv
RT: 10.098 min Scan# 931
Delta R.T. -0.007 min
Lab File: 0409_34.D
Acq: 10 Apr 2019 03:18 am

Tgt Ion: 91 Resp: 11680

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 43.5 | 44.3 | 54.1# |
| 105 | 19.5 | 17.7 | 26.5 |



1

AIR ANALYSIS DATA SHEET

CLIENT ID: SS-DUP 75X

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90512 75X

Canister: 215 Lab File ID: 0409_49.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/10/19

Matrix: AIR Dilution Factor: 75

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | 31.6 | U | 31.6 | 31.6 | |
| 156-59-2 | Cis-1,2-Dichloroethene | 65.7 | X | 3.79 | 3.79 | |
| 79-01-6 | Trichloroethene | 40.7 | X | 2.79 | 2.79 | |
| 108-88-3 | Toluene | 19.9 | U | 19.9 | 19.9 | |
| 127-18-4 | Tetrachloroethene | 1940 | D | 2.77 | 2.77 | r |
| 156-60-5 | Trans-1,2-Dichloroethene(sim) | 18.9 | U | 18.9 | 18.9 | |
| 67-66-3 | Chloroform(sim) | 15.4 | U | 15.4 | 15.4 | |
| 179601-23-1 | m,p-Xylene(sim) | 17.3 | U | 17.3 | 17.3 | |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

This form 1 and the associated quantitation report are filtered for detected compounds in the undiluted analysis.

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_49.D
Acq On : 10 Apr 2019 01:20 pm
Operator : CORTEX\ms
Client ID : SS-DUP 75X
Lab ID : CC90512 75X
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 16:00:27 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:42:38 2019
Response via : Initial Calibration

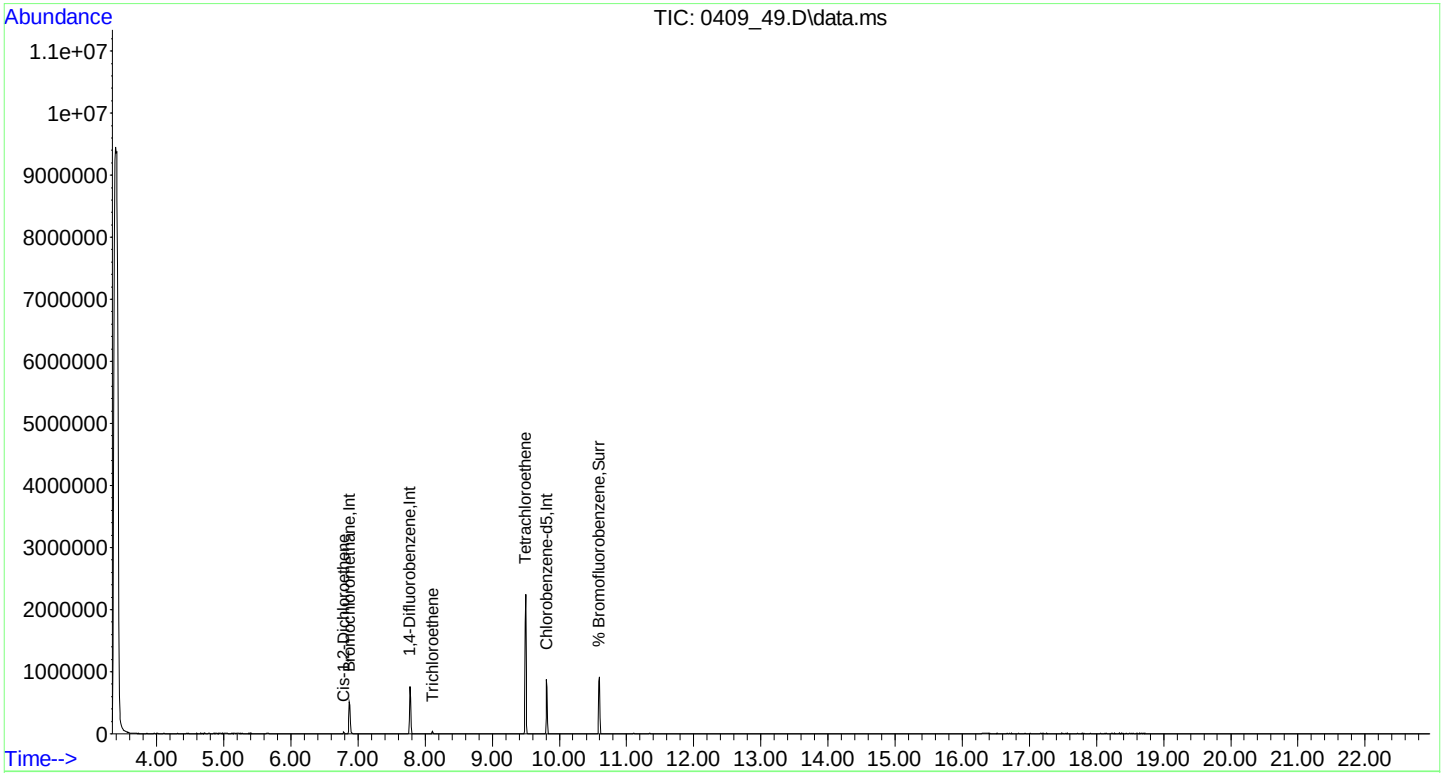
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.871 | 130 | 89869 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.772 | 114 | 306888 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.807 | 82 | 155615 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.874 | 130 | 127781 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 355995 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 156711 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 204535 | 10.026 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 100.30% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 26) Cis-1,2-Dichloroethene | 6.786 | 61 | 12926 | 0.876 | ppbv | # | 71 |
| 39) Trichloroethene | 8.111 | 130 | 6246 | 0.542 | ppbv | # | 87 |
| 52) Tetrachloroethene | 9.497 | 166 | 315877 | 25.921 | ppbv | # | 87 |
| 92] Cis-1,2-Dichloroethene... | 6.789 | 61 | 15800 | 0.819 | ppbv | # | 72 |
| 97] Trichloroethene(sim) | 8.111 | 130 | 6246 | 0.487 | ppbv | # | 88 |
| 103] Tetrachloroethene(sim) | 9.497 | 166 | 315877 | 22.590 | ppbv | # | 87 |

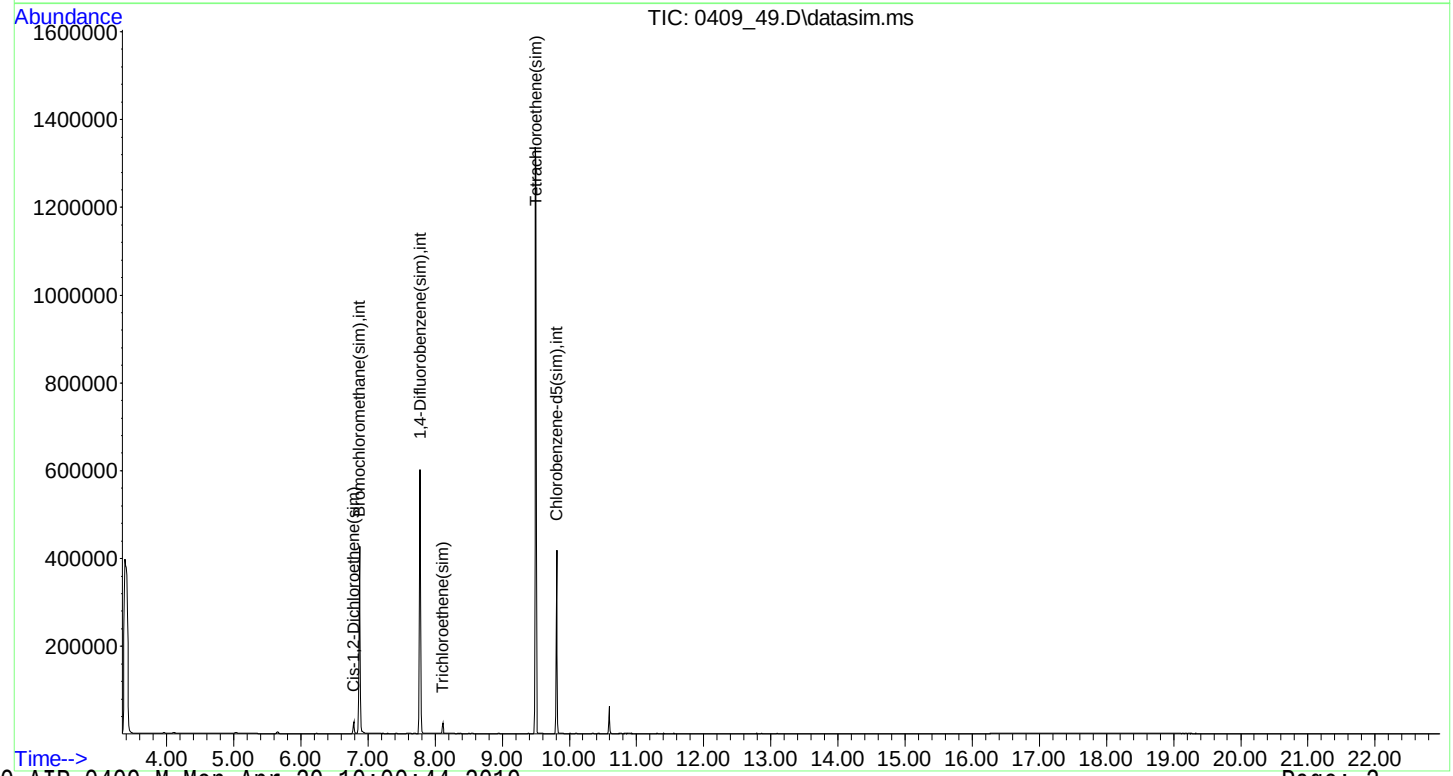
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

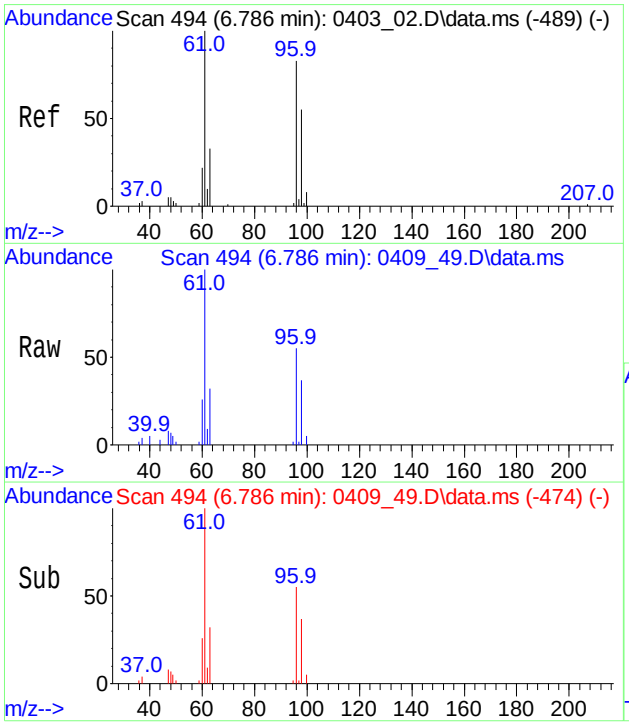
Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_49.D
Acq On : 10 Apr 2019 01:20 pm
Operator : CORTEX\ms
Client ID : SS-DUP 75X
Lab ID : CC90512 75X
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 16:00:27 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:42:38 2019
Response via : Initial Calibration



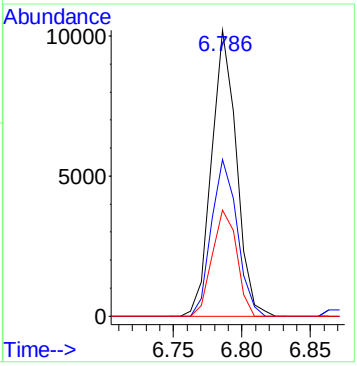



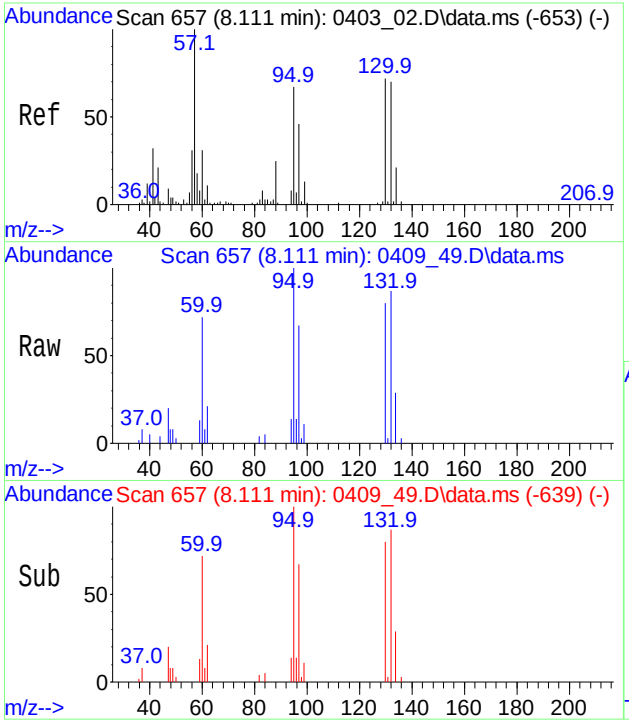



#26
Cis-1,2-Dichloroethene
Conc: 8$ 0.876 ppbv
RT: 6.786 min Scan# 494
Delta R.T. -0.008 min
Lab File: 0409_49.D
Acq: 10 Apr 2019 01:20 pm

Tgt Ion: 61 Resp: 12926

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 56.6 | 67.8 | 101.8# |
| 98 | 36.6 | 43.8 | 65.6# |

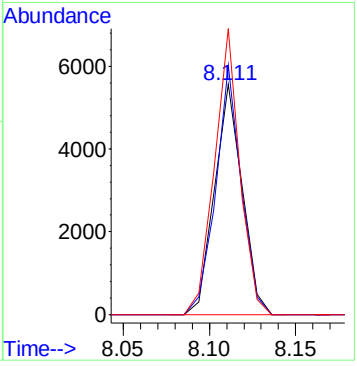


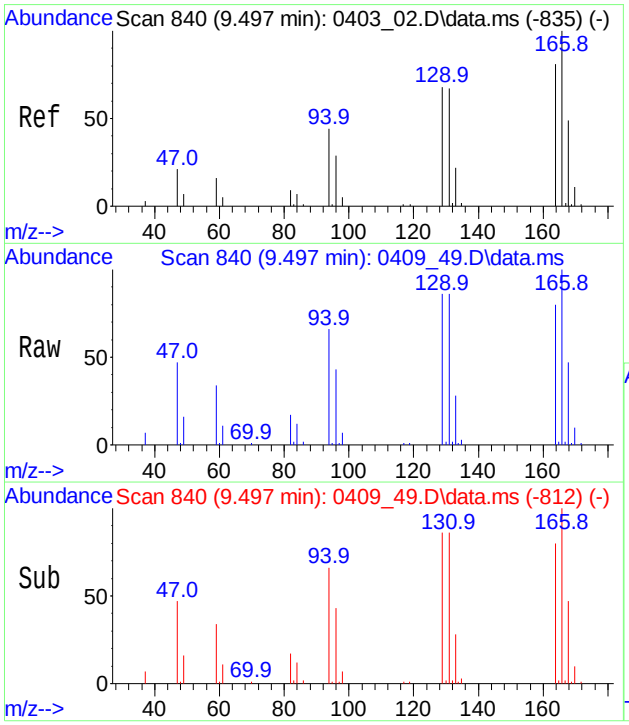




#39
Trichloroethene
Conc: 8$ 0.542 ppbv
RT: 8.111 min Scan# 657
Delta R.T. -0.000 min
Lab File: 0409_49.D
Acq: 10 Apr 2019 01:20 pm

Tgt Ion:130 Resp: 6246

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 99.9 | 78.0 | 117.0 |
| 95 | 113.7 | 73.0 | 109.4# |

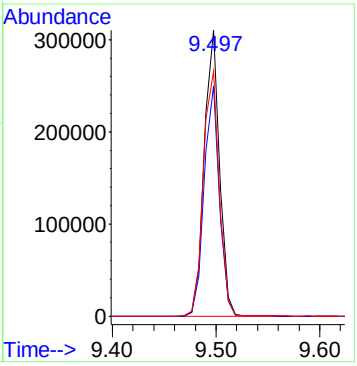


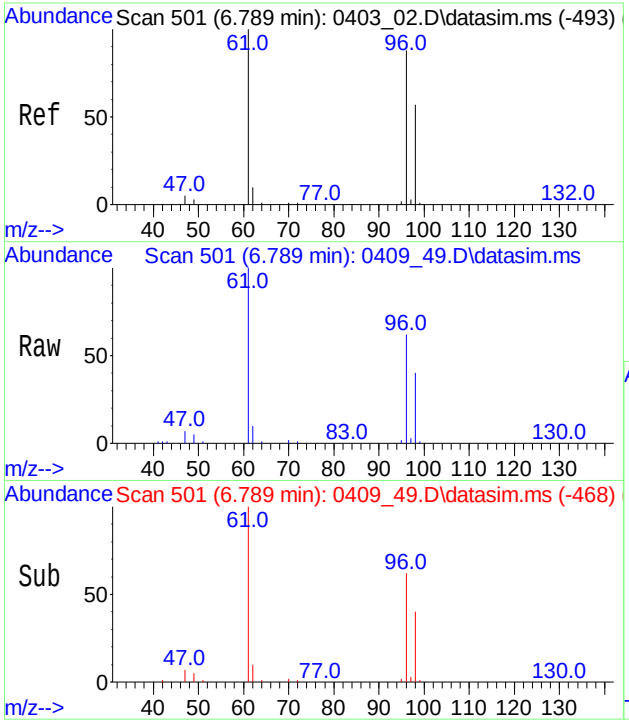



#52
Tetrachloroethene
Conc: 8$ 25.921 ppbv
RT: 9.497 min Scan# 840
Delta R.T. 0.000 min
Lab File: 0409_49.D
Acq: 10 Apr 2019 01:20 pm

Tgt Ion:166 Resp: 315877

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 80.0 | 62.2 | 93.2 |
| 129 | 89.4 | 54.9 | 82.3# |

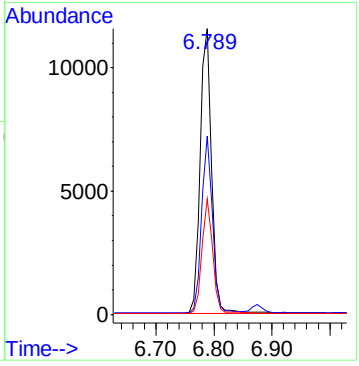


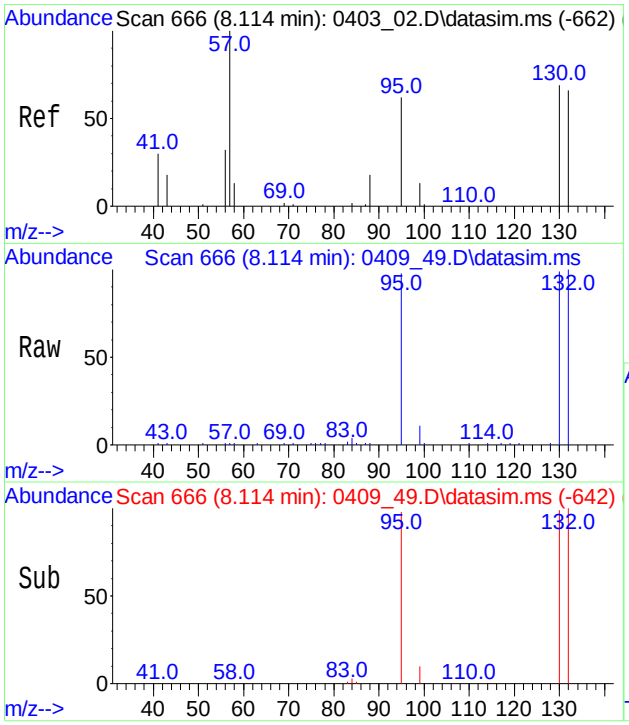




#92
Cis-1,2-Dichloroethene(sim)
Conc: 8$ 0.819 ppbv
RT: 6.789 min Scan# 501
Delta R.T. -0.000 min
Lab File: 0409_49.D
Acq: 10 Apr 2019 01:20 pm

Tgt Ion: 61 Resp: 15800

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 59.4 | 69.7 | 104.5# |
| 98 | 38.0 | 45.3 | 67.9# |

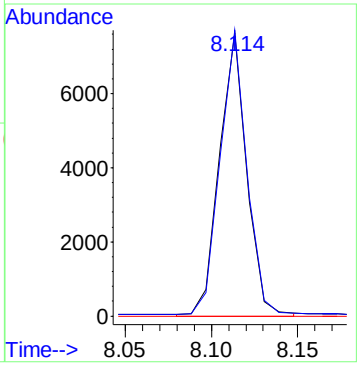


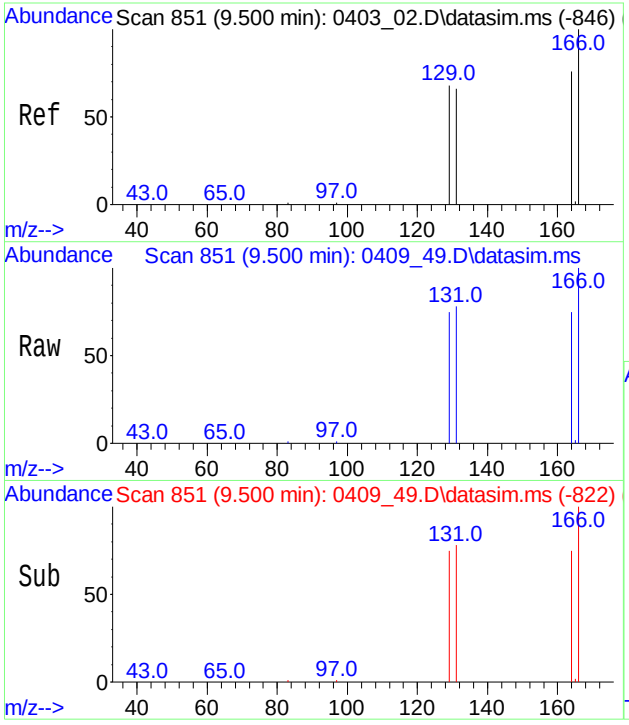



#97
Trichloroethene(sim)
Conc: 8$ 0.487 ppbv
RT: 8.111 min Scan# 666
Delta R.T. -0.000 min
Lab File: 0409_49.D
Acq: 10 Apr 2019 01:20 pm

Tgt Ion:130 Resp: 6246

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 99.9 | 78.0 | 117.0 |
| 97 | 79.0 | 47.2 | 70.8# |

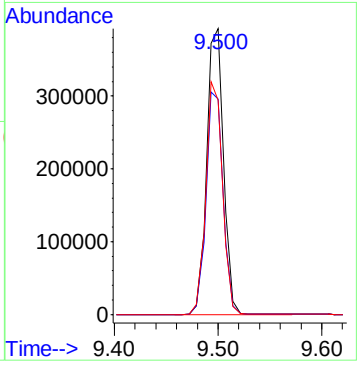



#103
Tetrachloroethene(sim)
Conc: 8$ 22.590 ppbv
RT: 9.497 min Scan# 851
Delta R.T. 0.000 min
Lab File: 0409_49.D
Acq: 10 Apr 2019 01:20 pm

Tgt Ion:166 Resp: 315877

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 80.0 | 57.7 | 97.7 |
| 129 | 89.4 | 48.6 | 88.6# |



1

AIR ANALYSIS DATA SHEET

CLIENT ID: IA-7

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90513

Canister: 23326 Lab File ID: 0409_22.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/09/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 115-07-1 | Propylene | 0.581 | U | 0.581 | 0.581 | r |
| 75-71-8 | Dichlorodifluoromethane | 0.481 | | 0.202 | 0.202 | r |
| 74-87-3 | Chloromethane | 0.554 | | 0.485 | 0.485 | r |
| 106-99-0 | 1,3-Butadiene | 0.452 | U | 0.452 | 0.452 | r |
| 75-00-3 | Chloroethane | 0.379 | U | 0.379 | 0.379 | r |
| 64-17-5 | Ethanol | 8.06 | S | 0.531 | 0.531 | r |
| 67-64-1 | Acetone | 6.49 | S | 0.421 | 0.421 | r |
| 75-69-4 | Trichlorofluoromethane | 0.251 | | 0.178 | 0.178 | r |
| 67-63-0 | Isopropylalcohol | 0.407 | U | 0.407 | 0.407 | r |
| 107-13-1 | Acrylonitrile | 0.461 | U | 0.461 | 0.461 | r |
| 75-09-2 | Methylene Chloride | 0.864 | U | 0.864 | 0.864 | r |
| 75-15-0 | Carbon Disulfide | 0.321 | U | 0.321 | 0.321 | r |
| 1634-04-4 | Methyl tert-butyl ether(MTBE) | 0.278 | U | 0.278 | 0.278 | r |
| 78-93-3 | Methyl Ethyl Ketone | 0.339 | U | 0.339 | 0.339 | r |
| 110-54-3 | Hexane | 0.477 | S | 0.284 | 0.284 | r |
| 141-78-6 | Ethyl acetate | 0.278 | U | 0.278 | 0.278 | r |
| 109-99-9 | Tetrahydrofuran | 0.339 | U | 0.339 | 0.339 | r |
| 71-43-2 | Benzene | 0.369 | | 0.313 | 0.313 | r |
| 110-82-7 | Cyclohexane | 0.291 | U | 0.291 | 0.291 | r |
| 142-82-5 | Heptane | 0.244 | U | 0.244 | 0.244 | r |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | 0.302 | | 0.244 | 0.244 | r |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.221 | U | 0.221 | 0.221 | r |
| 108-88-3 | Toluene | 1.87 | | 0.266 | 0.266 | r |
| 591-78-6 | 2-Hexanone(MBK) | 0.244 | U | 0.244 | 0.244 | r |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.146 | U | 0.146 | 0.146 | r |
| 108-90-7 | Chlorobenzene | 0.217 | U | 0.217 | 0.217 | r |
| 100-41-4 | Ethylbenzene | 0.230 | U | 0.230 | 0.230 | r |
| 179601-23-1 | m,p-Xylene | 0.847 | | 0.230 | 0.230 | r |
| 100-42-5 | Styrene | 0.235 | U | 0.235 | 0.235 | r |
| 95-47-6 | o-Xylene | 0.245 | | 0.230 | 0.230 | r |
| 98-82-8 | Isopropylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 622-96-8 | 4-Ethyltoluene | 0.204 | U | 0.204 | 0.204 | r |
| 108-67-8 | 1,3,5-Trimethylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.216 | | 0.204 | 0.204 | r |
| 76-14-2 | 1,2-Dichlorotetrafluoroethane(sim) | 0.143 | U | 0.143 | 0.143 | r |
| 75-01-4 | Vinyl Chloride(sim) | 0.078 | U | 0.078 | 0.078 | r |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

AIR ANALYSIS DATA SHEET

CLIENT ID: IA-7

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90513

Canister: 23326 Lab File ID: 0409_22.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/09/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 74-83-9 | Bromomethane(sim) | 0.258 | U | 0.258 | 0.258 | r |
| 107-06-2 | 1,2-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 71-55-6 | 1,1,1-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 56-23-5 | Carbon Tetrachloride(sim) | 0.087 | | 0.032 | 0.032 | r |
| 75-35-4 | 1,1-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 76-13-1 | Trichlorotrifluoroethane(sim) | 0.131 | U | 0.131 | 0.131 | r |
| 156-60-5 | Trans-1,2-Dichloroethene(sim) | 0.252 | U | 0.252 | 0.252 | r |
| 75-34-3 | 1,1-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 156-59-2 | Cis-1,2-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 67-66-3 | Chloroform(sim) | 0.205 | U | 0.205 | 0.205 | r |
| 78-87-5 | 1,2-dichloropropane(sim) | 0.217 | U | 0.217 | 0.217 | r |
| 75-27-4 | Bromodichloromethane(sim) | 0.149 | U | 0.149 | 0.149 | r |
| 79-01-6 | Trichloroethene(sim) | 0.037 | U | 0.037 | 0.037 | r |
| 123-91-1 | 1,4-Dioxane(sim) | 0.278 | U | 0.278 | 0.278 | r |
| 10061-01-5 | cis-1,3-Dichloropropene(sim) | 0.221 | U | 0.221 | 0.221 | r |
| 79-00-5 | 1,1,2-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 124-48-1 | Dibromochloromethane(sim) | 0.118 | U | 0.118 | 0.118 | r |
| 106-93-4 | 1,2-Dibromoethane(EDB)(sim) | 0.130 | U | 0.130 | 0.130 | r |
| 127-18-4 | Tetrachloroethene(sim) | 0.085 | | 0.037 | 0.037 | r |
| 75-25-2 | Bromoform(sim) | 0.097 | U | 0.097 | 0.097 | r |
| 79-34-5 | 1,1,2,2-Tetrachloroethane(sim) | 0.146 | U | 0.146 | 0.146 | r |
| 100-44-7 | Benzyl chloride(sim) | 0.193 | U | 0.193 | 0.193 | r |
| 541-73-1 | 1,3-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 106-46-7 | 1,4-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 135-98-8 | sec-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 99-87-6 | 4-Isopropyltoluene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 95-50-1 | 1,2-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 104-51-8 | n-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 120-82-1 | 1,2,4-Trichlorobenzene(sim) | 0.135 | U | 0.135 | 0.135 | r |
| 87-68-3 | Hexachlorobutadiene(sim) | 0.094 | U | 0.094 | 0.094 | r |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_22.D
Acq On : 09 Apr 2019 07:18 pm
Operator : CORTEX\ms
Client ID : IA-7
Lab ID : CC90513
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 10:24:55 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration

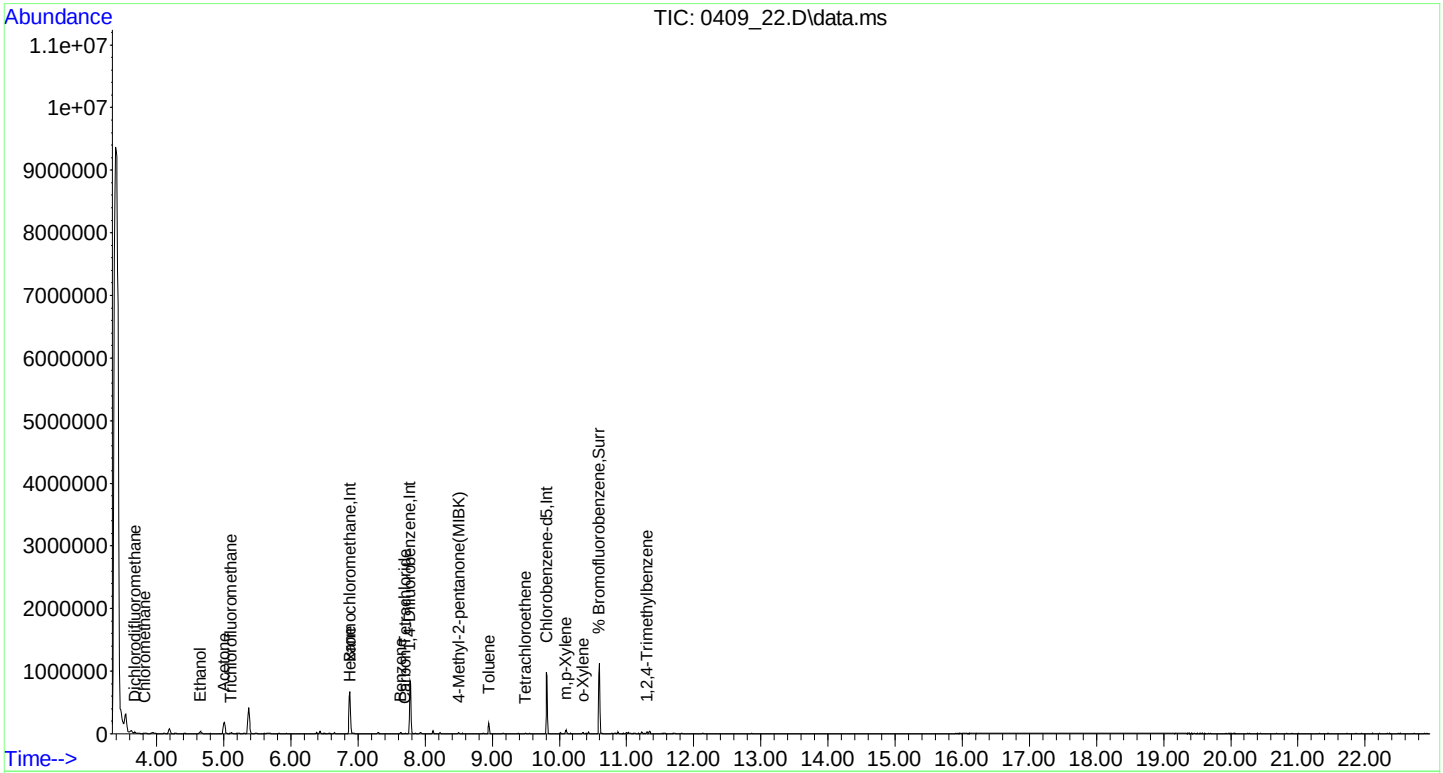
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.879 | 130 | 126580 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.772 | 114 | 403050 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.807 | 82 | 189246 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.882 | 130 | 174436 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 463928 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 194291 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 254348 | 10.252 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 102.50% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 3.679 | 85 | 15597 | 0.480 | ppbv | # | 96 |
| 4) Chloromethane | 3.825 | 50 | 7514 | 0.554 | ppbv | | 92 |
| 11) Ethanol | 4.652 | 45 | 43910 | 8.062 | ppbv | | 95 |
| 12) Acetone | 5.009 | 43 | 183660 | 6.490 | ppbv | # | 84 |
| 13) Trichlorofluoromethane | 5.114 | 101 | 10671 | 0.251 | ppbv | | 97 |
| 27) Hexane | 6.887 | 57 | 9755 | 0.477 | ppbv | # | 80 |
| 33) Benzene | 7.636 | 78 | 10230 | 0.369 | ppbv | # | 84 |
| 34) Carbon Tetrachloride | 7.704 | 117 | 1967 | 0.082 | ppbv | | 89 |
| 45) 4-Methyl-2-pentanone(M... | 8.500 | 43 | 8410 | 0.302 | ppbv | # | 78 |
| 48) Toluene | 8.948 | 91 | 61939 | 1.874 | ppbv | # | 98 |
| 52) Tetrachloroethene | 9.497 | 166 | 1540 | 0.096 | ppbv | # | 83 |
| 57) m,p-Xylene | 10.095 | 91 | 28976 | 0.847 | ppbv | | 91 |
| 61) o-Xylene | 10.353 | 91 | 8784 | 0.245 | ppbv | | 93 |
| 68) 1,2,4-Trimethylbenzene | 11.309 | 105 | 8620m | 0.216 | ppbv | # | 82 |
| 84) Trichlorofluoromethane... | 5.117 | 101 | 12681 | 0.218 | ppbv | | 99 |
| 87) Carbon Tetrachloride(sim) | 7.704 | 117 | 1967 | 0.087 | ppbv | | 89 |
| 103) Tetrachloroethene(sim) | 9.497 | 166 | 1540 | 0.085 | ppbv | | 83 |
| 106) m,p-Xylene(sim) | 10.098 | 91 | 30547 | 0.839 | ppbv | # | 92 |

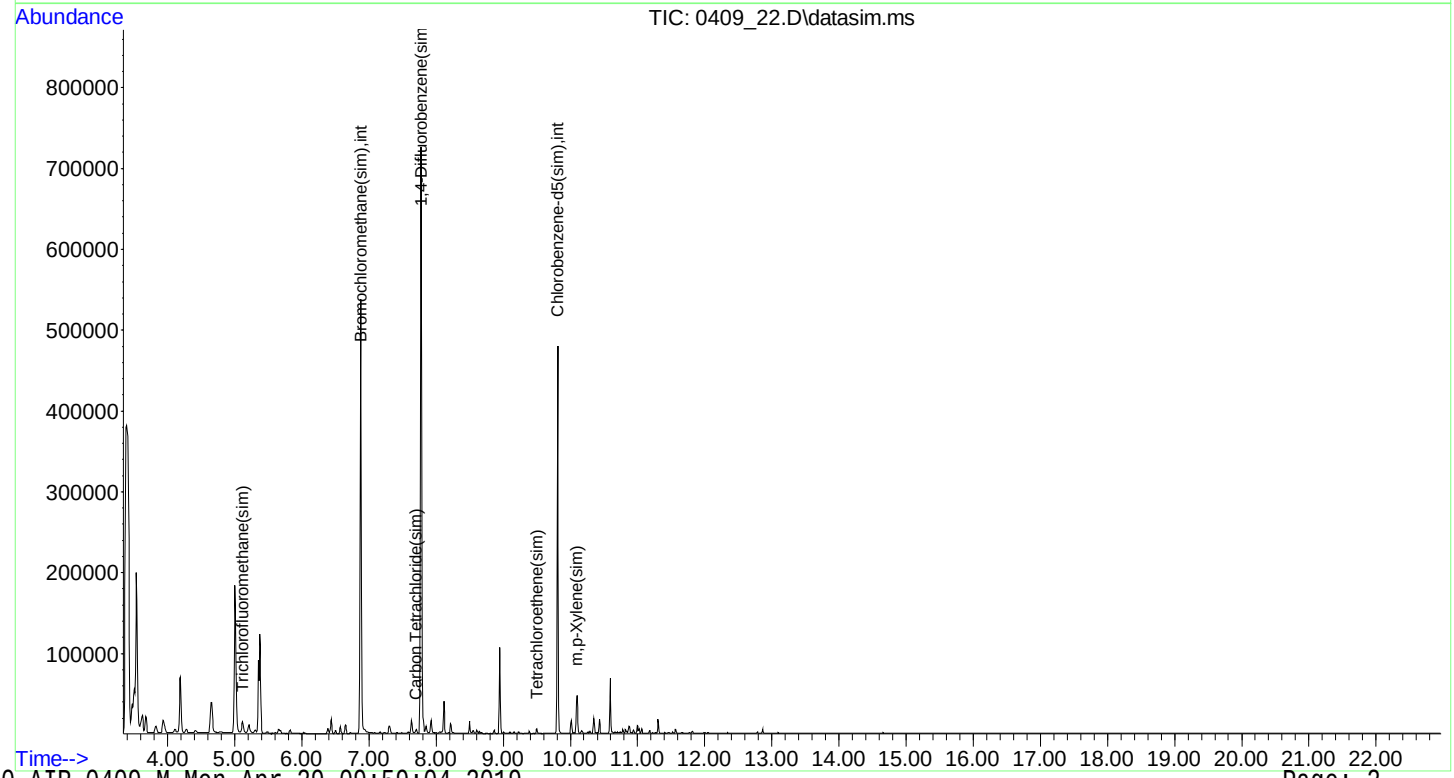
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

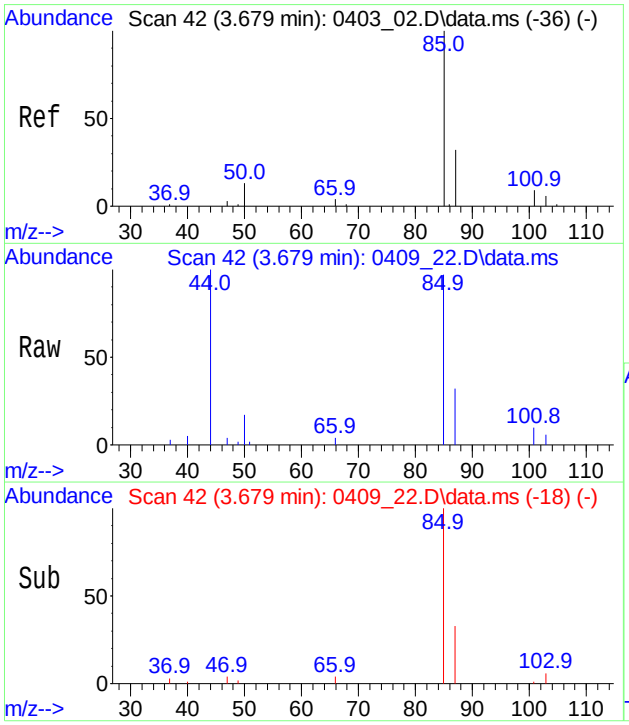
Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_22.D
Acq On : 09 Apr 2019 07:18 pm
Operator : CORTEX\ms
Client ID : IA-7
Lab ID : CC90513
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 10:24:55 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration



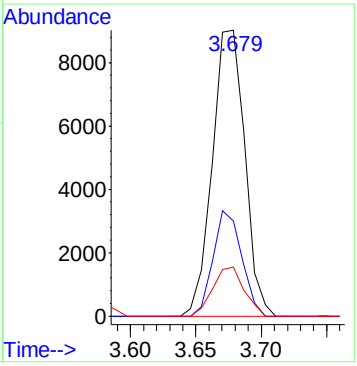



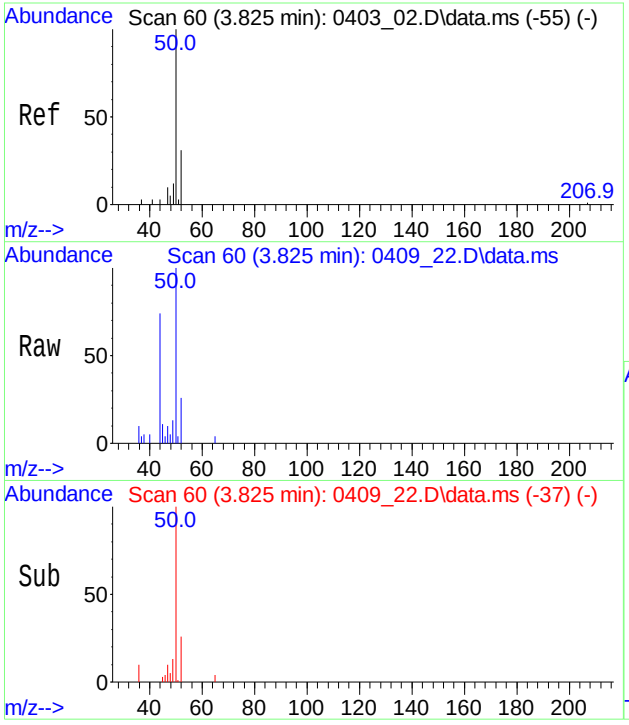



#3
Dichlorodifluoromethane
Conc: 8$ 0.480 ppbv
RT: 3.679 min Scan# 42
Delta R.T. -0.008 min
Lab File: 0409_22.D
Acq: 09 Apr 2019 07:18 pm

Tgt Ion: 85 Resp: 15597

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 32.4 | 25.6 | 38.4 |
| 50 | 16.6 | 9.4 | 14.2# |

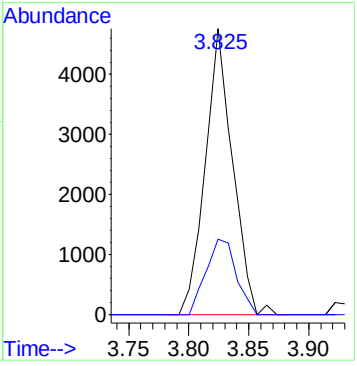


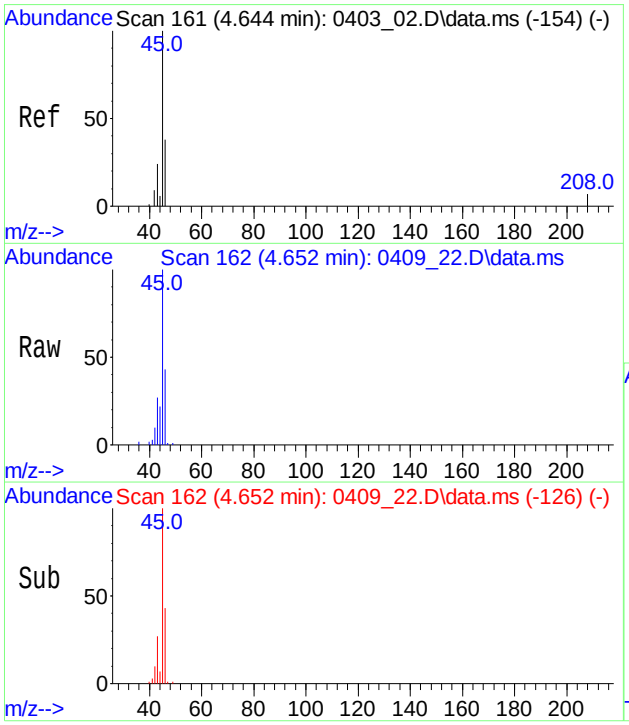




#4
Chloromethane
Conc: 8$ 0.554 ppbv
RT: 3.825 min Scan# 60
Delta R.T. -0.016 min
Lab File: 0409_22.D
Acq: 09 Apr 2019 07:18 pm

Tgt Ion: 50 Resp: 7514

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 29.1 | 13.6 | 53.6 |

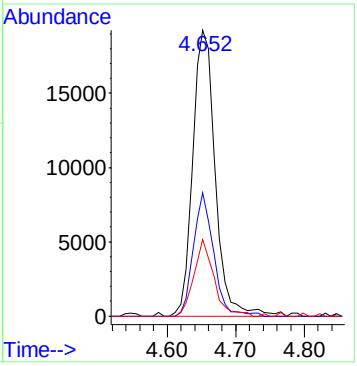


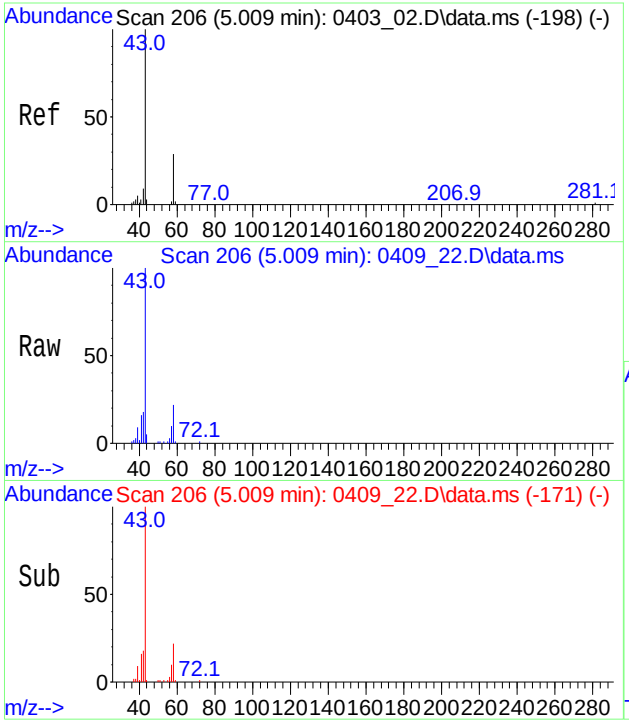



#11
Ethanol
Conc: 8$ 8.062 ppbv
RT: 4.652 min Scan# 162
Delta R.T. -0.008 min
Lab File: 0409_22.D
Acq: 09 Apr 2019 07:18 pm

Tgt Ion: 45 Resp: 43910

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 46 | 38.8 | 29.9 | 44.9 |
| 43 | 23.9 | 22.7 | 34.1 |

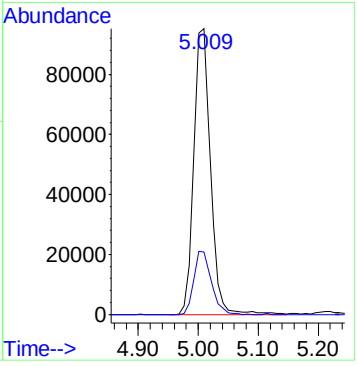


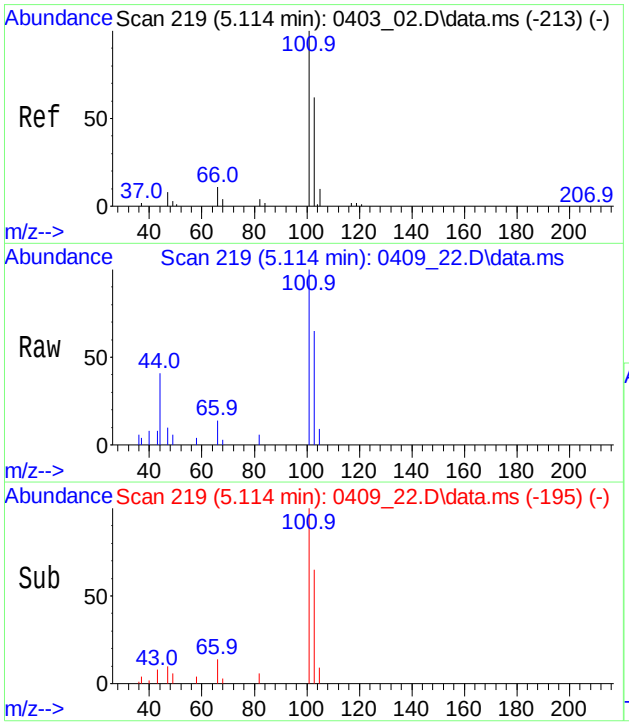




#12
Acetone
Conc: 8$ 6.490 ppbv
RT: 5.009 min Scan# 206
Delta R.T. -0.016 min
Lab File: 0409_22.D
Acq: 09 Apr 2019 07:18 pm

Tgt Ion: 43 Resp: 183660

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 23.3 | 25.9 | 38.9# |

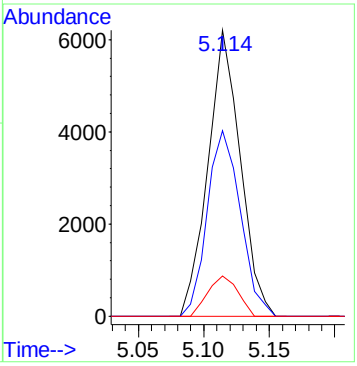


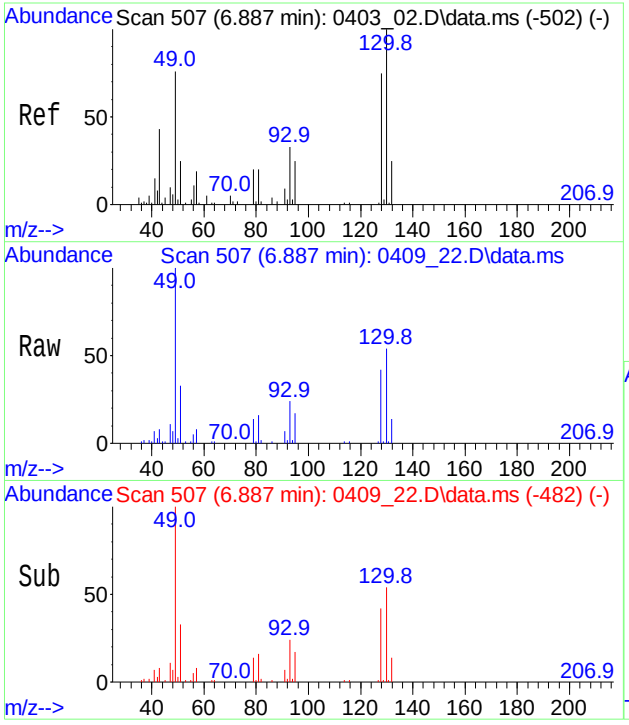



#13
Trichlorofluoromethane
Conc: 8$ 0.251 ppbv
RT: 5.114 min Scan# 219
Delta R.T. -0.008 min
Lab File: 0409_22.D
Acq: 09 Apr 2019 07:18 pm

Tgt Ion:101 Resp: 10671

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 66.6 | 51.6 | 77.4 |
| 66 | 13.0 | 9.4 | 14.0 |

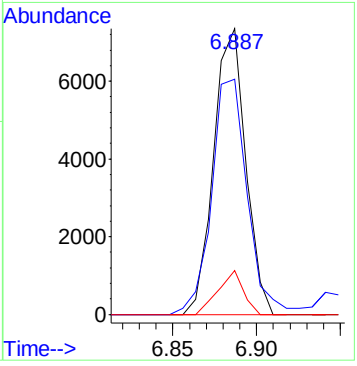


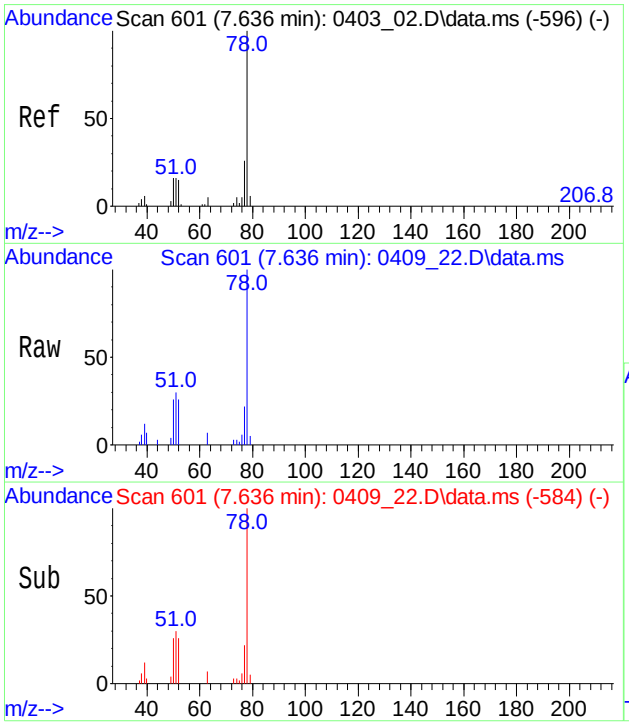




#27
Hexane
Conc: 8$ 0.477 ppbv
RT: 6.887 min Scan# 507
Delta R.T. -0.000 min
Lab File: 0409_22.D
Acq: 09 Apr 2019 07:18 pm

Tgt Ion: 57 Resp: 9755

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 57 | 100 | | |
| 41 | 91.4 | 58.9 | 88.3# |
| 86 | 12.1 | 16.4 | 24.6# |

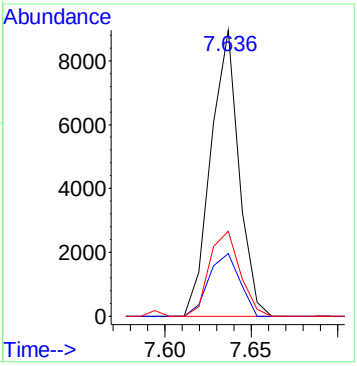


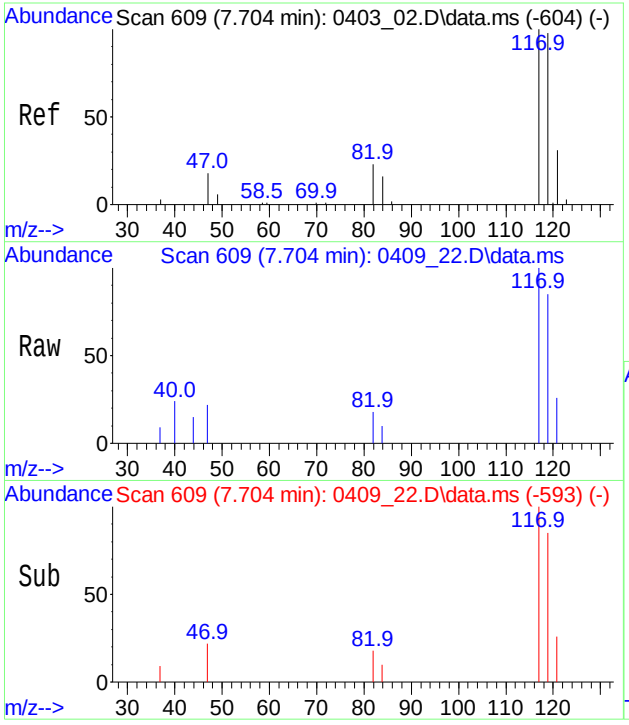



#33
Benzene
Conc: 8$  0.369 ppbv
RT:  7.636 min  Scan# 601
Delta R.T.  0.000 min
Lab File:  0409_22.D
Acq: 09 Apr 2019  07:18 pm

Tgt Ion: 78 Resp:  10230

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 23.9 | 18.6 | 27.8 |
| 51 | 32.2 | 12.9 | 19.3# |

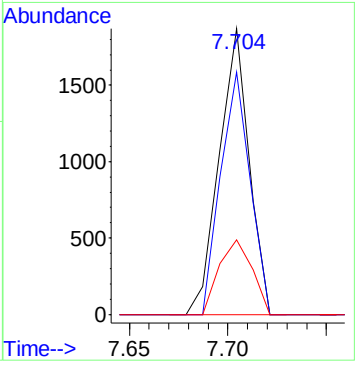


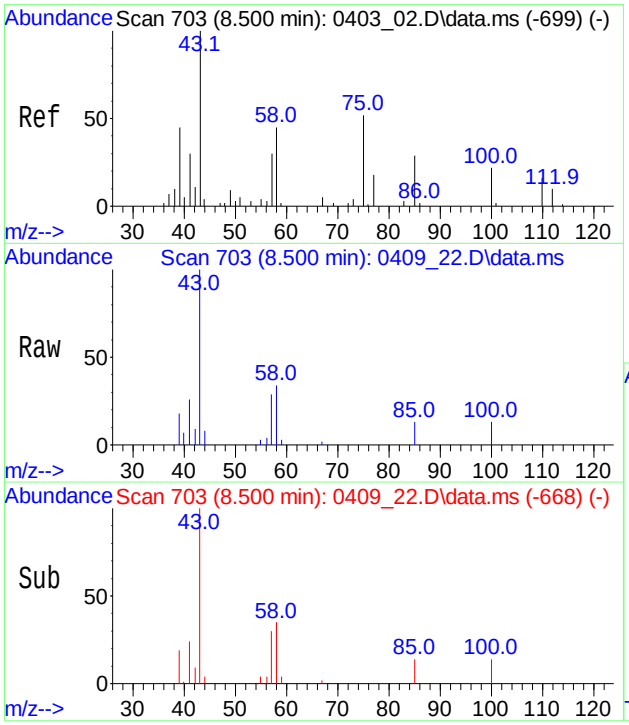




#34
Carbon Tetrachloride
Conc: 8$  Below Cal
RT:  7.704 min  Scan# 609
Delta R.T.  0.000 min
Lab File:  0409_22.D
Acq: 09 Apr 2019  07:18 pm

Tgt Ion:117 Resp:  1967

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 83.1 | 75.8 | 115.8 |
| 121 | 28.8 | 10.7 | 50.7 |

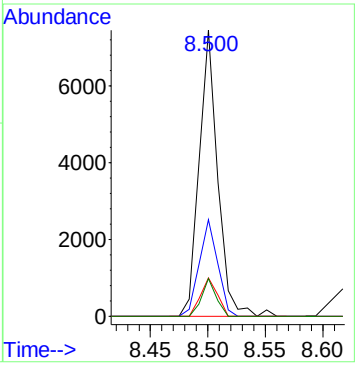


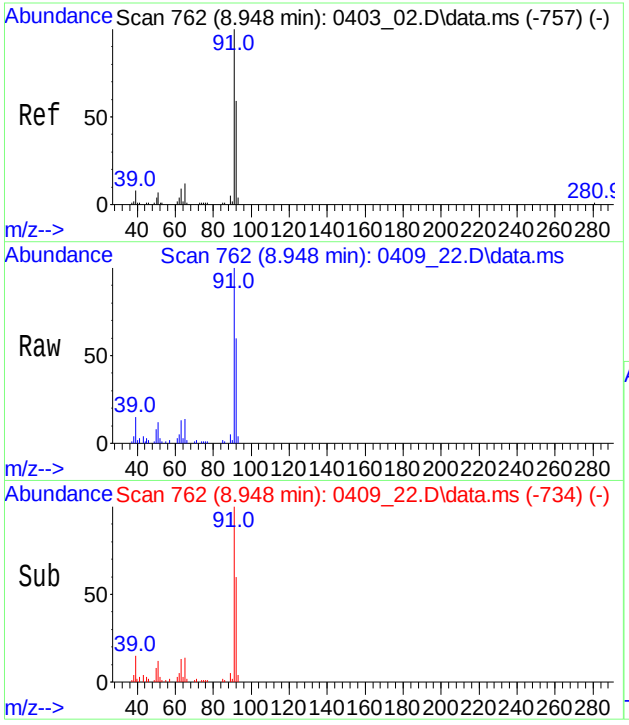



#45
4-Methyl-2-pentanone(MIBK)
Conc: 8$ 0.302 ppbv
RT: 8.500 min Scan# 703
Delta R.T. 0.000 min
Lab File: 0409_22.D
Acq: 09 Apr 2019 07:18 pm

Tgt Ion: 43 Resp: 8410

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 33.4 | 35.5 | 53.3# |
| 85 | 12.0 | 21.6 | 32.4# |
| 100 | 10.1 | 16.5 | 24.7# |

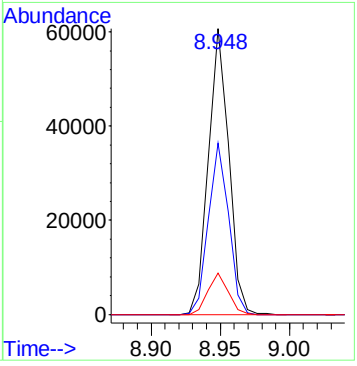


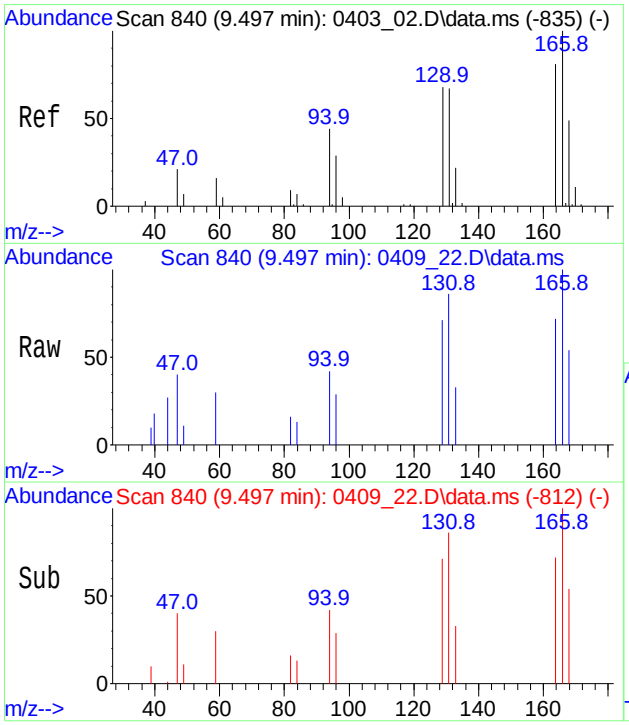




#48
Toluene
Conc: 8$ 1.874 ppbv
RT: 8.948 min Scan# 762
Delta R.T. 0.000 min
Lab File: 0409_22.D
Acq: 09 Apr 2019 07:18 pm

Tgt Ion: 91 Resp: 61939

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 59.2 | 47.7 | 71.5 |
| 65 | 14.4 | 9.3 | 13.9# |

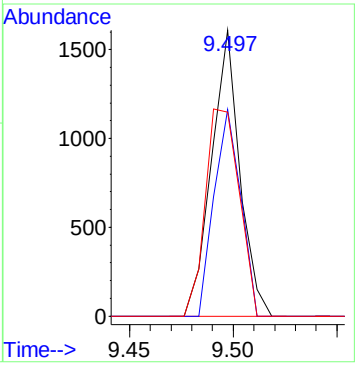


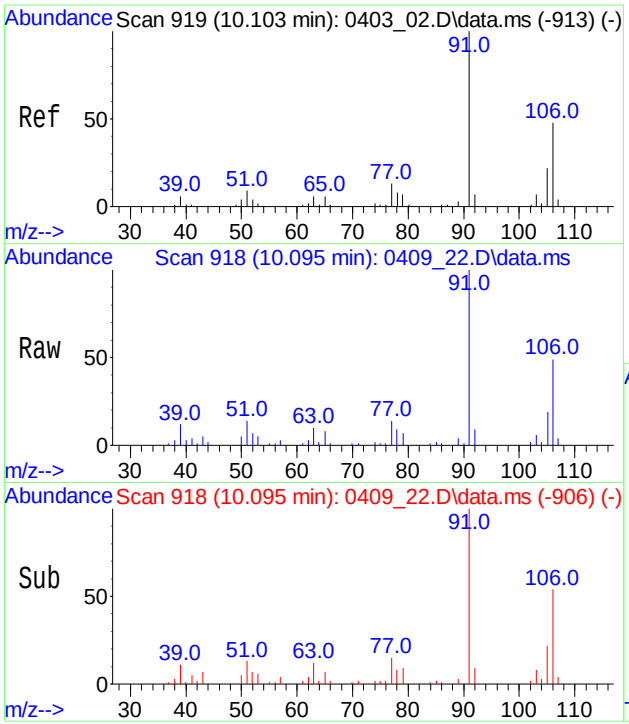



#52
Tetrachloroethene
Conc: 8$  Below Cal
RT:  9.497 min  Scan# 840
Delta R.T.  0.000 min
Lab File:  0409_22.D
Acq: 09 Apr 2019  07:18 pm

Tgt Ion:166 Resp:  1540

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 67.3 | 62.2 | 93.2 |
| 129 | 86.7 | 54.9 | 82.3# |

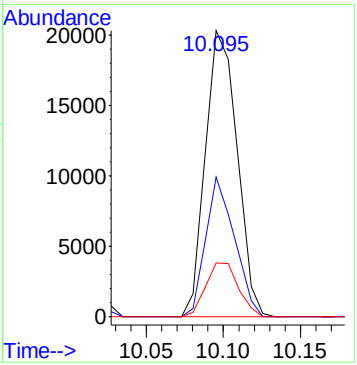


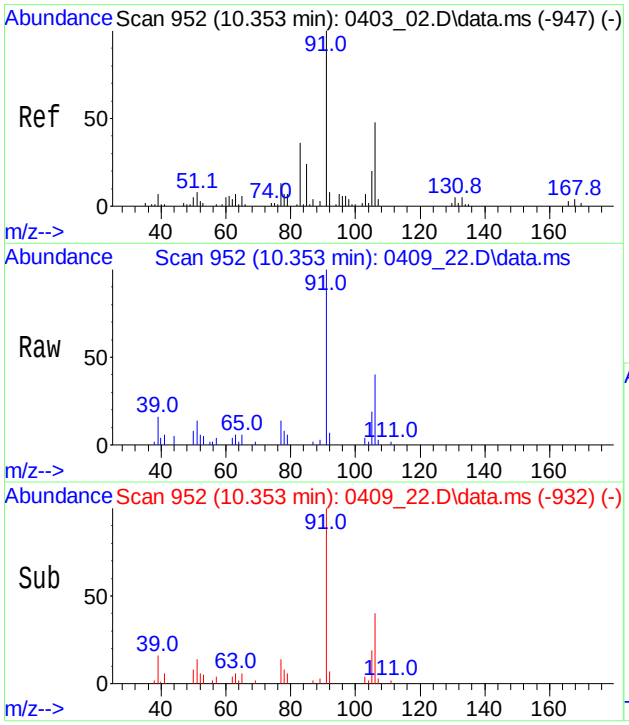




#57
m,p-Xylene
Conc: 8$  0.847 ppbv
RT:  10.095 min  Scan# 918
Delta R.T.  -0.007 min
Lab File:  0409_22.D
Acq: 09 Apr 2019  07:18 pm

Tgt Ion: 91 Resp:  28976

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 44.2 | 40.9 | 61.3 |
| 105 | 19.3 | 17.8 | 26.8 |

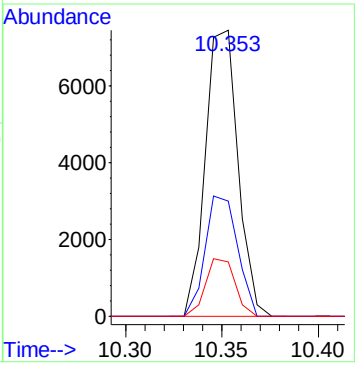


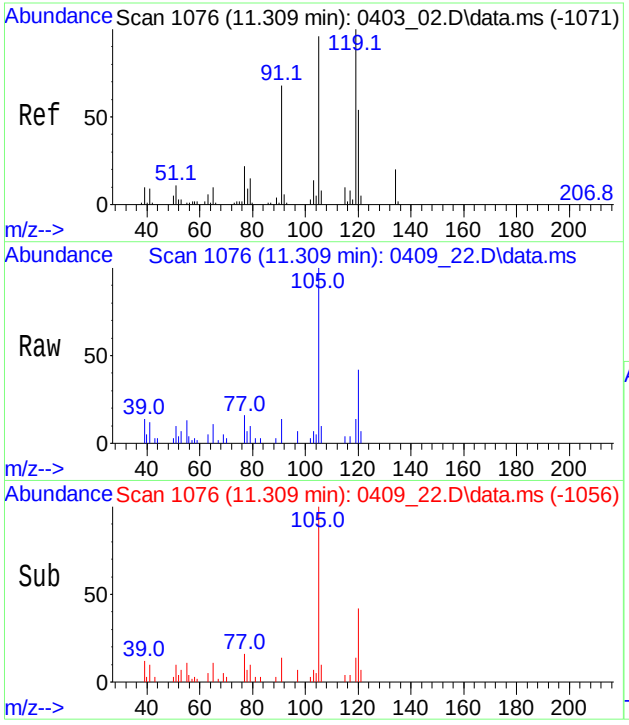



#61
o-Xylene
Conc: 8$  0.245 ppbv
RT:  10.353 min  Scan# 952
Delta R.T.  0.000 min
Lab File:  0409_22.D
Acq: 09 Apr 2019  07:18 pm

Tgt Ion: 91 Resp:  8784

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 41.7 | 38.3 | 57.5 |
| 105 | 18.1 | 15.2 | 22.8 |

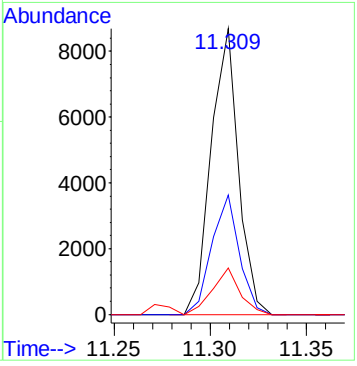


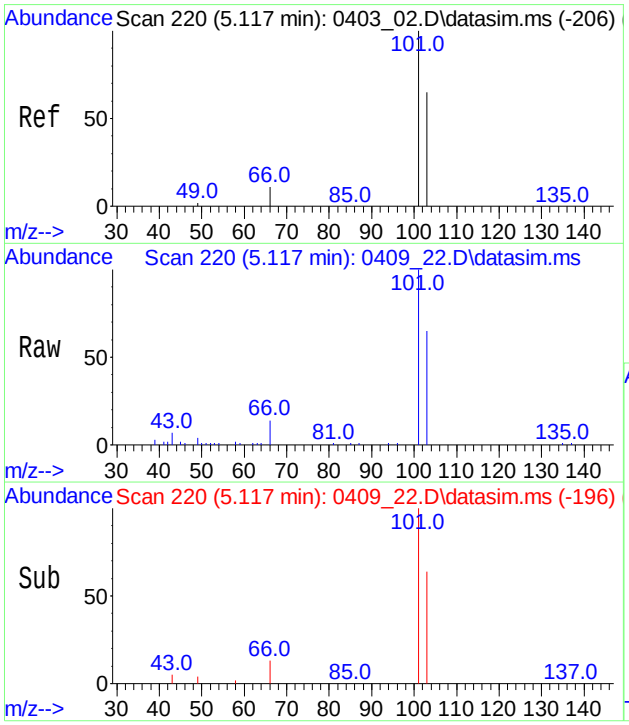




#68
1,2,4-Trimethylbenzene
Conc: 8$  0.216 ppbv
RT:  11.309 min  Scan# 1076
Delta R.T.  0.000 min
Lab File:  0409_22.D
Acq: 09 Apr 2019  07:18 pm

Tgt Ion:105 Resp:  8620

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 42.3 | 44.5 | 66.7# |
| 77 | 16.4 | 19.7 | 29.5# |

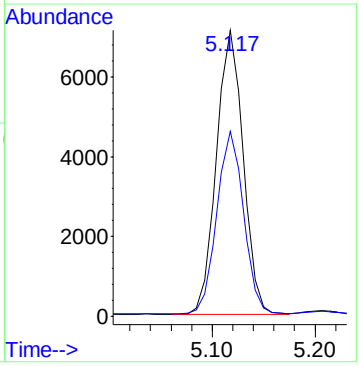


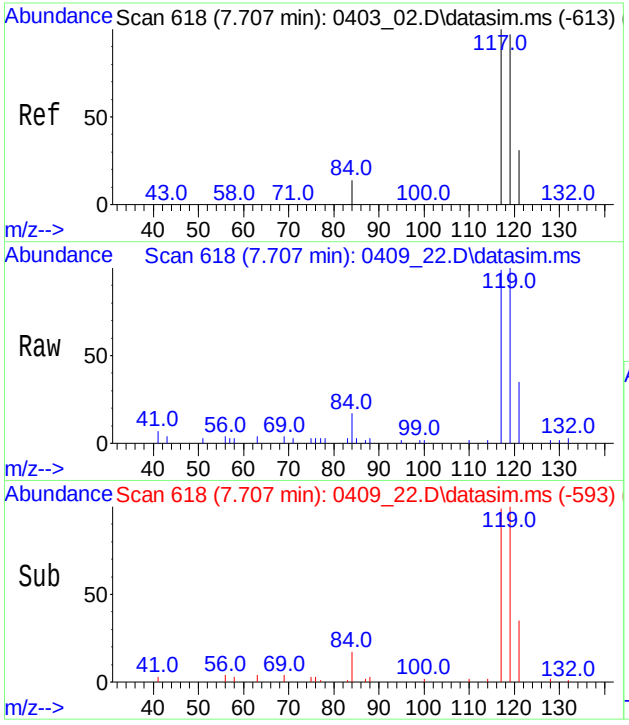



#84
Trichlorofluoromethane(sim)
Conc: 8$ 0.218 ppbv
RT: 5.117 min Scan# 220
Delta R.T. -0.008 min
Lab File: 0409_22.D
Acq: 09 Apr 2019 07:18 pm

Tgt Ion:101 Resp: 12681

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 64.2 | 51.9 | 77.9 |

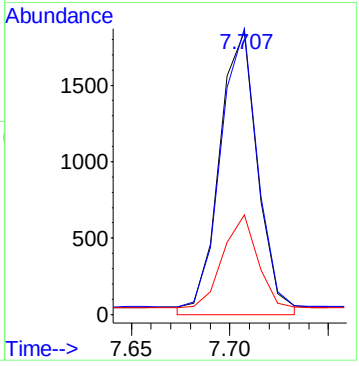


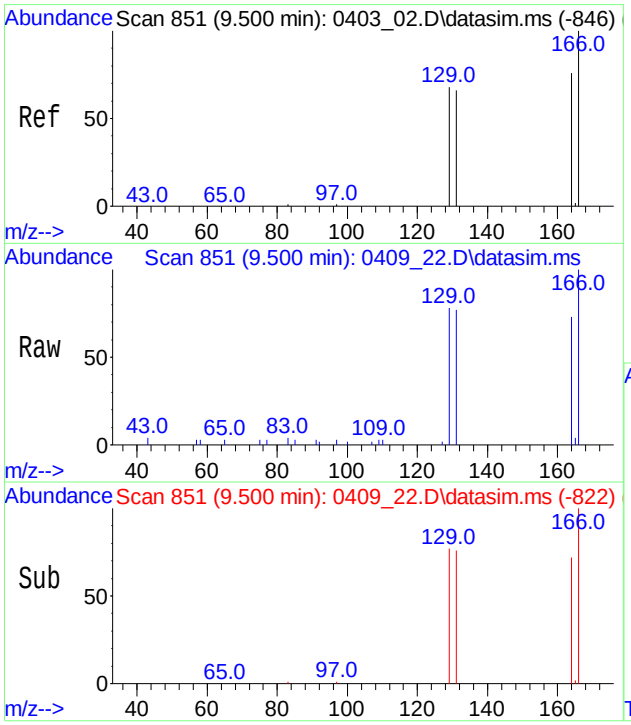




#87
Carbon Tetrachloride(sim)
Conc: 8$ 0.087 ppbv
RT: 7.704 min Scan# 618
Delta R.T. 0.000 min
Lab File: 0409_22.D
Acq: 09 Apr 2019 07:18 pm

Tgt Ion:117 Resp: 1967

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 83.1 | 76.6 | 115.0 |
| 121 | 28.8 | 24.6 | 36.8 |

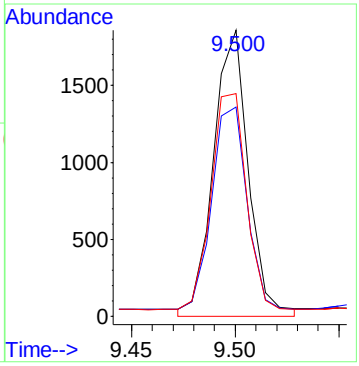


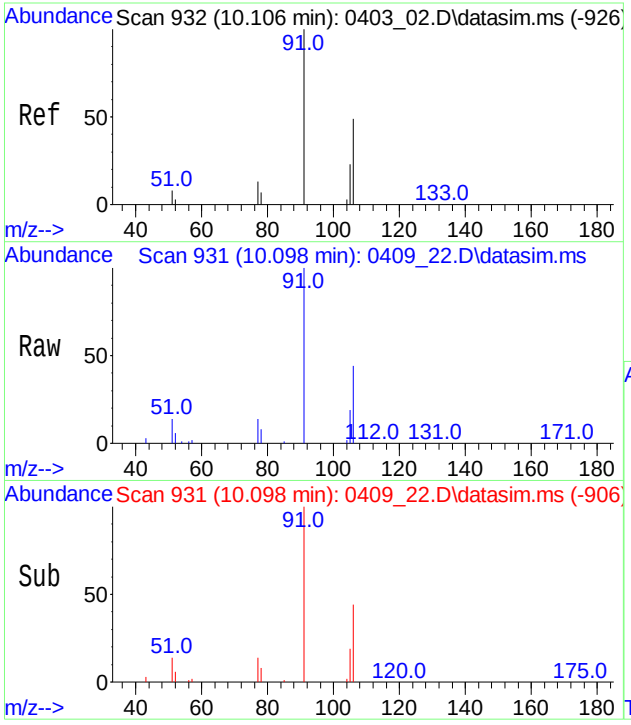



#103
Tetrachloroethene(sim)
Conc: 8$ 0.085 ppbv
RT: 9.497 min Scan# 851
Delta R.T. 0.000 min
Lab File: 0409_22.D
Acq: 09 Apr 2019 07:18 pm

Tgt Ion:166 Resp: 1540

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 67.3 | 57.7 | 97.7 |
| 129 | 86.7 | 48.6 | 88.6 |

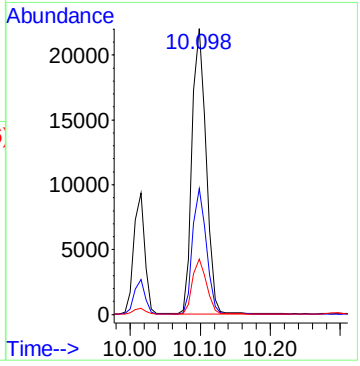



#106
m,p-Xylene(sim)
Conc: 8$ 0.839 ppbv
RT: 10.098 min Scan# 931
Delta R.T. -0.007 min
Lab File: 0409_22.D
Acq: 09 Apr 2019 07:18 pm

Tgt Ion: 91 Resp: 30547

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 43.2 | 44.3 | 54.1# |
| 105 | 19.2 | 17.7 | 26.5 |



AIR ANALYSIS DATA SHEET

CLIENT ID: IA-1

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90514

Canister: 21365 Lab File ID: 0409_23.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/09/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 115-07-1 | Propylene | 0.581 | U | 0.581 | 0.581 | r |
| 75-71-8 | Dichlorodifluoromethane | 0.482 | | 0.202 | 0.202 | r |
| 74-87-3 | Chloromethane | 0.607 | | 0.485 | 0.485 | r |
| 106-99-0 | 1,3-Butadiene | 0.452 | U | 0.452 | 0.452 | r |
| 75-00-3 | Chloroethane | 0.379 | U | 0.379 | 0.379 | r |
| 64-17-5 | Ethanol | 5.57 | S | 0.531 | 0.531 | r |
| 67-64-1 | Acetone | 2.34 | S | 0.421 | 0.421 | r |
| 75-69-4 | Trichlorofluoromethane | 0.267 | | 0.178 | 0.178 | r |
| 67-63-0 | Isopropylalcohol | 0.952 | S | 0.407 | 0.407 | r |
| 107-13-1 | Acrylonitrile | 0.461 | U | 0.461 | 0.461 | r |
| 75-09-2 | Methylene Chloride | 0.864 | U | 0.864 | 0.864 | r |
| 75-15-0 | Carbon Disulfide | 0.321 | U | 0.321 | 0.321 | r |
| 1634-04-4 | Methyl tert-butyl ether(MTBE) | 0.278 | U | 0.278 | 0.278 | r |
| 78-93-3 | Methyl Ethyl Ketone | 0.339 | U | 0.339 | 0.339 | r |
| 110-54-3 | Hexane | 0.284 | U | 0.284 | 0.284 | r |
| 141-78-6 | Ethyl acetate | 0.278 | U | 0.278 | 0.278 | r |
| 109-99-9 | Tetrahydrofuran | 0.339 | U | 0.339 | 0.339 | r |
| 71-43-2 | Benzene | 0.313 | U | 0.313 | 0.313 | r |
| 110-82-7 | Cyclohexane | 0.291 | U | 0.291 | 0.291 | r |
| 142-82-5 | Heptane | 0.244 | U | 0.244 | 0.244 | r |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | 0.244 | U | 0.244 | 0.244 | r |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.221 | U | 0.221 | 0.221 | r |
| 108-88-3 | Toluene | 0.266 | U | 0.266 | 0.266 | r |
| 591-78-6 | 2-Hexanone(MBK) | 0.244 | U | 0.244 | 0.244 | r |
| 127-18-4 | Tetrachloroethene | 0.391 | | 0.037 | 0.037 | r |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.146 | U | 0.146 | 0.146 | r |
| 108-90-7 | Chlorobenzene | 0.217 | U | 0.217 | 0.217 | r |
| 100-41-4 | Ethylbenzene | 0.230 | U | 0.230 | 0.230 | r |
| 100-42-5 | Styrene | 0.235 | U | 0.235 | 0.235 | r |
| 95-47-6 | o-Xylene | 0.230 | U | 0.230 | 0.230 | r |
| 98-82-8 | Isopropylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 622-96-8 | 4-Ethyltoluene | 0.204 | U | 0.204 | 0.204 | r |
| 108-67-8 | 1,3,5-Trimethylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 76-14-2 | 1,2-Dichlorotetrafluoroethane(sim) | 0.143 | U | 0.143 | 0.143 | r |
| 75-01-4 | Vinyl Chloride(sim) | 0.078 | U | 0.078 | 0.078 | r |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

AIR ANALYSIS DATA SHEET

CLIENT ID: IA-1

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90514

Canister: 21365 Lab File ID: 0409_23.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/09/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 74-83-9 | Bromomethane(sim) | 0.258 | U | 0.258 | 0.258 | r |
| 107-06-2 | 1,2-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 71-55-6 | 1,1,1-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 56-23-5 | Carbon Tetrachloride(sim) | 0.084 | | 0.032 | 0.032 | r |
| 75-35-4 | 1,1-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 76-13-1 | Trichlorotrifluoroethane(sim) | 0.131 | U | 0.131 | 0.131 | r |
| 156-60-5 | Trans-1,2-Dichloroethene(sim) | 0.252 | U | 0.252 | 0.252 | r |
| 75-34-3 | 1,1-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 156-59-2 | Cis-1,2-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 67-66-3 | Chloroform(sim) | 0.205 | U | 0.205 | 0.205 | r |
| 78-87-5 | 1,2-dichloropropane(sim) | 0.217 | U | 0.217 | 0.217 | r |
| 75-27-4 | Bromodichloromethane(sim) | 0.149 | U | 0.149 | 0.149 | r |
| 79-01-6 | Trichloroethene(sim) | 0.037 | U | 0.037 | 0.037 | r |
| 123-91-1 | 1,4-Dioxane(sim) | 0.278 | U | 0.278 | 0.278 | r |
| 10061-01-5 | cis-1,3-Dichloropropene(sim) | 0.221 | U | 0.221 | 0.221 | r |
| 79-00-5 | 1,1,2-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 124-48-1 | Dibromochloromethane(sim) | 0.118 | U | 0.118 | 0.118 | r |
| 106-93-4 | 1,2-Dibromoethane(EDB)(sim) | 0.130 | U | 0.130 | 0.130 | r |
| 75-25-2 | Bromoform(sim) | 0.097 | U | 0.097 | 0.097 | r |
| 179601-23-1 | m,p-Xylene(sim) | 0.230 | U | 0.230 | 0.230 | r |
| 79-34-5 | 1,1,2,2-Tetrachloroethane(sim) | 0.146 | U | 0.146 | 0.146 | r |
| 100-44-7 | Benzyl chloride(sim) | 0.193 | U | 0.193 | 0.193 | r |
| 541-73-1 | 1,3-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 106-46-7 | 1,4-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 135-98-8 | sec-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 99-87-6 | 4-Isopropyltoluene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 95-50-1 | 1,2-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 104-51-8 | n-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 120-82-1 | 1,2,4-Trichlorobenzene(sim) | 0.135 | U | 0.135 | 0.135 | r |
| 87-68-3 | Hexachlorobutadiene(sim) | 0.094 | U | 0.094 | 0.094 | r |
| | | | | | | |
| | | | | | | |
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FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_23.D
Acq On : 09 Apr 2019 08:00 pm
Operator : CORTEX\ms
Client ID : IA-1
Lab ID : CC90514
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 09:34:52 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration

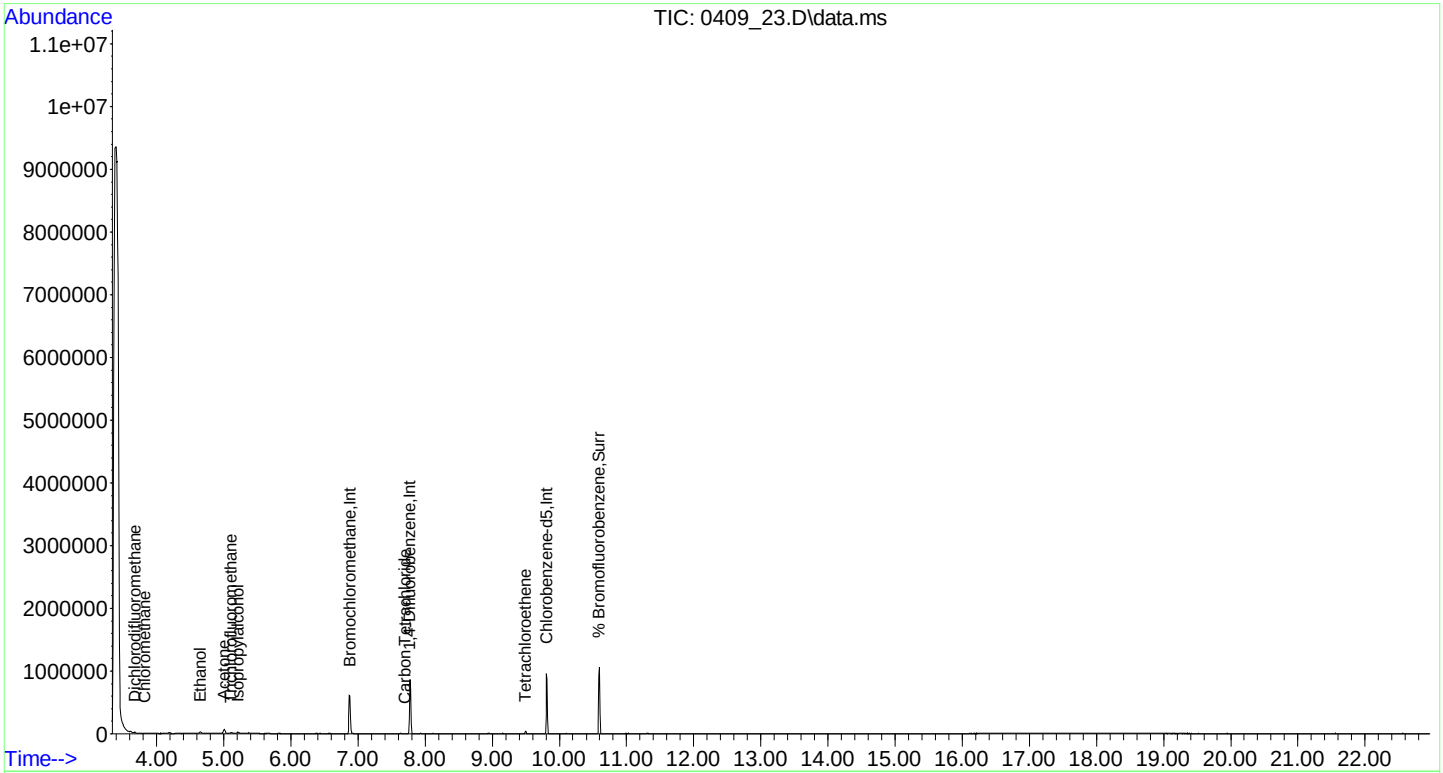
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.879 | 130 | 122750 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.772 | 114 | 385641 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.807 | 82 | 183209 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.874 | 130 | 166803 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 441412 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 184998 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 241843 | 10.069 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 100.70% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 3.678 | 85 | 15182 | 0.482 | ppbv# | | 96 |
| 4) Chloromethane | 3.824 | 50 | 7984 | 0.607 | ppbv | | 94 |
| 11) Ethanol | 4.652 | 45 | 29394 | 5.565 | ppbv | | 94 |
| 12) Acetone | 5.009 | 43 | 64204 | 2.339 | ppbv# | | 86 |
| 13) Trichlorofluoromethane | 5.114 | 101 | 10994 | 0.267 | ppbv# | | 99 |
| 14) Isopropylalcohol | 5.212 | 45 | 27529 | 0.952 | ppbv# | | 98 |
| 34) Carbon Tetrachloride | 7.704 | 117 | 1821 | 0.078 | ppbv | | 97 |
| 52) Tetrachloroethene | 9.497 | 166 | 5992 | 0.391 | ppbv# | | 89 |
| 84] Trichlorofluoromethane... | 5.117 | 101 | 13283 | 0.239 | ppbv | | 98 |
| 87] Carbon Tetrachloride(sim) | 7.704 | 117 | 1821 | 0.084 | ppbv | | 97 |
| 103] Tetrachloroethene(sim) | 9.497 | 166 | 5992 | 0.346 | ppbv | | 89 |

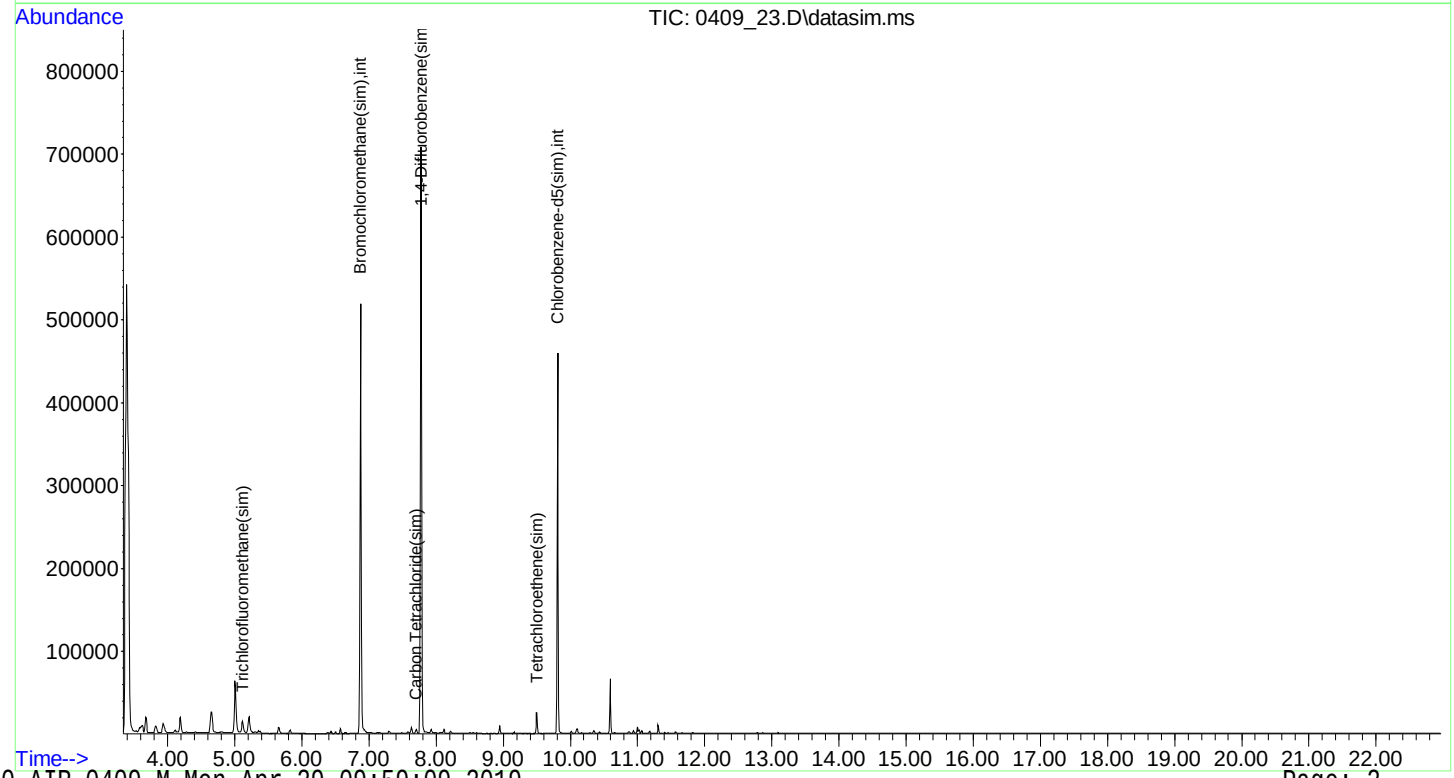
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

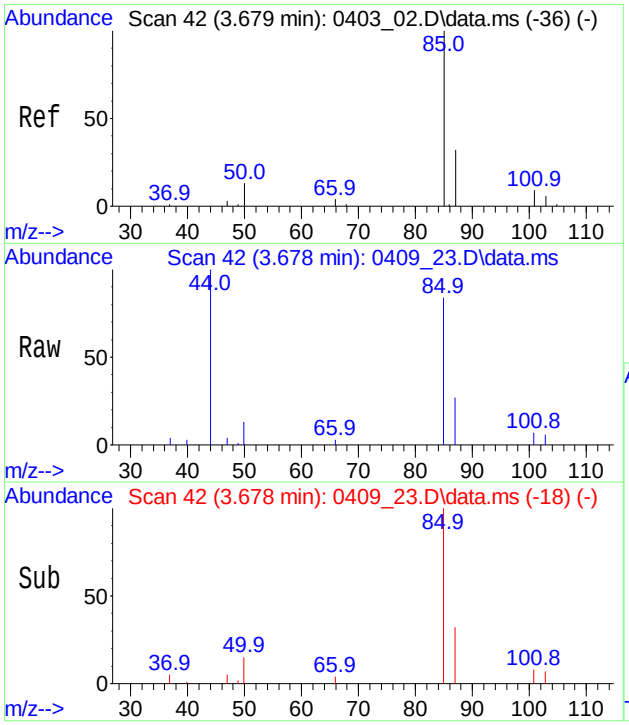
Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_23.D
Acq On : 09 Apr 2019 08:00 pm
Operator : CORTEX\ms
Client ID : IA-1
Lab ID : CC90514
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 09:34:52 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration



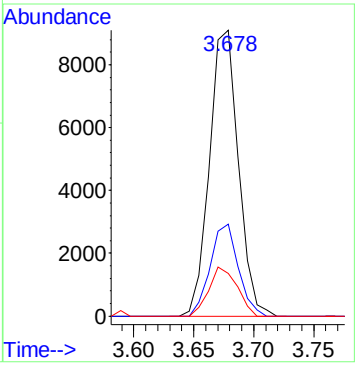



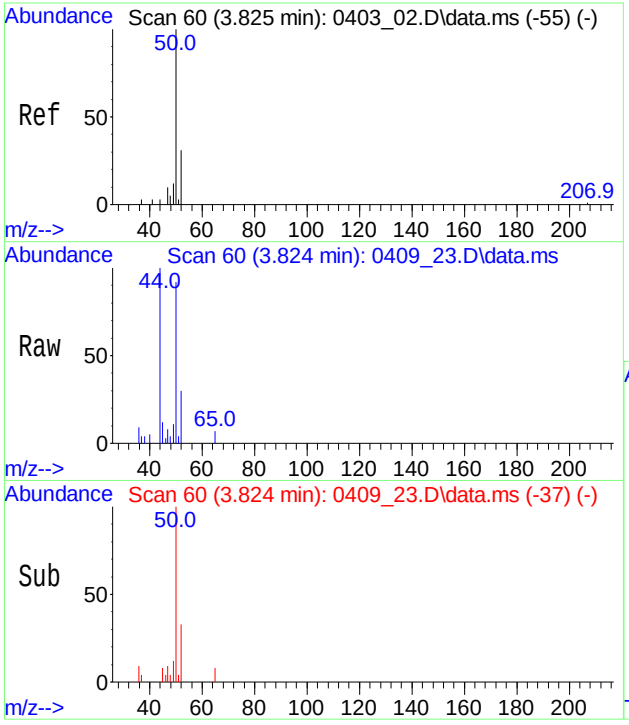



#3
Dichlorodifluoromethane
Conc: 8$ 0.482 ppbv
RT: 3.678 min Scan# 42
Delta R.T. -0.008 min
Lab File: 0409_23.D
Acq: 09 Apr 2019 08:00 pm

Tgt Ion: 85 Resp: 15182

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 31.3 | 25.6 | 38.4 |
| 50 | 16.7 | 9.4 | 14.2# |

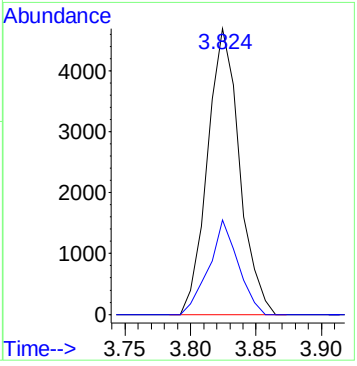


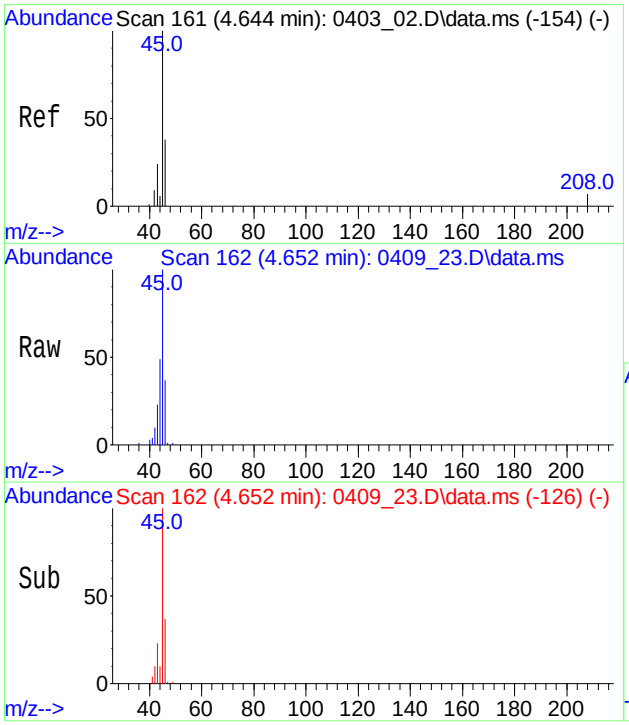




#4
Chloromethane
Conc: 8$ 0.607 ppbv
RT: 3.824 min Scan# 60
Delta R.T. -0.016 min
Lab File: 0409_23.D
Acq: 09 Apr 2019 08:00 pm

Tgt Ion: 50 Resp: 7984

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 30.2 | 13.6 | 53.6 |

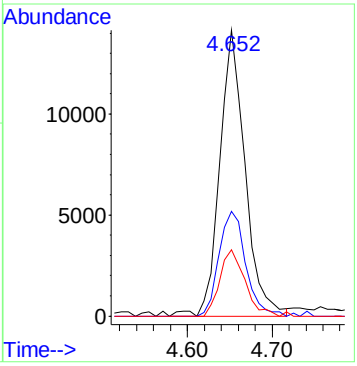


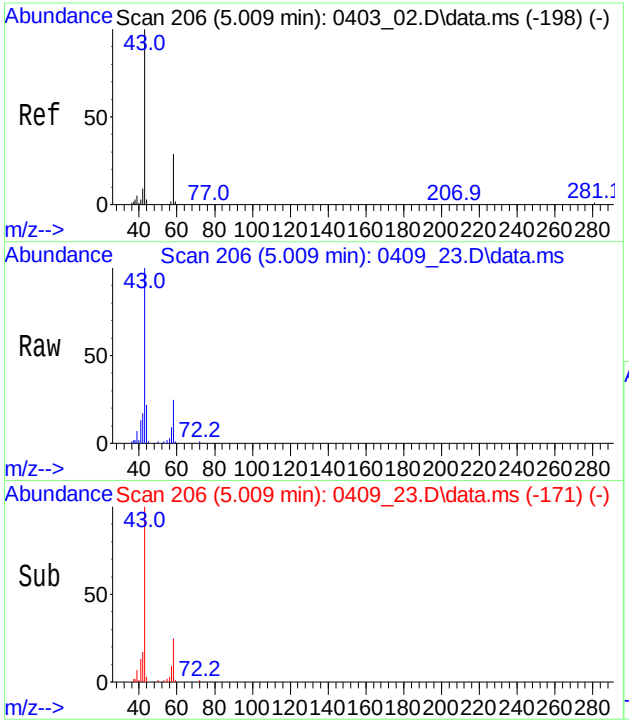



#11
Ethanol
Conc: 8$ 5.565 ppbv
RT: 4.652 min Scan# 162
Delta R.T. -0.008 min
Lab File: 0409_23.D
Acq: 09 Apr 2019 08:00 pm

Tgt Ion: 45 Resp: 29394

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 46 | 38.5 | 29.9 | 44.9 |
| 43 | 22.9 | 22.7 | 34.1 |

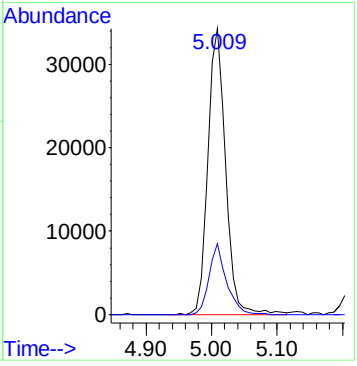


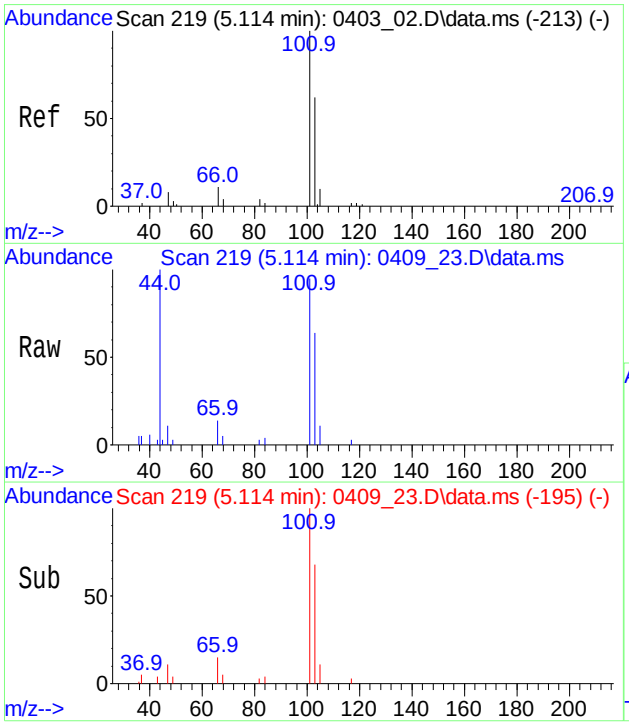




#12
Acetone
Conc: 8$ 2.339 ppbv
RT: 5.009 min Scan# 206
Delta R.T. -0.016 min
Lab File: 0409_23.D
Acq: 09 Apr 2019 08:00 pm

Tgt Ion: 43 Resp: 64204

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 24.4 | 25.9 | 38.9# |

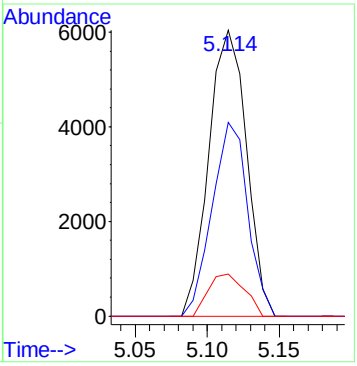


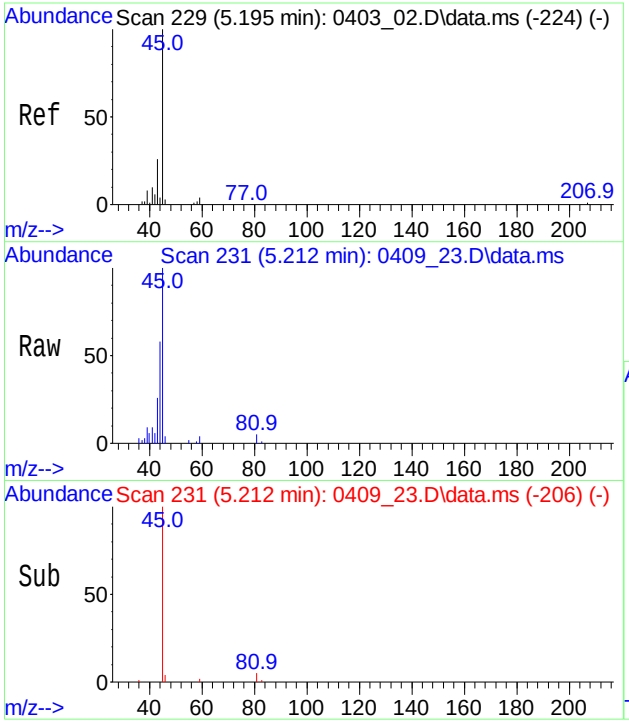



#13
Trichlorofluoromethane
Conc: 8$ 0.267 ppbv
RT: 5.114 min Scan# 219
Delta R.T. -0.008 min
Lab File: 0409_23.D
Acq: 09 Apr 2019 08:00 pm

Tgt Ion:101 Resp: 10994

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 64.1 | 51.6 | 77.4 |
| 66 | 14.2 | 9.4 | 14.0# |

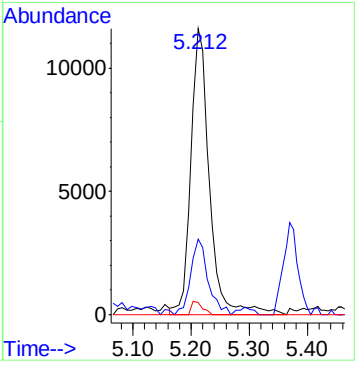


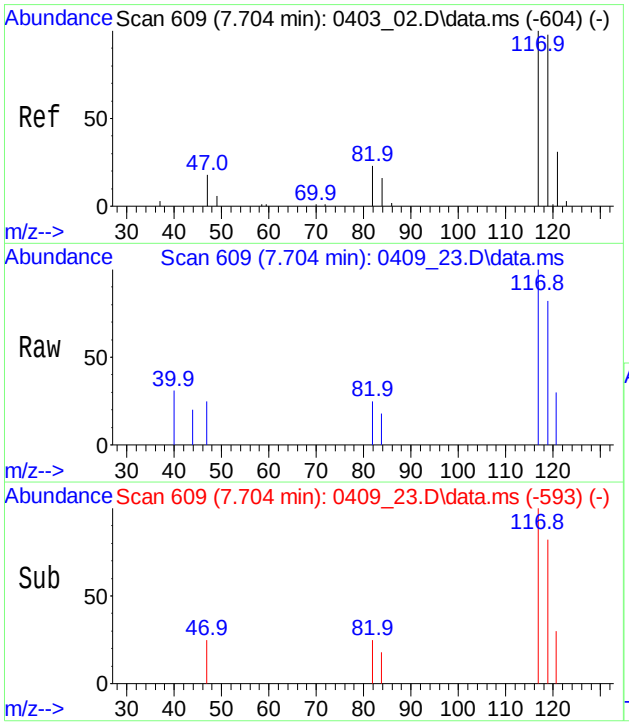




#14
Isopropylalcohol
Conc: 8$ 0.952 ppbv
RT: 5.212 min Scan# 231
Delta R.T. -0.000 min
Lab File: 0409_23.D
Acq: 09 Apr 2019 08:00 pm

Tgt Ion: 45 Resp: 27529

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 43 | 22.8 | 18.6 | 27.8 |
| 59 | 2.5 | 3.7 | 5.5# |

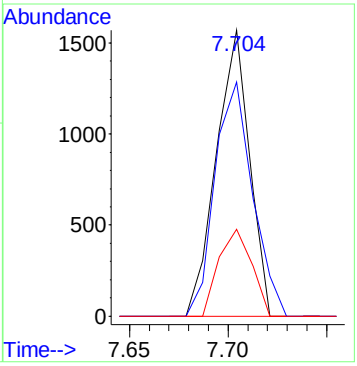


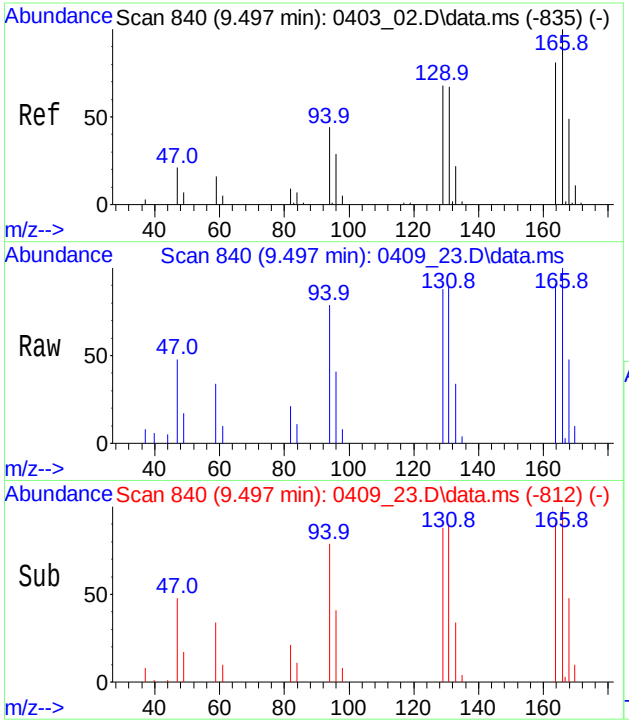



#34
Carbon Tetrachloride
Conc: 8$  Below Cal
RT:  7.704 min  Scan# 609
Delta R.T.  0.000 min
Lab File:  0409_23.D
Acq: 09 Apr 2019  08:00 pm

Tgt Ion:117 Resp:  1821

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 92.9 | 75.8 | 115.8 |
| 121 | 30.1 | 10.7 | 50.7 |

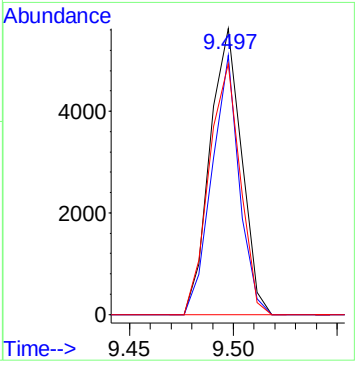


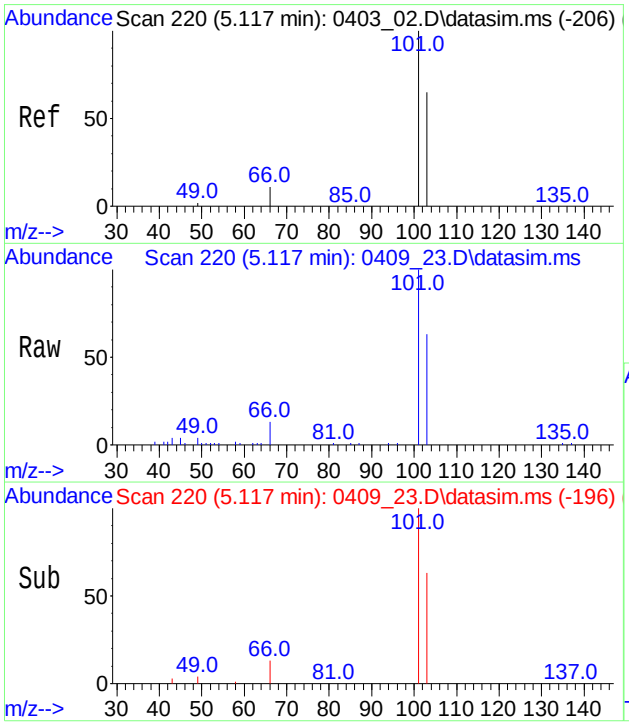




#52
Tetrachloroethene
Conc: 8$  0.391 ppbv
RT:  9.497 min  Scan# 840
Delta R.T.  0.000 min
Lab File:  0409_23.D
Acq: 09 Apr 2019  08:00 pm

Tgt Ion:166 Resp:  5992

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 78.7 | 62.2 | 93.2 |
| 129 | 86.5 | 54.9 | 82.3# |

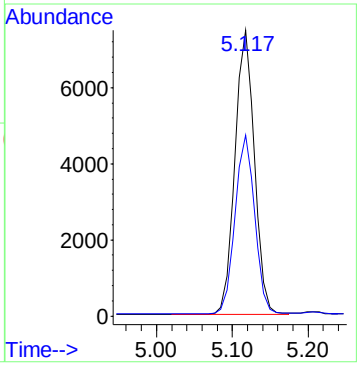


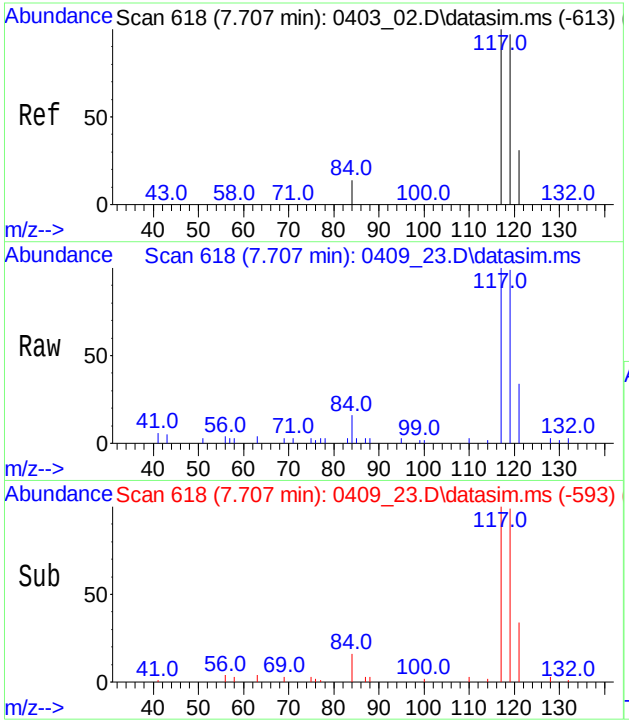



#84
Trichlorofluoromethane(sim)
Conc: 8$ 0.239 ppbv
RT: 5.117 min Scan# 220
Delta R.T. -0.008 min
Lab File: 0409_23.D
Acq: 09 Apr 2019 08:00 pm

Tgt Ion:101 Resp: 13283

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 63.6 | 51.9 | 77.9 |

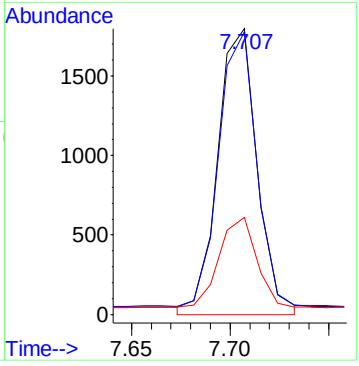


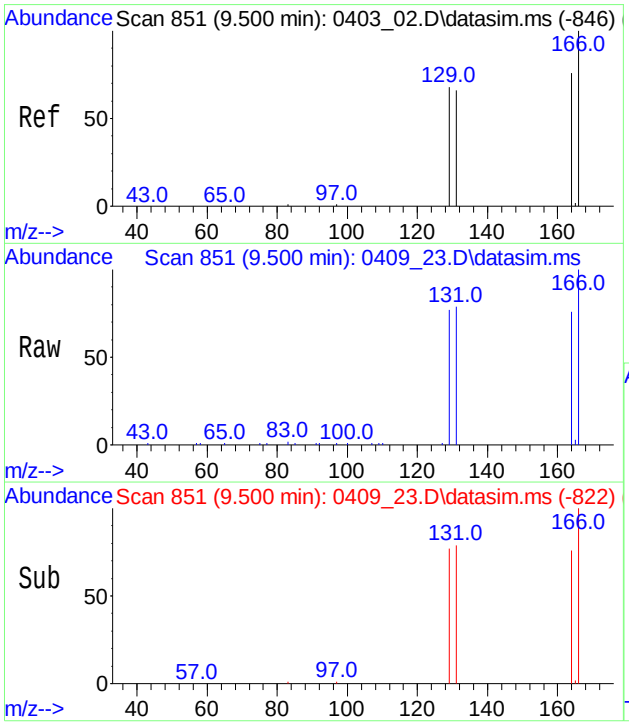




#87
Carbon Tetrachloride(sim)
Conc: 8$ 0.084 ppbv
RT: 7.704 min Scan# 618
Delta R.T. 0.000 min
Lab File: 0409_23.D
Acq: 09 Apr 2019 08:00 pm

Tgt Ion:117 Resp: 1821

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 92.9 | 76.6 | 115.0 |
| 121 | 30.1 | 24.6 | 36.8 |

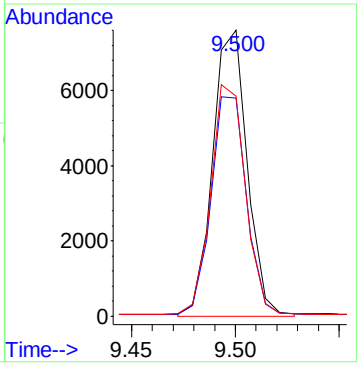





#103
Tetrachloroethene(sim)
Conc: 8$  0.346 ppbv
RT:  9.497 min  Scan# 851
Delta R.T.  0.000 min
Lab File:  0409_23.D
Acq: 09 Apr 2019  08:00 pm

Tgt Ion:166 Resp:  5992

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 78.7 | 57.7 | 97.7 |
| 129 | 86.5 | 48.6 | 88.6 |



1

AIR ANALYSIS DATA SHEET

CLIENT ID: IA-2

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90515

Canister: 11292 Lab File ID: 0409_24.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/09/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 115-07-1 | Propylene | 0.581 | U | 0.581 | 0.581 | r |
| 75-71-8 | Dichlorodifluoromethane | 0.474 | | 0.202 | 0.202 | r |
| 74-87-3 | Chloromethane | 0.630 | | 0.485 | 0.485 | r |
| 106-99-0 | 1,3-Butadiene | 0.452 | U | 0.452 | 0.452 | r |
| 75-00-3 | Chloroethane | 0.379 | U | 0.379 | 0.379 | r |
| 64-17-5 | Ethanol | 5.32 | S | 0.531 | 0.531 | r |
| 67-64-1 | Acetone | 3.53 | S | 0.421 | 0.421 | r |
| 75-69-4 | Trichlorofluoromethane | 0.257 | | 0.178 | 0.178 | r |
| 67-63-0 | Isopropylalcohol | 1.15 | S | 0.407 | 0.407 | r |
| 107-13-1 | Acrylonitrile | 0.461 | U | 0.461 | 0.461 | r |
| 75-09-2 | Methylene Chloride | 0.864 | U | 0.864 | 0.864 | r |
| 75-15-0 | Carbon Disulfide | 0.321 | U | 0.321 | 0.321 | r |
| 1634-04-4 | Methyl tert-butyl ether(MTBE) | 0.278 | U | 0.278 | 0.278 | r |
| 78-93-3 | Methyl Ethyl Ketone | 0.339 | U | 0.339 | 0.339 | r |
| 110-54-3 | Hexane | 0.284 | U | 0.284 | 0.284 | r |
| 141-78-6 | Ethyl acetate | 0.278 | U | 0.278 | 0.278 | r |
| 109-99-9 | Tetrahydrofuran | 0.339 | U | 0.339 | 0.339 | r |
| 71-43-2 | Benzene | 0.313 | U | 0.313 | 0.313 | r |
| 110-82-7 | Cyclohexane | 0.291 | U | 0.291 | 0.291 | r |
| 142-82-5 | Heptane | 0.244 | U | 0.244 | 0.244 | r |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | 0.244 | U | 0.244 | 0.244 | r |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.221 | U | 0.221 | 0.221 | r |
| 108-88-3 | Toluene | 0.344 | | 0.266 | 0.266 | r |
| 591-78-6 | 2-Hexanone(MBK) | 0.244 | U | 0.244 | 0.244 | r |
| 127-18-4 | Tetrachloroethene | 1.00 | | 0.037 | 0.037 | r |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.146 | U | 0.146 | 0.146 | r |
| 108-90-7 | Chlorobenzene | 0.217 | U | 0.217 | 0.217 | r |
| 100-41-4 | Ethylbenzene | 0.230 | U | 0.230 | 0.230 | r |
| 100-42-5 | Styrene | 0.235 | U | 0.235 | 0.235 | r |
| 95-47-6 | o-Xylene | 0.230 | U | 0.230 | 0.230 | r |
| 98-82-8 | Isopropylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 622-96-8 | 4-Ethyltoluene | 0.204 | U | 0.204 | 0.204 | r |
| 108-67-8 | 1,3,5-Trimethylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.351 | | 0.204 | 0.204 | r |
| 76-14-2 | 1,2-Dichlorotetrafluoroethane(sim) | 0.143 | U | 0.143 | 0.143 | r |
| 75-01-4 | Vinyl Chloride(sim) | 0.078 | U | 0.078 | 0.078 | r |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

AIR ANALYSIS DATA SHEET

CLIENT ID: IA-2

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90515

Canister: 11292 Lab File ID: 0409_24.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/09/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 74-83-9 | Bromomethane(sim) | 0.258 | U | 0.258 | 0.258 | r |
| 107-06-2 | 1,2-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 71-55-6 | 1,1,1-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 56-23-5 | Carbon Tetrachloride(sim) | 0.084 | | 0.032 | 0.032 | r |
| 75-35-4 | 1,1-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 76-13-1 | Trichlorotrifluoroethane(sim) | 0.131 | U | 0.131 | 0.131 | r |
| 156-60-5 | Trans-1,2-Dichloroethene(sim) | 0.252 | U | 0.252 | 0.252 | r |
| 75-34-3 | 1,1-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 156-59-2 | Cis-1,2-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 67-66-3 | Chloroform(sim) | 0.205 | U | 0.205 | 0.205 | r |
| 78-87-5 | 1,2-dichloropropane(sim) | 0.217 | U | 0.217 | 0.217 | r |
| 75-27-4 | Bromodichloromethane(sim) | 0.149 | U | 0.149 | 0.149 | r |
| 79-01-6 | Trichloroethene(sim) | 0.037 | U | 0.037 | 0.037 | r |
| 123-91-1 | 1,4-Dioxane(sim) | 0.278 | U | 0.278 | 0.278 | r |
| 10061-01-5 | cis-1,3-Dichloropropene(sim) | 0.221 | U | 0.221 | 0.221 | r |
| 79-00-5 | 1,1,2-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 124-48-1 | Dibromochloromethane(sim) | 0.118 | U | 0.118 | 0.118 | r |
| 106-93-4 | 1,2-Dibromoethane(EDB)(sim) | 0.130 | U | 0.130 | 0.130 | r |
| 75-25-2 | Bromoform(sim) | 0.097 | U | 0.097 | 0.097 | r |
| 179601-23-1 | m,p-Xylene(sim) | 0.230 | U | 0.230 | 0.230 | r |
| 79-34-5 | 1,1,2,2-Tetrachloroethane(sim) | 0.146 | U | 0.146 | 0.146 | r |
| 100-44-7 | Benzyl chloride(sim) | 0.193 | U | 0.193 | 0.193 | r |
| 541-73-1 | 1,3-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 106-46-7 | 1,4-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 135-98-8 | sec-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 99-87-6 | 4-Isopropyltoluene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 95-50-1 | 1,2-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 104-51-8 | n-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 120-82-1 | 1,2,4-Trichlorobenzene(sim) | 0.135 | U | 0.135 | 0.135 | r |
| 87-68-3 | Hexachlorobutadiene(sim) | 0.094 | U | 0.094 | 0.094 | r |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_24.D
Acq On : 09 Apr 2019 08:41 pm
Operator : CORTEX\ms
Client ID : IA-2
Lab ID : CC90515
ALS Vial : 1 Sample Multiplier: 1

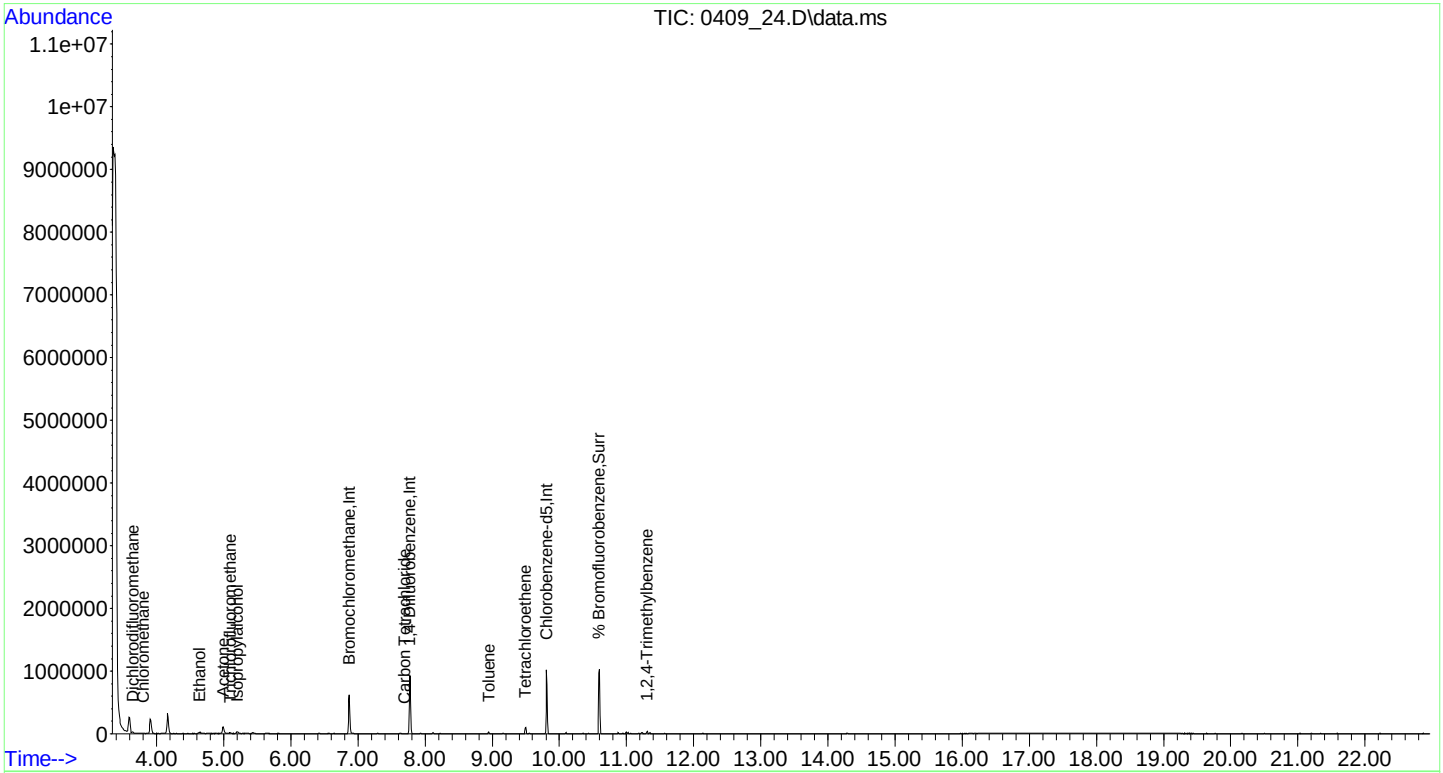
Quant Time: Apr 10 09:35:18 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration

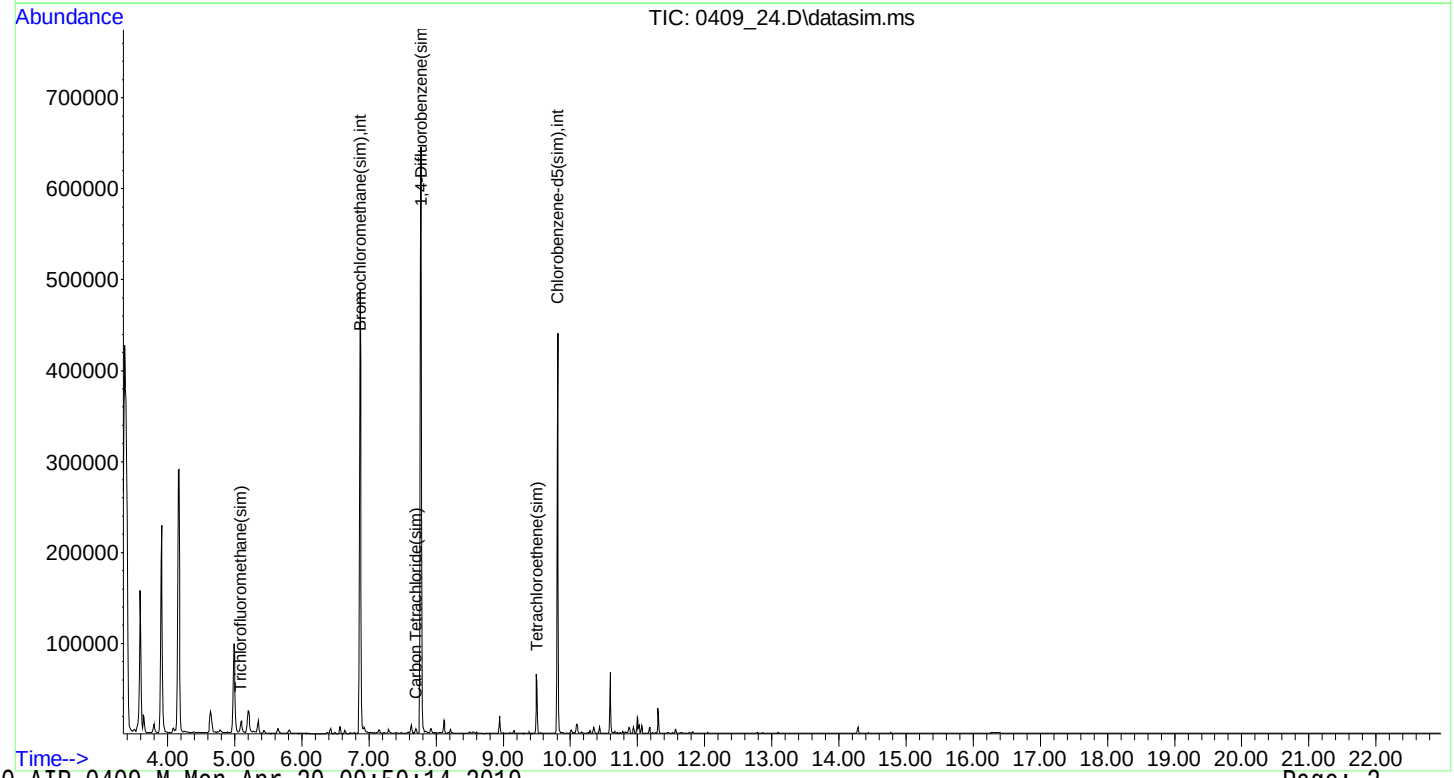
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.871 | 130 | 118253 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.772 | 114 | 382590 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.807 | 82 | 184430 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.874 | 130 | 162299 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 431989 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 182680 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 241691 | 9.996 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 100.00% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 3.646 | 85 | 14365 | 0.474 | ppbv | # | 95 |
| 4) Chloromethane | 3.800 | 50 | 7982 | 0.630 | ppbv | | 100 |
| 11) Ethanol | 4.644 | 45 | 27078 | 5.322 | ppbv | | 97 |
| 12) Acetone | 4.993 | 43 | 93348 | 3.531 | ppbv | # | 78 |
| 13) Trichlorofluoromethane | 5.098 | 101 | 10171 | 0.256 | ppbv | | 98 |
| 14) Isopropylalcohol | 5.204 | 45 | 32129 | 1.153 | ppbv | # | 92 |
| 34) Carbon Tetrachloride | 7.696 | 117 | 1768 | 0.079 | ppbv | | 94 |
| 48) Toluene | 8.949 | 91 | 10793 | 0.344 | ppbv | | 91 |
| 52) Tetrachloroethene | 9.498 | 166 | 15240 | 1.003 | ppbv | # | 88 |
| 68) 1,2,4-Trimethylbenzene | 11.309 | 105 | 13647 | 0.350 | ppbv | # | 81 |
| 84] Trichlorofluoromethane... | 5.093 | 101 | 12685 | 0.234 | ppbv | | 99 |
| 87] Carbon Tetrachloride(sim) | 7.696 | 117 | 1768 | 0.084 | ppbv | | 94 |
| 103] Tetrachloroethene(sim) | 9.498 | 166 | 15240 | 0.898 | ppbv | | 88 |

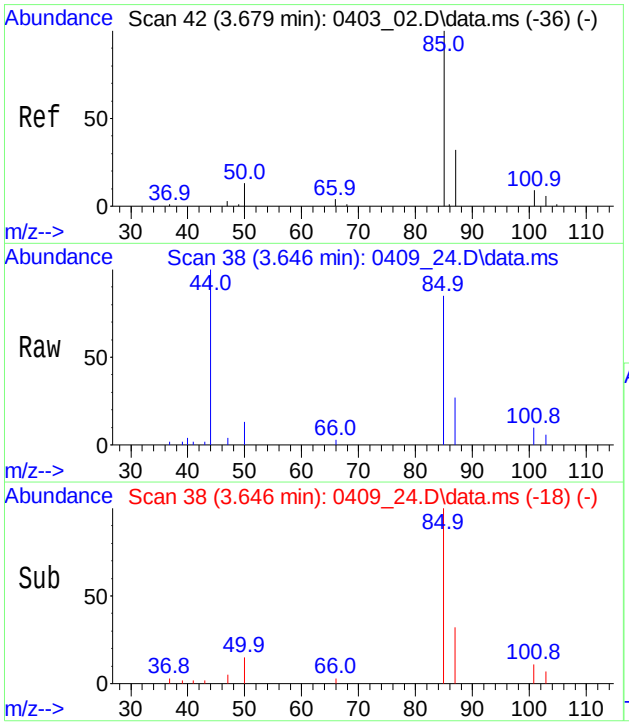
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_24.D
Acq On : 09 Apr 2019 08:41 pm
Operator : CORTEX\ms
Client ID : IA-2
Lab ID : CC90515
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 09:35:18 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration



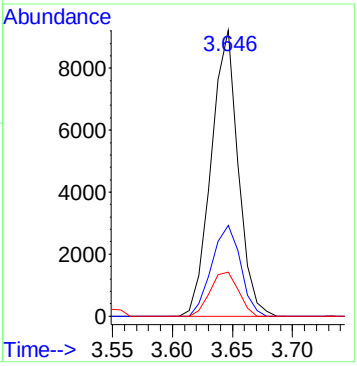



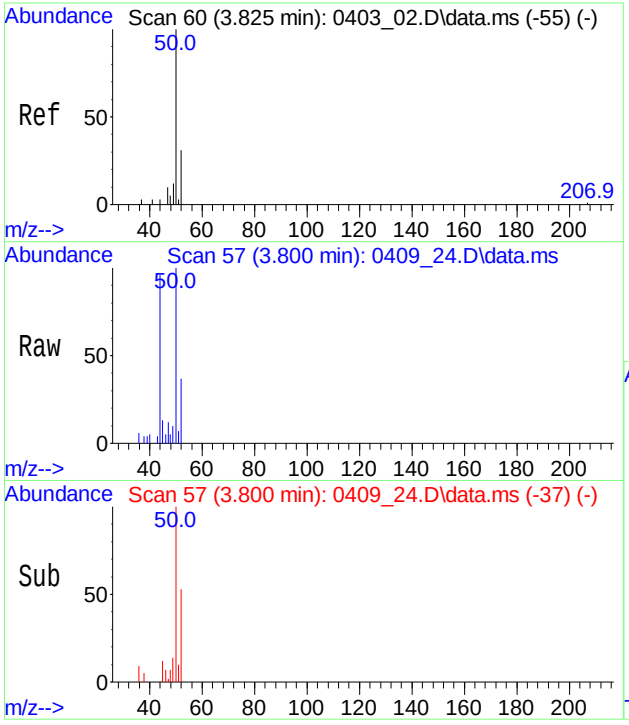



#3
Dichlorodifluoromethane
Conc: 8$  0.474 ppbv
RT:  3.646 min  Scan# 38
Delta R.T.  -0.040 min
Lab File:  0409_24.D
Acq: 09 Apr 2019  08:41 pm

Tgt Ion: 85 Resp:  14365

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 33.8 | 25.6 | 38.4 |
| 50 | 16.0 | 9.4 | 14.2# |

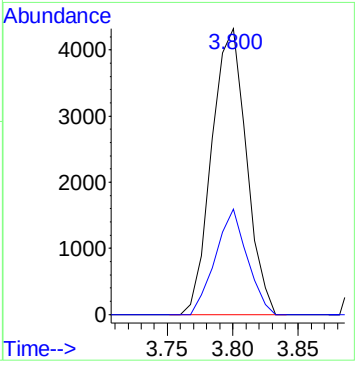


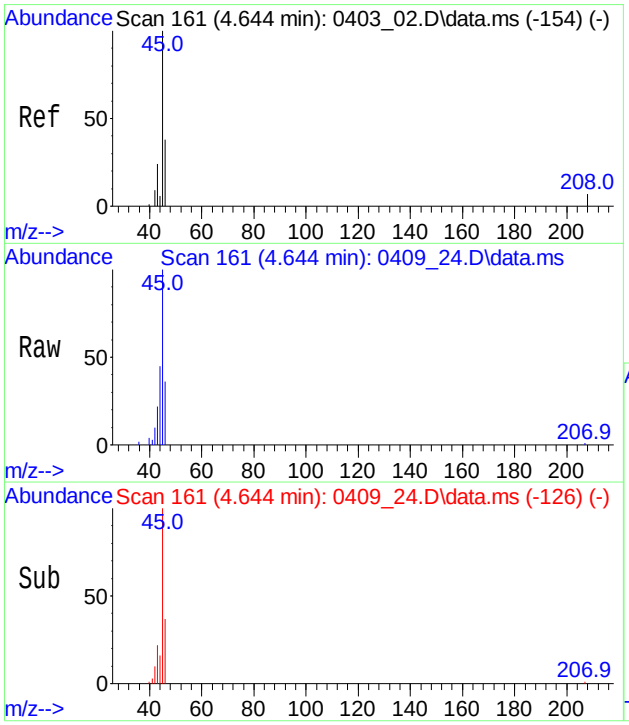




#4
Chloromethane
Conc: 8$  0.630 ppbv
RT:  3.800 min  Scan# 57
Delta R.T.  -0.040 min
Lab File:  0409_24.D
Acq: 09 Apr 2019  08:41 pm

Tgt Ion: 50 Resp:  7982

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 33.8 | 13.6 | 53.6 |

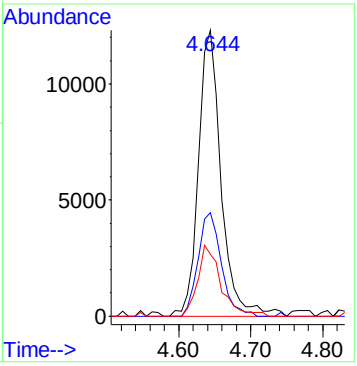


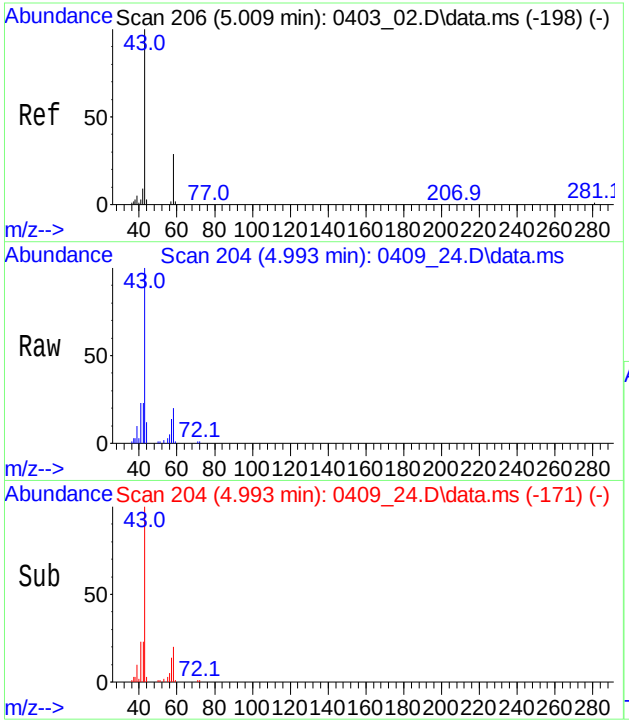



#11
Ethanol
Conc: 8$ 5.322 ppbv
RT: 4.644 min Scan# 161
Delta R.T. -0.016 min
Lab File: 0409_24.D
Acq: 09 Apr 2019 08:41 pm

Tgt Ion: 45 Resp: 27078

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 46 | 37.0 | 29.9 | 44.9 |
| 43 | 25.3 | 22.7 | 34.1 |

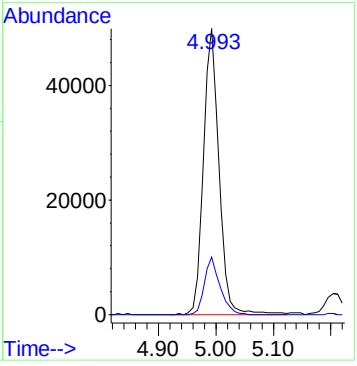


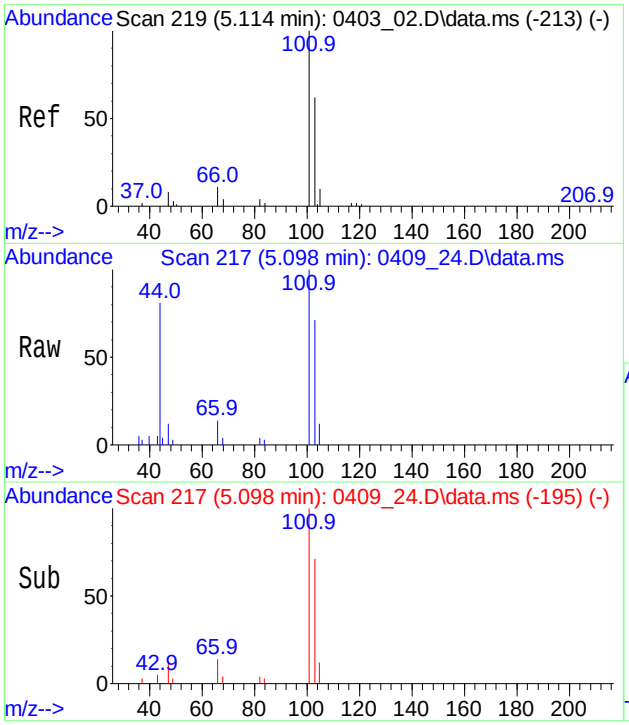




#12
Acetone
Conc: 8$ 3.531 ppbv
RT: 4.993 min Scan# 204
Delta R.T. -0.032 min
Lab File: 0409_24.D
Acq: 09 Apr 2019 08:41 pm

Tgt Ion: 43 Resp: 93348

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 20.0 | 25.9 | 38.9# |

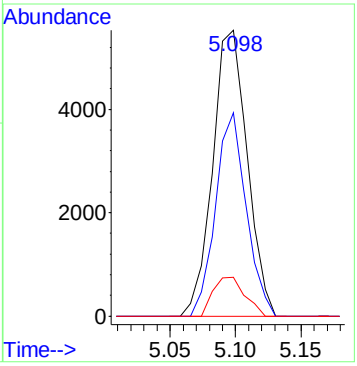


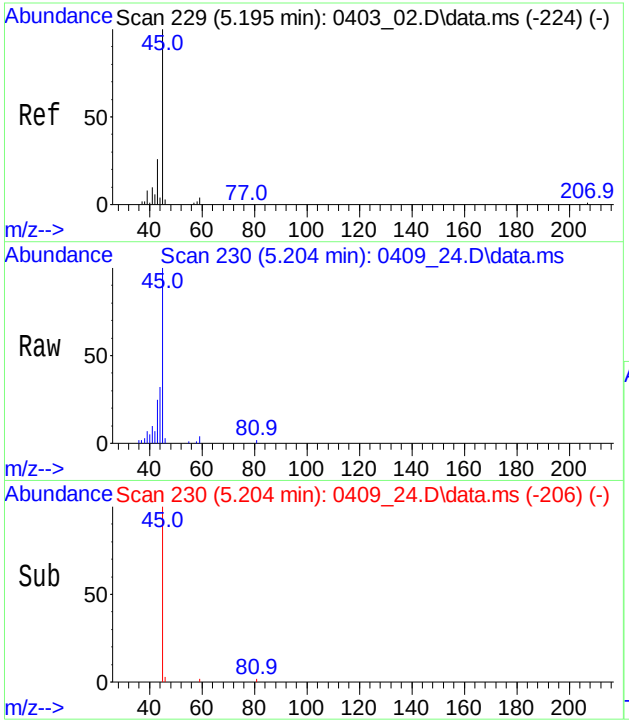



#13
Trichlorofluoromethane
Conc: 8$ 0.256 ppbv
RT: 5.098 min Scan# 217
Delta R.T. -0.024 min
Lab File: 0409_24.D
Acq: 09 Apr 2019 08:41 pm

Tgt Ion:101 Resp: 10171

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 63.1 | 51.6 | 77.4 |
| 66 | 12.5 | 9.4 | 14.0 |

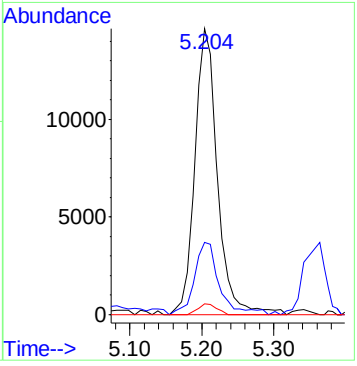


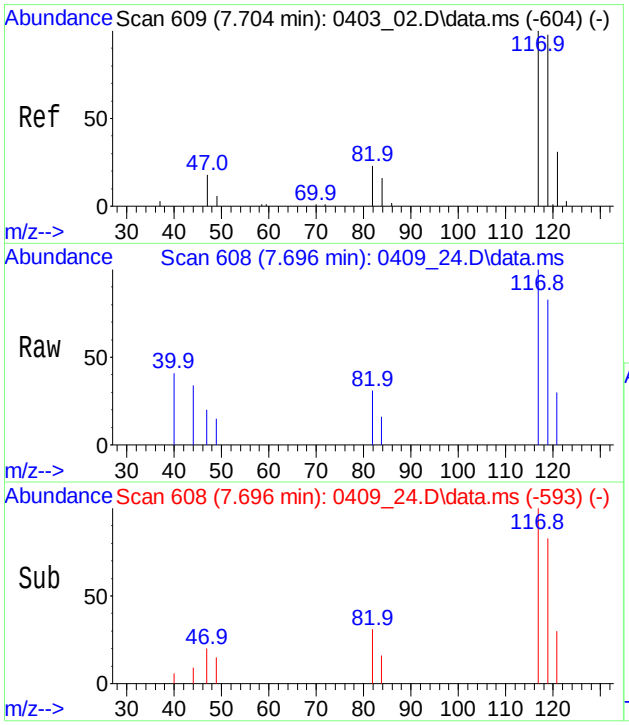




#14
Isopropylalcohol
Conc: 8$ 1.153 ppbv
RT: 5.204 min Scan# 230
Delta R.T. -0.008 min
Lab File: 0409_24.D
Acq: 09 Apr 2019 08:41 pm

Tgt Ion: 45 Resp: 32129

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 43 | 27.4 | 18.6 | 27.8 |
| 59 | 3.1 | 3.7 | 5.5# |

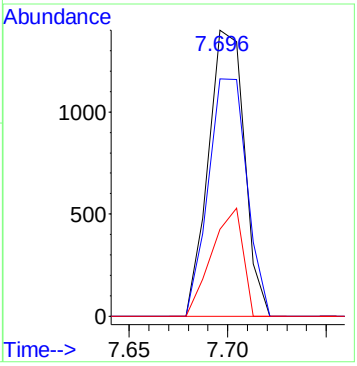


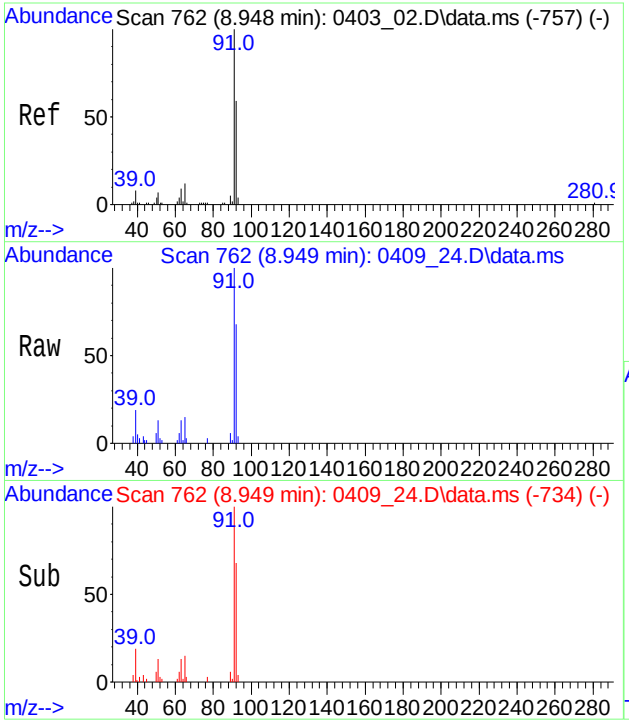



#34
Carbon Tetrachloride
Conc: 8$  Below Cal
RT:  7.696 min  Scan# 608
Delta R.T.  -0.008 min
Lab File:  0409_24.D
Acq: 09 Apr 2019  08:41 pm

Tgt Ion:117 Resp:  1768

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 88.9 | 75.8 | 115.8 |
| 121 | 32.6 | 10.7 | 50.7 |

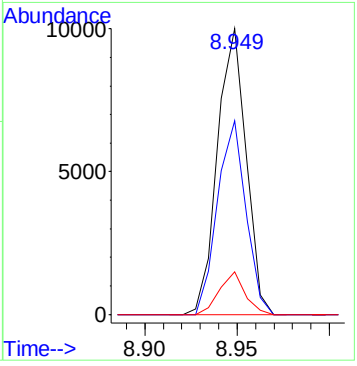


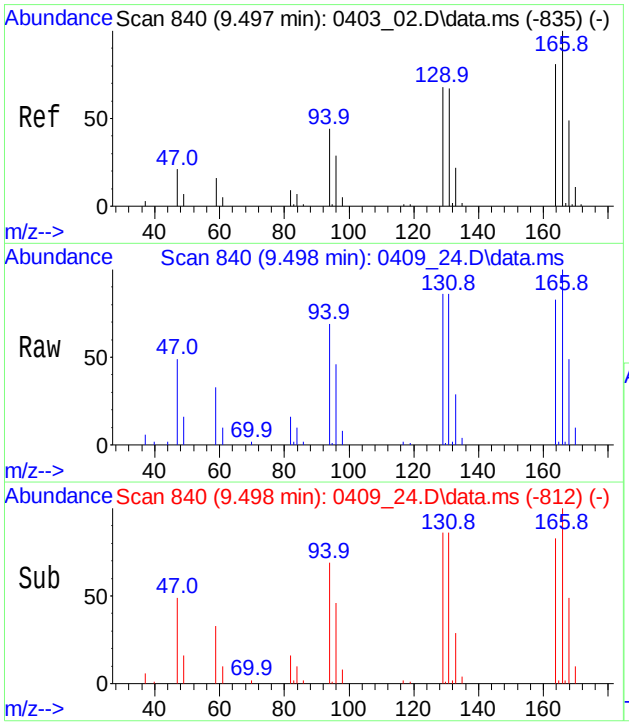




#48
Toluene
Conc: 8$  0.344 ppbv
RT:  8.949 min  Scan# 762
Delta R.T.  0.000 min
Lab File:  0409_24.D
Acq: 09 Apr 2019  08:41 pm

Tgt Ion: 91 Resp:  10793

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 67.2 | 47.7 | 71.5 |
| 65 | 13.3 | 9.3 | 13.9 |

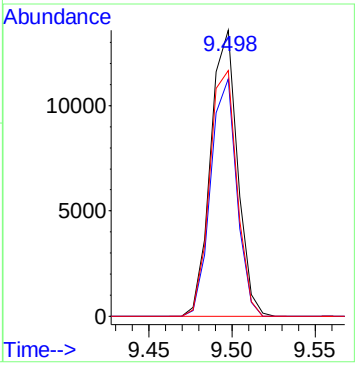


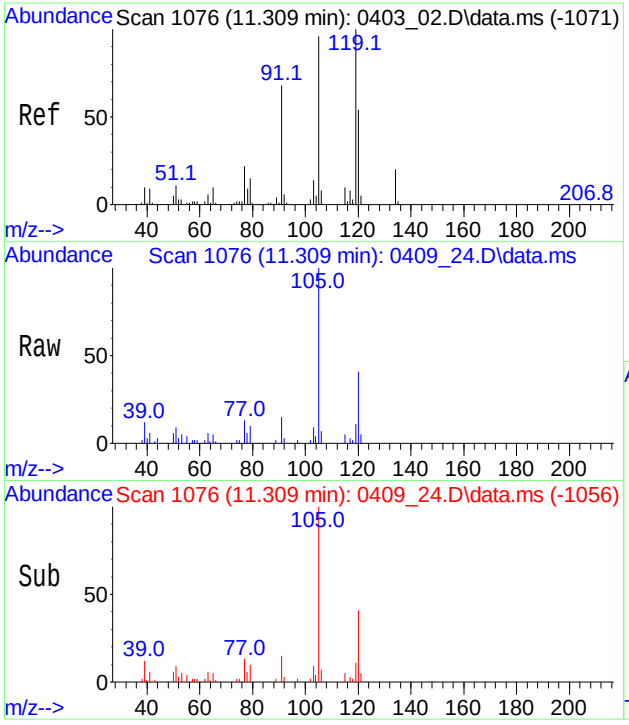



#52
Tetrachloroethene
Conc: 8$ 1.003 ppbv
RT: 9.498 min Scan# 840
Delta R.T. 0.000 min
Lab File: 0409_24.D
Acq: 09 Apr 2019 08:41 pm

Tgt Ion:166 Resp: 15240

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 80.2 | 62.2 | 93.2 |
| 129 | 86.9 | 54.9 | 82.3# |

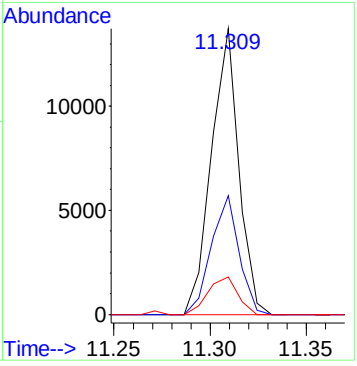


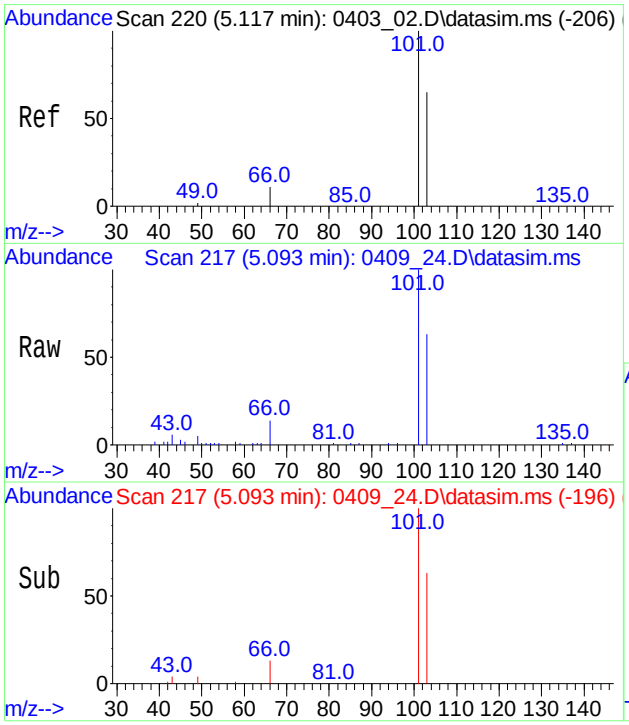




#68
1,2,4-Trimethylbenzene
Conc: 8$ 0.350 ppbv
RT: 11.309 min Scan# 1076
Delta R.T. 0.000 min
Lab File: 0409_24.D
Acq: 09 Apr 2019 08:41 pm

Tgt Ion:105 Resp: 13647

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 42.2 | 44.5 | 66.7# |
| 77 | 14.8 | 19.7 | 29.5# |

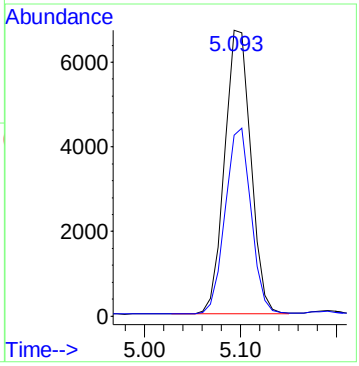


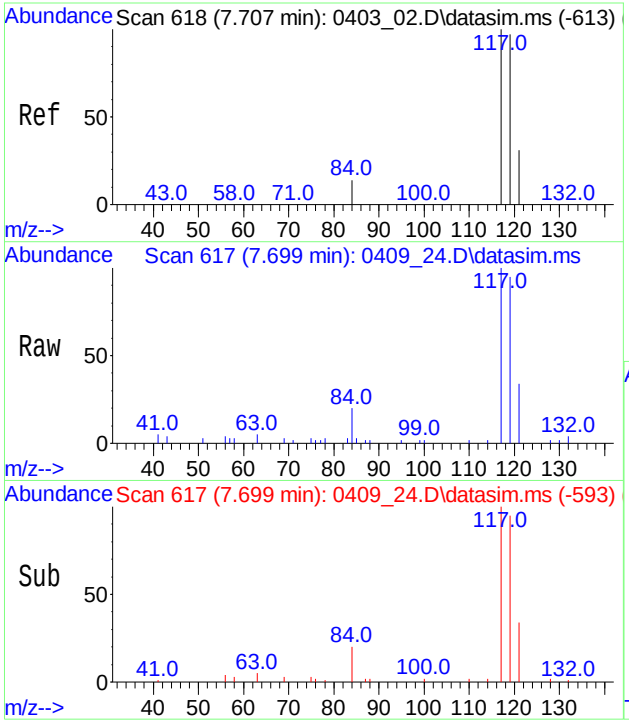



#84
Trichlorofluoromethane(sim)
Conc: 8$ 0.234 ppbv
RT: 5.093 min Scan# 217
Delta R.T. -0.032 min
Lab File: 0409_24.D
Acq: 09 Apr 2019 08:41 pm

Tgt Ion:101 Resp: 12685

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 64.5 | 51.9 | 77.9 |

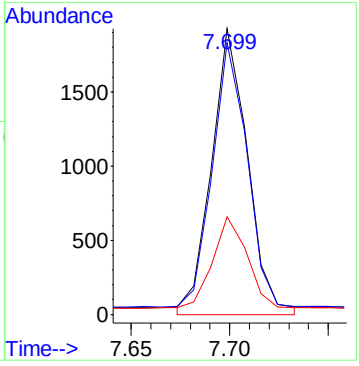


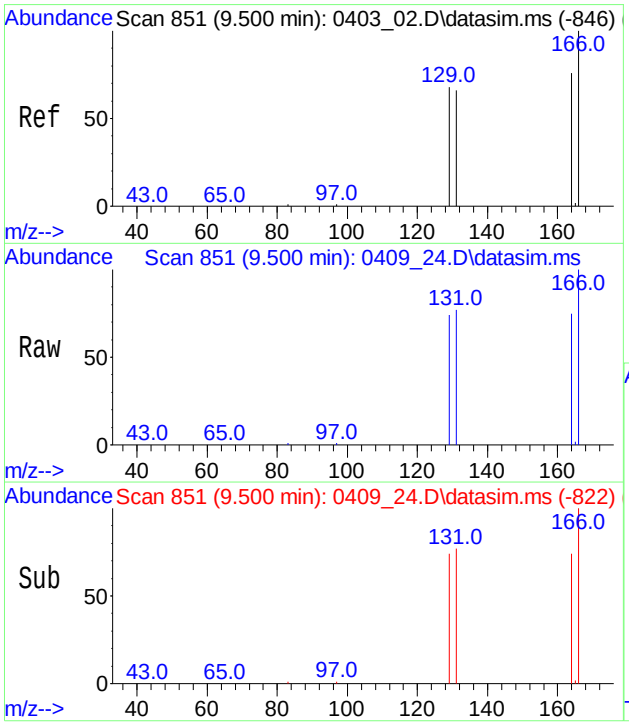




#87
Carbon Tetrachloride(sim)
Conc: 8$ 0.084 ppbv
RT: 7.696 min Scan# 617
Delta R.T. -0.008 min
Lab File: 0409_24.D
Acq: 09 Apr 2019 08:41 pm

Tgt Ion:117 Resp: 1768

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 88.9 | 76.6 | 115.0 |
| 121 | 32.6 | 24.6 | 36.8 |

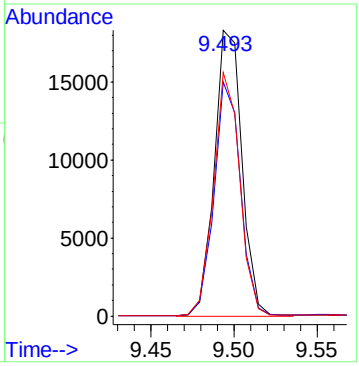





#103
Tetrachloroethene(sim)
Conc: 8$  0.898 ppbv
RT:  9.498 min  Scan# 851
Delta R.T.  0.000 min
Lab File:  0409_24.D
Acq: 09 Apr 2019  08:41 pm

Tgt Ion:166 Resp:  15240

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 80.2 | 57.7 | 97.7 |
| 129 | 86.9 | 48.6 | 88.6 |



1

AIR ANALYSIS DATA SHEET

CLIENT ID: IA-3

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90516

Canister: 23352 Lab File ID: 0409_25.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/09/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 115-07-1 | Propylene | 0.581 | U | 0.581 | 0.581 | r |
| 75-71-8 | Dichlorodifluoromethane | 0.464 | | 0.202 | 0.202 | r |
| 74-87-3 | Chloromethane | 0.625 | | 0.485 | 0.485 | r |
| 106-99-0 | 1,3-Butadiene | 0.452 | U | 0.452 | 0.452 | r |
| 75-00-3 | Chloroethane | 0.379 | U | 0.379 | 0.379 | r |
| 64-17-5 | Ethanol | 8.80 | S | 0.531 | 0.531 | r |
| 67-64-1 | Acetone | 5.98 | S | 0.421 | 0.421 | r |
| 75-69-4 | Trichlorofluoromethane | 0.263 | | 0.178 | 0.178 | r |
| 67-63-0 | Isopropylalcohol | 1.02 | S | 0.407 | 0.407 | r |
| 107-13-1 | Acrylonitrile | 0.461 | U | 0.461 | 0.461 | r |
| 75-09-2 | Methylene Chloride | 0.864 | U | 0.864 | 0.864 | r |
| 75-15-0 | Carbon Disulfide | 0.321 | U | 0.321 | 0.321 | r |
| 1634-04-4 | Methyl tert-butyl ether(MTBE) | 0.278 | U | 0.278 | 0.278 | r |
| 78-93-3 | Methyl Ethyl Ketone | 0.687 | | 0.339 | 0.339 | r |
| 110-54-3 | Hexane | 0.666 | S | 0.284 | 0.284 | r |
| 141-78-6 | Ethyl acetate | 0.278 | U | 0.278 | 0.278 | r |
| 109-99-9 | Tetrahydrofuran | 1.24 | | 0.339 | 0.339 | r |
| 71-43-2 | Benzene | 0.313 | U | 0.313 | 0.313 | r |
| 110-82-7 | Cyclohexane | 0.291 | U | 0.291 | 0.291 | r |
| 142-82-5 | Heptane | 0.335 | | 0.244 | 0.244 | r |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | 0.244 | U | 0.244 | 0.244 | r |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.221 | U | 0.221 | 0.221 | r |
| 108-88-3 | Toluene | 0.862 | | 0.266 | 0.266 | r |
| 591-78-6 | 2-Hexanone(MBK) | 0.244 | U | 0.244 | 0.244 | r |
| 127-18-4 | Tetrachloroethene | 1.14 | | 0.037 | 0.037 | r |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.146 | U | 0.146 | 0.146 | r |
| 108-90-7 | Chlorobenzene | 0.217 | U | 0.217 | 0.217 | r |
| 100-41-4 | Ethylbenzene | 0.230 | U | 0.230 | 0.230 | r |
| 179601-23-1 | m,p-Xylene | 0.870 | | 0.230 | 0.230 | r |
| 100-42-5 | Styrene | 0.249 | | 0.235 | 0.235 | r |
| 95-47-6 | o-Xylene | 0.387 | | 0.230 | 0.230 | r |
| 98-82-8 | Isopropylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 622-96-8 | 4-Ethyltoluene | 0.713 | | 0.204 | 0.204 | r |
| 108-67-8 | 1,3,5-Trimethylbenzene | 0.752 | | 0.204 | 0.204 | r |
| 95-63-6 | 1,2,4-Trimethylbenzene | 2.61 | | 0.204 | 0.204 | r |
| 76-14-2 | 1,2-Dichlorotetrafluoroethane(sim) | 0.143 | U | 0.143 | 0.143 | r |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

AIR ANALYSIS DATA SHEET

CLIENT ID: IA-3

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90516

Canister: 23352 Lab File ID: 0409_25.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/09/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 75-01-4 | Vinyl Chloride(sim) | 0.078 | U | 0.078 | 0.078 | r |
| 74-83-9 | Bromomethane(sim) | 0.258 | U | 0.258 | 0.258 | r |
| 107-06-2 | 1,2-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 71-55-6 | 1,1,1-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 56-23-5 | Carbon Tetrachloride(sim) | 0.077 | | 0.032 | 0.032 | r |
| 75-35-4 | 1,1-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 76-13-1 | Trichlorotrifluoroethane(sim) | 0.131 | U | 0.131 | 0.131 | r |
| 156-60-5 | Trans-1,2-Dichloroethene(sim) | 0.252 | U | 0.252 | 0.252 | r |
| 75-34-3 | 1,1-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 156-59-2 | Cis-1,2-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 67-66-3 | Chloroform(sim) | 0.205 | U | 0.205 | 0.205 | r |
| 78-87-5 | 1,2-dichloropropane(sim) | 0.217 | U | 0.217 | 0.217 | r |
| 75-27-4 | Bromodichloromethane(sim) | 0.149 | U | 0.149 | 0.149 | r |
| 79-01-6 | Trichloroethene(sim) | 0.041 | | 0.037 | 0.037 | r |
| 123-91-1 | 1,4-Dioxane(sim) | 0.278 | U | 0.278 | 0.278 | r |
| 10061-01-5 | cis-1,3-Dichloropropene(sim) | 0.221 | U | 0.221 | 0.221 | r |
| 79-00-5 | 1,1,2-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 124-48-1 | Dibromochloromethane(sim) | 0.118 | U | 0.118 | 0.118 | r |
| 106-93-4 | 1,2-Dibromoethane(EDB)(sim) | 0.130 | U | 0.130 | 0.130 | r |
| 75-25-2 | Bromoform(sim) | 0.097 | U | 0.097 | 0.097 | r |
| 79-34-5 | 1,1,2,2-Tetrachloroethane(sim) | 0.146 | U | 0.146 | 0.146 | r |
| 100-44-7 | Benzyl chloride(sim) | 0.193 | U | 0.193 | 0.193 | r |
| 541-73-1 | 1,3-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 106-46-7 | 1,4-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 135-98-8 | sec-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 99-87-6 | 4-Isopropyltoluene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 95-50-1 | 1,2-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 104-51-8 | n-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 120-82-1 | 1,2,4-Trichlorobenzene(sim) | 0.135 | U | 0.135 | 0.135 | r |
| 87-68-3 | Hexachlorobutadiene(sim) | 0.094 | U | 0.094 | 0.094 | r |
| | | | | | | |
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| | | | | | | |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_25.D
Acq On : 09 Apr 2019 09:22 pm
Operator : CORTEX\ms
Client ID : IA-3
Lab ID : CC90516
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 09:35:56 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration

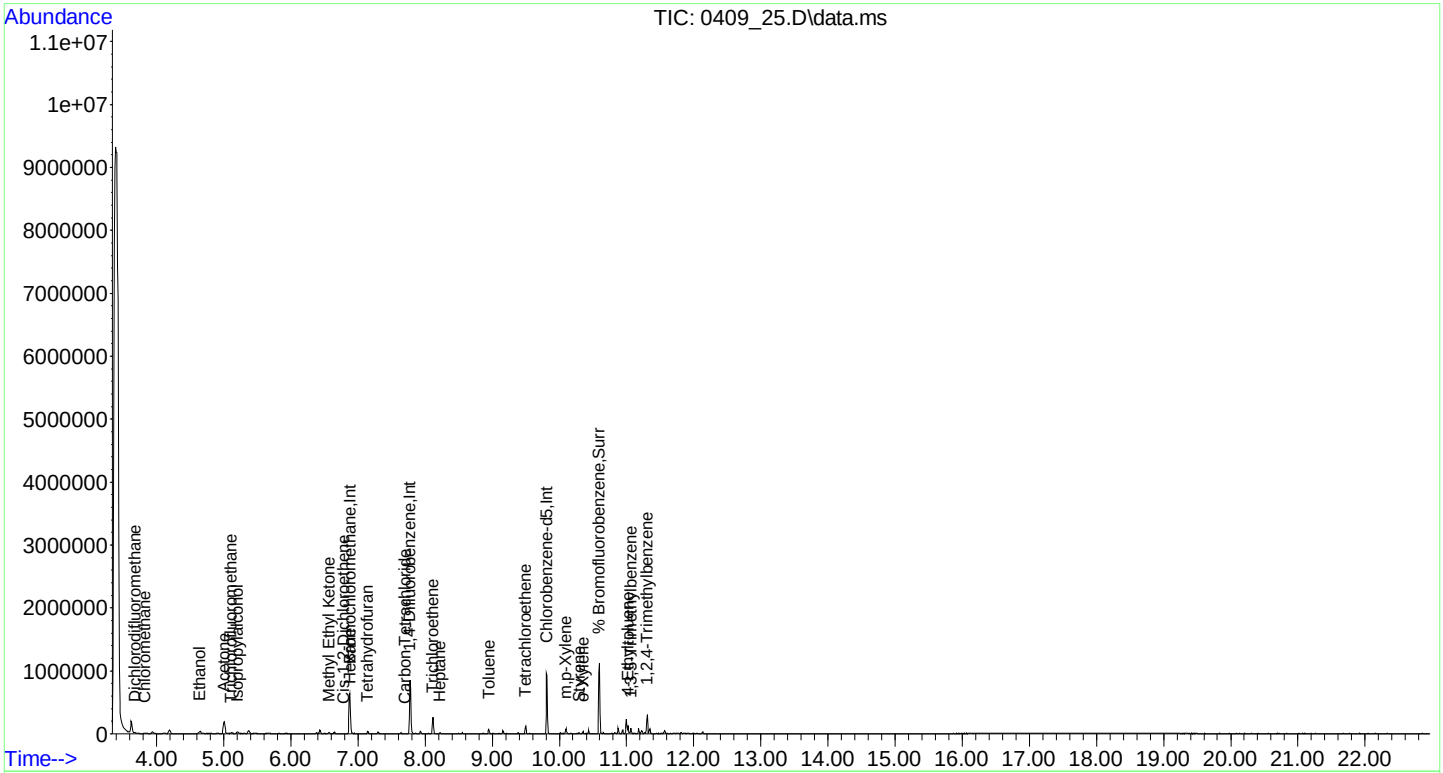
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.879 | 130 | 119780 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.772 | 114 | 382989 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.807 | 82 | 186262 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.874 | 130 | 163336 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 438358 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 188778 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 252591 | 10.344 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 103.40% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 3.678 | 85 | 14241 | 0.464 | ppbv | # | 95 |
| 4) Chloromethane | 3.824 | 50 | 8016 | 0.625 | ppbv | | 93 |
| 11) Ethanol | 4.644 | 45 | 45367 | 8.802 | ppbv | | 96 |
| 12) Acetone | 5.009 | 43 | 160129 | 5.979 | ppbv | # | 79 |
| 13) Trichlorofluoromethane | 5.114 | 101 | 10552 | 0.263 | ppbv | | 94 |
| 14) Isopropylalcohol | 5.203 | 45 | 28681 | 1.016 | ppbv | # | 92 |
| 25) Methyl Ethyl Ketone | 6.568 | 43 | 23151 | 0.687 | ppbv | # | 76 |
| 26) Cis-1,2-Dichloroethene | 6.786 | 61 | 1065 | 0.054 | ppbv | # | 69 |
| 27) Hexane | 6.887 | 57 | 12899 | 0.666 | ppbv | # | 74 |
| 30) Tetrahydrofuran | 7.142 | 42 | 17590 | 1.241 | ppbv | # | 58 |
| 34) Carbon Tetrachloride | 7.704 | 117 | 1629 | 0.072 | ppbv | | 98 |
| 39) Trichloroethene | 8.111 | 130 | 645 | 0.045 | ppbv | # | 88 |
| 43) Heptane | 8.221 | 43 | 6479 | 0.335 | ppbv | # | 63 |
| 48) Toluene | 8.948 | 91 | 27075 | 0.862 | ppbv | # | 99 |
| 52) Tetrachloroethene | 9.497 | 166 | 17403 | 1.144 | ppbv | # | 91 |
| 57) m,p-Xylene | 10.095 | 91 | 29281 | 0.869 | ppbv | | 92 |
| 59) Styrene | 10.292 | 104 | 6080 | 0.249 | ppbv | # | 81 |
| 61) o-Xylene | 10.353 | 91 | 13638 | 0.387 | ppbv | | 96 |
| 66) 4-Ethyltoluene | 11.020 | 105 | 33268m | 0.713 | ppbv | | 95 |
| 67) 1,3,5-Trimethylbenzene | 11.066 | 105 | 30209 | 0.752 | ppbv | # | 93 |
| 68) 1,2,4-Trimethylbenzene | 11.309 | 105 | 102462 | 2.605 | ppbv | # | 82 |
| 84] Trichlorofluoromethane... | 5.117 | 101 | 12562 | 0.230 | ppbv | | 99 |
| 87] Carbon Tetrachloride(sim) | 7.704 | 117 | 1629 | 0.077 | ppbv | | 98 |
| 92] Cis-1,2-Dichloroethene... | 6.789 | 61 | 1214 | 0.049 | ppbv | # | 76 |
| 97] Trichloroethene(sim) | 8.111 | 130 | 645 | 0.041 | ppbv | | 97 |
| 103] Tetrachloroethene(sim) | 9.497 | 166 | 17403 | 1.011 | ppbv | | 91 |
| 106] m,p-Xylene(sim) | 10.098 | 91 | 30900 | 0.873 | ppbv | # | 92 |

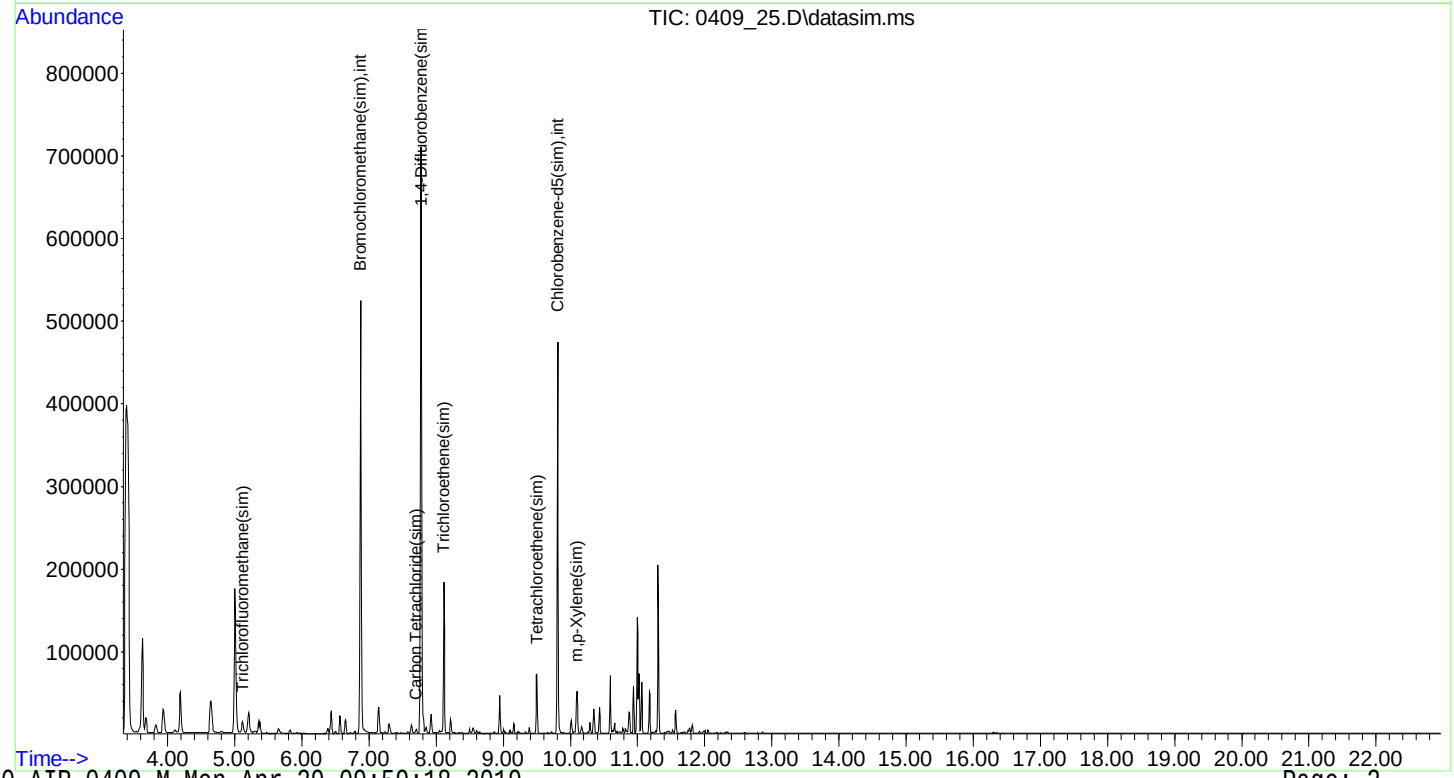
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

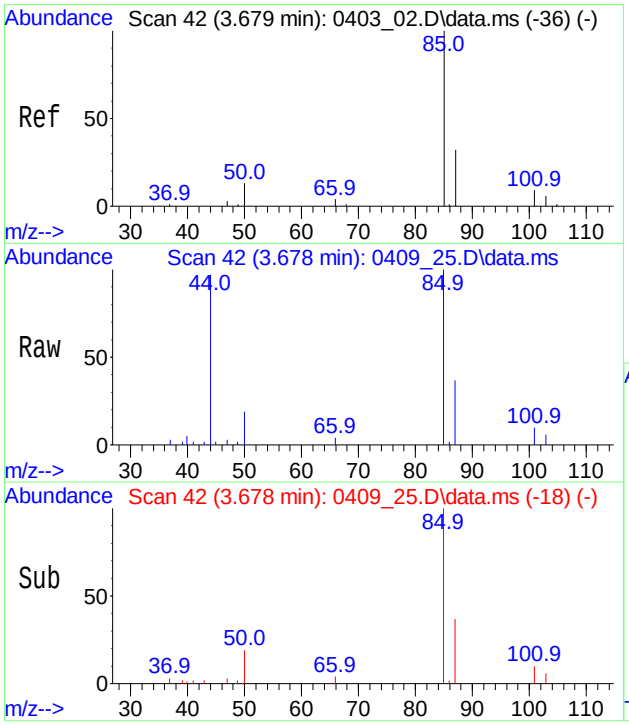
Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_25.D
Acq On : 09 Apr 2019 09:22 pm
Operator : CORTEX\ms
Client ID : IA-3
Lab ID : CC90516
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 09:35:56 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration



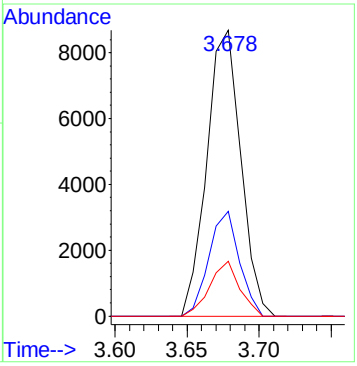



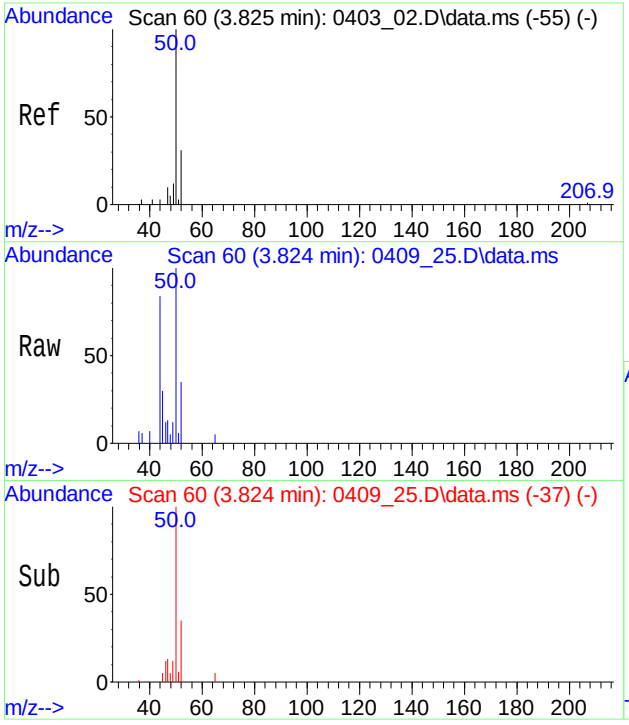



#3
Dichlorodifluoromethane
Conc: 8$ 0.464 ppbv
RT: 3.678 min Scan# 42
Delta R.T. -0.008 min
Lab File: 0409_25.D
Acq: 09 Apr 2019 09:22 pm

Tgt Ion: 85 Resp: 14241

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 32.8 | 25.6 | 38.4 |
| 50 | 16.9 | 9.4 | 14.2# |

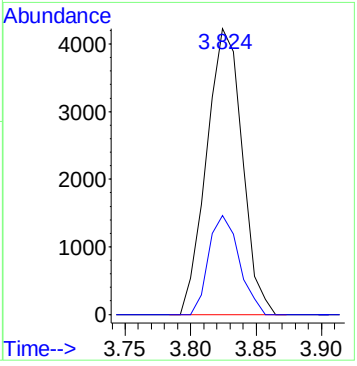


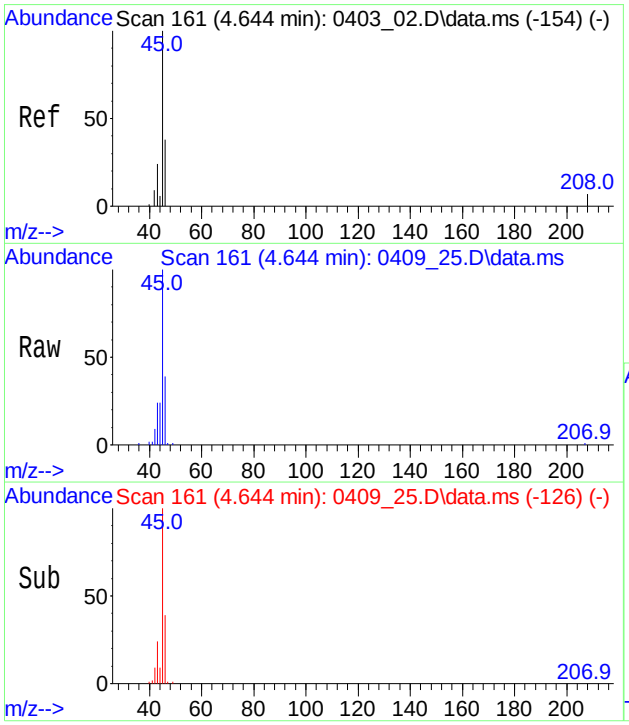




#4
Chloromethane
Conc: 8$ 0.625 ppbv
RT: 3.824 min Scan# 60
Delta R.T. -0.016 min
Lab File: 0409_25.D
Acq: 09 Apr 2019 09:22 pm

Tgt Ion: 50 Resp: 8016

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 29.7 | 13.6 | 53.6 |

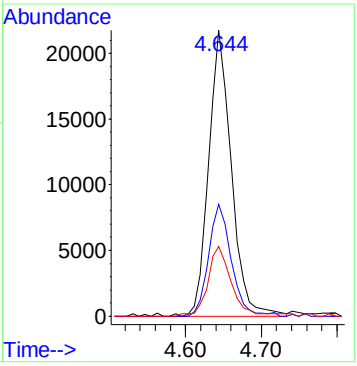


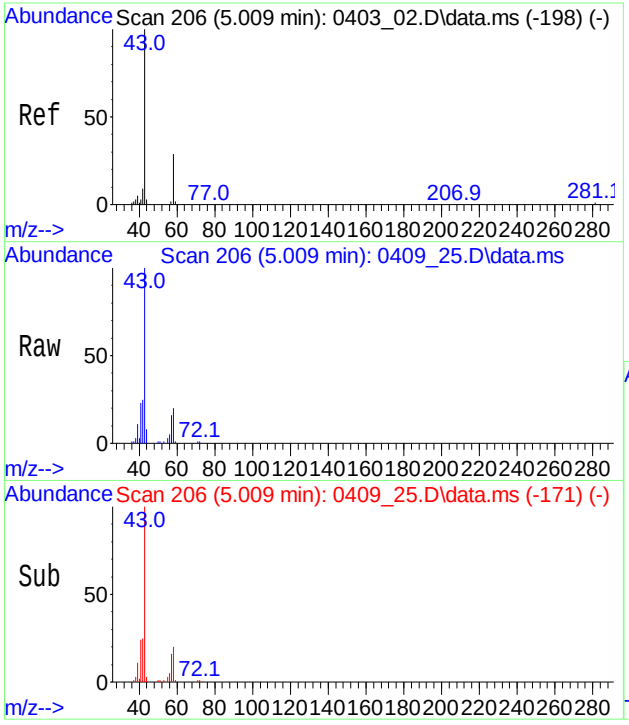



#11
Ethanol
Conc: 8$ 8.802 ppbv
RT: 4.644 min Scan# 161
Delta R.T. -0.016 min
Lab File: 0409_25.D
Acq: 09 Apr 2019 09:22 pm

Tgt Ion: 45 Resp: 45367

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 46 | 38.8 | 29.9 | 44.9 |
| 43 | 24.7 | 22.7 | 34.1 |

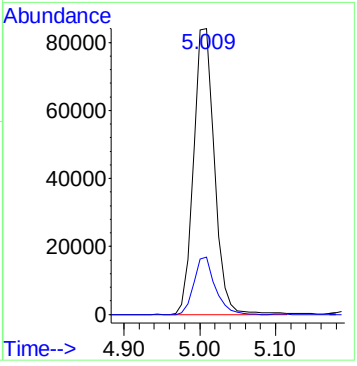


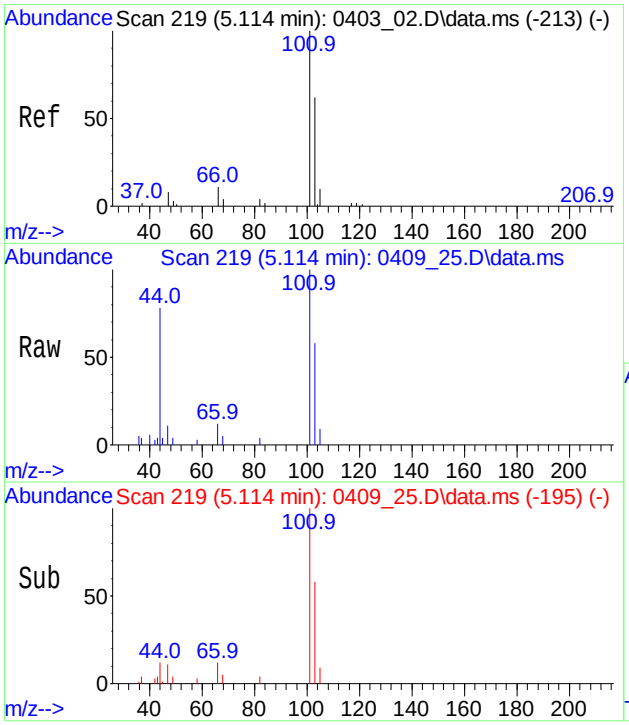




#12
Acetone
Conc: 8$ 5.979 ppbv
RT: 5.009 min Scan# 206
Delta R.T. -0.016 min
Lab File: 0409_25.D
Acq: 09 Apr 2019 09:22 pm

Tgt Ion: 43 Resp: 160129

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 20.4 | 25.9 | 38.9# |

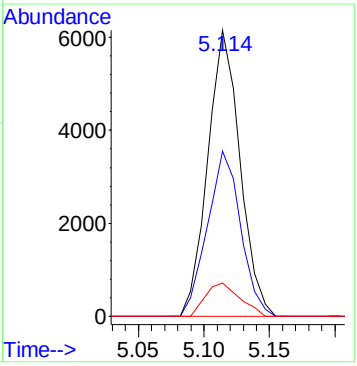


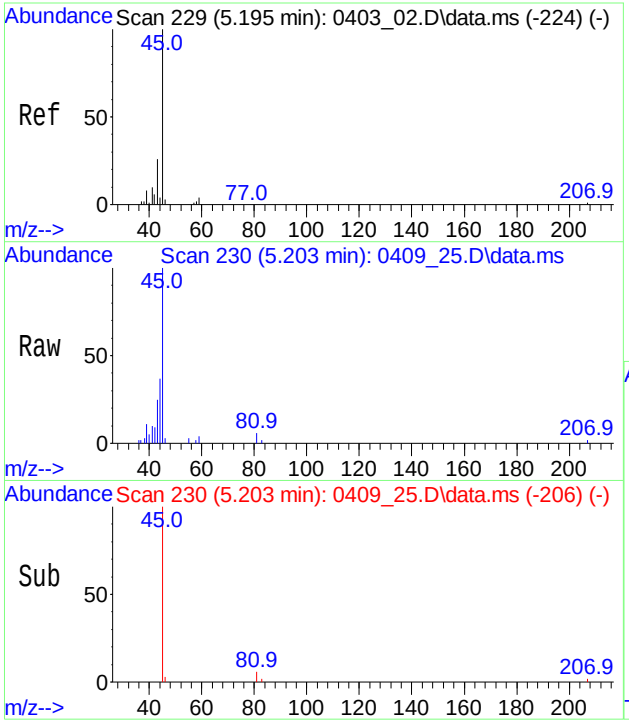



#13
Trichlorofluoromethane
Conc: 8$ 0.263 ppbv
RT: 5.114 min Scan# 219
Delta R.T. -0.008 min
Lab File: 0409_25.D
Acq: 09 Apr 2019 09:22 pm

Tgt Ion:101 Resp: 10552

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 59.4 | 51.6 | 77.4 |
| 66 | 12.3 | 9.4 | 14.0 |

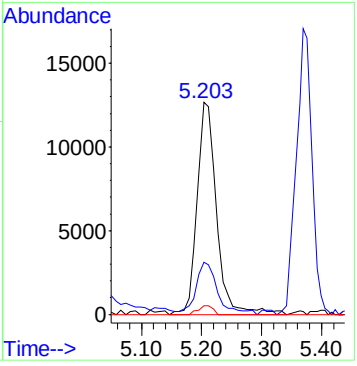


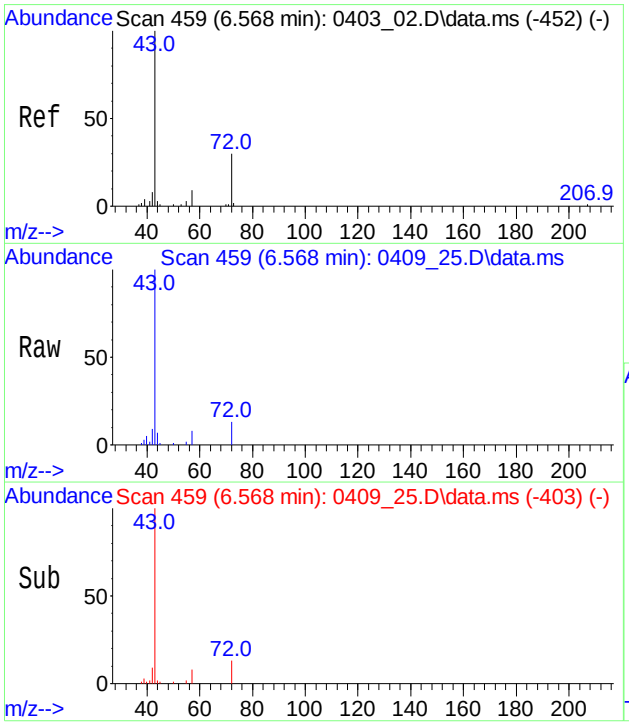




#14
Isopropylalcohol
Conc: 8$ 1.016 ppbv
RT: 5.203 min Scan# 230
Delta R.T. -0.009 min
Lab File: 0409_25.D
Acq: 09 Apr 2019 09:22 pm

Tgt Ion: 45 Resp: 28681

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 43 | 27.5 | 18.6 | 27.8 |
| 59 | 3.1 | 3.7 | 5.5# |

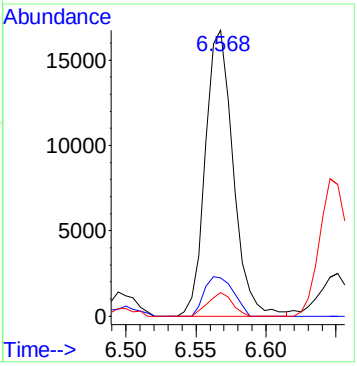


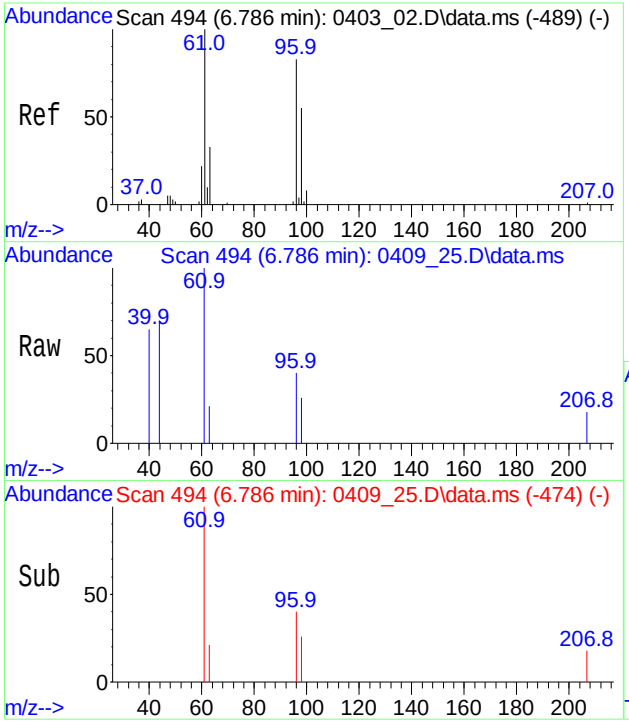



#25
Methyl Ethyl Ketone
Conc: 8$  0.687 ppbv
RT:  6.568 min  Scan# 459
Delta R.T.  -0.005 min
Lab File:  0409_25.D
Acq: 09 Apr 2019  09:22 pm

Tgt Ion: 43 Resp:  23151

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 72 | 14.4 | 24.6 | 37.0# |
| 57 | 7.1 | 7.4 | 11.2# |

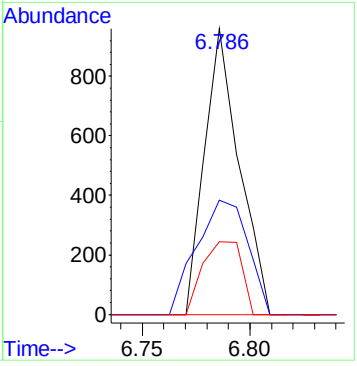


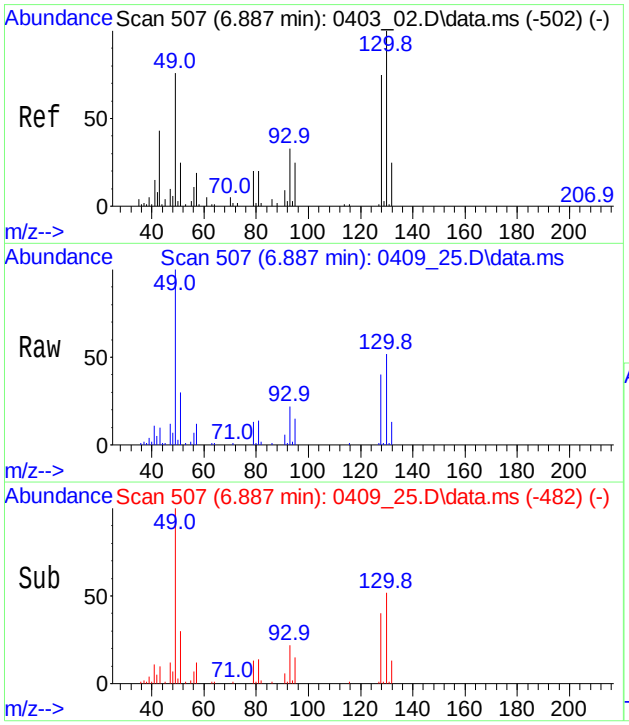




#26
Cis-1,2-Dichloroethene
Conc: 8$  Below Cal
RT:  6.786 min  Scan# 494
Delta R.T.  -0.008 min
Lab File:  0409_25.D
Acq: 09 Apr 2019  09:22 pm

Tgt Ion: 61 Resp:  1065

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 59.2 | 67.8 | 101.8# |
| 98 | 28.8 | 43.8 | 65.6# |

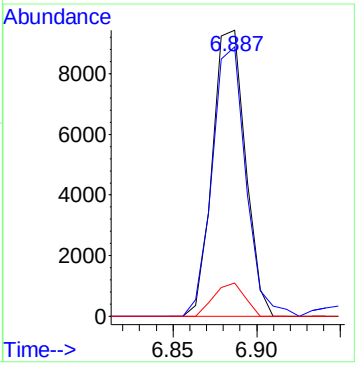


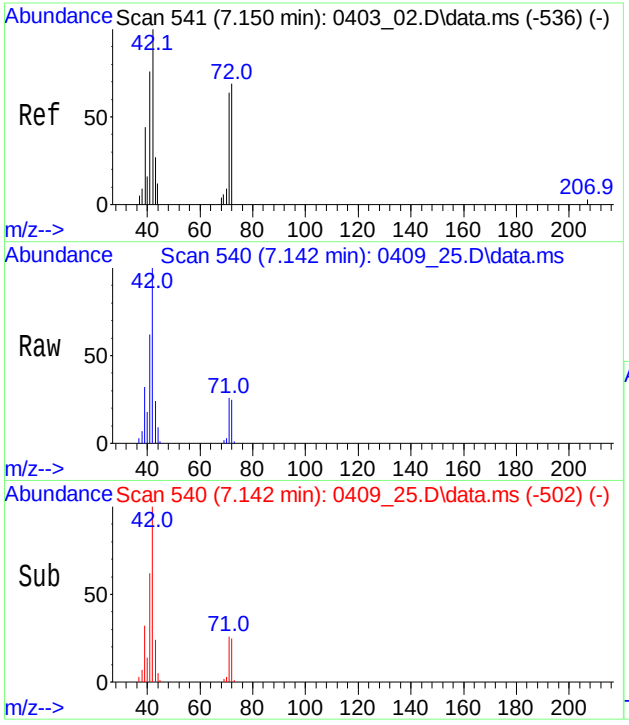



#27
Hexane
Conc: 8$ 0.666 ppbv
RT: 6.887 min Scan# 507
Delta R.T. -0.000 min
Lab File: 0409_25.D
Acq: 09 Apr 2019 09:22 pm

Tgt Ion: 57 Resp: 12899

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 57 | 100 | | |
| 41 | 96.2 | 58.9 | 88.3# |
| 86 | 10.8 | 16.4 | 24.6# |

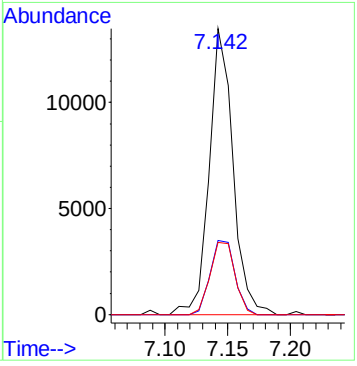


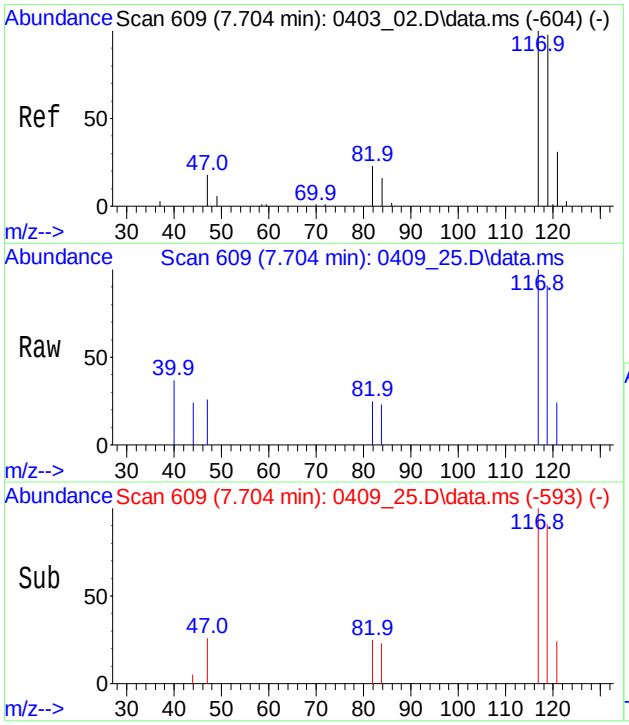




#30
Tetrahydrofuran
Conc: 8$ 1.241 ppbv
RT: 7.142 min Scan# 540
Delta R.T. -0.008 min
Lab File: 0409_25.D
Acq: 09 Apr 2019 09:22 pm

Tgt Ion: 42 Resp: 17590

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 42 | 100 | | |
| 71 | 26.8 | 45.8 | 68.6# |
| 72 | 26.5 | 46.5 | 69.7# |

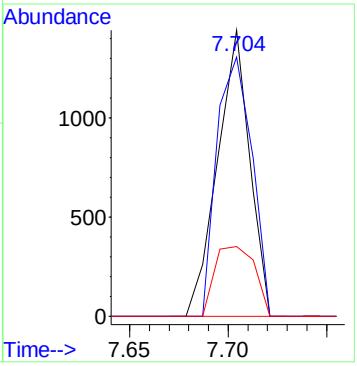


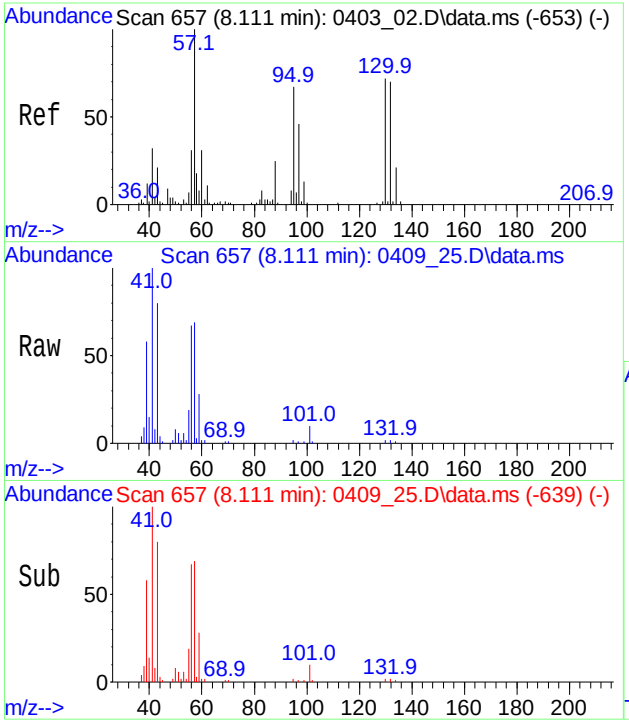



#34
Carbon Tetrachloride
Conc: 8$  Below Cal
RT:  7.704 min  Scan# 609
Delta R.T.  0.000 min
Lab File:  0409_25.D
Acq: 09 Apr 2019  09:22 pm

Tgt Ion:117 Resp:  1629

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 98.8 | 75.8 | 115.8 |
| 121 | 30.3 | 10.7 | 50.7 |

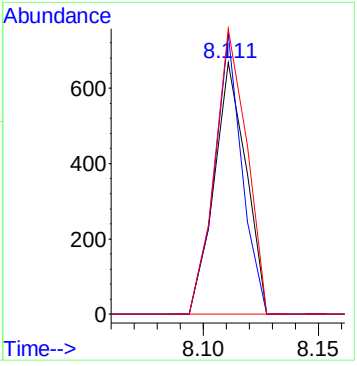


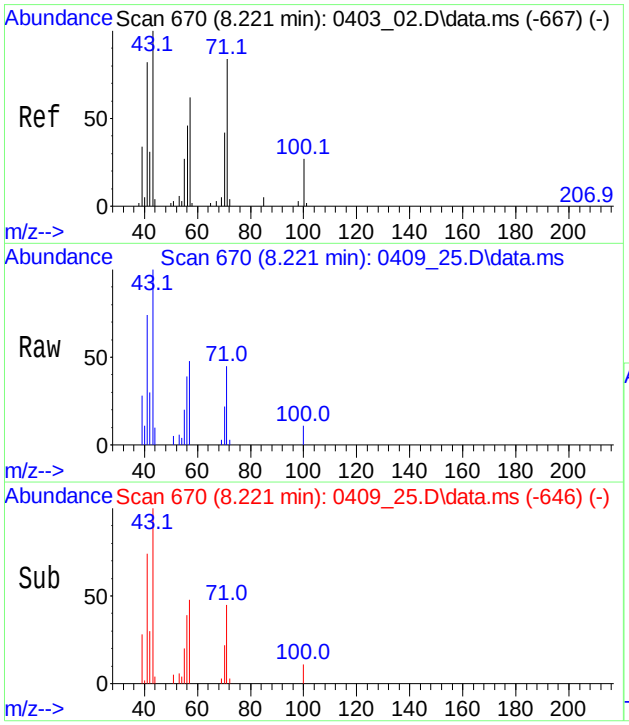




#39
Trichloroethene
Conc: 8$  Below Cal
RT:  8.111 min  Scan# 657
Delta R.T.  -0.000 min
Lab File:  0409_25.D
Acq: 09 Apr 2019  09:22 pm

Tgt Ion:130 Resp:  645

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 95.8 | 78.0 | 117.0 |
| 95 | 113.6 | 73.0 | 109.4# |

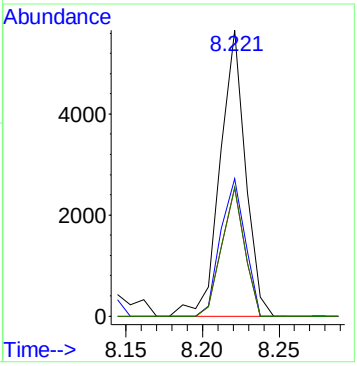


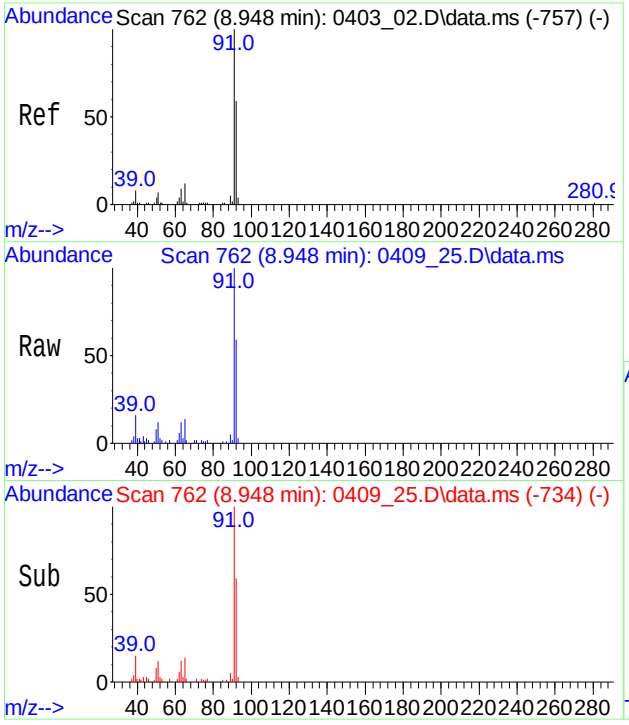



#43
Heptane
Conc: 8$ 0.335 ppbv
RT: 8.221 min Scan# 670
Delta R.T. 0.000 min
Lab File: 0409_25.D
Acq: 09 Apr 2019 09:22 pm

Tgt Ion: 43 Resp: 6479

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 57 | 46.3 | 49.7 | 74.5# |
| 71 | 40.3 | 62.2 | 93.2# |
| 71 | 40.3 | 62.2 | 93.2# |

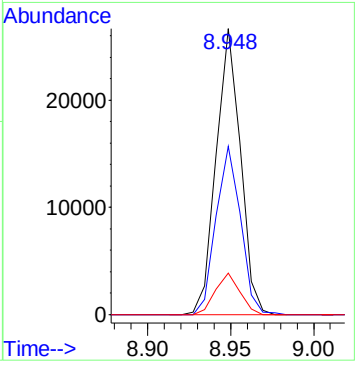


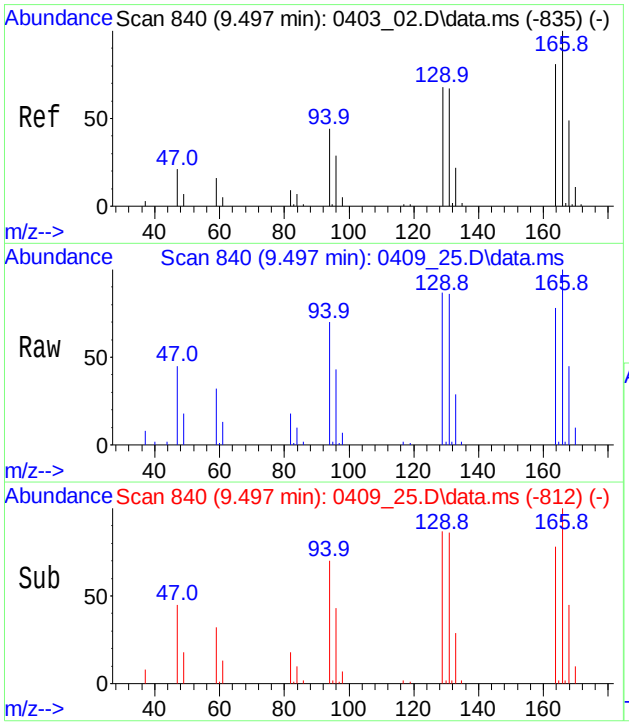




#48
Toluene
Conc: 8$ 0.862 ppbv
RT: 8.948 min Scan# 762
Delta R.T. -0.000 min
Lab File: 0409_25.D
Acq: 09 Apr 2019 09:22 pm

Tgt Ion: 91 Resp: 27075

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 59.5 | 47.7 | 71.5 |
| 65 | 14.4 | 9.3 | 13.9# |

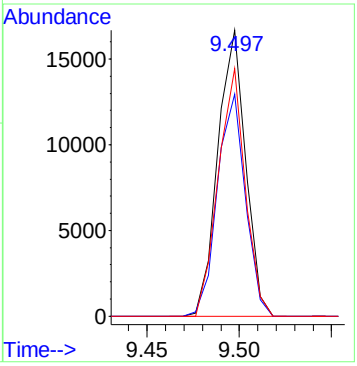


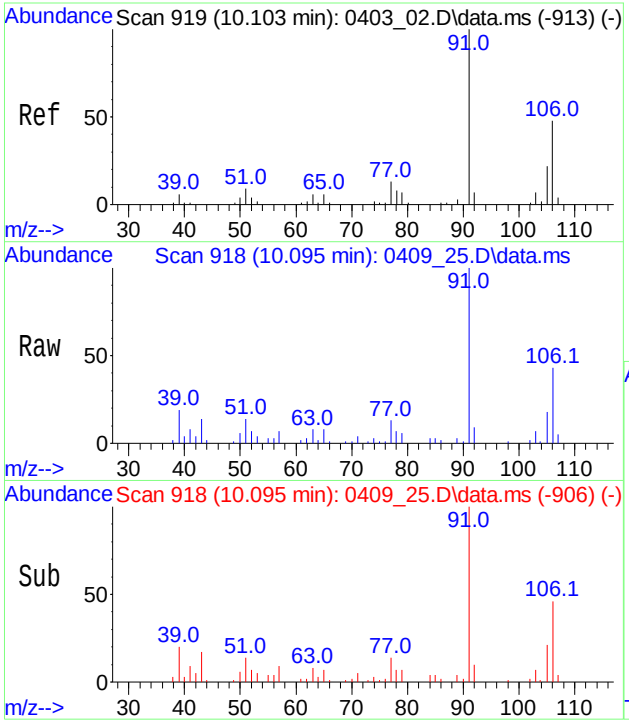



#52
Tetrachloroethene
Conc: 8$ 1.144 ppbv
RT: 9.497 min Scan# 840
Delta R.T. -0.000 min
Lab File: 0409_25.D
Acq: 09 Apr 2019 09:22 pm

Tgt Ion:166 Resp: 17403

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 78.2 | 62.2 | 93.2 |
| 129 | 84.2 | 54.9 | 82.3# |

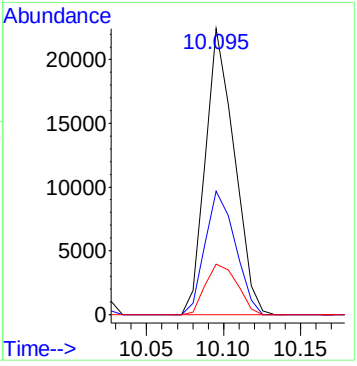


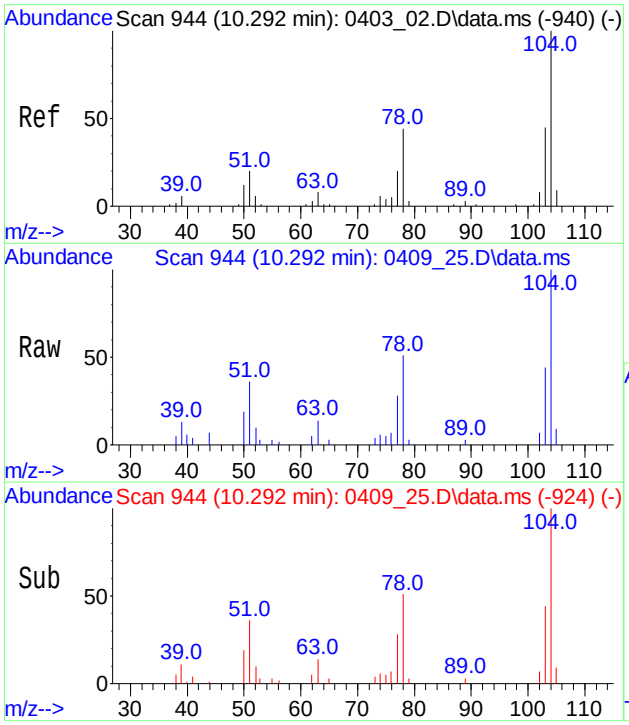




#57
m,p-Xylene
Conc: 8$ 0.869 ppbv
RT: 10.095 min Scan# 918
Delta R.T. -0.008 min
Lab File: 0409_25.D
Acq: 09 Apr 2019 09:22 pm

Tgt Ion: 91 Resp: 29281

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 45.0 | 40.9 | 61.3 |
| 105 | 19.2 | 17.8 | 26.8 |

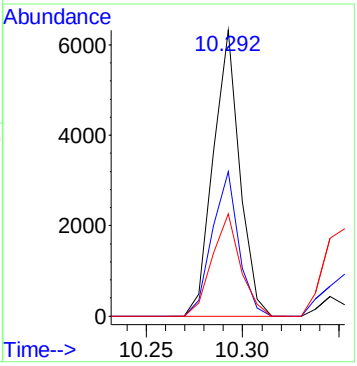


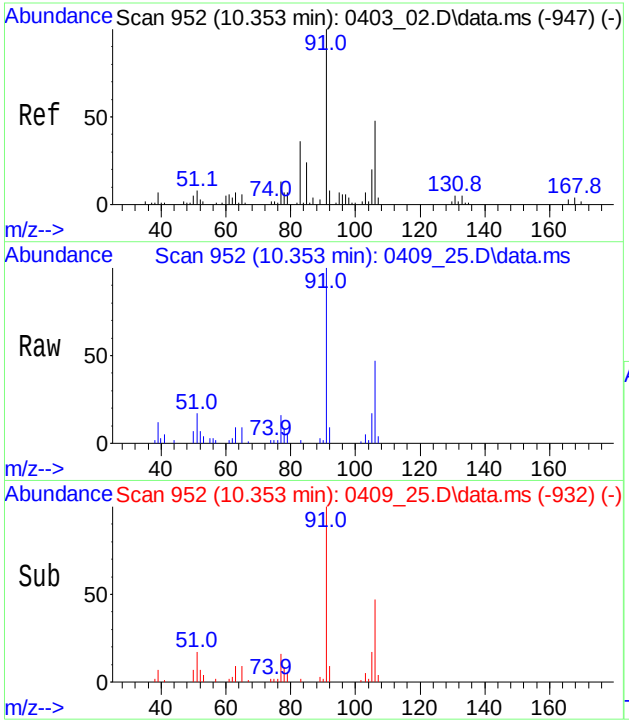



#59
Styrene
Conc: 8$ 0.249 ppbv
RT: 10.292 min Scan# 944
Delta R.T. 0.000 min
Lab File: 0409_25.D
Acq: 09 Apr 2019 09:22 pm

Tgt Ion:104 Resp: 6080

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 104 | 100 | | |
| 78 | 50.9 | 35.9 | 53.9 |
| 51 | 38.5 | 15.8 | 23.8# |

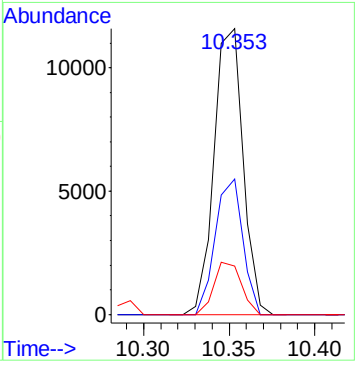


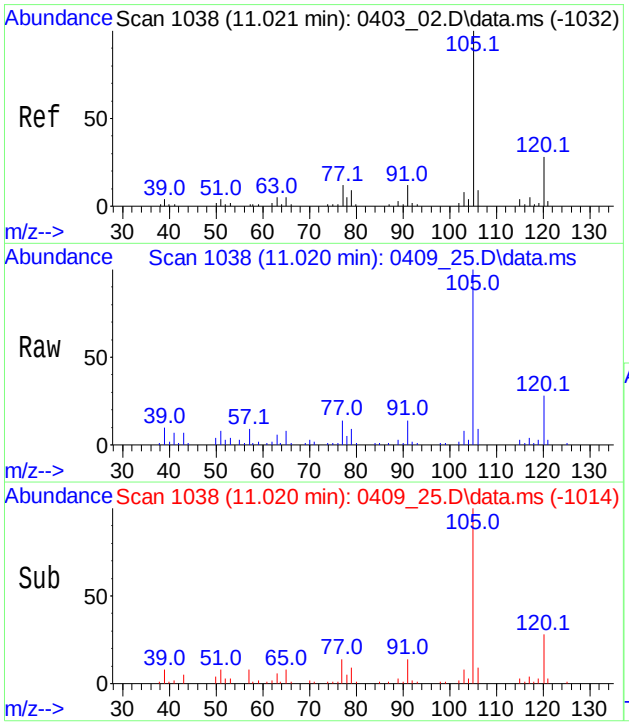




#61
o-Xylene
Conc: 8$ 0.387 ppbv
RT: 10.353 min Scan# 952
Delta R.T. -0.000 min
Lab File: 0409_25.D
Acq: 09 Apr 2019 09:22 pm

Tgt Ion: 91 Resp: 13638

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 44.8 | 38.3 | 57.5 |
| 105 | 17.3 | 15.2 | 22.8 |

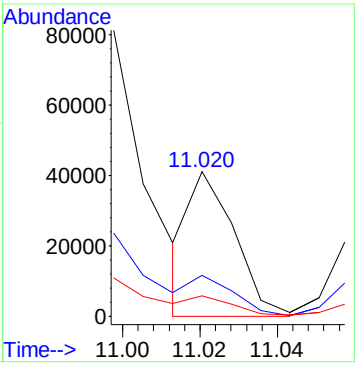


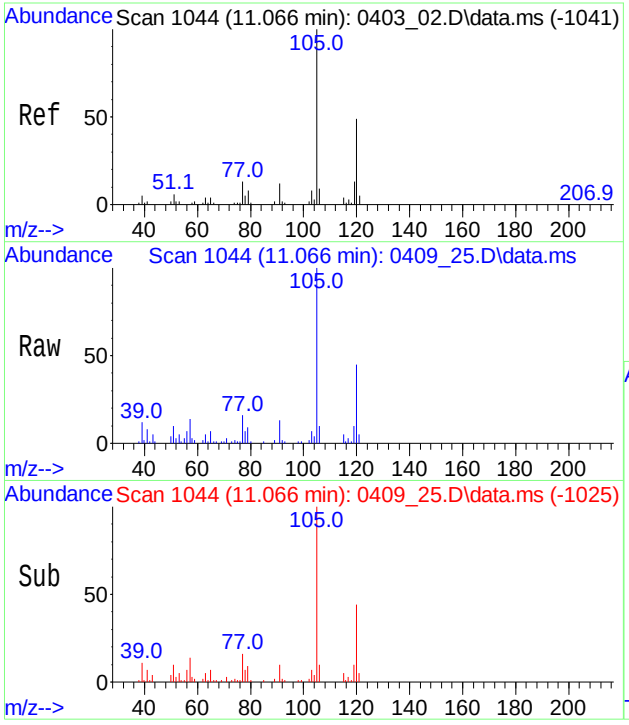



#66
4-Ethyltoluene
Conc: 8$ 0.713 ppbv
RT: 11.020 min Scan# 1038
Delta R.T. -0.000 min
Lab File: 0409_25.D
Acq: 09 Apr 2019 09:22 pm

Tgt Ion:105 Resp: 33268

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 106.2 | 25.0 | 37.4# |
| 77 | 51.7 | 9.4 | 14.0# |

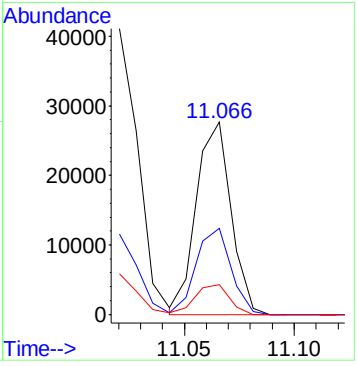


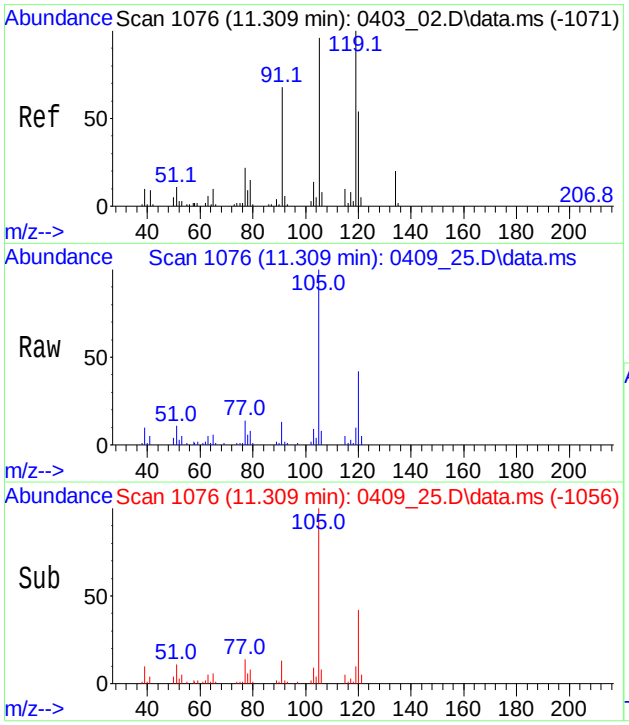




#67
1,3,5-Trimethylbenzene
Conc: 8$ 0.752 ppbv
RT: 11.066 min Scan# 1044
Delta R.T. -0.000 min
Lab File: 0409_25.D
Acq: 09 Apr 2019 09:22 pm

Tgt Ion:105 Resp: 30209

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 45.1 | 39.7 | 59.5 |
| 77 | 15.4 | 10.2 | 15.4# |

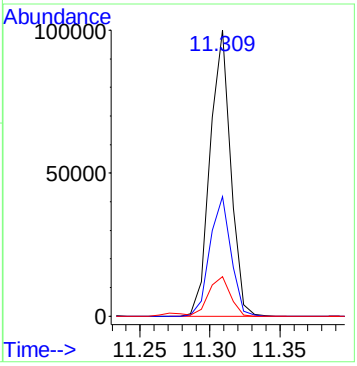


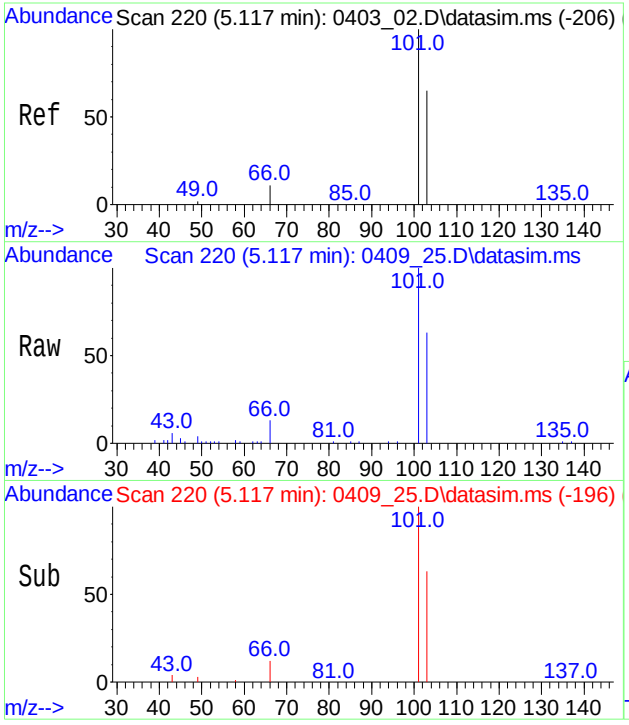



#68
1,2,4-Trimethylbenzene
Conc: 8$ 2.605 ppbv
RT: 11.309 min Scan# 1076
Delta R.T. -0.000 min
Lab File: 0409_25.D
Acq: 09 Apr 2019 09:22 pm

Tgt Ion:105 Resp: 102462

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 42.7 | 44.5 | 66.7# |
| 77 | 15.6 | 19.7 | 29.5# |

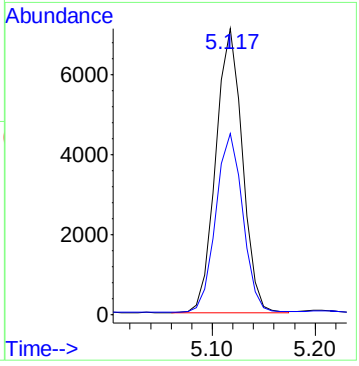


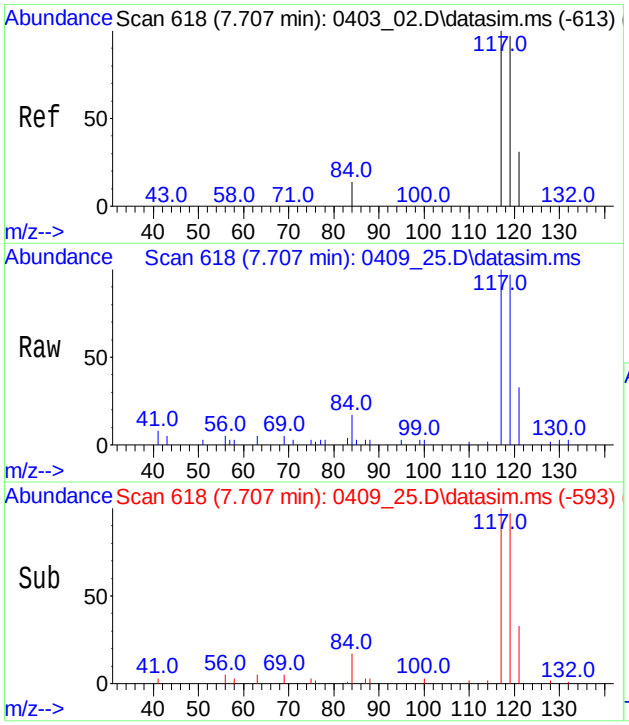




#84
Trichlorofluoromethane(sim)
Conc: 8$ 0.230 ppbv
RT: 5.117 min Scan# 220
Delta R.T. -0.008 min
Lab File: 0409_25.D
Acq: 09 Apr 2019 09:22 pm

Tgt Ion:101 Resp: 12562

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 63.7 | 51.9 | 77.9 |

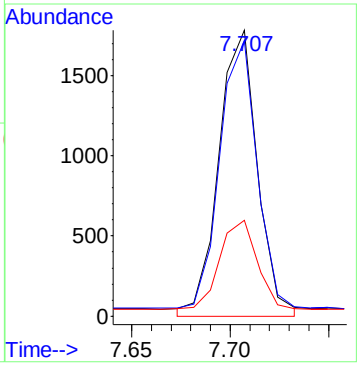


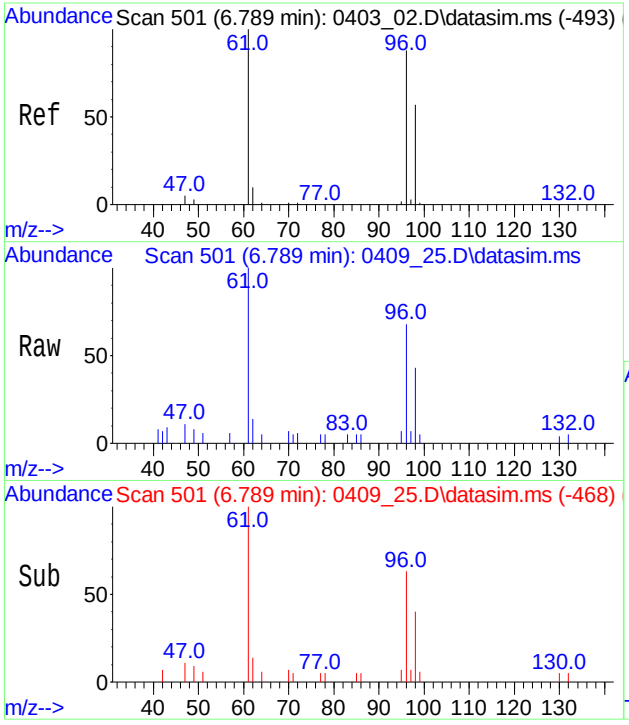



#87
Carbon Tetrachloride(sim)
Conc: 8$ 0.077 ppbv
RT: 7.704 min Scan# 618
Delta R.T. -0.000 min
Lab File: 0409_25.D
Acq: 09 Apr 2019 09:22 pm

Tgt Ion:117 Resp: 1629

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 98.8 | 76.6 | 115.0 |
| 121 | 30.3 | 24.6 | 36.8 |

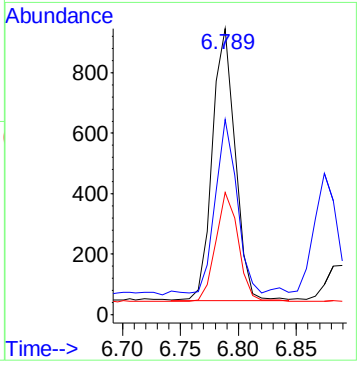


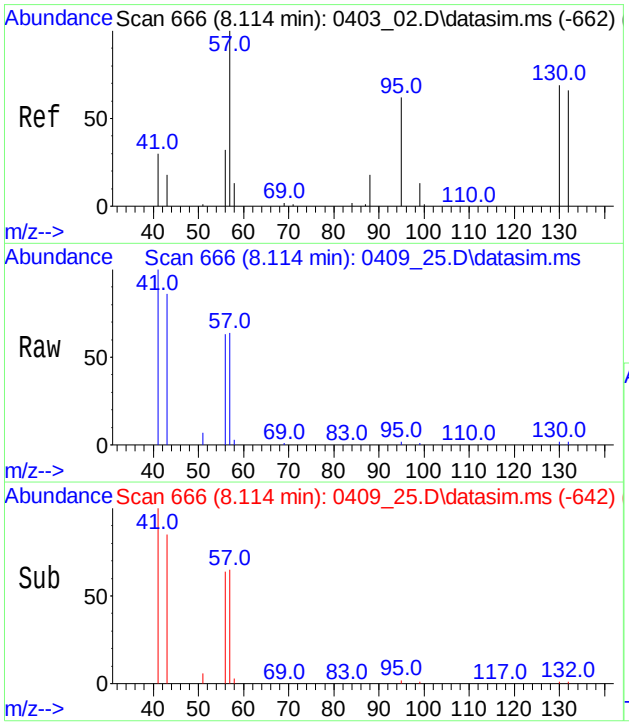




#92
Cis-1,2-Dichloroethene(sim)
Conc: 8$ 0.049 ppbv
RT: 6.789 min Scan# 501
Delta R.T. -0.000 min
Lab File: 0409_25.D
Acq: 09 Apr 2019 09:22 pm

Tgt Ion: 61 Resp: 1214

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 64.0 | 69.7 | 104.5# |
| 98 | 39.6 | 45.3 | 67.9# |

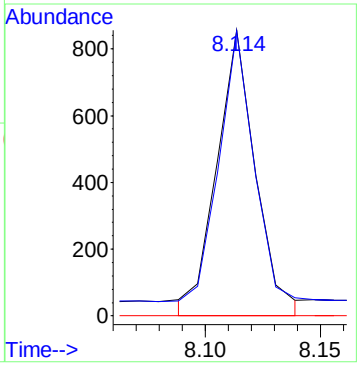


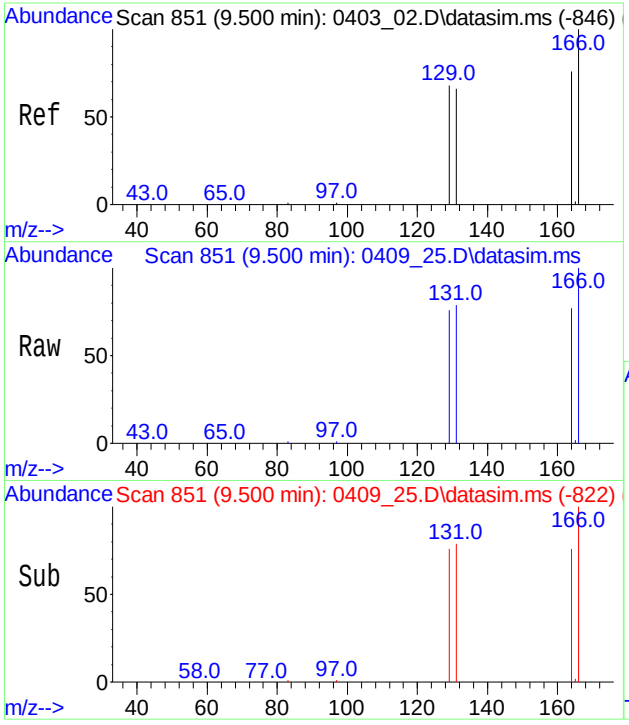



#97
Trichloroethene(sim)
Conc: 8$ 0.041 ppbv
RT: 8.111 min Scan# 666
Delta R.T. 0.000 min
Lab File: 0409_25.D
Acq: 09 Apr 2019 09:22 pm

Tgt Ion:130 Resp: 645

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 95.8 | 78.0 | 117.0 |
| 97 | 63.1 | 47.2 | 70.8 |

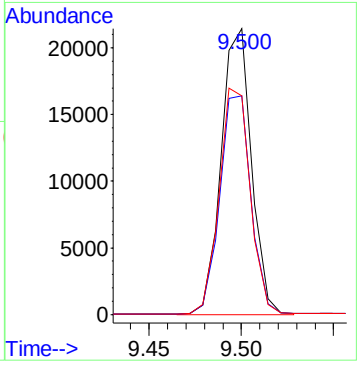


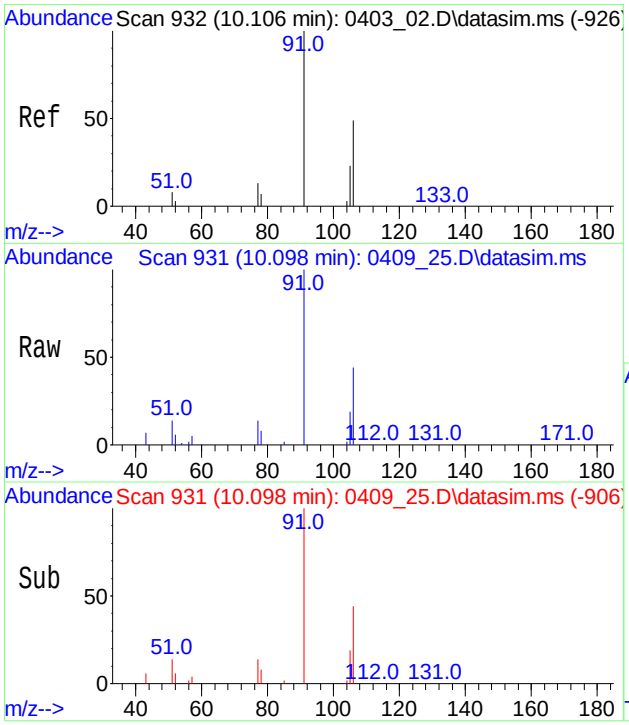




#103
Tetrachloroethene(sim)
Conc: 8$ 1.011 ppbv
RT: 9.497 min Scan# 851
Delta R.T. -0.000 min
Lab File: 0409_25.D
Acq: 09 Apr 2019 09:22 pm

Tgt Ion:166 Resp: 17403

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 78.2 | 57.7 | 97.7 |
| 129 | 84.2 | 48.6 | 88.6 |

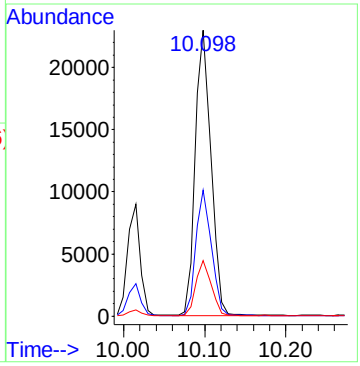





#106
m,p-Xylene(sim)
Conc: 8$  0.873 ppbv
RT:  10.098 min  Scan# 931
Delta R.T.  -0.008 min
Lab File:  0409_25.D
Acq: 09 Apr 2019  09:22 pm

Tgt Ion: 91 Resp:  30900

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 43.3 | 44.3 | 54.1# |
| 105 | 18.7 | 17.7 | 26.5 |



1

AIR ANALYSIS DATA SHEET

CLIENT ID: SS-2 5X

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90517 5X

Canister: 219 Lab File ID: 0409_35.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/10/19

Matrix: AIR Dilution Factor: 5

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 115-07-1 | Propylene | 2.91 | U | 2.91 | 2.91 | r |
| 75-71-8 | Dichlorodifluoromethane | 1.01 | U | 1.01 | 1.01 | r |
| 74-87-3 | Chloromethane | 2.42 | U | 2.42 | 2.42 | r |
| 106-99-0 | 1,3-Butadiene | 2.26 | U | 2.26 | 2.26 | r |
| 75-00-3 | Chloroethane | 1.90 | U | 1.90 | 1.90 | r |
| 64-17-5 | Ethanol | 2.89 | S | 2.66 | 2.66 | r |
| 67-64-1 | Acetone | 2.22 | S | 2.11 | 2.11 | r |
| 67-63-0 | Isopropylalcohol | 2.04 | U | 2.04 | 2.04 | r |
| 107-13-1 | Acrylonitrile | 2.31 | U | 2.31 | 2.31 | r |
| 75-09-2 | Methylene Chloride | 4.32 | U | 4.32 | 4.32 | r |
| 75-15-0 | Carbon Disulfide | 1.61 | U | 1.61 | 1.61 | r |
| 156-60-5 | Trans-1,2-Dichloroethene | 4.43 | | 1.26 | 1.26 | r |
| 1634-04-4 | Methyl tert-butyl ether(MTBE) | 1.39 | U | 1.39 | 1.39 | r |
| 78-93-3 | Methyl Ethyl Ketone | 1.70 | U | 1.70 | 1.70 | r |
| 156-59-2 | Cis-1,2-Dichloroethene | 76.4 | | 0.252 | 0.252 | r |
| 110-54-3 | Hexane | 1.42 | U | 1.42 | 1.42 | r |
| 67-66-3 | Chloroform | 17.2 | | 1.02 | 1.02 | r |
| 141-78-6 | Ethyl acetate | 1.39 | U | 1.39 | 1.39 | r |
| 109-99-9 | Tetrahydrofuran | 1.70 | U | 1.70 | 1.70 | r |
| 71-43-2 | Benzene | 1.57 | U | 1.57 | 1.57 | r |
| 110-82-7 | Cyclohexane | 1.45 | U | 1.45 | 1.45 | r |
| 79-01-6 | Trichloroethene | 68.9 | | 0.186 | 0.186 | r |
| 142-82-5 | Heptane | 1.22 | U | 1.22 | 1.22 | r |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | 1.22 | U | 1.22 | 1.22 | r |
| 10061-02-6 | trans-1,3-Dichloropropene | 1.10 | U | 1.10 | 1.10 | r |
| 108-88-3 | Toluene | 1.33 | U | 1.33 | 1.33 | r |
| 591-78-6 | 2-Hexanone(MBK) | 1.22 | U | 1.22 | 1.22 | r |
| 127-18-4 | Tetrachloroethene | 3410 | E | 0.184 | 0.184 | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.729 | U | 0.729 | 0.729 | r |
| 108-90-7 | Chlorobenzene | 1.09 | U | 1.09 | 1.09 | r |
| 100-41-4 | Ethylbenzene | 1.15 | U | 1.15 | 1.15 | r |
| 100-42-5 | Styrene | 1.17 | U | 1.17 | 1.17 | r |
| 95-47-6 | o-Xylene | 1.15 | U | 1.15 | 1.15 | r |
| 98-82-8 | Isopropylbenzene | 1.02 | U | 1.02 | 1.02 | r |
| 622-96-8 | 4-Ethyltoluene | 1.02 | U | 1.02 | 1.02 | r |
| 108-67-8 | 1,3,5-Trimethylbenzene | 1.02 | U | 1.02 | 1.02 | r |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

1

AIR ANALYSIS DATA SHEET

CLIENT ID: SS-2 5X

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90517 5X

Canister: 219 Lab File ID: 0409_35.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/10/19

Matrix: AIR Dilution Factor: 5

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | 1.02 | U | 1.02 | 1.02 | r |
| 76-14-2 | 1,2-Dichlorotetrafluoroethane(sim) | 0.716 | U | 0.716 | 0.716 | r |
| 75-01-4 | Vinyl Chloride(sim) | 0.391 | U | 0.391 | 0.391 | r |
| 74-83-9 | Bromomethane(sim) | 1.29 | U | 1.29 | 1.29 | r |
| 75-69-4 | Trichlorofluoromethane(sim) | 0.891 | U | 0.891 | 0.891 | r |
| 107-06-2 | 1,2-Dichloroethane(sim) | 1.24 | U | 1.24 | 1.24 | r |
| 71-55-6 | 1,1,1-Trichloroethane(sim) | 0.917 | U | 0.917 | 0.917 | r |
| 56-23-5 | Carbon Tetrachloride(sim) | 0.159 | U | 0.159 | 0.159 | r |
| 75-35-4 | 1,1-Dichloroethene(sim) | 0.252 | U | 0.252 | 0.252 | r |
| 76-13-1 | Trichlorotrifluoroethane(sim) | 0.653 | U | 0.653 | 0.653 | r |
| 75-34-3 | 1,1-Dichloroethane(sim) | 1.24 | U | 1.24 | 1.24 | r |
| 78-87-5 | 1,2-dichloropropane(sim) | 1.08 | U | 1.08 | 1.08 | r |
| 75-27-4 | Bromodichloromethane(sim) | 0.747 | U | 0.747 | 0.747 | r |
| 123-91-1 | 1,4-Dioxane(sim) | 1.39 | U | 1.39 | 1.39 | r |
| 10061-01-5 | cis-1,3-Dichloropropene(sim) | 1.10 | U | 1.10 | 1.10 | r |
| 79-00-5 | 1,1,2-Trichloroethane(sim) | 0.917 | U | 0.917 | 0.917 | r |
| 124-48-1 | Dibromochloromethane(sim) | 0.587 | U | 0.587 | 0.587 | r |
| 106-93-4 | 1,2-Dibromoethane(EDB)(sim) | 0.651 | U | 0.651 | 0.651 | r |
| 75-25-2 | Bromoform(sim) | 0.484 | U | 0.484 | 0.484 | r |
| 179601-23-1 | m,p-Xylene(sim) | 1.15 | U | 1.15 | 1.15 | r |
| 79-34-5 | 1,1,2,2-Tetrachloroethane(sim) | 0.729 | U | 0.729 | 0.729 | r |
| 100-44-7 | Benzyl chloride(sim) | 0.966 | U | 0.966 | 0.966 | r |
| 541-73-1 | 1,3-Dichlorobenzene(sim) | 0.832 | U | 0.832 | 0.832 | r |
| 106-46-7 | 1,4-Dichlorobenzene(sim) | 0.832 | U | 0.832 | 0.832 | r |
| 135-98-8 | sec-Butylbenzene(sim) | 0.911 | U | 0.911 | 0.911 | r |
| 99-87-6 | 4-Isopropyltoluene(sim) | 0.911 | U | 0.911 | 0.911 | r |
| 95-50-1 | 1,2-Dichlorobenzene(sim) | 0.832 | U | 0.832 | 0.832 | r |
| 104-51-8 | n-Butylbenzene(sim) | 0.911 | U | 0.911 | 0.911 | r |
| 120-82-1 | 1,2,4-Trichlorobenzene(sim) | 0.674 | U | 0.674 | 0.674 | r |
| 87-68-3 | Hexachlorobutadiene(sim) | 0.469 | U | 0.469 | 0.469 | r |
| | | | | | | |
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FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_35.D
Acq On : 10 Apr 2019 03:56 am
Operator : CORTEX\ms
Client ID : SS-2 5X
Lab ID : CC90517 5X
ALS Vial : 1 Sample Multiplier: 1

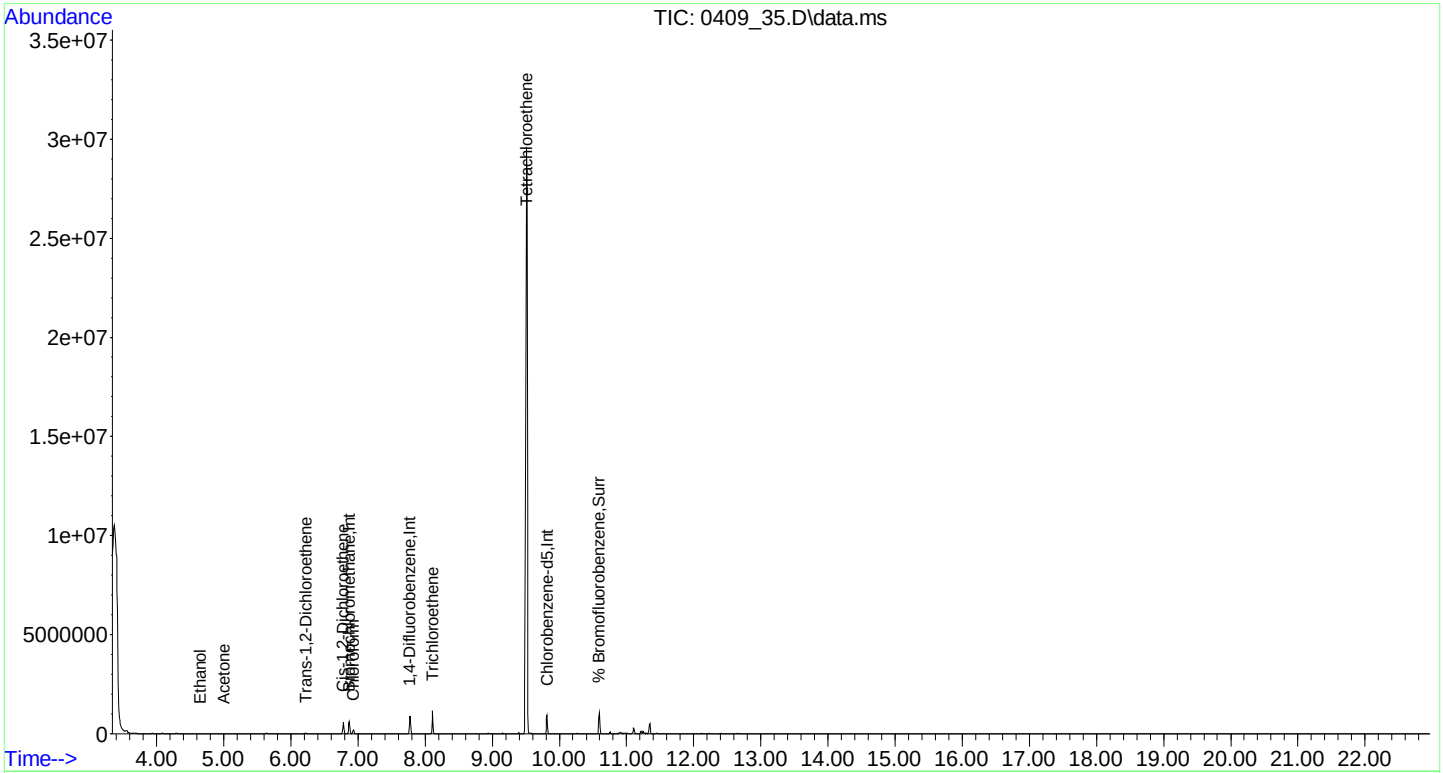
Quant Time: Apr 10 10:29:12 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration

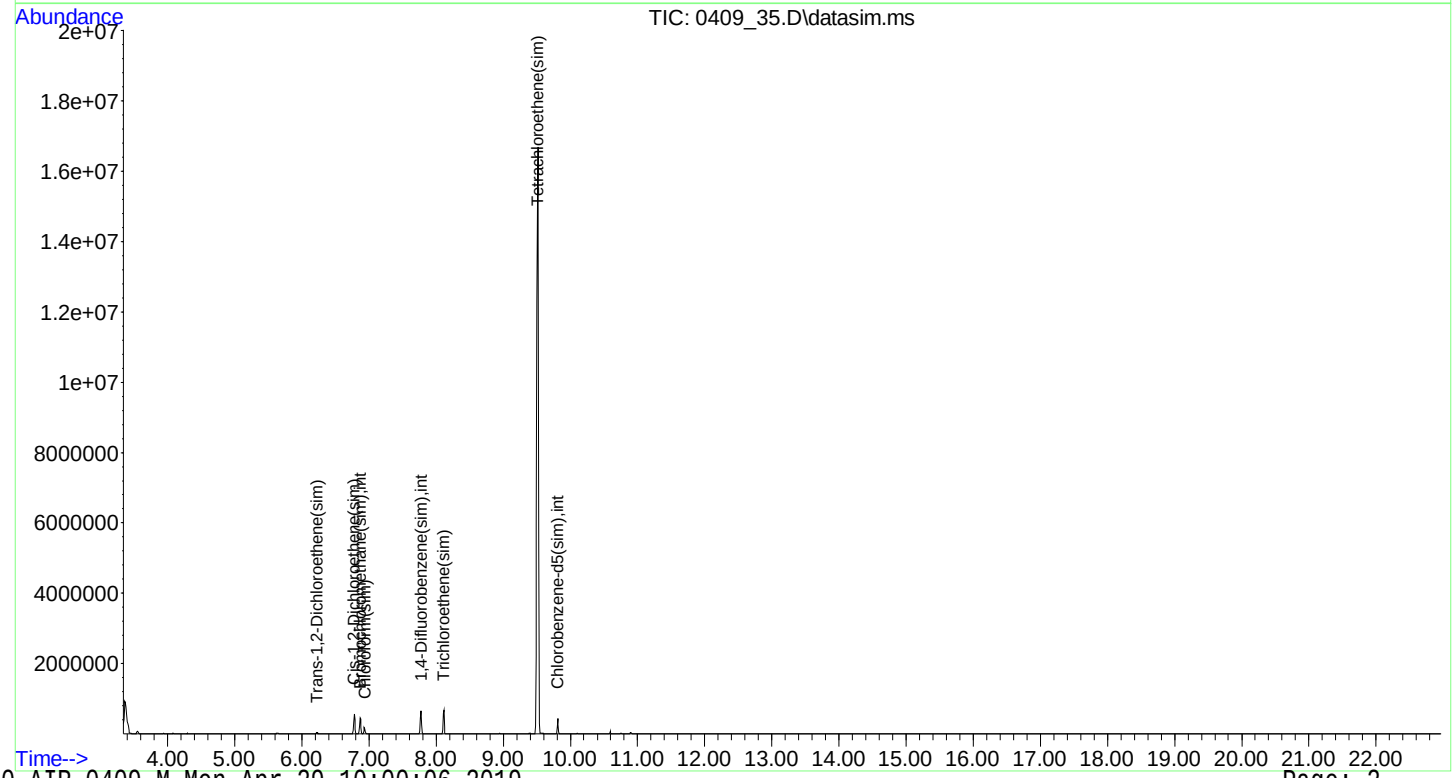
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.871 | 130 | 111130 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.772 | 114 | 366695 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.815 | 82 | 171906 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.874 | 130 | 152242 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 415688 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 173129 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 235926 | 10.469 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 104.70% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 11) Ethanol | 4.652 | 45 | 2766 | 0.578 | ppbv | # | 78 |
| 12) Acetone | 5.009 | 43 | 10996 | 0.443 | ppbv | | 89 |
| 22) Trans-1,2-Dichloroethene | 6.223 | 61 | 16829 | 0.886 | ppbv | # | 79 |
| 26) Cis-1,2-Dichloroethene | 6.778 | 61 | 278768 | 15.276 | ppbv | # | 70 |
| 28) Chloroform | 6.933 | 83 | 88936 | 3.442 | ppbv | | 88 |
| 39) Trichloroethene | 8.111 | 130 | 189774 | 13.784 | ppbv | # | 87 |
| 48) Toluene | 8.948 | 91 | 7879 | 0.262 | ppbv | # | 97 |
| 52) Tetrachloroethene | 9.511 | 166 | 9916271 | 681.004 | ppbv | | 97 |
| 90] Trans-1,2-Dichloroethe... | 6.221 | 61 | 19903 | 0.816 | ppbv | # | 78 |
| 92] Cis-1,2-Dichloroethene... | 6.781 | 61 | 324354 | 14.110 | ppbv | # | 72 |
| 93] Chloroform(sim) | 6.933 | 83 | 88936 | 3.083 | ppbv | # | 88 |
| 97] Trichloroethene(sim) | 8.111 | 130 | 189774 | 12.672 | ppbv | | 91 |
| 103] Tetrachloroethene(sim) | 9.511 | 166 | 9905202 | 606.646 | ppbv | | 97 |

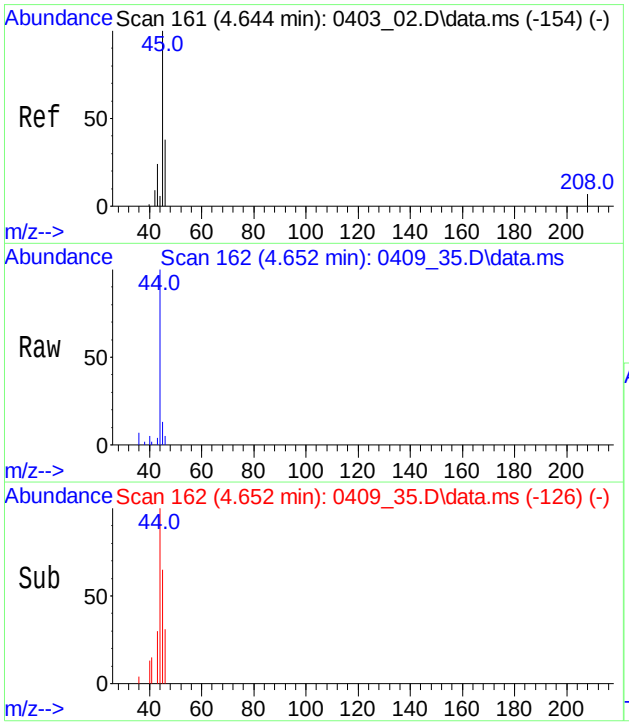
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_35.D
Acq On : 10 Apr 2019 03:56 am
Operator : CORTEX\ms
Client ID : SS-2 5X
Lab ID : CC90517 5X
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 10:29:12 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration



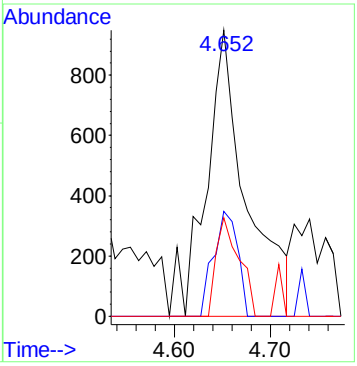



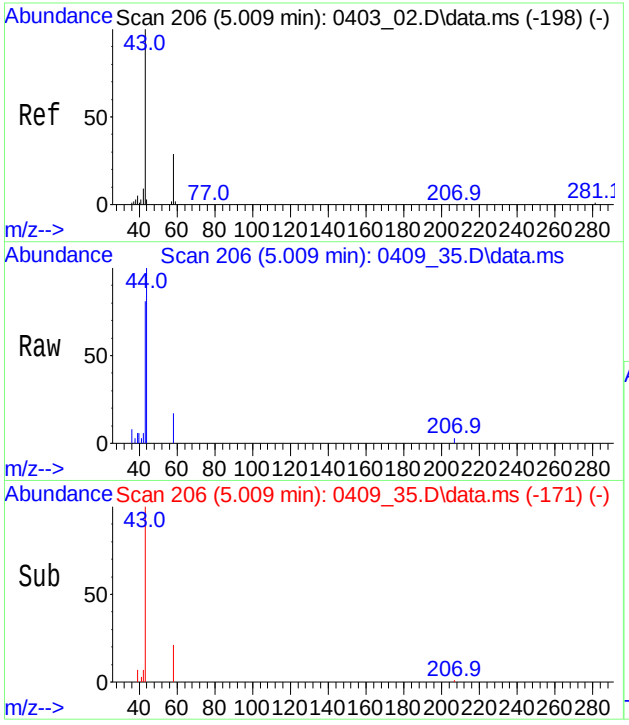



#11
Ethanol
Conc: 8$ 0.578 ppbv
RT: 4.652 min Scan# 162
Delta R.T. -0.008 min
Lab File: 0409_35.D
Acq: 10 Apr 2019 03:56 am

Tgt Ion: 45 Resp: 2766

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 46 | 21.8 | 29.9 | 44.9# |
| 43 | 19.7 | 22.7 | 34.1# |

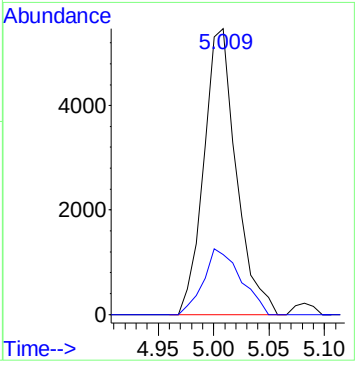


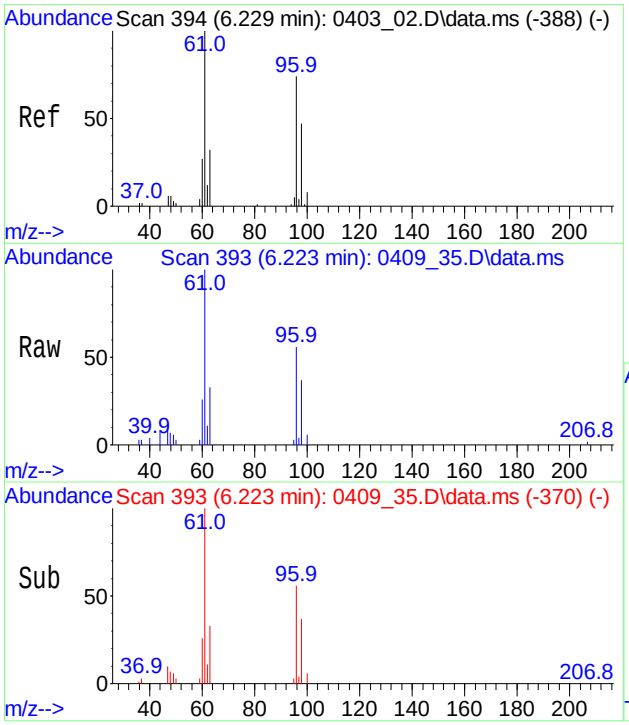




#12
Acetone
Conc: 8$ 0.443 ppbv
RT: 5.009 min Scan# 206
Delta R.T. -0.016 min
Lab File: 0409_35.D
Acq: 10 Apr 2019 03:56 am

Tgt Ion: 43 Resp: 10996

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 26.5 | 25.9 | 38.9 |

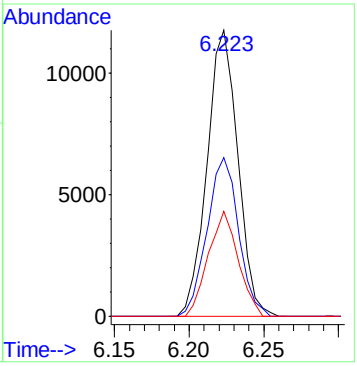


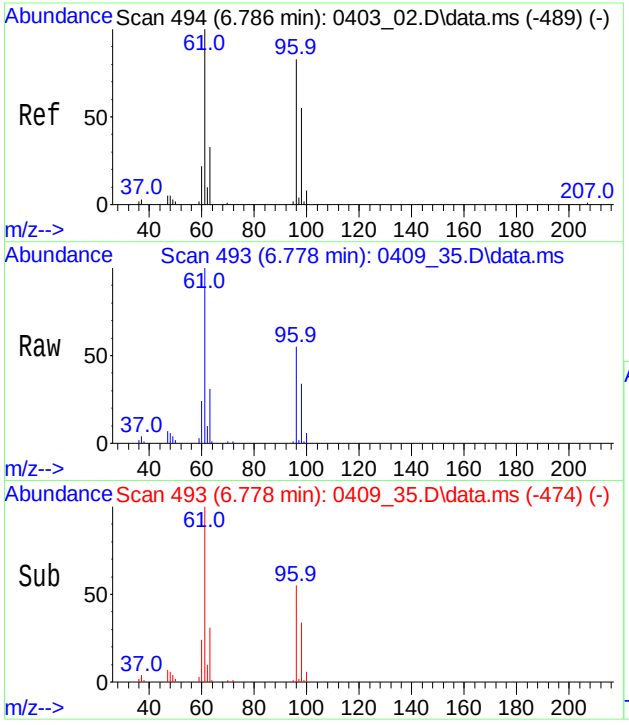



#22
Trans-1,2-Dichloroethene
Conc: 8$  0.886 ppbv
RT:  6.223 min  Scan# 393
Delta R.T.  -0.016 min
Lab File:  0409_35.D
Acq: 10 Apr 2019  03:56 am

Tgt Ion: 61 Resp:  16829

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 56.6 | 60.6 | 90.8# |
| 98 | 35.6 | 38.9 | 58.3# |

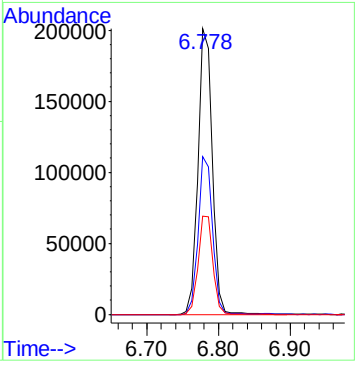


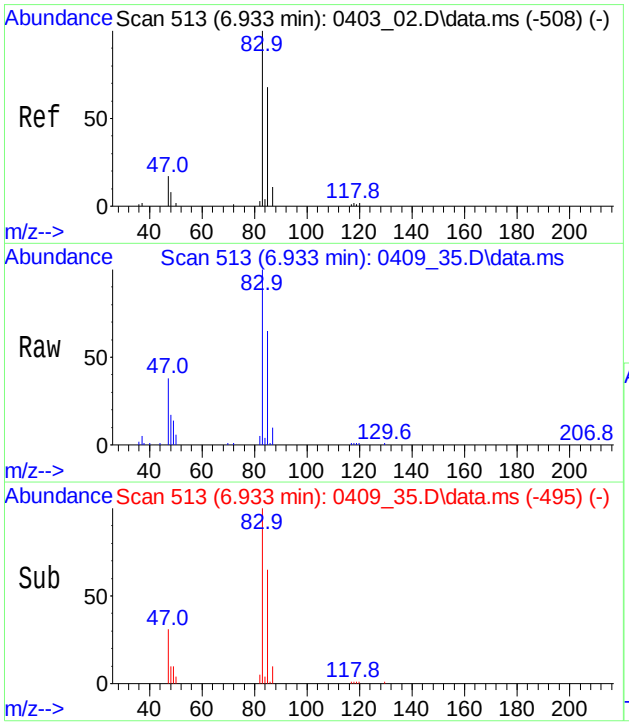




#26
Cis-1,2-Dichloroethene
Conc: 8$  15.276 ppbv
RT:  6.778 min  Scan# 493
Delta R.T.  -0.016 min
Lab File:  0409_35.D
Acq: 10 Apr 2019  03:56 am

Tgt Ion: 61 Resp:  278768

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 55.3 | 67.8 | 101.8# |
| 98 | 35.3 | 43.8 | 65.6# |

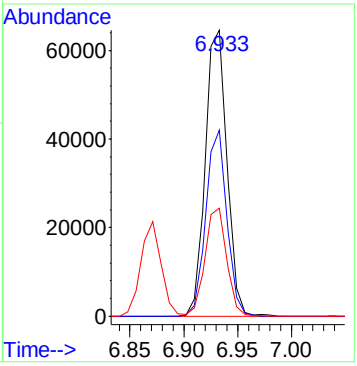


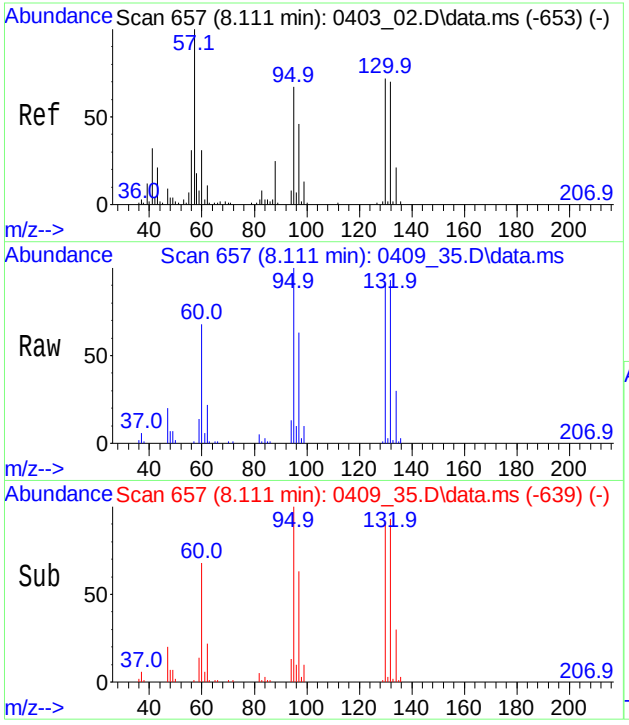



#28
Chloroform
Conc: 8$  3.442 ppbv
RT:  6.933 min  Scan# 513
Delta R.T.  -0.008 min
Lab File:  0409_35.D
Acq: 10 Apr 2019  03:56 am

Tgt Ion: 83 Resp:  88936

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 62.9 | 45.9 | 85.9 |
| 47 | 37.7 | 0.8 | 40.8 |

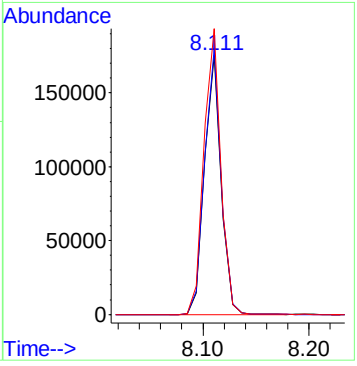


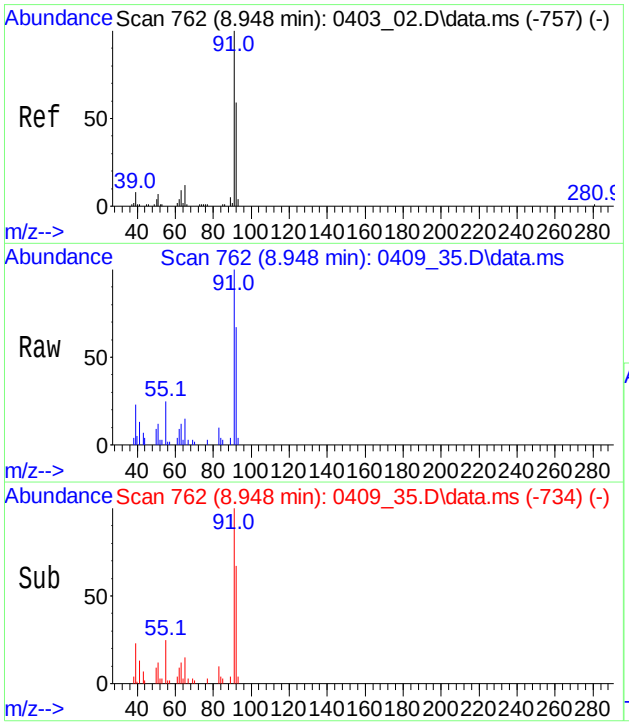




#39
Trichloroethene
Conc: 8$  13.784 ppbv
RT:  8.111 min  Scan# 657
Delta R.T.  -0.000 min
Lab File:  0409_35.D
Acq: 10 Apr 2019  03:56 am

Tgt Ion:130 Resp:  189774

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 102.4 | 78.0 | 117.0 |
| 95 | 112.6 | 73.0 | 109.4# |

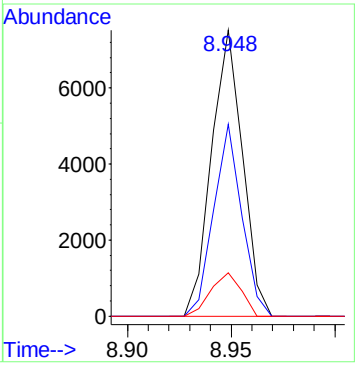


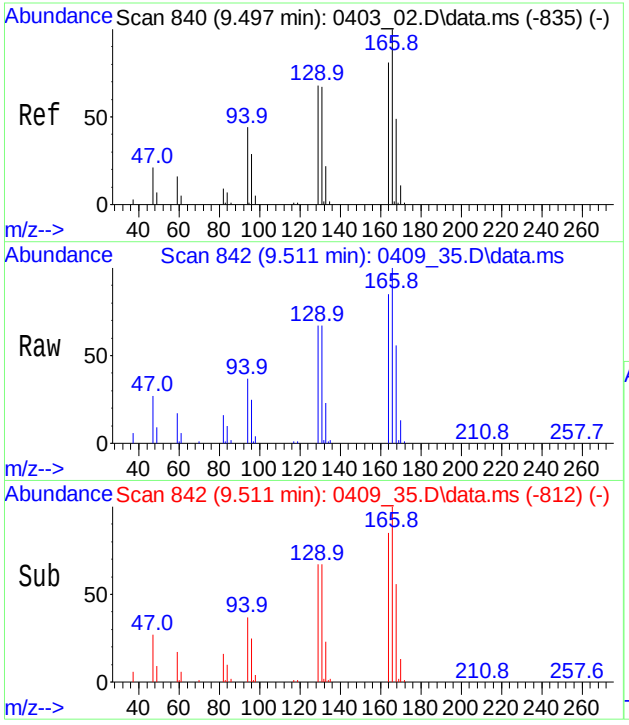



#48
Toluene
Conc: 8$ 0.262 ppbv
RT: 8.948 min Scan# 762
Delta R.T. 0.000 min
Lab File: 0409_35.D
Acq: 10 Apr 2019 03:56 am

Tgt Ion: 91 Resp: 7879

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 60.8 | 47.7 | 71.5 |
| 65 | 14.8 | 9.3 | 13.9# |

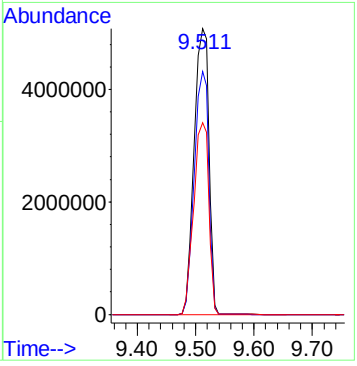


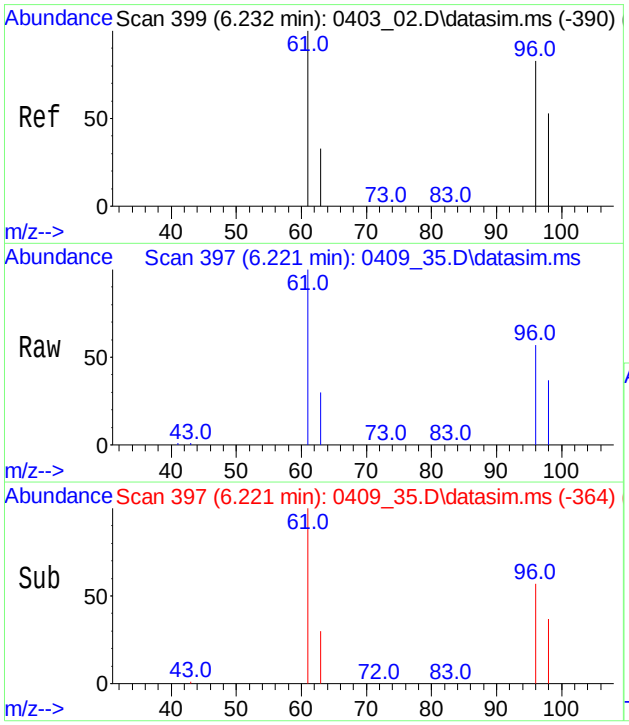




#52
Tetrachloroethene
Conc: 8$ 681.004 ppbv
RT: 9.511 min Scan# 842
Delta R.T. 0.014 min
Lab File: 0409_35.D
Acq: 10 Apr 2019 03:56 am

Tgt Ion:166 Resp: 9916271

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 82.9 | 62.2 | 93.2 |
| 129 | 68.3 | 54.9 | 82.3 |

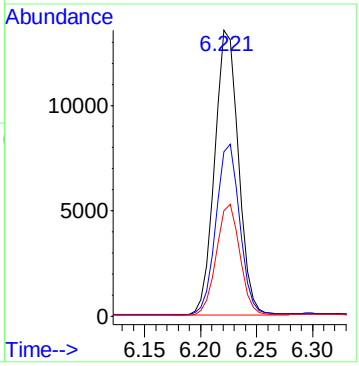


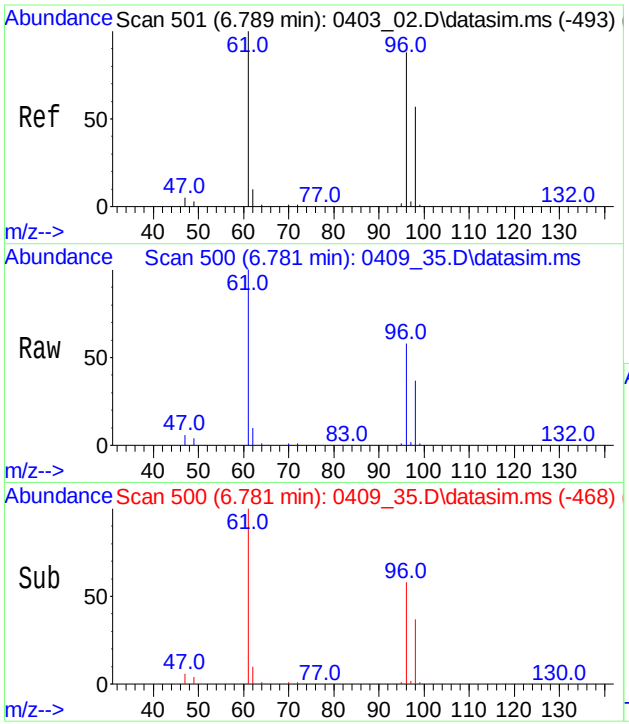



#90
Trans-1,2-Dichloroethene(sim)
Conc: 8$ 0.816 ppbv
RT: 6.221 min Scan# 397
Delta R.T. -0.016 min
Lab File: 0409_35.D
Acq: 10 Apr 2019 03:56 am

Tgt Ion: 61 Resp: 19903

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 59.5 | 64.6 | 97.0# |
| 98 | 38.4 | 41.7 | 62.5# |

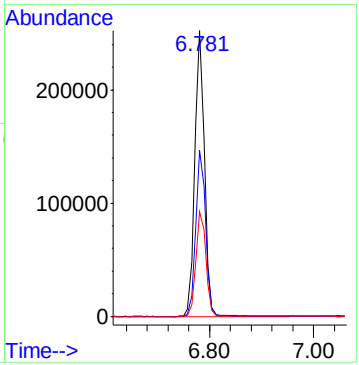


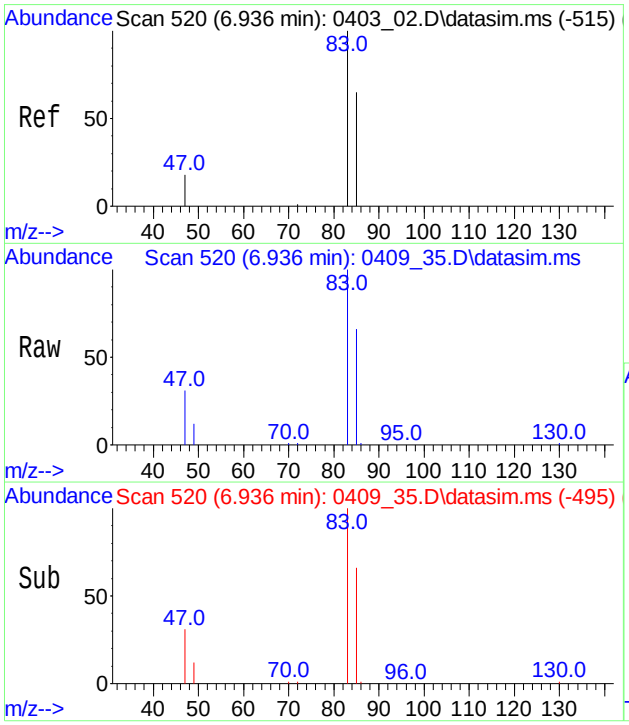




#92
Cis-1,2-Dichloroethene(sim)
Conc: 8$ 14.110 ppbv
RT: 6.781 min Scan# 500
Delta R.T. -0.008 min
Lab File: 0409_35.D
Acq: 10 Apr 2019 03:56 am

Tgt Ion: 61 Resp: 324354

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 59.3 | 69.7 | 104.5# |
| 98 | 38.2 | 45.3 | 67.9# |

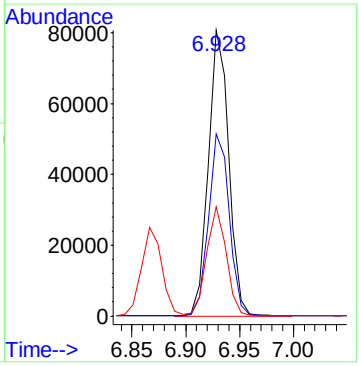


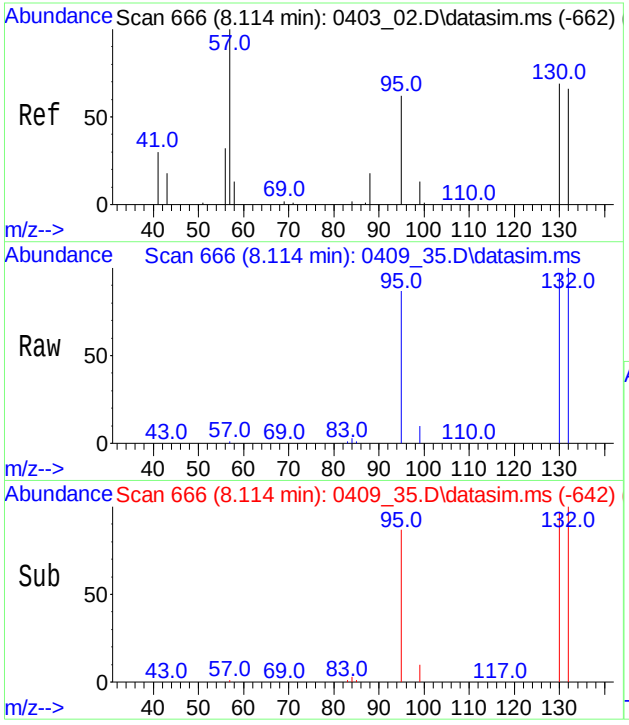



#93
Chloroform(sim)
Conc: 8$ 3.083 ppbv
RT: 6.933 min Scan# 520
Delta R.T. -0.008 min
Lab File: 0409_35.D
Acq: 10 Apr 2019 03:56 am

Tgt Ion: 83 Resp: 88936

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 62.9 | 52.7 | 79.1 |
| 47 | 37.7 | 16.6 | 25.0# |

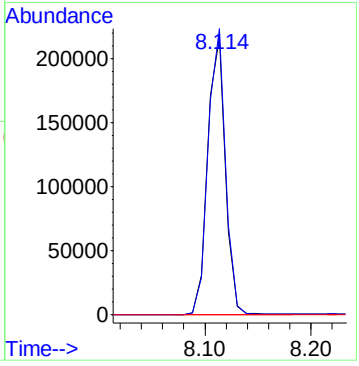


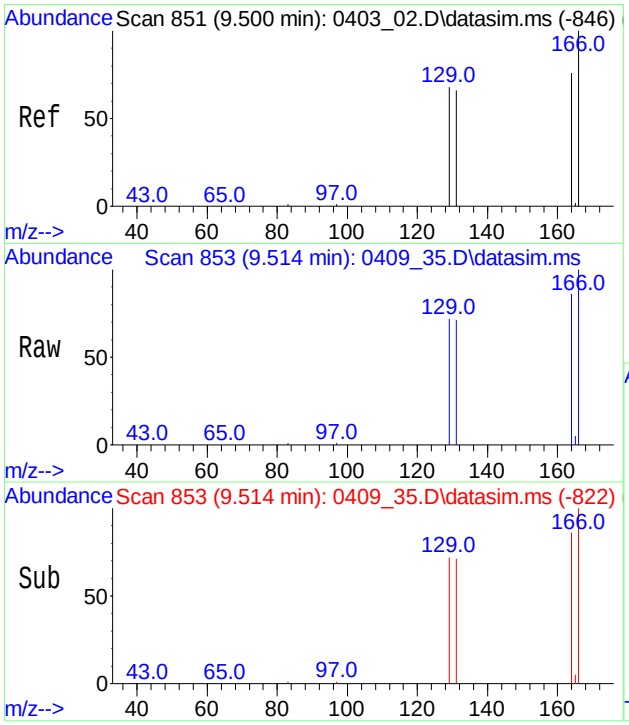




#97
Trichloroethene(sim)
Conc: 8$ 12.672 ppbv
RT: 8.111 min Scan# 666
Delta R.T. 0.000 min
Lab File: 0409_35.D
Acq: 10 Apr 2019 03:56 am

Tgt Ion:130 Resp: 189774

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 102.4 | 78.0 | 117.0 |
| 97 | 70.3 | 47.2 | 70.8 |

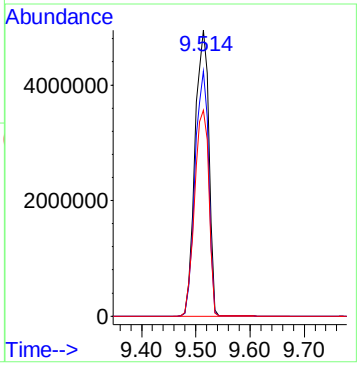





#103
Tetrachloroethene(sim)
Conc: 8$  606.646 ppbv
RT:  9.511 min  Scan# 853
Delta R.T.  0.014 min
Lab File:  0409_35.D
Acq: 10 Apr 2019  03:56 am

Tgt Ion:166 Resp: 9905202

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 83.0 | 57.7 | 97.7 |
| 129 | 68.3 | 48.6 | 88.6 |



1

AIR ANALYSIS DATA SHEET

CLIENT ID: SS-2 300X

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90517 300X

Canister: 219 Lab File ID: 0409_55.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/10/19

Matrix: AIR Dilution Factor: 300

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 64-17-5 | Ethanol | 159 | U | 159 | 159 | |
| 67-64-1 | Acetone | 126 | U | 126 | 126 | |
| 127-18-4 | Tetrachloroethene | 6410 | D | 11.1 | 11.1 | r |
| 156-60-5 | Trans-1,2-Dichloroethene(sim) | 75.7 | U | 75.7 | 75.7 | |
| 156-59-2 | Cis-1,2-Dichloroethene(sim) | 55.5 | X | 15.1 | 15.1 | |
| 67-66-3 | Chloroform(sim) | 61.5 | U | 61.5 | 61.5 | |
| 79-01-6 | Trichloroethene(sim) | 51.6 | X | 11.2 | 11.2 | |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

This form 1 and the associated quantitation report are filtered for detected compounds in the undiluted analysis.

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_55.D
Acq On : 10 Apr 2019 05:09 pm
Operator : CORTEX\ms
Client ID : SS-2 300X
Lab ID : CC90517 300X
ALS Vial : 1 Sample Multiplier: 1

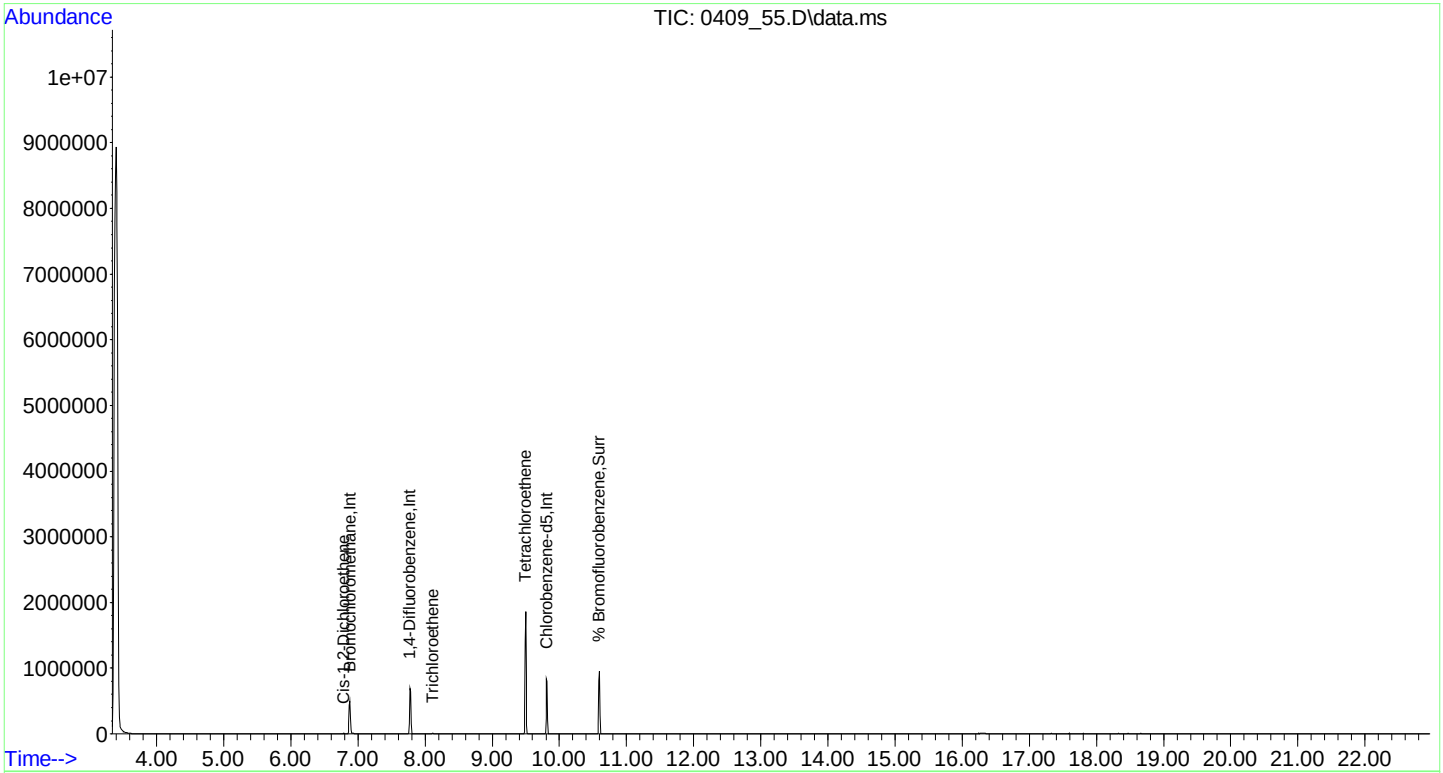
Quant Time: Apr 11 09:05:20 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:42:38 2019
Response via : Initial Calibration

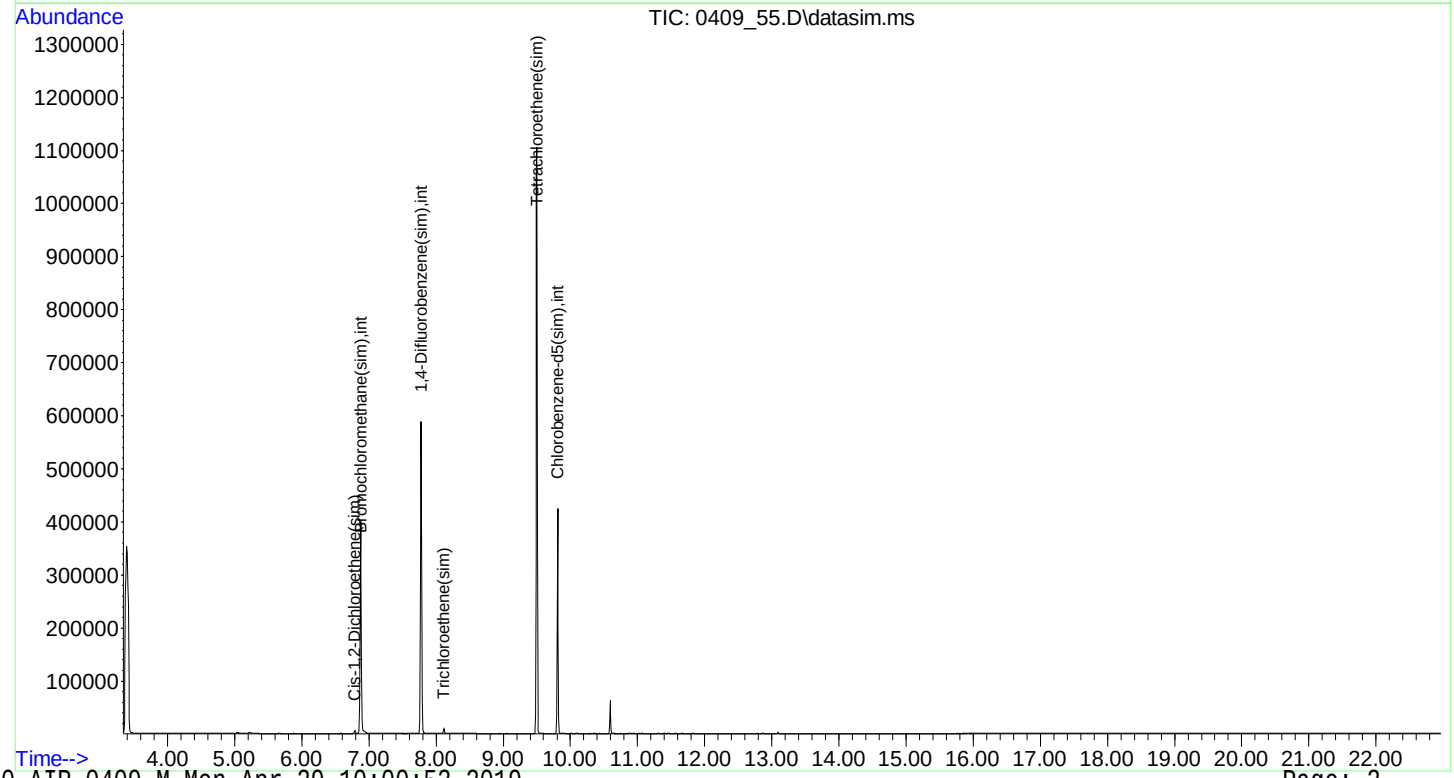
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.879 | 130 | 88581 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.772 | 114 | 298725 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.807 | 82 | 153421 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.882 | 130 | 123179 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 351724 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 156678 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 204235 | 10.154 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 101.50% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 26) Cis-1,2-Dichloroethene | 6.786 | 61 | 2636 | 0.181 | ppbv | # | 77 |
| 39) Trichloroethene | 8.111 | 130 | 2180 | 0.194 | ppbv | # | 88 |
| 52) Tetrachloroethene | 9.498 | 166 | 253508 | 21.371 | ppbv | # | 87 |
| 92) Cis-1,2-Dichloroethene... | 6.789 | 61 | 3443 | 0.185 | ppbv | # | 72 |
| 97) Trichloroethene(sim) | 8.111 | 130 | 2180 | 0.172 | ppbv | # | 91 |
| 103) Tetrachloroethene(sim) | 9.498 | 166 | 253508 | 18.350 | ppbv | # | 87 |

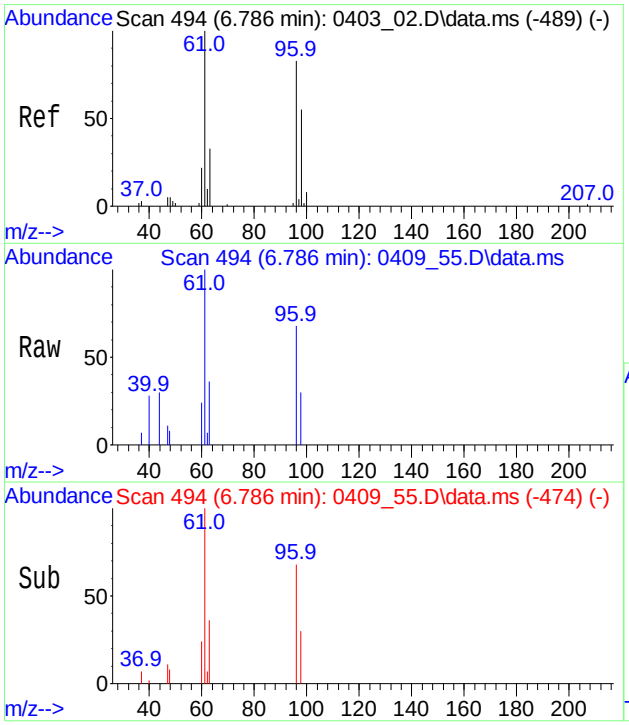
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_55.D
Acq On : 10 Apr 2019 05:09 pm
Operator : CORTEX\ms
Client ID : SS-2 300X
Lab ID : CC90517 300X
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 11 09:05:20 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:42:38 2019
Response via : Initial Calibration



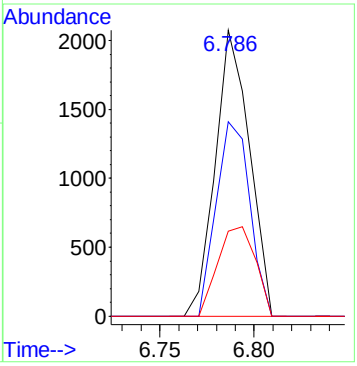



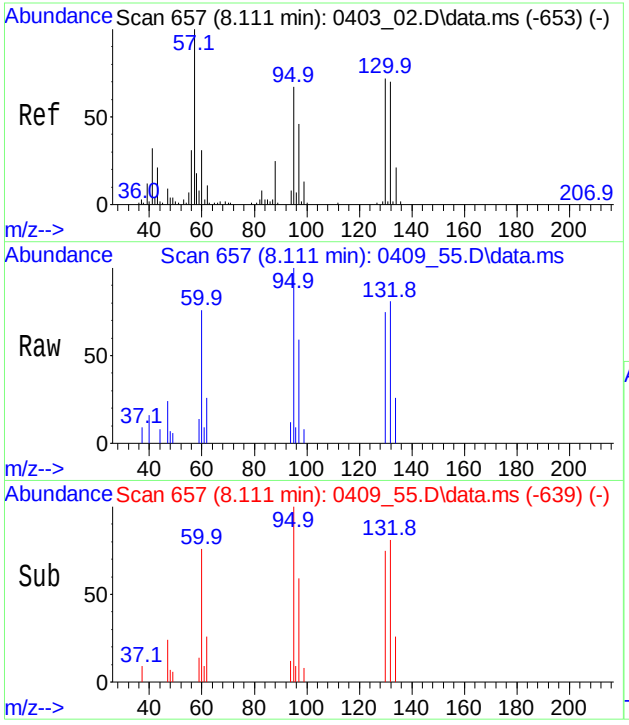



#26
Cis-1,2-Dichloroethene
Conc: 8$ 0.181 ppbv
RT: 6.786 min Scan# 494
Delta R.T. -0.008 min
Lab File: 0409_55.D
Acq: 10 Apr 2019 05:09 pm

Tgt Ion: 61 Resp: 2636

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 66.8 | 67.8 | 101.8# |
| 98 | 34.3 | 43.8 | 65.6# |

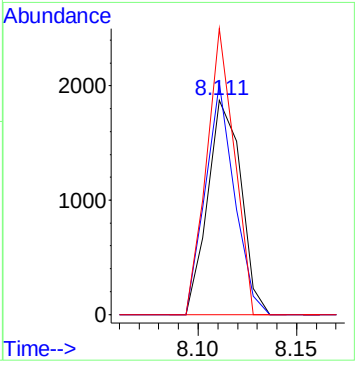


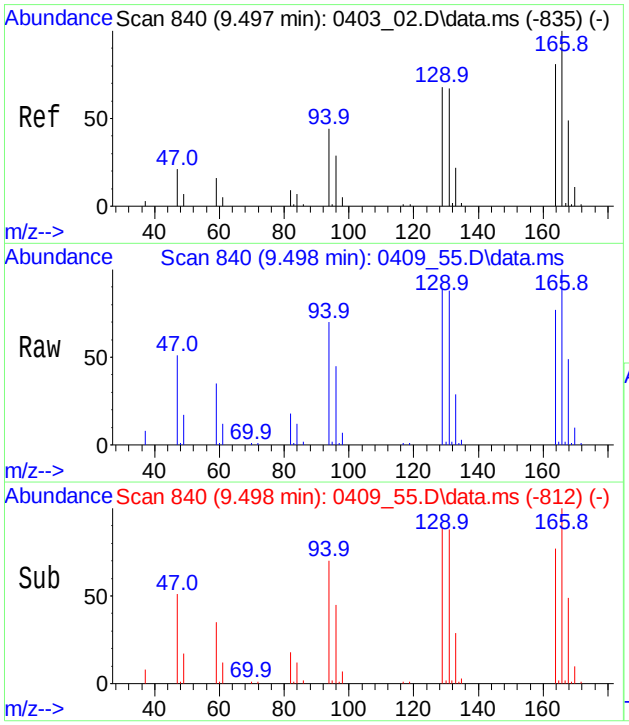




#39
Trichloroethene
Conc: 8$ 0.194 ppbv
RT: 8.111 min Scan# 657
Delta R.T. -0.000 min
Lab File: 0409_55.D
Acq: 10 Apr 2019 05:09 pm

Tgt Ion:130 Resp: 2180

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 94.0 | 78.0 | 117.0 |
| 95 | 111.2 | 73.0 | 109.4# |

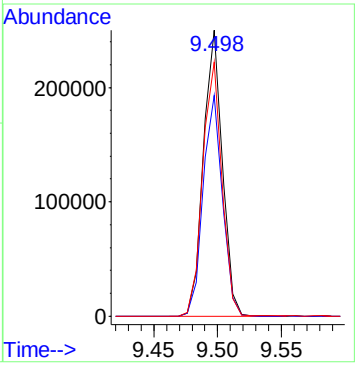


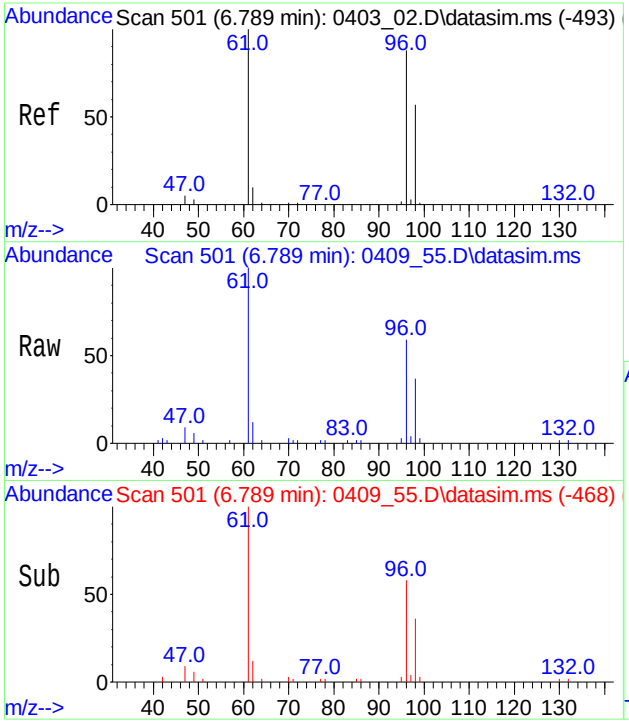



#52
Tetrachloroethene
Conc: 8$  21.371 ppbv
RT:  9.498 min  Scan# 840
Delta R.T.  0.001 min
Lab File:  0409_55.D
Acq: 10 Apr 2019  05:09 pm

Tgt Ion:166 Resp:  253508

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 78.5 | 62.2 | 93.2 |
| 129 | 90.7 | 54.9 | 82.3# |

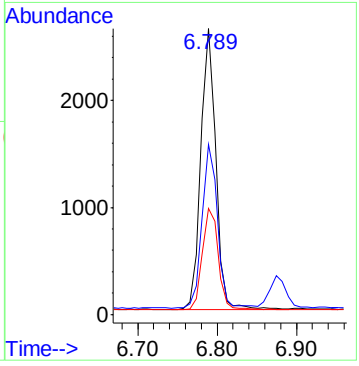


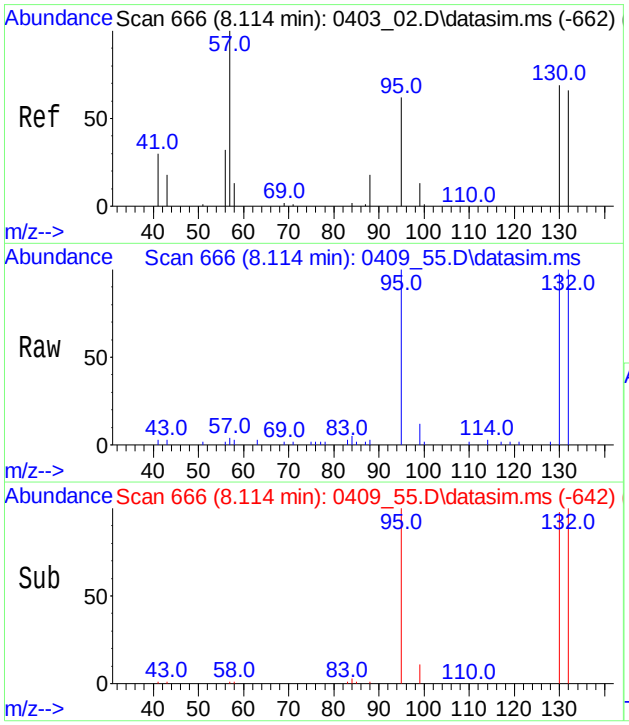




#92
Cis-1,2-Dichloroethene(sim)
Conc: 8$  0.185 ppbv
RT:  6.789 min  Scan# 501
Delta R.T.  -0.000 min
Lab File:  0409_55.D
Acq: 10 Apr 2019  05:09 pm

Tgt Ion: 61 Resp:  3443

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 59.4 | 69.7 | 104.5# |
| 98 | 38.7 | 45.3 | 67.9# |

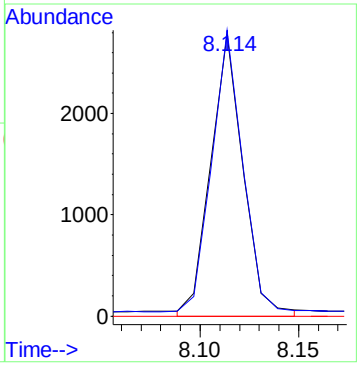


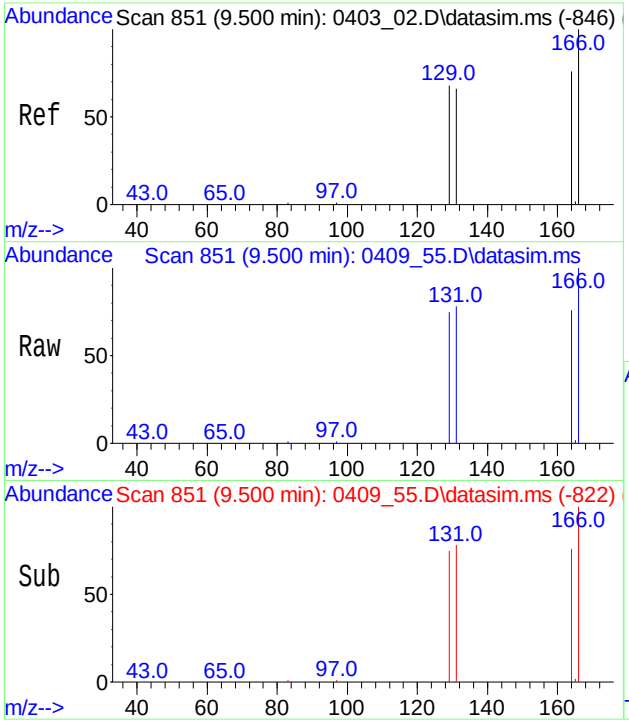



#97
Trichloroethene(sim)
Conc: 8$ 0.172 ppbv
RT: 8.111 min Scan# 666
Delta R.T. -0.000 min
Lab File: 0409_55.D
Acq: 10 Apr 2019 05:09 pm

Tgt Ion:130 Resp: 2180

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 94.0 | 78.0 | 117.0 |
| 97 | 71.7 | 47.2 | 70.8# |

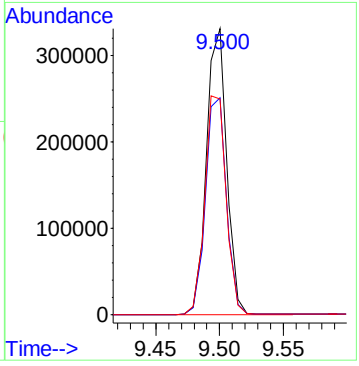



#103
Tetrachloroethene(sim)
Conc: 8$ 18.350 ppbv
RT: 9.498 min Scan# 851
Delta R.T. 0.001 min
Lab File: 0409_55.D
Acq: 10 Apr 2019 05:09 pm

Tgt Ion:166 Resp: 253508

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 78.5 | 57.7 | 97.7 |
| 129 | 90.7 | 48.6 | 88.6# |



AIR ANALYSIS DATA SHEET

CLIENT ID: AA-DUP

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90518

Canister: 28600 Lab File ID: 0409_26.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/09/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 115-07-1 | Propylene | 0.581 | U | 0.581 | 0.581 | r |
| 75-71-8 | Dichlorodifluoromethane | 0.489 | | 0.202 | 0.202 | r |
| 74-87-3 | Chloromethane | 0.641 | | 0.485 | 0.485 | r |
| 106-99-0 | 1,3-Butadiene | 0.452 | U | 0.452 | 0.452 | r |
| 75-00-3 | Chloroethane | 0.379 | U | 0.379 | 0.379 | r |
| 64-17-5 | Ethanol | 2.16 | S | 0.531 | 0.531 | r |
| 67-64-1 | Acetone | 2.91 | S | 0.421 | 0.421 | r |
| 75-69-4 | Trichlorofluoromethane | 0.263 | | 0.178 | 0.178 | r |
| 67-63-0 | Isopropylalcohol | 0.515 | S | 0.407 | 0.407 | r |
| 107-13-1 | Acrylonitrile | 0.461 | U | 0.461 | 0.461 | r |
| 75-09-2 | Methylene Chloride | 0.864 | U | 0.864 | 0.864 | r |
| 75-15-0 | Carbon Disulfide | 0.321 | U | 0.321 | 0.321 | r |
| 1634-04-4 | Methyl tert-butyl ether(MTBE) | 0.278 | U | 0.278 | 0.278 | r |
| 78-93-3 | Methyl Ethyl Ketone | 0.339 | U | 0.339 | 0.339 | r |
| 110-54-3 | Hexane | 0.284 | U | 0.284 | 0.284 | r |
| 141-78-6 | Ethyl acetate | 0.278 | U | 0.278 | 0.278 | r |
| 109-99-9 | Tetrahydrofuran | 0.339 | U | 0.339 | 0.339 | r |
| 71-43-2 | Benzene | 0.313 | U | 0.313 | 0.313 | r |
| 110-82-7 | Cyclohexane | 0.291 | U | 0.291 | 0.291 | r |
| 142-82-5 | Heptane | 0.244 | U | 0.244 | 0.244 | r |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | 0.244 | U | 0.244 | 0.244 | r |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.221 | U | 0.221 | 0.221 | r |
| 108-88-3 | Toluene | 0.266 | U | 0.266 | 0.266 | r |
| 591-78-6 | 2-Hexanone(MBK) | 0.244 | U | 0.244 | 0.244 | r |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.146 | U | 0.146 | 0.146 | r |
| 108-90-7 | Chlorobenzene | 0.217 | U | 0.217 | 0.217 | r |
| 100-41-4 | Ethylbenzene | 0.230 | U | 0.230 | 0.230 | r |
| 100-42-5 | Styrene | 0.235 | U | 0.235 | 0.235 | r |
| 95-47-6 | o-Xylene | 0.230 | U | 0.230 | 0.230 | r |
| 98-82-8 | Isopropylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 622-96-8 | 4-Ethyltoluene | 0.204 | U | 0.204 | 0.204 | r |
| 108-67-8 | 1,3,5-Trimethylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 76-14-2 | 1,2-Dichlorotetrafluoroethane(sim) | 0.143 | U | 0.143 | 0.143 | r |
| 75-01-4 | Vinyl Chloride(sim) | 0.078 | U | 0.078 | 0.078 | r |
| 74-83-9 | Bromomethane(sim) | 0.258 | U | 0.258 | 0.258 | r |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

1

AIR ANALYSIS DATA SHEET

CLIENT ID: AA-DUP

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90518

Canister: 28600 Lab File ID: 0409_26.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/09/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 107-06-2 | 1,2-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 71-55-6 | 1,1,1-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 56-23-5 | Carbon Tetrachloride(sim) | 0.080 | | 0.032 | 0.032 | r |
| 75-35-4 | 1,1-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 76-13-1 | Trichlorotrifluoroethane(sim) | 0.131 | U | 0.131 | 0.131 | r |
| 156-60-5 | Trans-1,2-Dichloroethene(sim) | 0.252 | U | 0.252 | 0.252 | r |
| 75-34-3 | 1,1-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 156-59-2 | Cis-1,2-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 67-66-3 | Chloroform(sim) | 0.205 | U | 0.205 | 0.205 | r |
| 78-87-5 | 1,2-dichloropropane(sim) | 0.217 | U | 0.217 | 0.217 | r |
| 75-27-4 | Bromodichloromethane(sim) | 0.149 | U | 0.149 | 0.149 | r |
| 79-01-6 | Trichloroethene(sim) | 0.037 | U | 0.037 | 0.037 | r |
| 123-91-1 | 1,4-Dioxane(sim) | 0.278 | U | 0.278 | 0.278 | r |
| 10061-01-5 | cis-1,3-Dichloropropene(sim) | 0.221 | U | 0.221 | 0.221 | r |
| 79-00-5 | 1,1,2-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 124-48-1 | Dibromochloromethane(sim) | 0.118 | U | 0.118 | 0.118 | r |
| 106-93-4 | 1,2-Dibromoethane(EDB)(sim) | 0.130 | U | 0.130 | 0.130 | r |
| 127-18-4 | Tetrachloroethene(sim) | 0.037 | U | 0.037 | 0.037 | r |
| 75-25-2 | Bromoform(sim) | 0.097 | U | 0.097 | 0.097 | r |
| 179601-23-1 | m,p-Xylene(sim) | 0.230 | U | 0.230 | 0.230 | r |
| 79-34-5 | 1,1,2,2-Tetrachloroethane(sim) | 0.146 | U | 0.146 | 0.146 | r |
| 100-44-7 | Benzyl chloride(sim) | 0.193 | U | 0.193 | 0.193 | r |
| 541-73-1 | 1,3-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 106-46-7 | 1,4-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 135-98-8 | sec-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 99-87-6 | 4-Isopropyltoluene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 95-50-1 | 1,2-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 104-51-8 | n-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 120-82-1 | 1,2,4-Trichlorobenzene(sim) | 0.135 | U | 0.135 | 0.135 | r |
| 87-68-3 | Hexachlorobutadiene(sim) | 0.094 | U | 0.094 | 0.094 | r |
| | | | | | | |
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FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_26.D
Acq On : 09 Apr 2019 10:03 pm
Operator : CORTEX\ms
Client ID : AA-DUP
Lab ID : CC90518
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 09:36:11 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration

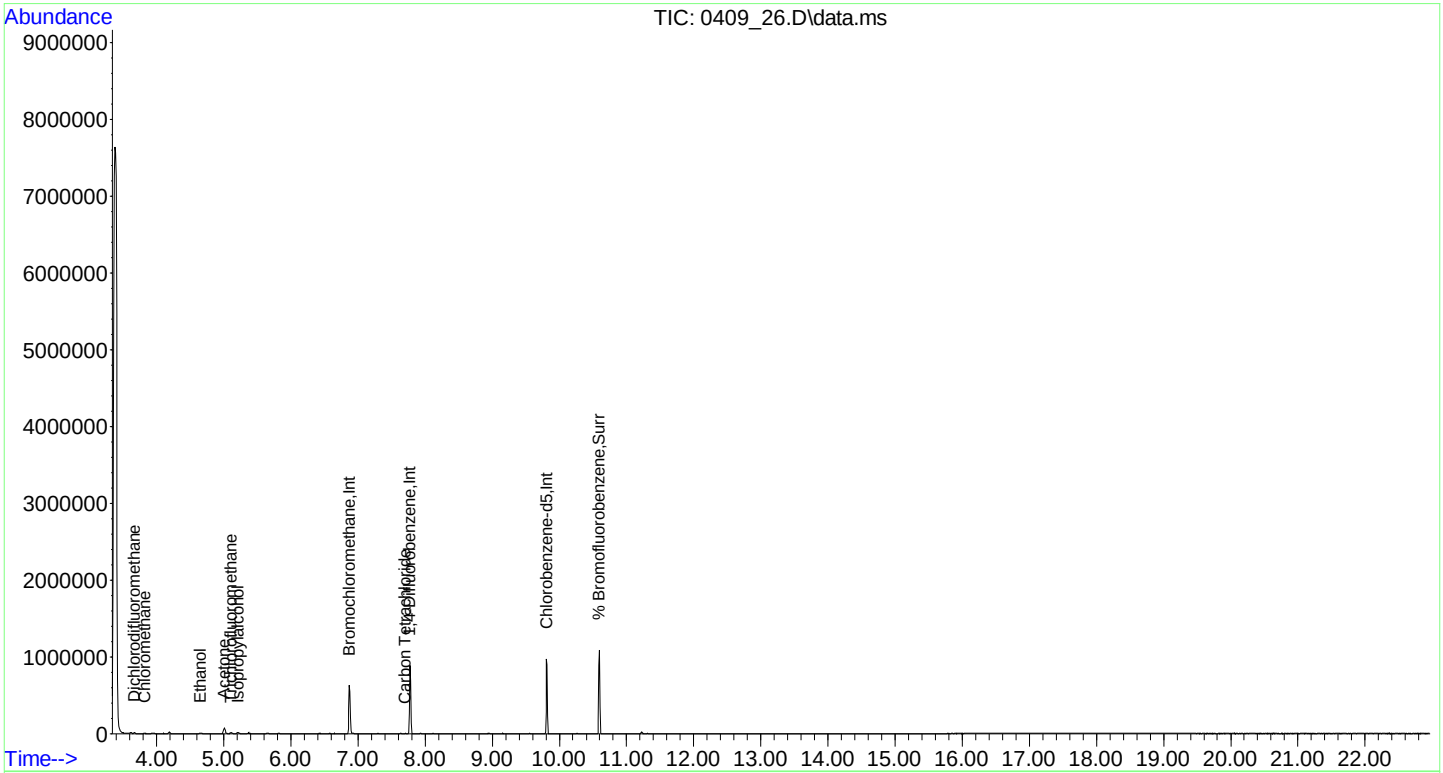
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.871 | 130 | 122049 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.772 | 114 | 383830 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.807 | 82 | 185802 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.874 | 130 | 166324 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 440757 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 185027 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 241719 | 9.923 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 99.20% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 3.670 | 85 | 15300 | 0.489 | ppbv | # | 96 |
| 4) Chloromethane | 3.824 | 50 | 8383 | 0.641 | ppbv | | 93 |
| 11) Ethanol | 4.652 | 45 | 11333 | 2.158 | ppbv | | 97 |
| 12) Acetone | 5.009 | 43 | 79380 | 2.909 | ppbv | # | 84 |
| 13) Trichlorofluoromethane | 5.114 | 101 | 10774 | 0.263 | ppbv | | 95 |
| 14) Isopropylalcohol | 5.212 | 45 | 14813 | 0.515 | ppbv | # | 84 |
| 34) Carbon Tetrachloride | 7.704 | 117 | 1736 | 0.075 | ppbv | | 96 |
| 84] Trichlorofluoromethane... | 5.117 | 101 | 12520 | 0.226 | ppbv | | 99 |
| 87] Carbon Tetrachloride(sim) | 7.704 | 117 | 1736 | 0.080 | ppbv | | 96 |

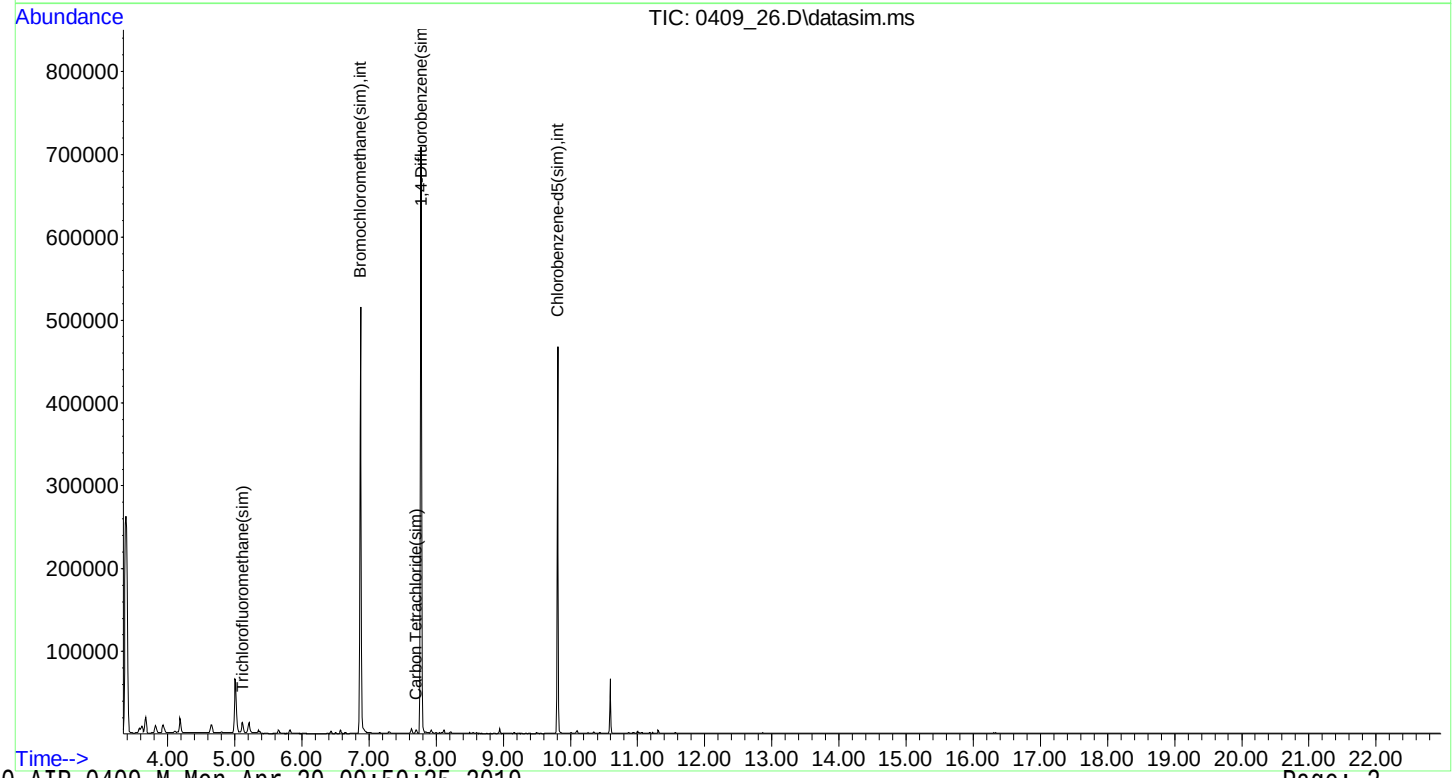
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

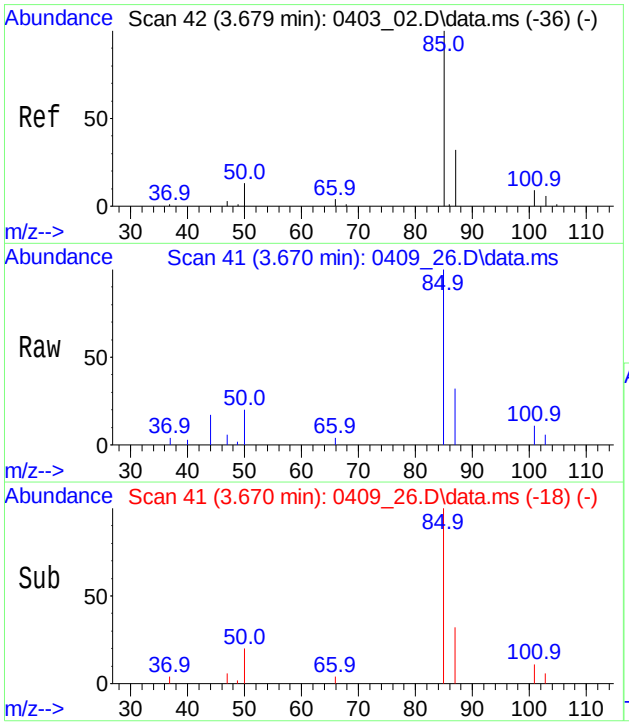
Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_26.D
Acq On : 09 Apr 2019 10:03 pm
Operator : CORTEX\ms
Client ID : AA-DUP
Lab ID : CC90518
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 09:36:11 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration



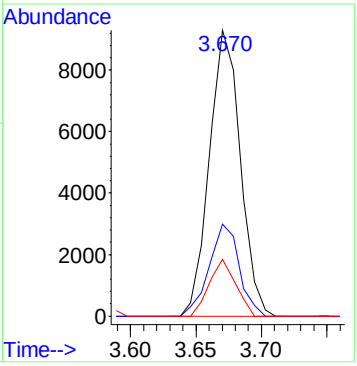



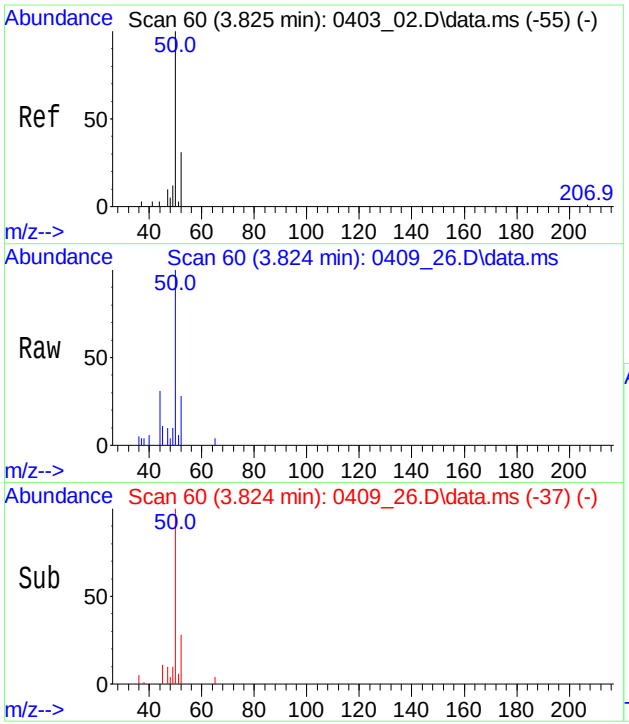



#3
Dichlorodifluoromethane
Conc: 8$  0.489 ppbv
RT:  3.670 min  Scan# 41
Delta R.T.  -0.016 min
Lab File:  0409_26.D
Acq: 09 Apr 2019  10:03 pm

Tgt Ion: 85 Resp:  15300

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 31.3 | 25.6 | 38.4 |
| 50 | 17.0 | 9.4 | 14.2# |

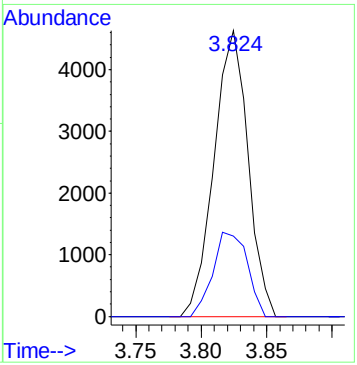


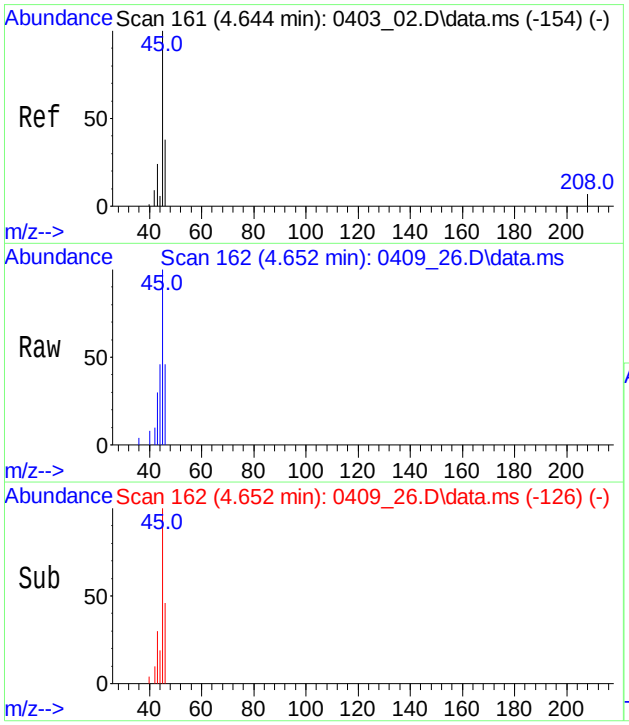




#4
Chloromethane
Conc: 8$  0.641 ppbv
RT:  3.824 min  Scan# 60
Delta R.T.  -0.016 min
Lab File:  0409_26.D
Acq: 09 Apr 2019  10:03 pm

Tgt Ion: 50 Resp:  8383

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 29.7 | 13.6 | 53.6 |

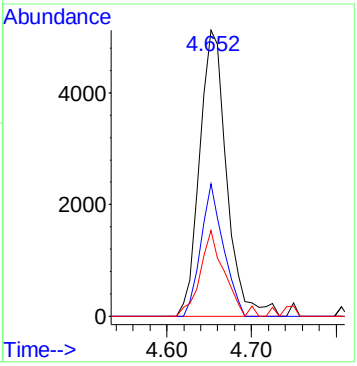


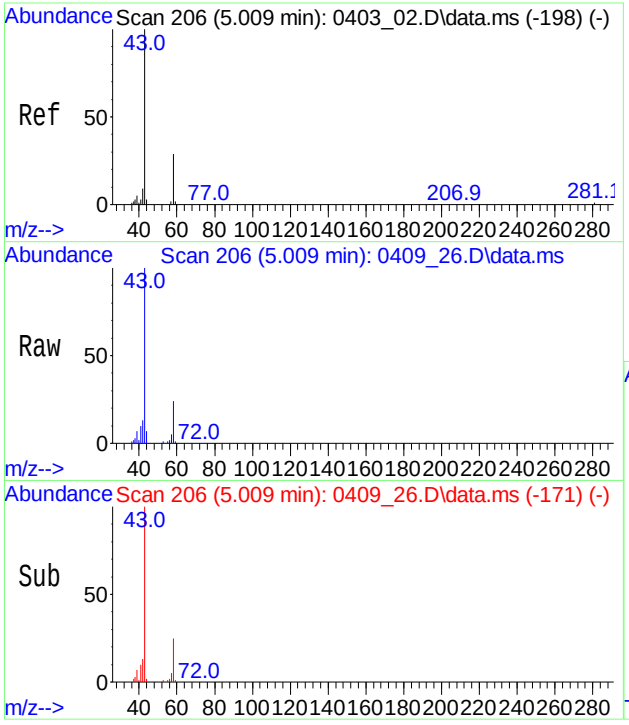



#11
Ethanol
Conc: 8$ 2.158 ppbv
RT: 4.652 min Scan# 162
Delta R.T. -0.008 min
Lab File: 0409_26.D
Acq: 09 Apr 2019 10:03 pm

Tgt Ion: 45 Resp: 11333

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 46 | 38.6 | 29.9 | 44.9 |
| 43 | 26.7 | 22.7 | 34.1 |

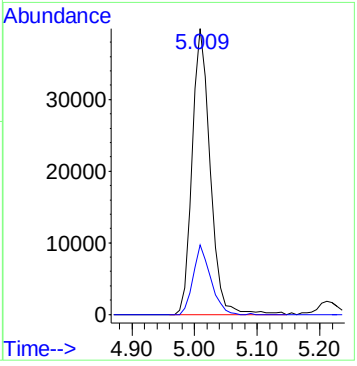


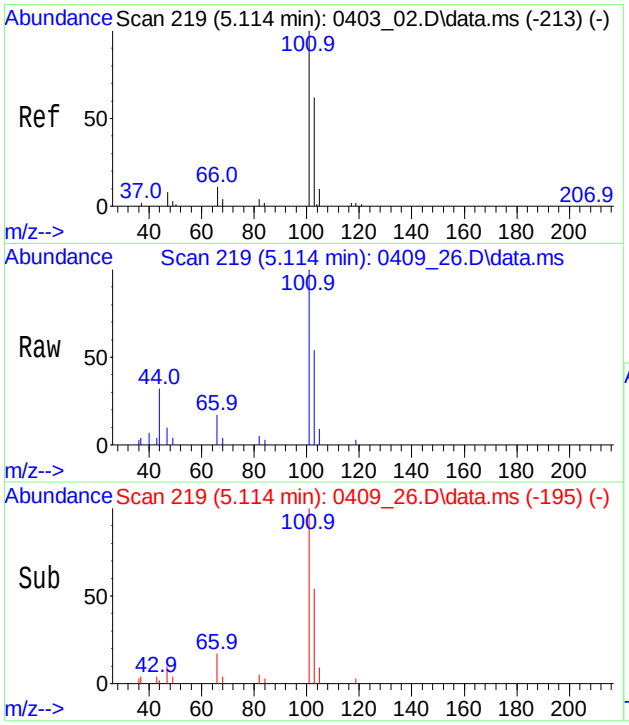




#12
Acetone
Conc: 8$ 2.909 ppbv
RT: 5.009 min Scan# 206
Delta R.T. -0.016 min
Lab File: 0409_26.D
Acq: 09 Apr 2019 10:03 pm

Tgt Ion: 43 Resp: 79380

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 23.7 | 25.9 | 38.9# |

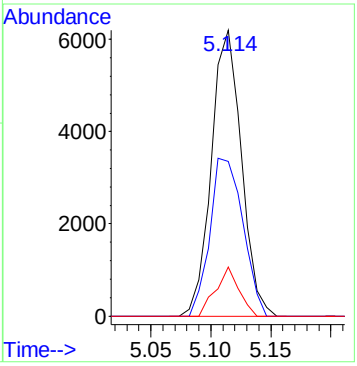


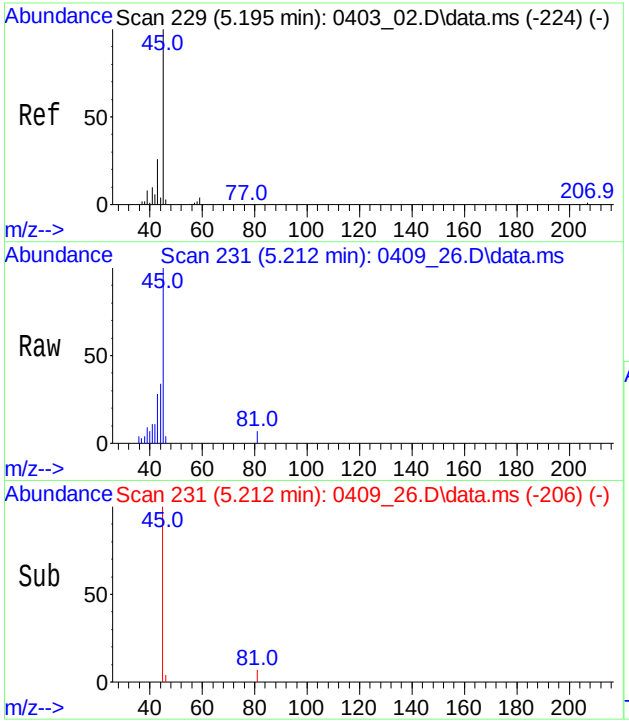



#13
Trichlorofluoromethane
Conc: 8$ 0.263 ppbv
RT: 5.114 min Scan# 219
Delta R.T. -0.008 min
Lab File: 0409_26.D
Acq: 09 Apr 2019 10:03 pm

Tgt Ion:101 Resp: 10774

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 60.5 | 51.6 | 77.4 |
| 66 | 13.2 | 9.4 | 14.0 |

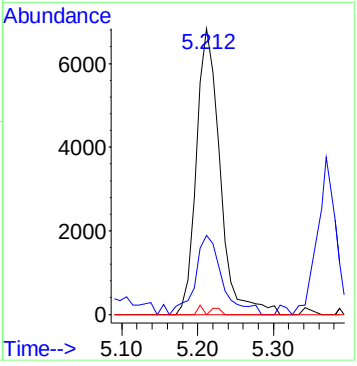


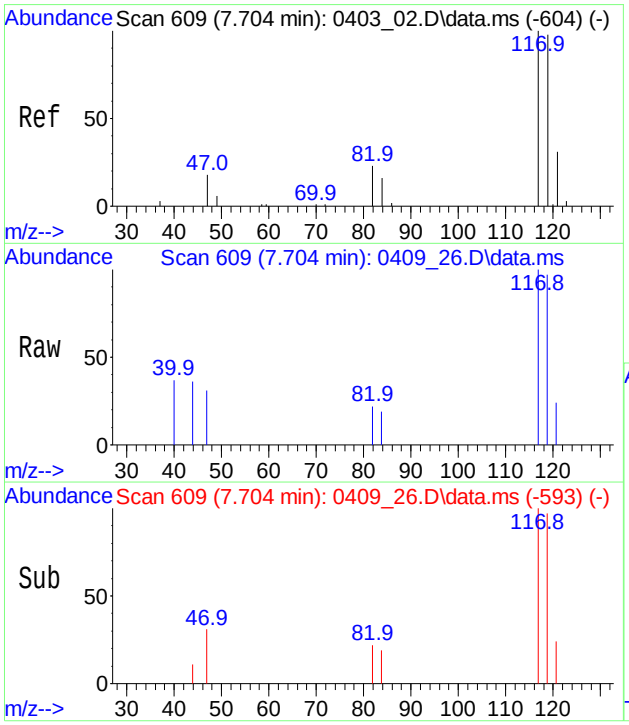




#14
Isopropylalcohol
Conc: 8$ 0.515 ppbv
RT: 5.212 min Scan# 231
Delta R.T. -0.000 min
Lab File: 0409_26.D
Acq: 09 Apr 2019 10:03 pm

Tgt Ion: 45 Resp: 14813

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 43 | 31.3 | 18.6 | 27.8# |
| 59 | 0.7 | 3.7 | 5.5# |

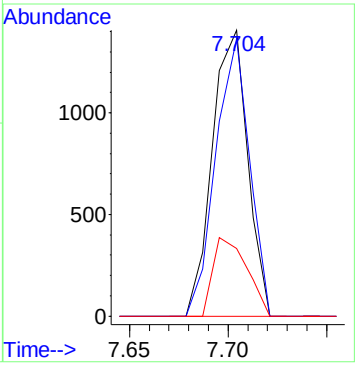


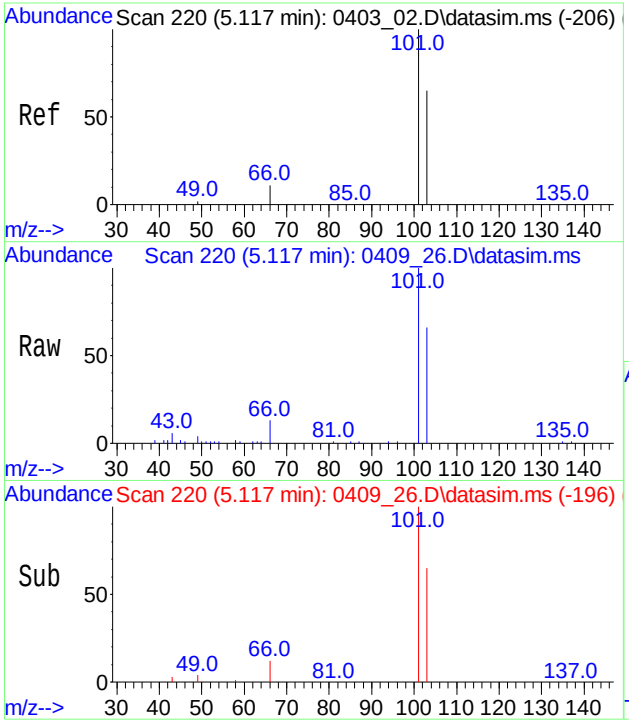



#34
Carbon Tetrachloride
Conc: 8$  Below Cal
RT:  7.704 min  Scan# 609
Delta R.T.  0.000 min
Lab File:  0409_26.D
Acq: 09 Apr 2019  10:03 pm

Tgt Ion:117 Resp:  1736

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 92.7 | 75.8 | 115.8 |
| 121 | 26.3 | 10.7 | 50.7 |

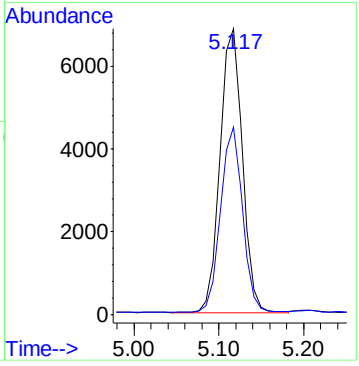


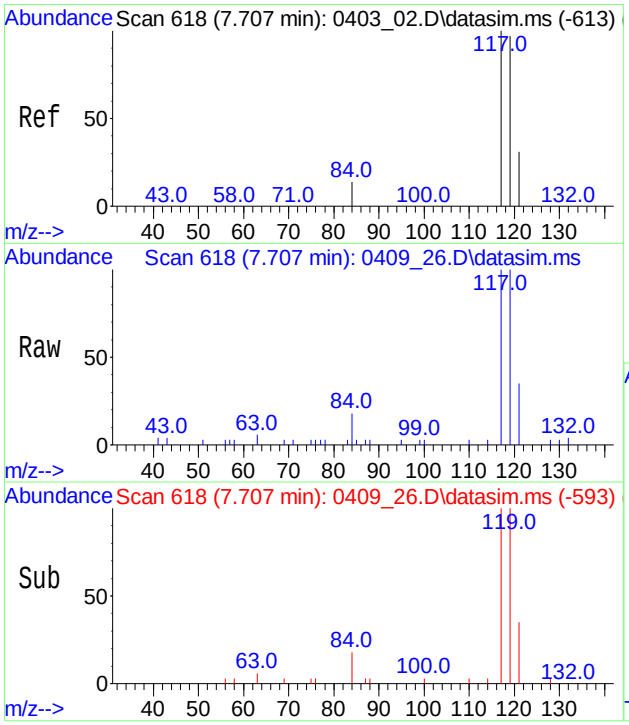




#84
Trichlorofluoromethane(sim)
Conc: 8$  0.226 ppbv
RT:  5.117 min  Scan# 220
Delta R.T.  -0.008 min
Lab File:  0409_26.D
Acq: 09 Apr 2019  10:03 pm

Tgt Ion:101 Resp:  12520

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 63.8 | 51.9 | 77.9 |

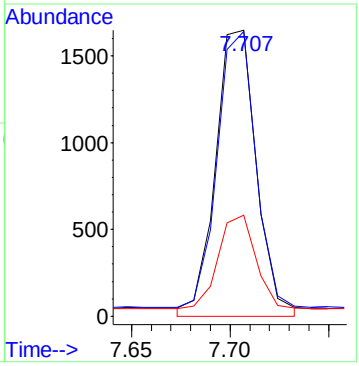





#87
Carbon Tetrachloride(sim)
Conc: 8$ 0.080 ppbv
RT: 7.704 min Scan# 618
Delta R.T. 0.000 min
Lab File: 0409_26.D
Acq: 09 Apr 2019 10:03 pm

Tgt Ion:117 Resp: 1736

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 92.7 | 76.6 | 115.0 |
| 121 | 26.3 | 24.6 | 36.8 |



AIR ANALYSIS DATA SHEET

CLIENT ID: AA-1

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90519

Canister: 19854 Lab File ID: 0409_27.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/09/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 115-07-1 | Propylene | 0.581 | U | 0.581 | 0.581 | r |
| 75-71-8 | Dichlorodifluoromethane | 0.472 | | 0.202 | 0.202 | r |
| 74-87-3 | Chloromethane | 0.638 | | 0.485 | 0.485 | r |
| 106-99-0 | 1,3-Butadiene | 0.452 | U | 0.452 | 0.452 | r |
| 75-00-3 | Chloroethane | 0.379 | U | 0.379 | 0.379 | r |
| 64-17-5 | Ethanol | 2.44 | S | 0.531 | 0.531 | r |
| 67-64-1 | Acetone | 1.79 | S | 0.421 | 0.421 | r |
| 75-69-4 | Trichlorofluoromethane | 0.253 | | 0.178 | 0.178 | r |
| 67-63-0 | Isopropylalcohol | 0.575 | S | 0.407 | 0.407 | r |
| 107-13-1 | Acrylonitrile | 0.461 | U | 0.461 | 0.461 | r |
| 75-09-2 | Methylene Chloride | 0.864 | U | 0.864 | 0.864 | r |
| 75-15-0 | Carbon Disulfide | 0.471 | | 0.321 | 0.321 | r |
| 1634-04-4 | Methyl tert-butyl ether(MTBE) | 0.278 | U | 0.278 | 0.278 | r |
| 78-93-3 | Methyl Ethyl Ketone | 0.339 | U | 0.339 | 0.339 | r |
| 110-54-3 | Hexane | 0.284 | U | 0.284 | 0.284 | r |
| 141-78-6 | Ethyl acetate | 0.278 | U | 0.278 | 0.278 | r |
| 109-99-9 | Tetrahydrofuran | 0.339 | U | 0.339 | 0.339 | r |
| 71-43-2 | Benzene | 0.313 | U | 0.313 | 0.313 | r |
| 110-82-7 | Cyclohexane | 0.291 | U | 0.291 | 0.291 | r |
| 142-82-5 | Heptane | 0.244 | U | 0.244 | 0.244 | r |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | 0.244 | U | 0.244 | 0.244 | r |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.221 | U | 0.221 | 0.221 | r |
| 108-88-3 | Toluene | 0.266 | U | 0.266 | 0.266 | r |
| 591-78-6 | 2-Hexanone(MBK) | 0.244 | U | 0.244 | 0.244 | r |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.146 | U | 0.146 | 0.146 | r |
| 108-90-7 | Chlorobenzene | 0.217 | U | 0.217 | 0.217 | r |
| 100-41-4 | Ethylbenzene | 0.230 | U | 0.230 | 0.230 | r |
| 100-42-5 | Styrene | 0.235 | U | 0.235 | 0.235 | r |
| 95-47-6 | o-Xylene | 0.230 | U | 0.230 | 0.230 | r |
| 98-82-8 | Isopropylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 622-96-8 | 4-Ethyltoluene | 0.204 | U | 0.204 | 0.204 | r |
| 108-67-8 | 1,3,5-Trimethylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 76-14-2 | 1,2-Dichlorotetrafluoroethane(sim) | 0.143 | U | 0.143 | 0.143 | r |
| 75-01-4 | Vinyl Chloride(sim) | 0.078 | U | 0.078 | 0.078 | r |
| 74-83-9 | Bromomethane(sim) | 0.258 | U | 0.258 | 0.258 | r |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

1

AIR ANALYSIS DATA SHEET

CLIENT ID: AA-1

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90519

Canister: 19854 Lab File ID: 0409_27.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/09/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 107-06-2 | 1,2-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 71-55-6 | 1,1,1-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 56-23-5 | Carbon Tetrachloride(sim) | 0.083 | | 0.032 | 0.032 | r |
| 75-35-4 | 1,1-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 76-13-1 | Trichlorotrifluoroethane(sim) | 0.131 | U | 0.131 | 0.131 | r |
| 156-60-5 | Trans-1,2-Dichloroethene(sim) | 0.252 | U | 0.252 | 0.252 | r |
| 75-34-3 | 1,1-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 156-59-2 | Cis-1,2-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 67-66-3 | Chloroform(sim) | 0.205 | U | 0.205 | 0.205 | r |
| 78-87-5 | 1,2-dichloropropane(sim) | 0.217 | U | 0.217 | 0.217 | r |
| 75-27-4 | Bromodichloromethane(sim) | 0.149 | U | 0.149 | 0.149 | r |
| 79-01-6 | Trichloroethene(sim) | 0.037 | U | 0.037 | 0.037 | r |
| 123-91-1 | 1,4-Dioxane(sim) | 0.278 | U | 0.278 | 0.278 | r |
| 10061-01-5 | cis-1,3-Dichloropropene(sim) | 0.221 | U | 0.221 | 0.221 | r |
| 79-00-5 | 1,1,2-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 124-48-1 | Dibromochloromethane(sim) | 0.118 | U | 0.118 | 0.118 | r |
| 106-93-4 | 1,2-Dibromoethane(EDB)(sim) | 0.130 | U | 0.130 | 0.130 | r |
| 127-18-4 | Tetrachloroethene(sim) | 0.037 | U | 0.037 | 0.037 | r |
| 75-25-2 | Bromoform(sim) | 0.097 | U | 0.097 | 0.097 | r |
| 179601-23-1 | m,p-Xylene(sim) | 0.230 | U | 0.230 | 0.230 | r |
| 79-34-5 | 1,1,2,2-Tetrachloroethane(sim) | 0.146 | U | 0.146 | 0.146 | r |
| 100-44-7 | Benzyl chloride(sim) | 0.193 | U | 0.193 | 0.193 | r |
| 541-73-1 | 1,3-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 106-46-7 | 1,4-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 135-98-8 | sec-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 99-87-6 | 4-Isopropyltoluene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 95-50-1 | 1,2-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 104-51-8 | n-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 120-82-1 | 1,2,4-Trichlorobenzene(sim) | 0.135 | U | 0.135 | 0.135 | r |
| 87-68-3 | Hexachlorobutadiene(sim) | 0.094 | U | 0.094 | 0.094 | r |
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FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_27.D
Acq On : 09 Apr 2019 10:44 pm
Operator : CORTEX\ms
Client ID : AA-1
Lab ID : CC90519
ALS Vial : 1 Sample Multiplier: 1

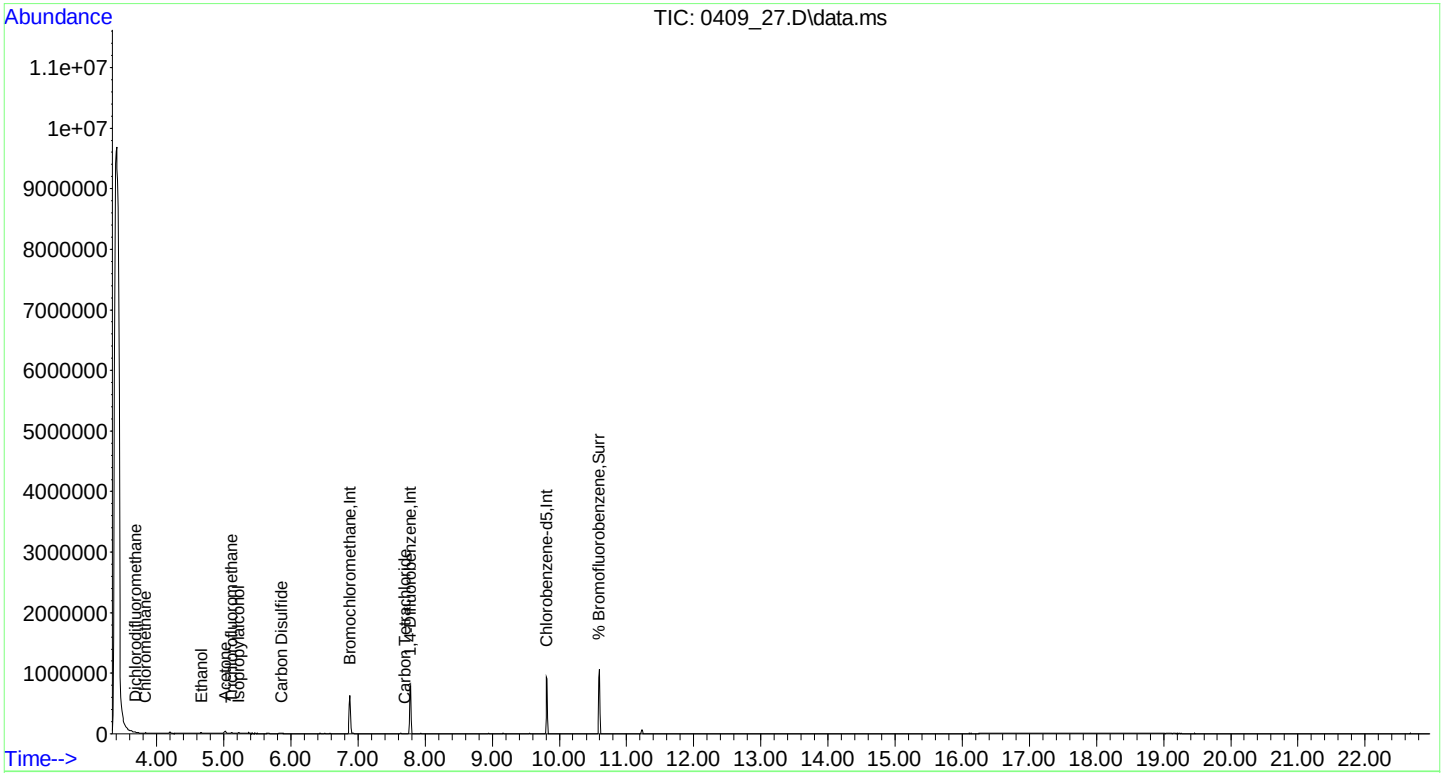
Quant Time: Apr 10 09:36:29 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration

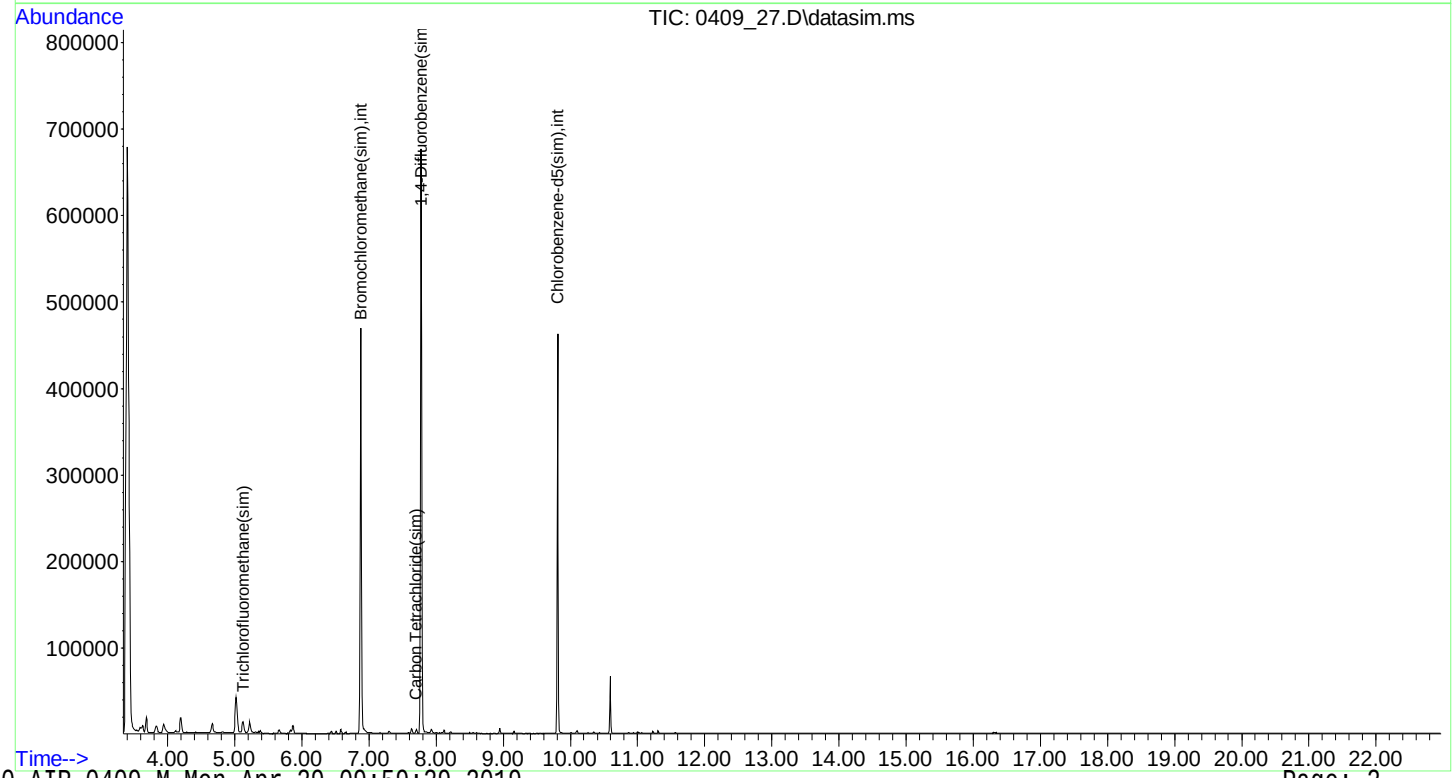
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.879 | 130 | 116764 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.780 | 114 | 374302 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.807 | 82 | 183086 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.882 | 130 | 161216 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 430780 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 183192 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 239536 | 9.980 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 99.80% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 3.687 | 85 | 14118 | 0.471 | ppbv | # | 94 |
| 4) Chloromethane | 3.833 | 50 | 7976 | 0.638 | ppbv | | 95 |
| 11) Ethanol | 4.668 | 45 | 12240 | 2.436 | ppbv | | 94 |
| 12) Acetone | 5.025 | 43 | 46839 | 1.794 | ppbv | # | 83 |
| 13) Trichlorofluoromethane | 5.122 | 101 | 9916 | 0.253 | ppbv | | 97 |
| 14) Isopropylalcohol | 5.228 | 45 | 15805 | 0.575 | ppbv | # | 99 |
| 20) Carbon Disulfide | 5.864 | 76 | 12050 | 0.471 | ppbv | | 98 |
| 34) Carbon Tetrachloride | 7.704 | 117 | 1735 | 0.079 | ppbv | | 95 |
| 84) Trichlorofluoromethane... | 5.125 | 101 | 12389 | 0.230 | ppbv | | 99 |
| 87) Carbon Tetrachloride(sim) | 7.704 | 117 | 1735 | 0.083 | ppbv | | 95 |

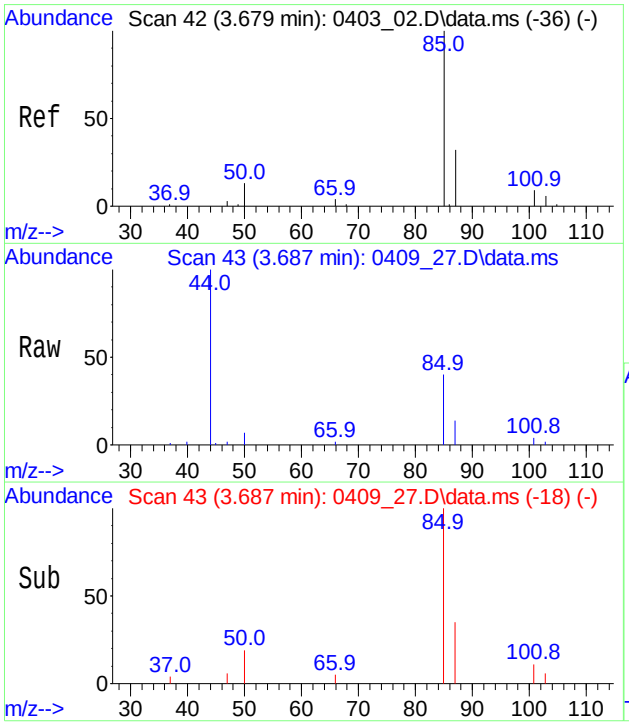
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_27.D
Acq On : 09 Apr 2019 10:44 pm
Operator : CORTEX\ms
Client ID : AA-1
Lab ID : CC90519
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 09:36:29 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration



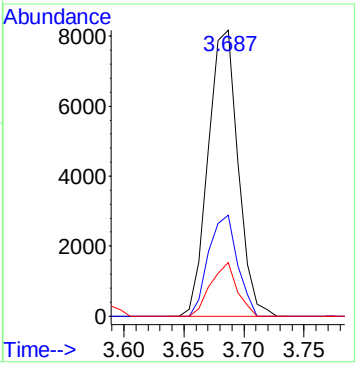



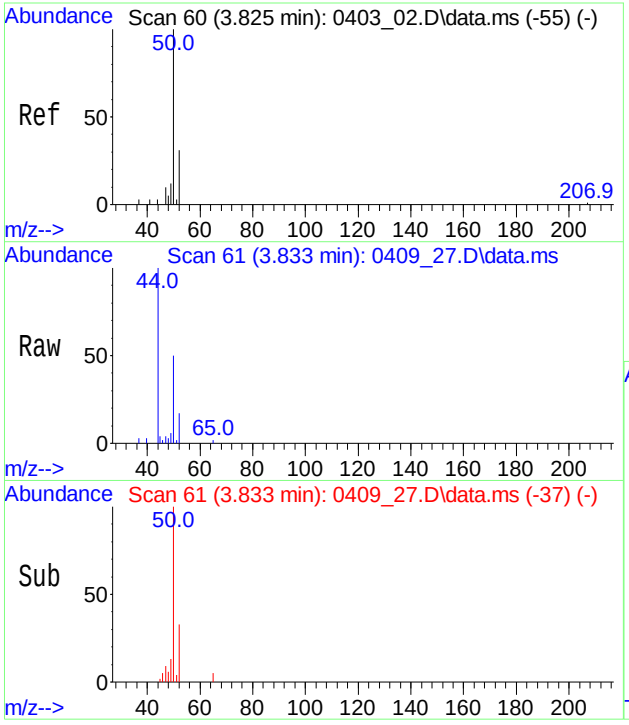



#3
Dichlorodifluoromethane
Conc: 8$  0.471 ppbv
RT:  3.687 min  Scan# 43
Delta R.T.  0.000 min
Lab File:  0409_27.D
Acq: 09 Apr 2019  10:44 pm

Tgt Ion: 85 Resp:  14118

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 34.1 | 25.6 | 38.4 |
| 50 | 16.4 | 9.4 | 14.2# |

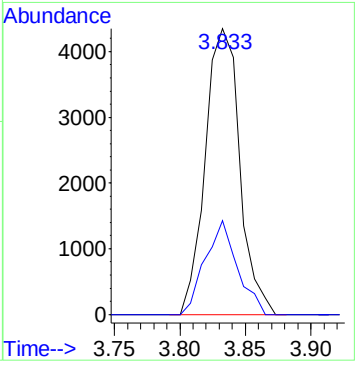


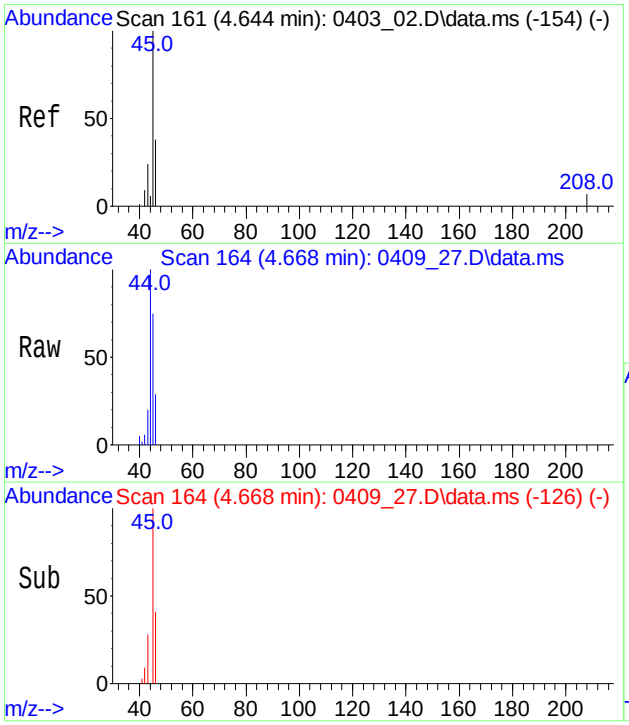




#4
Chloromethane
Conc: 8$  0.638 ppbv
RT:  3.833 min  Scan# 61
Delta R.T.  -0.008 min
Lab File:  0409_27.D
Acq: 09 Apr 2019  10:44 pm

Tgt Ion: 50 Resp:  7976

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 30.6 | 13.6 | 53.6 |

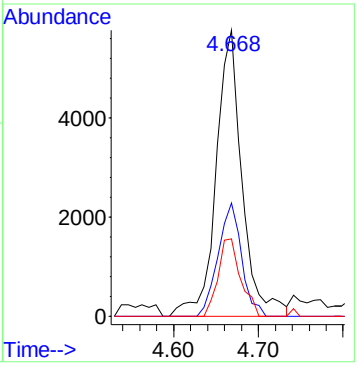


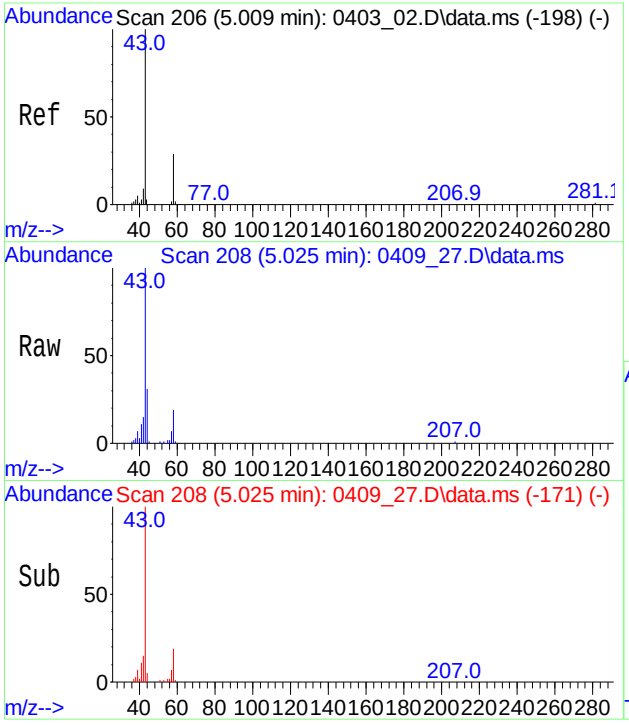



#11
Ethanol
Conc: 8$ 2.436 ppbv
RT: 4.668 min Scan# 164
Delta R.T. 0.008 min
Lab File: 0409_27.D
Acq: 09 Apr 2019 10:44 pm

Tgt Ion: 45 Resp: 12240

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 46 | 35.6 | 29.9 | 44.9 |
| 43 | 23.3 | 22.7 | 34.1 |

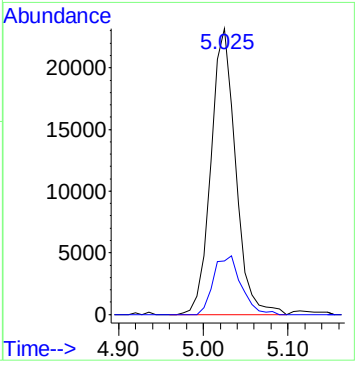


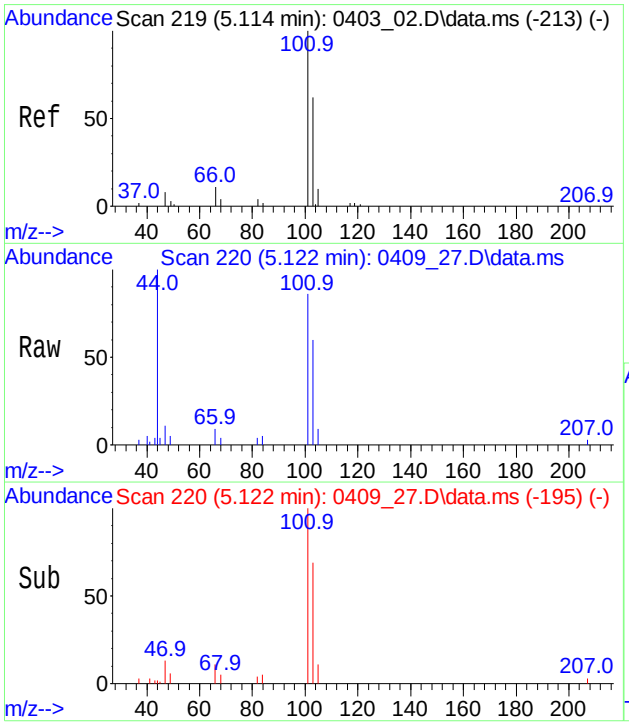




#12
Acetone
Conc: 8$ 1.794 ppbv
RT: 5.025 min Scan# 208
Delta R.T. 0.000 min
Lab File: 0409_27.D
Acq: 09 Apr 2019 10:44 pm

Tgt Ion: 43 Resp: 46839

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 22.9 | 25.9 | 38.9# |

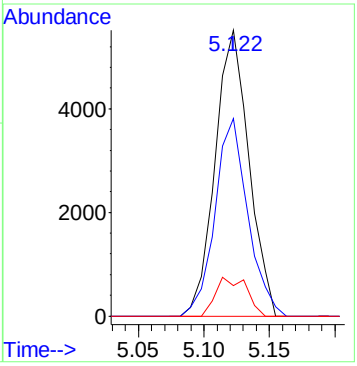


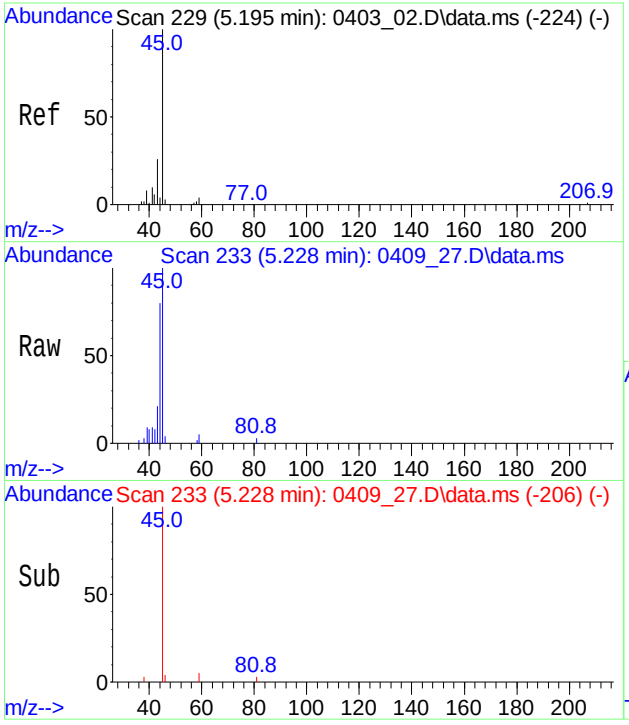



#13
Trichlorofluoromethane
Conc: 8$ 0.253 ppbv
RT: 5.122 min Scan# 220
Delta R.T. 0.000 min
Lab File: 0409_27.D
Acq: 09 Apr 2019 10:44 pm

Tgt Ion:101 Resp: 9916

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 67.3 | 51.6 | 77.4 |
| 66 | 12.4 | 9.4 | 14.0 |

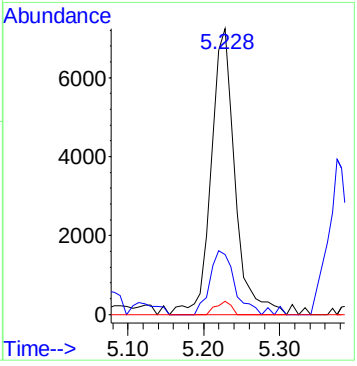


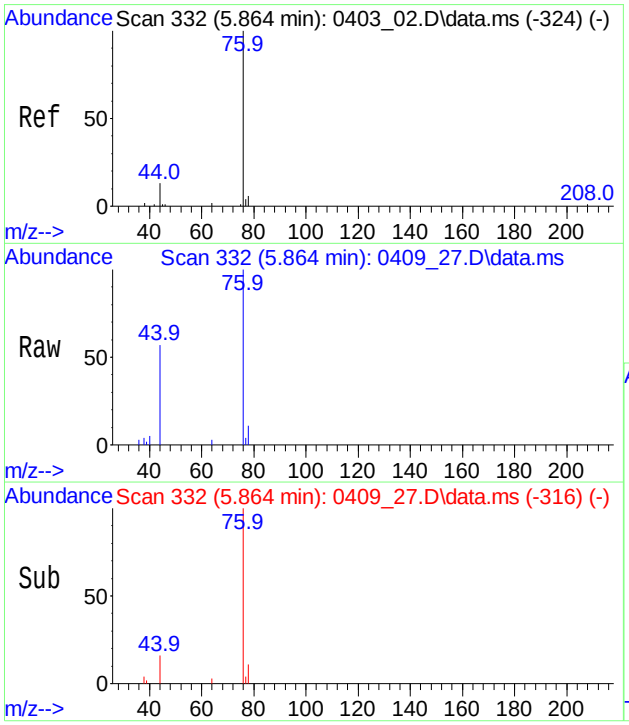




#14
Isopropylalcohol
Conc: 8$ 0.575 ppbv
RT: 5.228 min Scan# 233
Delta R.T. 0.016 min
Lab File: 0409_27.D
Acq: 09 Apr 2019 10:44 pm

Tgt Ion: 45 Resp: 15805

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 43 | 23.0 | 18.6 | 27.8 |
| 59 | 3.0 | 3.7 | 5.5# |

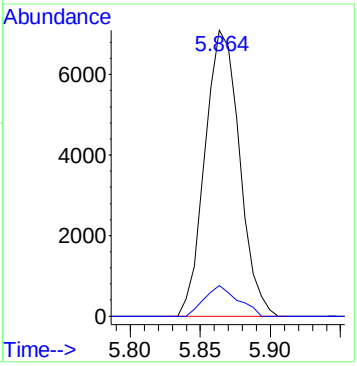


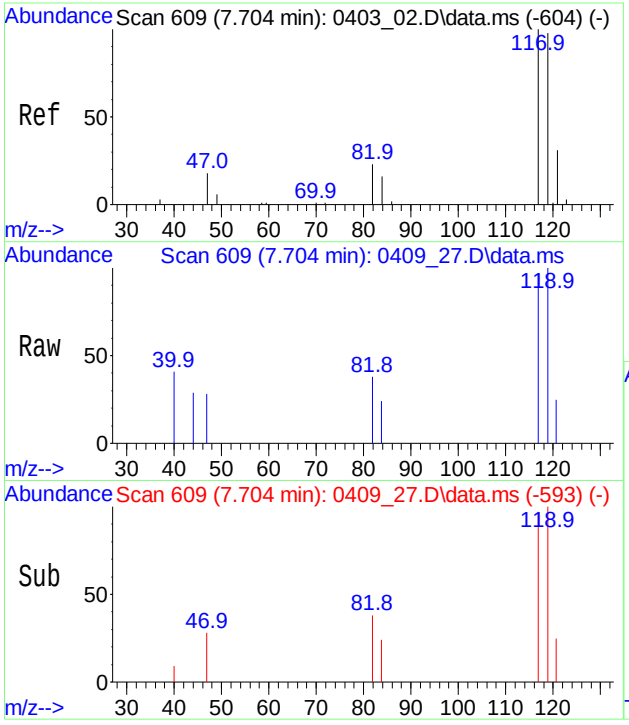



#20
Carbon Disulfide
Conc: 8$  0.471 ppbv
RT:  5.864 min  Scan# 332
Delta R.T.  -0.006 min
Lab File:  0409_27.D
Acq: 09 Apr 2019  10:44 pm

Tgt Ion: 76 Resp:  12050

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 78 | 10.2 | 7.6 | 11.4 |

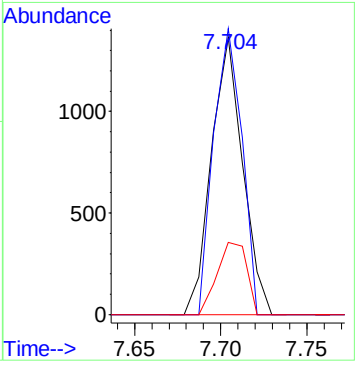


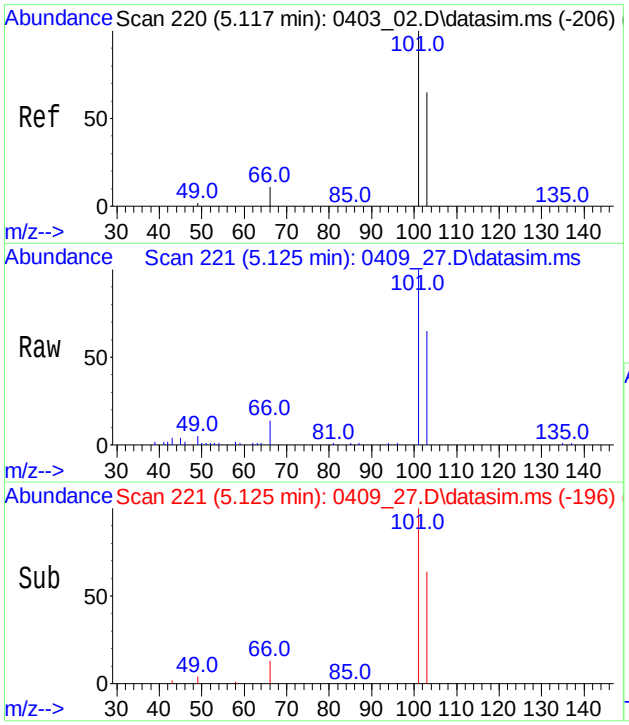




#34
Carbon Tetrachloride
Conc: 8$  Below Cal
RT:  7.704 min  Scan# 609
Delta R.T.  0.000 min
Lab File:  0409_27.D
Acq: 09 Apr 2019  10:44 pm

Tgt Ion:117 Resp:  1735

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 93.0 | 75.8 | 115.8 |
| 121 | 24.7 | 10.7 | 50.7 |

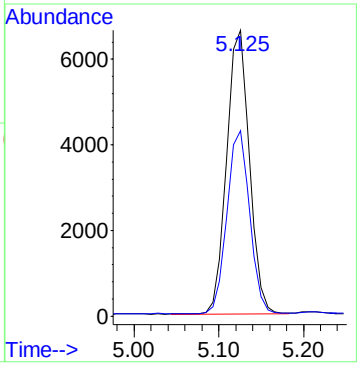


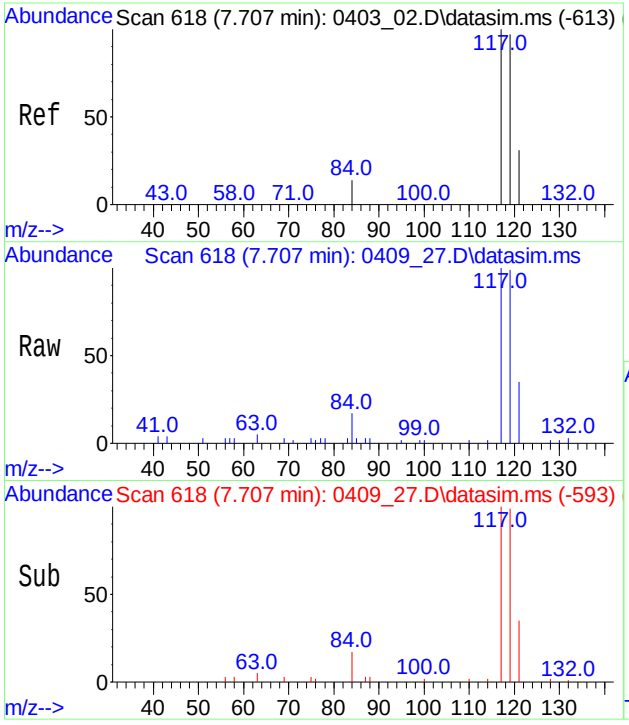



#84
Trichlorofluoromethane(sim)
Conc: 8$ 0.230 ppbv
RT: 5.125 min Scan# 221
Delta R.T. 0.000 min
Lab File: 0409_27.D
Acq: 09 Apr 2019 10:44 pm

Tgt Ion:101 Resp: 12389

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 64.1 | 51.9 | 77.9 |

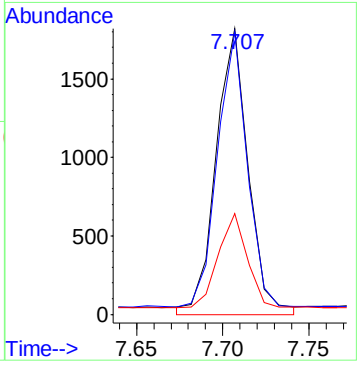



#87
Carbon Tetrachloride(sim)
Conc: 8$ 0.083 ppbv
RT: 7.704 min Scan# 618
Delta R.T. 0.000 min
Lab File: 0409_27.D
Acq: 09 Apr 2019 10:44 pm

Tgt Ion:117 Resp: 1735

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 93.0 | 76.6 | 115.0 |
| 121 | 24.7 | 24.6 | 36.8 |



1

CLIENT ID

AIR ANALYSIS DATA SHEET

AA-2

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90520

Canister: 21341 Lab File ID: 0409_28.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/09/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 115-07-1 | Propylene | 0.581 | U | 0.581 | 0.581 | r |
| 75-71-8 | Dichlorodifluoromethane | 0.482 | | 0.202 | 0.202 | r |
| 74-87-3 | Chloromethane | 0.598 | | 0.485 | 0.485 | r |
| 106-99-0 | 1,3-Butadiene | 0.452 | U | 0.452 | 0.452 | r |
| 75-00-3 | Chloroethane | 0.379 | U | 0.379 | 0.379 | r |
| 64-17-5 | Ethanol | 2.22 | S | 0.531 | 0.531 | r |
| 67-64-1 | Acetone | 1.67 | S | 0.421 | 0.421 | r |
| 75-69-4 | Trichlorofluoromethane | 0.250 | | 0.178 | 0.178 | r |
| 67-63-0 | Isopropylalcohol | 0.676 | S | 0.407 | 0.407 | r |
| 107-13-1 | Acrylonitrile | 0.461 | U | 0.461 | 0.461 | r |
| 75-09-2 | Methylene Chloride | 0.864 | U | 0.864 | 0.864 | r |
| 75-15-0 | Carbon Disulfide | 0.321 | U | 0.321 | 0.321 | r |
| 1634-04-4 | Methyl tert-butyl ether(MTBE) | 0.278 | U | 0.278 | 0.278 | r |
| 78-93-3 | Methyl Ethyl Ketone | 0.339 | U | 0.339 | 0.339 | r |
| 110-54-3 | Hexane | 0.284 | U | 0.284 | 0.284 | r |
| 141-78-6 | Ethyl acetate | 0.278 | U | 0.278 | 0.278 | r |
| 109-99-9 | Tetrahydrofuran | 0.339 | U | 0.339 | 0.339 | r |
| 71-43-2 | Benzene | 0.313 | U | 0.313 | 0.313 | r |
| 110-82-7 | Cyclohexane | 0.291 | U | 0.291 | 0.291 | r |
| 142-82-5 | Heptane | 0.244 | U | 0.244 | 0.244 | r |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | 0.244 | U | 0.244 | 0.244 | r |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.221 | U | 0.221 | 0.221 | r |
| 108-88-3 | Toluene | 0.266 | U | 0.266 | 0.266 | r |
| 591-78-6 | 2-Hexanone(MBK) | 0.244 | U | 0.244 | 0.244 | r |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.146 | U | 0.146 | 0.146 | r |
| 108-90-7 | Chlorobenzene | 0.217 | U | 0.217 | 0.217 | r |
| 100-41-4 | Ethylbenzene | 0.230 | U | 0.230 | 0.230 | r |
| 100-42-5 | Styrene | 0.235 | U | 0.235 | 0.235 | r |
| 95-47-6 | o-Xylene | 0.230 | U | 0.230 | 0.230 | r |
| 98-82-8 | Isopropylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 622-96-8 | 4-Ethyltoluene | 0.204 | U | 0.204 | 0.204 | r |
| 108-67-8 | 1,3,5-Trimethylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 76-14-2 | 1,2-Dichlorotetrafluoroethane(sim) | 0.143 | U | 0.143 | 0.143 | r |
| 75-01-4 | Vinyl Chloride(sim) | 0.078 | U | 0.078 | 0.078 | r |
| 74-83-9 | Bromomethane(sim) | 0.258 | U | 0.258 | 0.258 | r |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

1

AIR ANALYSIS DATA SHEET

CLIENT ID: AA-2

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90520

Canister: 21341 Lab File ID: 0409_28.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/09/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 107-06-2 | 1,2-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 71-55-6 | 1,1,1-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 56-23-5 | Carbon Tetrachloride(sim) | 0.080 | | 0.032 | 0.032 | r |
| 75-35-4 | 1,1-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 76-13-1 | Trichlorotrifluoroethane(sim) | 0.131 | U | 0.131 | 0.131 | r |
| 156-60-5 | Trans-1,2-Dichloroethene(sim) | 0.252 | U | 0.252 | 0.252 | r |
| 75-34-3 | 1,1-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 156-59-2 | Cis-1,2-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 67-66-3 | Chloroform(sim) | 0.205 | U | 0.205 | 0.205 | r |
| 78-87-5 | 1,2-dichloropropane(sim) | 0.217 | U | 0.217 | 0.217 | r |
| 75-27-4 | Bromodichloromethane(sim) | 0.149 | U | 0.149 | 0.149 | r |
| 79-01-6 | Trichloroethene(sim) | 0.037 | U | 0.037 | 0.037 | r |
| 123-91-1 | 1,4-Dioxane(sim) | 0.278 | U | 0.278 | 0.278 | r |
| 10061-01-5 | cis-1,3-Dichloropropene(sim) | 0.221 | U | 0.221 | 0.221 | r |
| 79-00-5 | 1,1,2-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 124-48-1 | Dibromochloromethane(sim) | 0.118 | U | 0.118 | 0.118 | r |
| 106-93-4 | 1,2-Dibromoethane(EDB)(sim) | 0.130 | U | 0.130 | 0.130 | r |
| 127-18-4 | Tetrachloroethene(sim) | 0.037 | U | 0.037 | 0.037 | r |
| 75-25-2 | Bromoform(sim) | 0.097 | U | 0.097 | 0.097 | r |
| 179601-23-1 | m,p-Xylene(sim) | 0.230 | U | 0.230 | 0.230 | r |
| 79-34-5 | 1,1,2,2-Tetrachloroethane(sim) | 0.146 | U | 0.146 | 0.146 | r |
| 100-44-7 | Benzyl chloride(sim) | 0.193 | U | 0.193 | 0.193 | r |
| 541-73-1 | 1,3-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 106-46-7 | 1,4-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 135-98-8 | sec-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 99-87-6 | 4-Isopropyltoluene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 95-50-1 | 1,2-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 104-51-8 | n-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 120-82-1 | 1,2,4-Trichlorobenzene(sim) | 0.135 | U | 0.135 | 0.135 | r |
| 87-68-3 | Hexachlorobutadiene(sim) | 0.094 | U | 0.094 | 0.094 | r |
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FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_28.D
Acq On : 09 Apr 2019 11:25 pm
Operator : CORTEX\ms
Client ID : AA-2
Lab ID : CC90520
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 09:36:44 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration

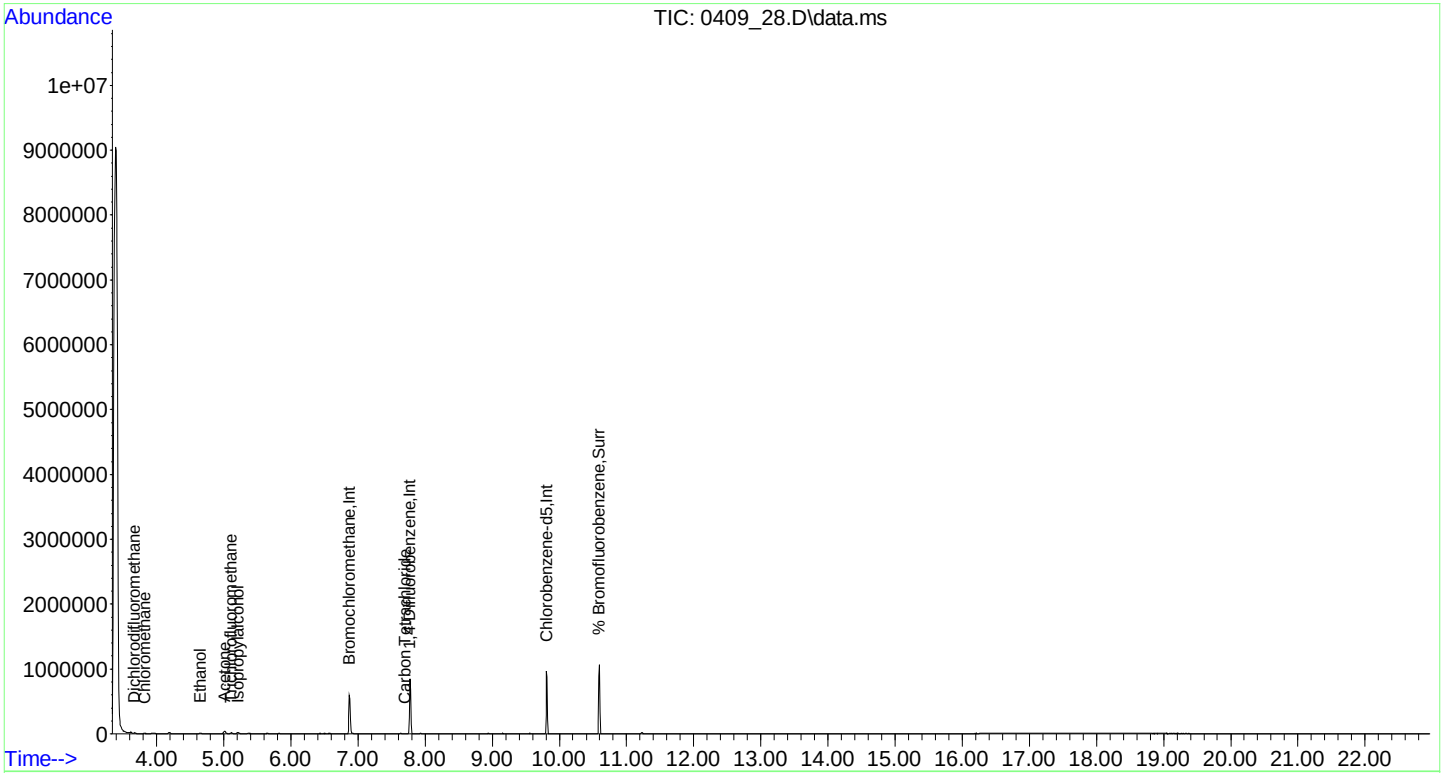
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.871 | 130 | 115623 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.772 | 114 | 365856 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.807 | 82 | 179920 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.874 | 130 | 159220 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 423143 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 180033 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 236679 | 10.034 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 100.30% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 3.670 | 85 | 14302 | 0.482 | ppbv | # | 96 |
| 4) Chloromethane | 3.824 | 50 | 7405 | 0.598 | ppbv | | 99 |
| 11) Ethanol | 4.652 | 45 | 11053 | 2.222 | ppbv | | 97 |
| 12) Acetone | 5.017 | 43 | 43091 | 1.667 | ppbv | # | 88 |
| 13) Trichlorofluoromethane | 5.114 | 101 | 9710 | 0.250 | ppbv | | 99 |
| 14) Isopropylalcohol | 5.212 | 45 | 18417 | 0.676 | ppbv | # | 92 |
| 34) Carbon Tetrachloride | 7.704 | 117 | 1667 | 0.076 | ppbv | | 92 |
| 84] Trichlorofluoromethane... | 5.117 | 101 | 12358 | 0.233 | ppbv | | 99 |
| 87] Carbon Tetrachloride(sim) | 7.704 | 117 | 1667 | 0.080 | ppbv | | 92 |

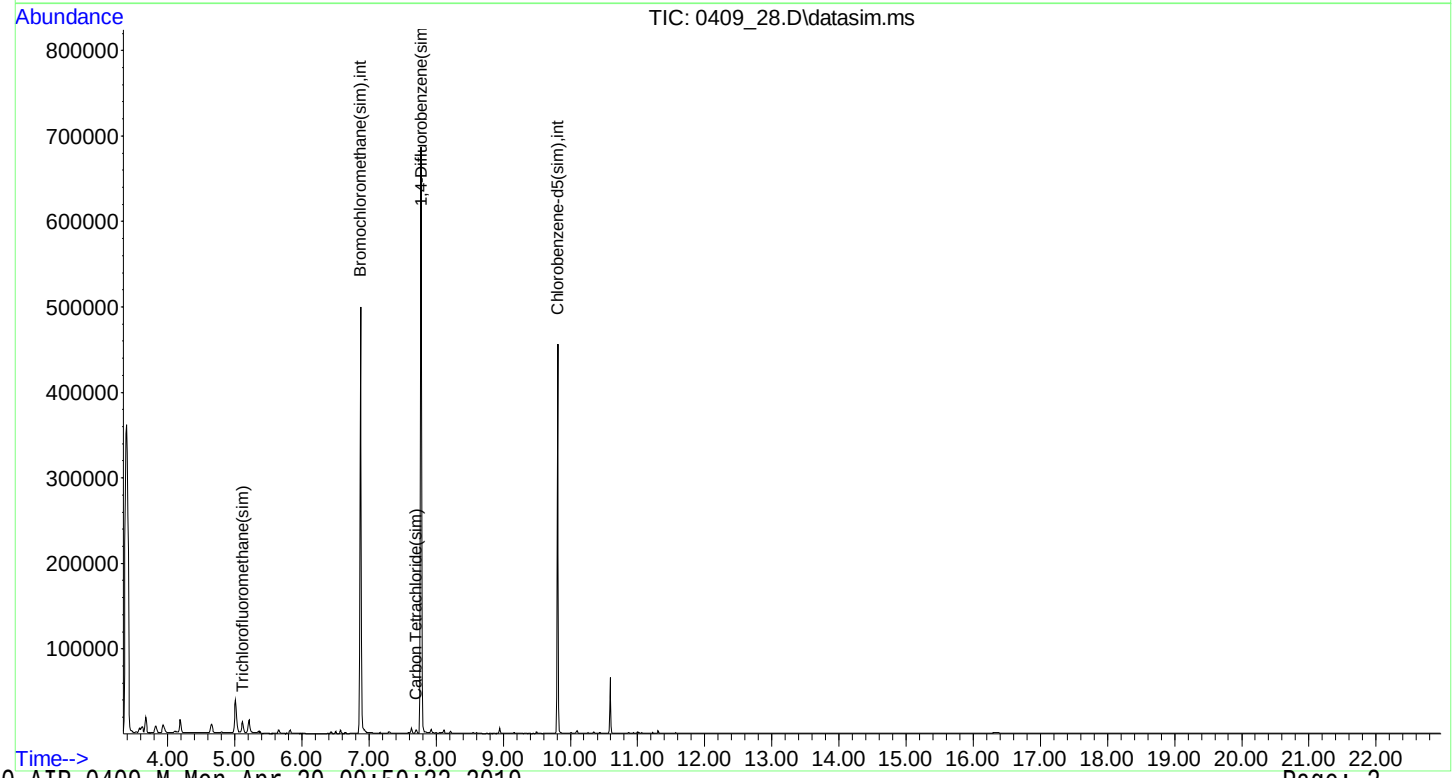
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

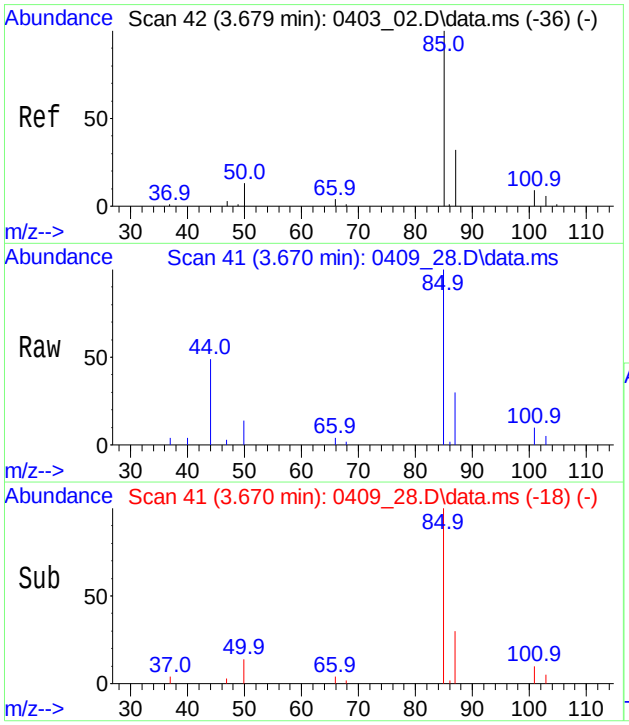
Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_28.D
Acq On : 09 Apr 2019 11:25 pm
Operator : CORTEX\ms
Client ID : AA-2
Lab ID : CC90520
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 09:36:44 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration



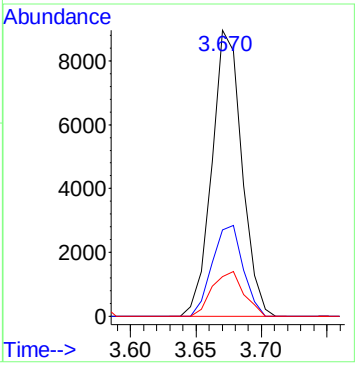



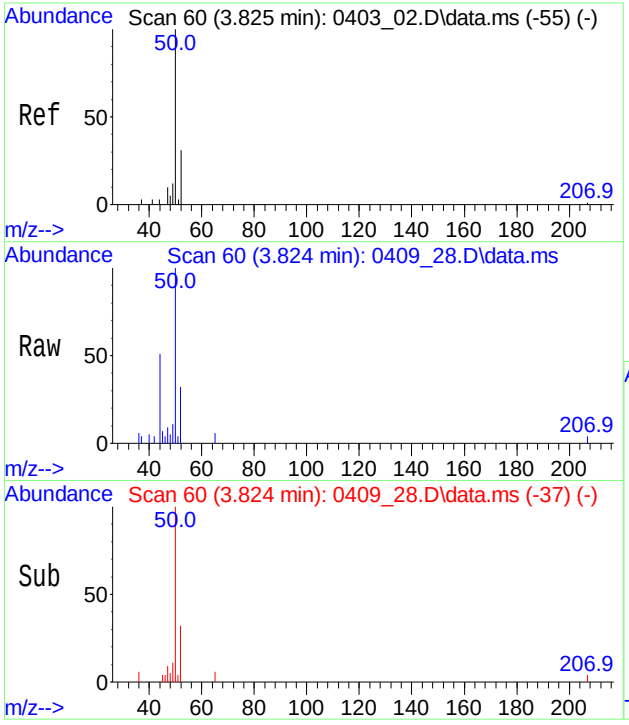



#3
Dichlorodifluoromethane
Conc: 8$  0.482 ppbv
RT:  3.670 min  Scan# 41
Delta R.T.  -0.016 min
Lab File:  0409_28.D
Acq: 09 Apr 2019  11:25 pm

Tgt Ion: 85 Resp:  14302

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 32.6 | 25.6 | 38.4 |
| 50 | 16.4 | 9.4 | 14.2# |

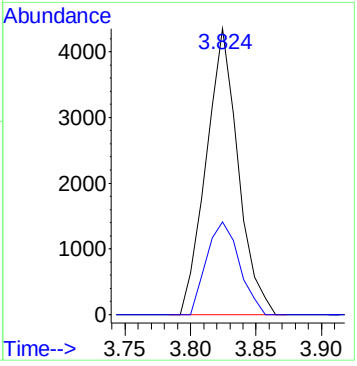


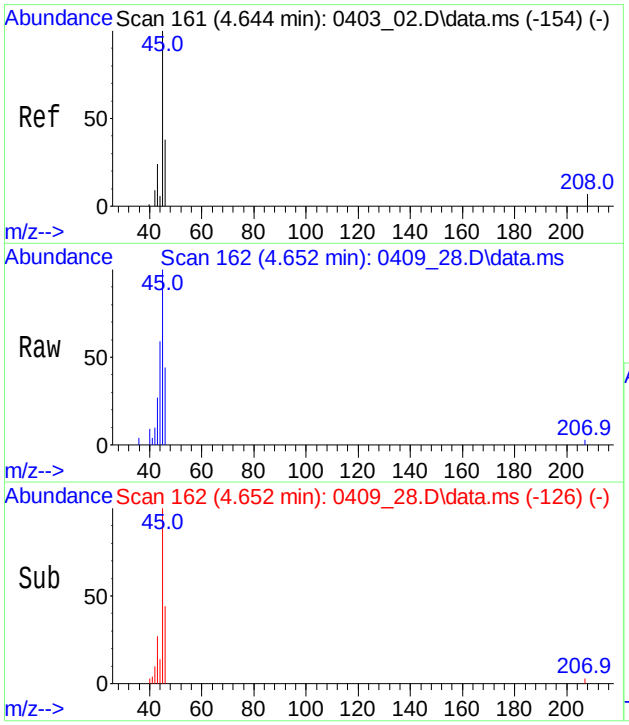




#4
Chloromethane
Conc: 8$  0.598 ppbv
RT:  3.824 min  Scan# 60
Delta R.T.  -0.016 min
Lab File:  0409_28.D
Acq: 09 Apr 2019  11:25 pm

Tgt Ion: 50 Resp:  7405

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 33.2 | 13.6 | 53.6 |

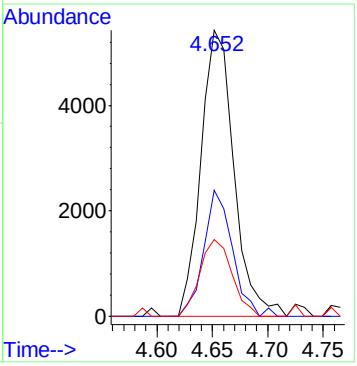


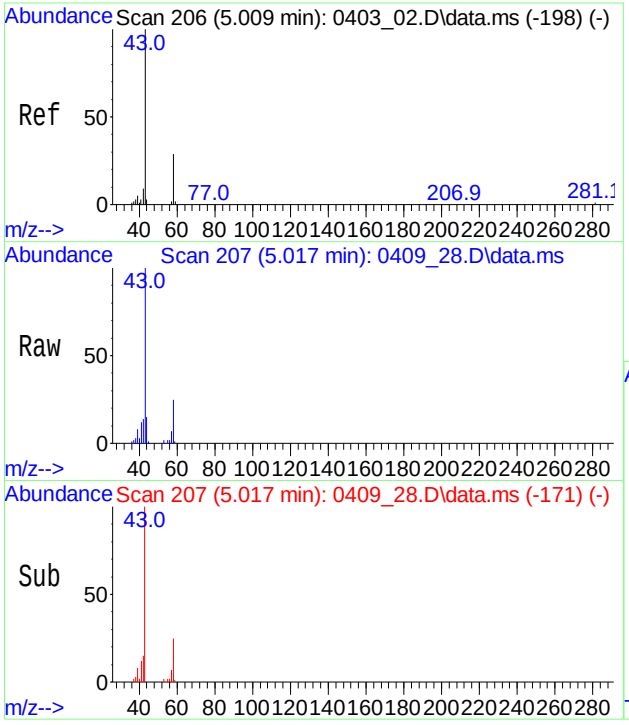



#11
Ethanol
Conc: 8$ 2.222 ppbv
RT: 4.652 min Scan# 162
Delta R.T. -0.008 min
Lab File: 0409_28.D
Acq: 09 Apr 2019 11:25 pm

Tgt Ion: 45 Resp: 11053

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 46 | 38.4 | 29.9 | 44.9 |
| 43 | 26.2 | 22.7 | 34.1 |

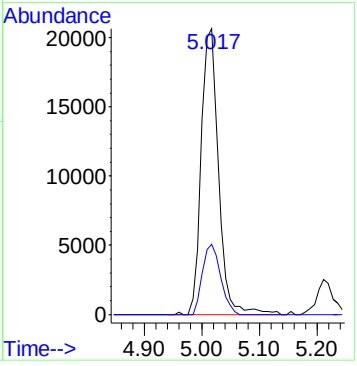


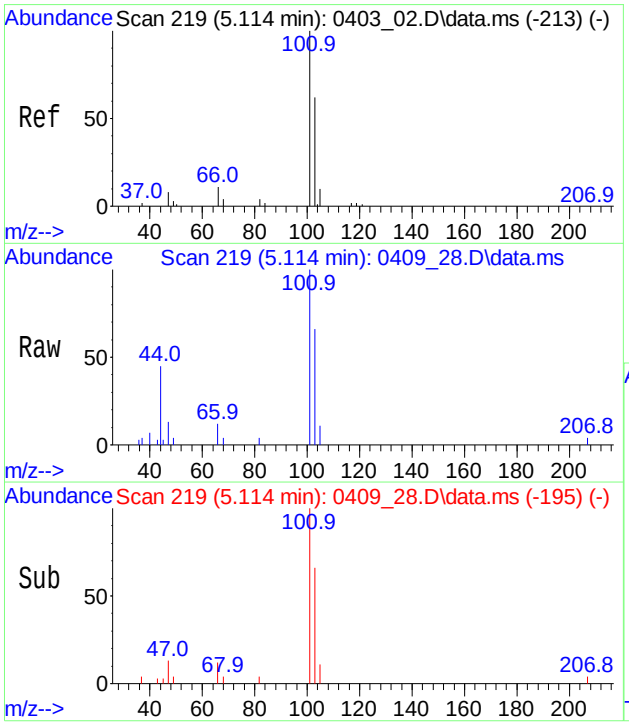




#12
Acetone
Conc: 8$ 1.667 ppbv
RT: 5.017 min Scan# 207
Delta R.T. -0.008 min
Lab File: 0409_28.D
Acq: 09 Apr 2019 11:25 pm

Tgt Ion: 43 Resp: 43091

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 25.6 | 25.9 | 38.9# |

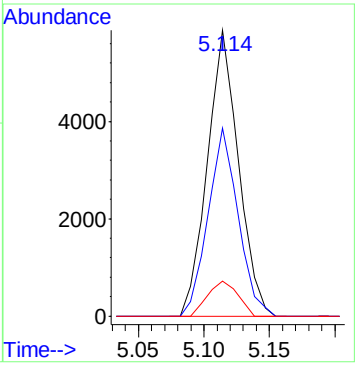


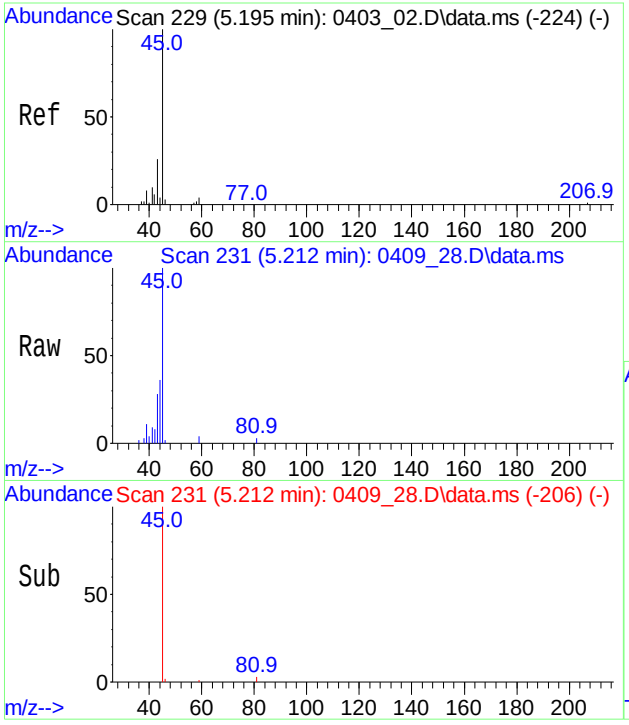



#13
Trichlorofluoromethane
Conc: 8$ 0.250 ppbv
RT: 5.114 min Scan# 219
Delta R.T. -0.008 min
Lab File: 0409_28.D
Acq: 09 Apr 2019 11:25 pm

Tgt Ion:101 Resp: 9710

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 63.5 | 51.6 | 77.4 |
| 66 | 11.9 | 9.4 | 14.0 |

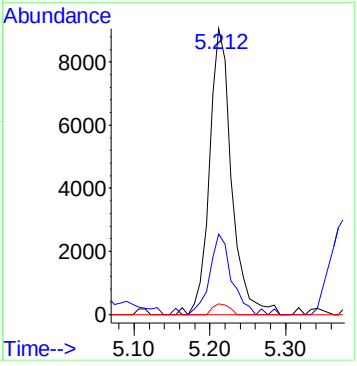


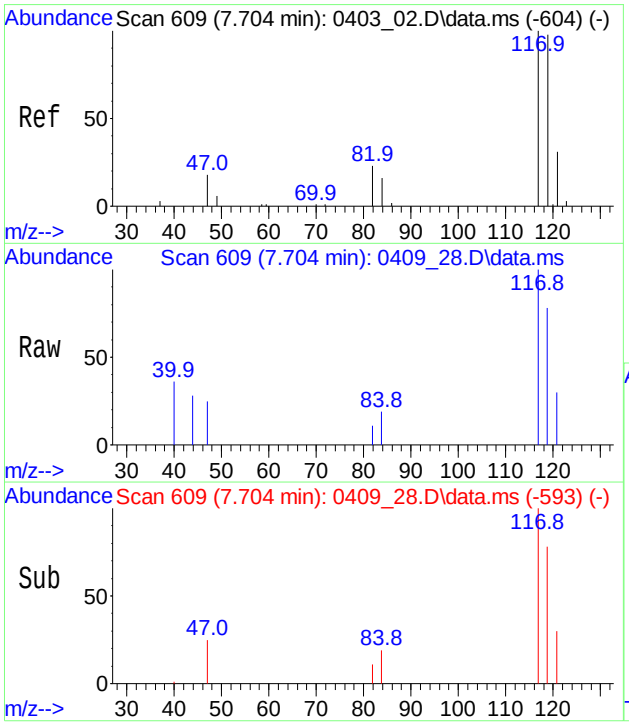




#14
Isopropylalcohol
Conc: 8$ 0.676 ppbv
RT: 5.212 min Scan# 231
Delta R.T. -0.000 min
Lab File: 0409_28.D
Acq: 09 Apr 2019 11:25 pm

Tgt Ion: 45 Resp: 18417

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 43 | 27.3 | 18.6 | 27.8 |
| 59 | 2.9 | 3.7 | 5.5# |

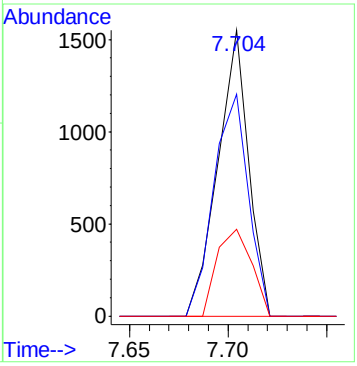


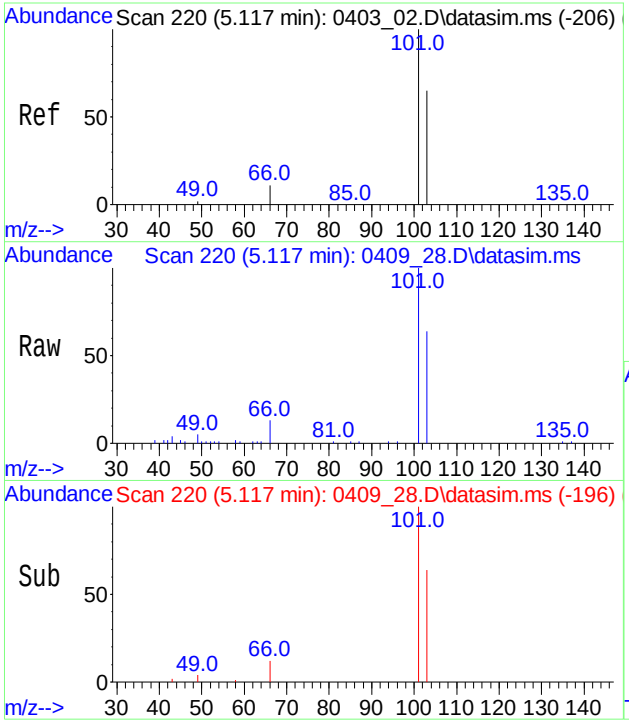



#34
Carbon Tetrachloride
Conc: 8$  Below Cal
RT:  7.704 min  Scan# 609
Delta R.T.  0.000 min
Lab File:  0409_28.D
Acq: 09 Apr 2019  11:25 pm

Tgt Ion:117 Resp:  1667

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 87.0 | 75.8 | 115.8 |
| 121 | 34.1 | 10.7 | 50.7 |

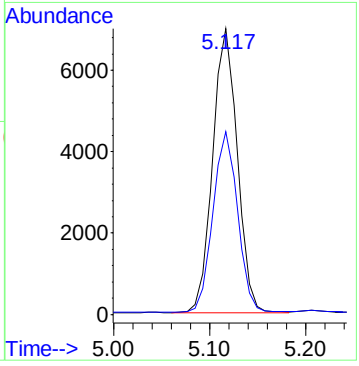


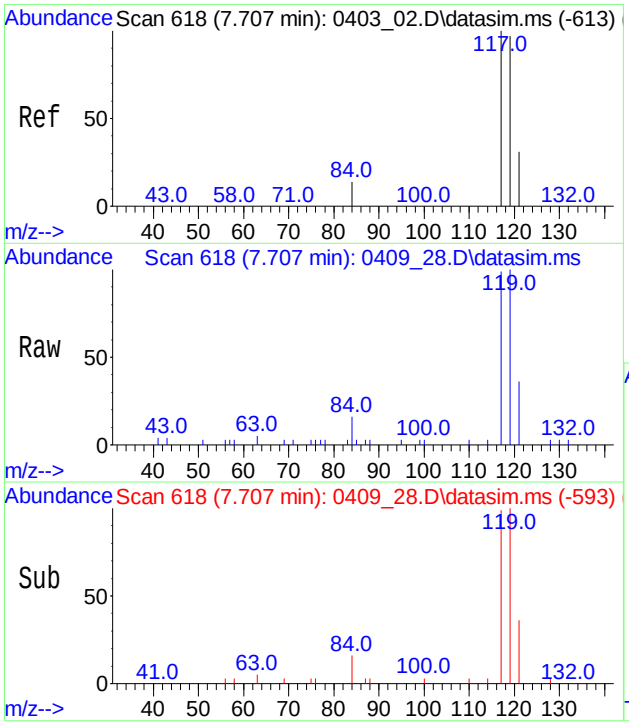




#84
Trichlorofluoromethane(sim)
Conc: 8$  0.233 ppbv
RT:  5.117 min  Scan# 220
Delta R.T.  -0.008 min
Lab File:  0409_28.D
Acq: 09 Apr 2019  11:25 pm

Tgt Ion:101 Resp:  12358

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 63.8 | 51.9 | 77.9 |

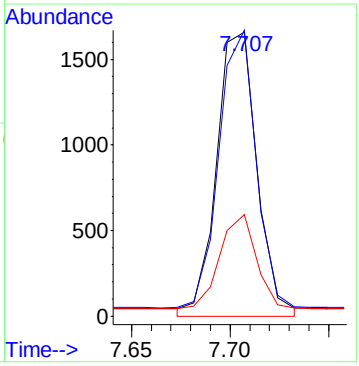





#87
Carbon Tetrachloride(sim)
Conc: 8$  0.080 ppbv
RT:  7.704 min  Scan# 618
Delta R.T.  0.000 min
Lab File:  0409_28.D
Acq: 09 Apr 2019  11:25 pm

Tgt Ion:117 Resp:  1667

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 87.0 | 76.6 | 115.0 |
| 121 | 34.1 | 24.6 | 36.8 |



AIR ANALYSIS DATA SHEET

CLIENT ID: IA-10

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90521

Canister: 13635 Lab File ID: 0409_29.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/10/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 115-07-1 | Propylene | 0.581 | U | 0.581 | 0.581 | r |
| 75-71-8 | Dichlorodifluoromethane | 0.615 | | 0.202 | 0.202 | r |
| 74-87-3 | Chloromethane | 0.652 | | 0.485 | 0.485 | r |
| 106-99-0 | 1,3-Butadiene | 0.452 | U | 0.452 | 0.452 | r |
| 75-00-3 | Chloroethane | 0.379 | U | 0.379 | 0.379 | r |
| 64-17-5 | Ethanol | 54.4 | ES | 0.531 | 0.531 | r |
| 67-64-1 | Acetone | 17.3 | S | 0.421 | 0.421 | r |
| 75-69-4 | Trichlorofluoromethane | 0.319 | | 0.178 | 0.178 | r |
| 67-63-0 | Isopropylalcohol | 1.76 | S | 0.407 | 0.407 | r |
| 107-13-1 | Acrylonitrile | 0.461 | U | 0.461 | 0.461 | r |
| 75-09-2 | Methylene Chloride | 34.6 | S | 0.864 | 0.864 | r |
| 75-15-0 | Carbon Disulfide | 0.321 | U | 0.321 | 0.321 | r |
| 1634-04-4 | Methyl tert-butyl ether(MTBE) | 0.278 | U | 0.278 | 0.278 | r |
| 78-93-3 | Methyl Ethyl Ketone | 1.31 | | 0.339 | 0.339 | r |
| 110-54-3 | Hexane | 4.64 | S | 0.284 | 0.284 | r |
| 141-78-6 | Ethyl acetate | 1.32 | | 0.278 | 0.278 | r |
| 109-99-9 | Tetrahydrofuran | 0.926 | | 0.339 | 0.339 | r |
| 71-43-2 | Benzene | 1.03 | | 0.313 | 0.313 | r |
| 110-82-7 | Cyclohexane | 1.47 | | 0.291 | 0.291 | r |
| 142-82-5 | Heptane | 3.20 | | 0.244 | 0.244 | r |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | 0.244 | U | 0.244 | 0.244 | r |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.221 | U | 0.221 | 0.221 | r |
| 108-88-3 | Toluene | 10.2 | | 0.266 | 0.266 | r |
| 591-78-6 | 2-Hexanone(MBK) | 0.244 | U | 0.244 | 0.244 | r |
| 127-18-4 | Tetrachloroethene | 1.69 | | 0.037 | 0.037 | r |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.146 | U | 0.146 | 0.146 | r |
| 108-90-7 | Chlorobenzene | 0.217 | U | 0.217 | 0.217 | r |
| 100-41-4 | Ethylbenzene | 1.67 | | 0.230 | 0.230 | r |
| 179601-23-1 | m,p-Xylene | 6.33 | | 0.230 | 0.230 | r |
| 100-42-5 | Styrene | 0.235 | U | 0.235 | 0.235 | r |
| 95-47-6 | o-Xylene | 2.06 | | 0.230 | 0.230 | r |
| 98-82-8 | Isopropylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 622-96-8 | 4-Ethyltoluene | 0.419 | | 0.204 | 0.204 | r |
| 108-67-8 | 1,3,5-Trimethylbenzene | 0.375 | | 0.204 | 0.204 | r |
| 95-63-6 | 1,2,4-Trimethylbenzene | 1.58 | | 0.204 | 0.204 | r |
| 76-14-2 | 1,2-Dichlorotetrafluoroethane(sim) | 0.143 | U | 0.143 | 0.143 | r |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

1

AIR ANALYSIS DATA SHEET

CLIENT ID: IA-10

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90521

Canister: 13635 Lab File ID: 0409_29.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/10/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 75-01-4 | Vinyl Chloride(sim) | 0.078 | U | 0.078 | 0.078 | r |
| 74-83-9 | Bromomethane(sim) | 0.258 | U | 0.258 | 0.258 | r |
| 107-06-2 | 1,2-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 71-55-6 | 1,1,1-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 56-23-5 | Carbon Tetrachloride(sim) | 0.073 | | 0.032 | 0.032 | r |
| 75-35-4 | 1,1-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 76-13-1 | Trichlorotrifluoroethane(sim) | 0.131 | U | 0.131 | 0.131 | r |
| 156-60-5 | Trans-1,2-Dichloroethene(sim) | 0.252 | U | 0.252 | 0.252 | r |
| 75-34-3 | 1,1-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 156-59-2 | Cis-1,2-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 67-66-3 | Chloroform(sim) | 0.205 | U | 0.205 | 0.205 | r |
| 78-87-5 | 1,2-dichloropropane(sim) | 0.217 | U | 0.217 | 0.217 | r |
| 75-27-4 | Bromodichloromethane(sim) | 0.149 | U | 0.149 | 0.149 | r |
| 79-01-6 | Trichloroethene(sim) | 0.145 | | 0.037 | 0.037 | r |
| 123-91-1 | 1,4-Dioxane(sim) | 0.278 | U | 0.278 | 0.278 | r |
| 10061-01-5 | cis-1,3-Dichloropropene(sim) | 0.221 | U | 0.221 | 0.221 | r |
| 79-00-5 | 1,1,2-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 124-48-1 | Dibromochloromethane(sim) | 0.118 | U | 0.118 | 0.118 | r |
| 106-93-4 | 1,2-Dibromoethane(EDB)(sim) | 0.130 | U | 0.130 | 0.130 | r |
| 75-25-2 | Bromoform(sim) | 0.097 | U | 0.097 | 0.097 | r |
| 79-34-5 | 1,1,2,2-Tetrachloroethane(sim) | 0.146 | U | 0.146 | 0.146 | r |
| 100-44-7 | Benzyl chloride(sim) | 0.193 | U | 0.193 | 0.193 | r |
| 541-73-1 | 1,3-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 106-46-7 | 1,4-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 135-98-8 | sec-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 99-87-6 | 4-Isopropyltoluene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 95-50-1 | 1,2-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 104-51-8 | n-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 120-82-1 | 1,2,4-Trichlorobenzene(sim) | 0.135 | U | 0.135 | 0.135 | r |
| 87-68-3 | Hexachlorobutadiene(sim) | 0.094 | U | 0.094 | 0.094 | r |
| | | | | | | |
| | | | | | | |
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| | | | | | | |
| | | | | | | |
| | | | | | | |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_29.D
Acq On : 10 Apr 2019 12:06 am
Operator : CORTEX\ms
Client ID : IA-10
Lab ID : CC90521
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 10:27:37 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration

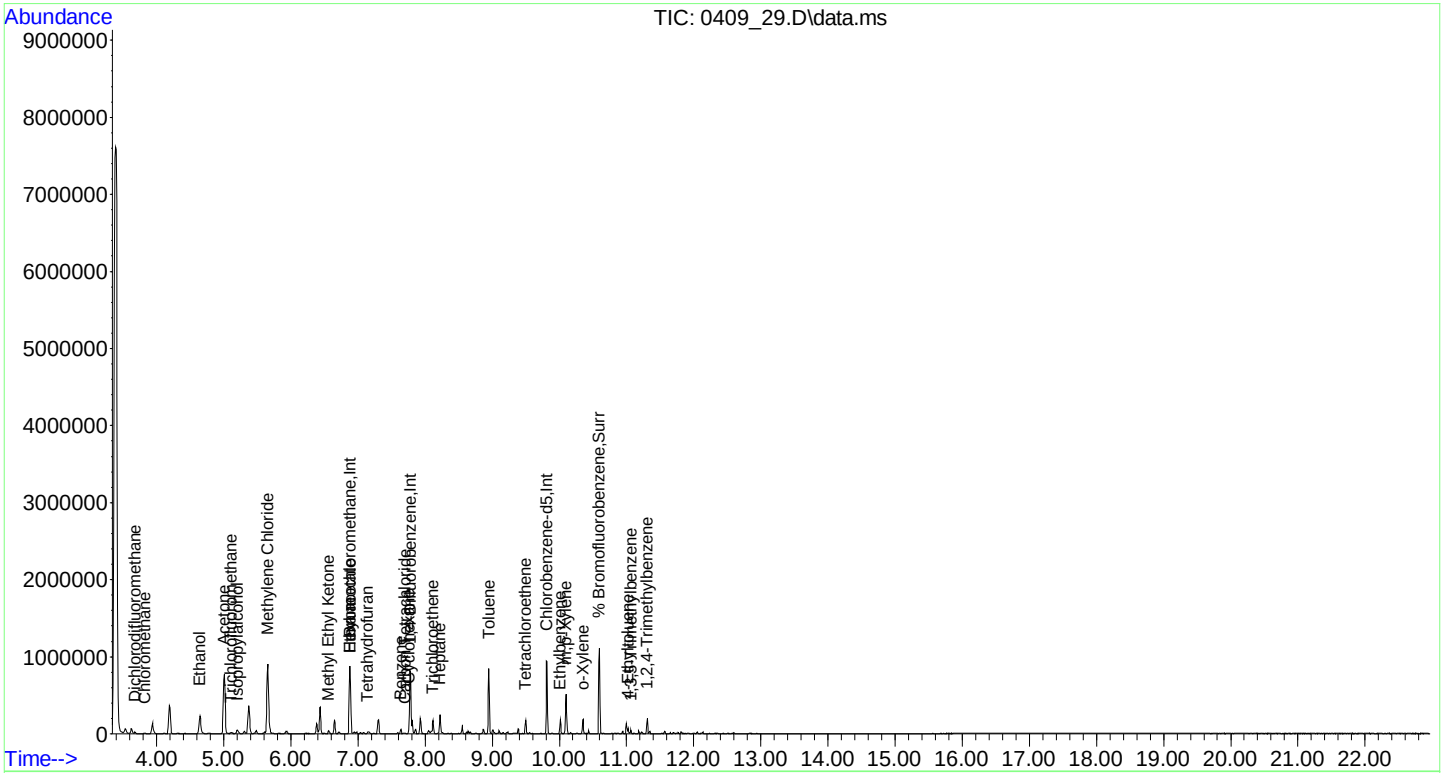
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.879 | 130 | 110707 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.780 | 114 | 364770 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.807 | 82 | 186507 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.882 | 130 | 153766 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 423277 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 187914 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 249077 | 10.187 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 101.90% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 3.678 | 85 | 17464 | 0.615 | ppbv | # | 96 |
| 4) Chloromethane | 3.824 | 50 | 7737 | 0.652 | ppbv | | 95 |
| 11) Ethanol | 4.644 | 45 | 259116 | 54.395 | ppbv | | 94 |
| 12) Acetone | 5.009 | 43 | 428966 | 17.331 | ppbv | # | 66 |
| 13) Trichlorofluoromethane | 5.114 | 101 | 11829 | 0.319 | ppbv | | 98 |
| 14) Isopropylalcohol | 5.203 | 45 | 45996 | 1.764 | ppbv | # | 96 |
| 17) Methylene Chloride | 5.655 | 49 | 574383 | 34.622 | ppbv | # | 55 |
| 25) Methyl Ethyl Ketone | 6.562 | 43 | 40822 | 1.311 | ppbv | # | 75 |
| 27) Hexane | 6.887 | 57 | 83029 | 4.638 | ppbv | # | 73 |
| 29) Ethyl acetate | 6.887 | 61 | 4577 | 1.316 | ppbv | # | 76 |
| 30) Tetrahydrofuran | 7.142 | 42 | 12135 | 0.926 | ppbv | # | 53 |
| 33) Benzene | 7.636 | 78 | 24886 | 1.025 | ppbv | # | 77 |
| 34) Carbon Tetrachloride | 7.704 | 117 | 1465 | 0.070 | ppbv | # | 82 |
| 35) Cyclohexane | 7.763 | 41 | 14347 | 1.470 | ppbv | # | 30 |
| 39) Trichloroethene | 8.111 | 130 | 2214 | 0.162 | ppbv | # | 84 |
| 43) Heptane | 8.221 | 43 | 58928 | 3.203 | ppbv | # | 67 |
| 48) Toluene | 8.948 | 91 | 304484 | 10.180 | ppbv | # | 98 |
| 52) Tetrachloroethene | 9.497 | 166 | 24525 | 1.693 | ppbv | # | 89 |
| 56) Ethylbenzene | 10.012 | 91 | 73791 | 1.670 | ppbv | | 99 |
| 57) m,p-Xylene | 10.095 | 91 | 213362 | 6.327 | ppbv | | 93 |
| 61) o-Xylene | 10.353 | 91 | 72710 | 2.061 | ppbv | | 92 |
| 66) 4-Ethyltoluene | 11.020 | 105 | 19580m | 0.419 | ppbv | | 96 |
| 67) 1,3,5-Trimethylbenzene | 11.066 | 105 | 15068 | 0.375 | ppbv | # | 93 |
| 68) 1,2,4-Trimethylbenzene | 11.309 | 105 | 62241 | 1.581 | ppbv | # | 81 |
| 84) Trichlorofluoromethane... | 5.117 | 101 | 14080 | 0.274 | ppbv | | 100 |
| 87) Carbon Tetrachloride(sim) | 7.704 | 117 | 1465 | 0.073 | ppbv | # | 82 |
| 97) Trichloroethene(sim) | 8.111 | 130 | 2214 | 0.145 | ppbv | # | 79 |
| 103) Tetrachloroethene(sim) | 9.497 | 166 | 24525 | 1.475 | ppbv | | 89 |
| 106) m,p-Xylene(sim) | 10.098 | 91 | 225848 | 5.833 | ppbv | # | 92 |

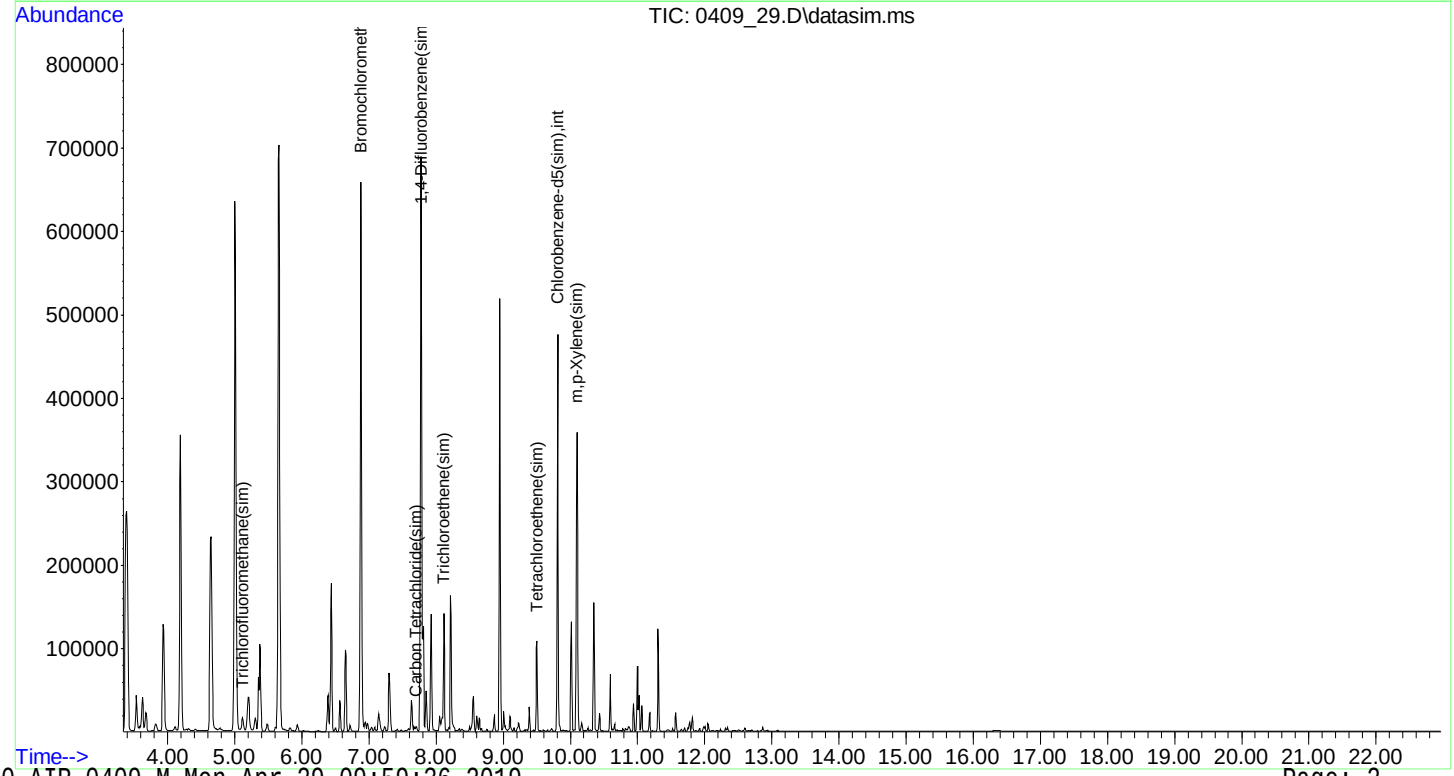
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

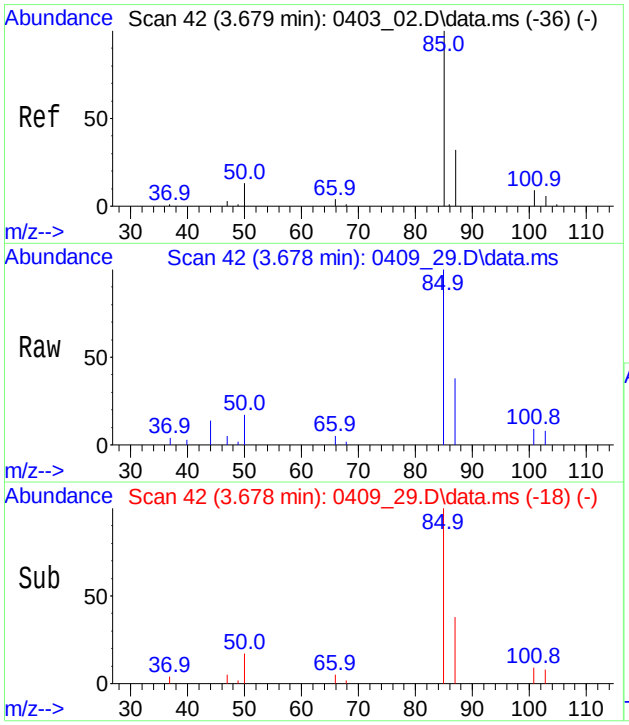
Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_29.D
Acq On : 10 Apr 2019 12:06 am
Operator : CORTEX\ms
Client ID : IA-10
Lab ID : CC90521
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 10:27:37 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration



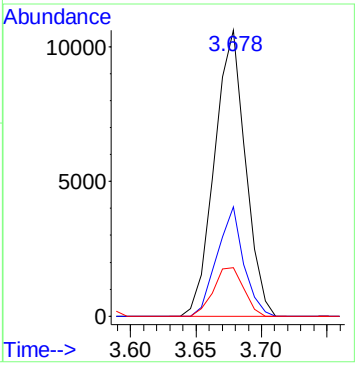



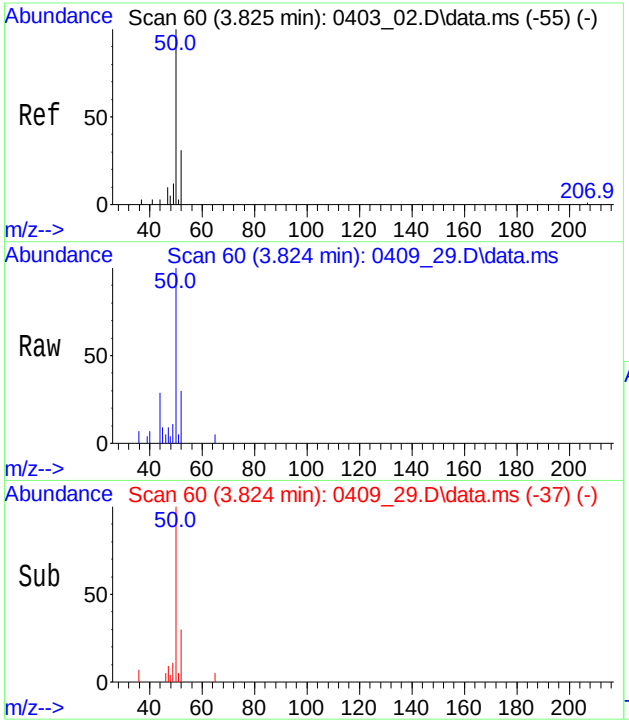



#3
Dichlorodifluoromethane
Conc: 8$ 0.615 ppbv
RT: 3.678 min Scan# 42
Delta R.T. -0.008 min
Lab File: 0409_29.D
Acq: 10 Apr 2019 12:06 am

Tgt Ion: 85 Resp: 17464

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 32.8 | 25.6 | 38.4 |
| 50 | 16.6 | 9.4 | 14.2# |

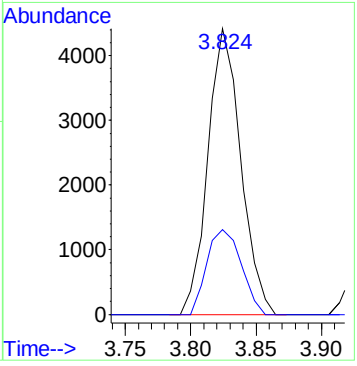


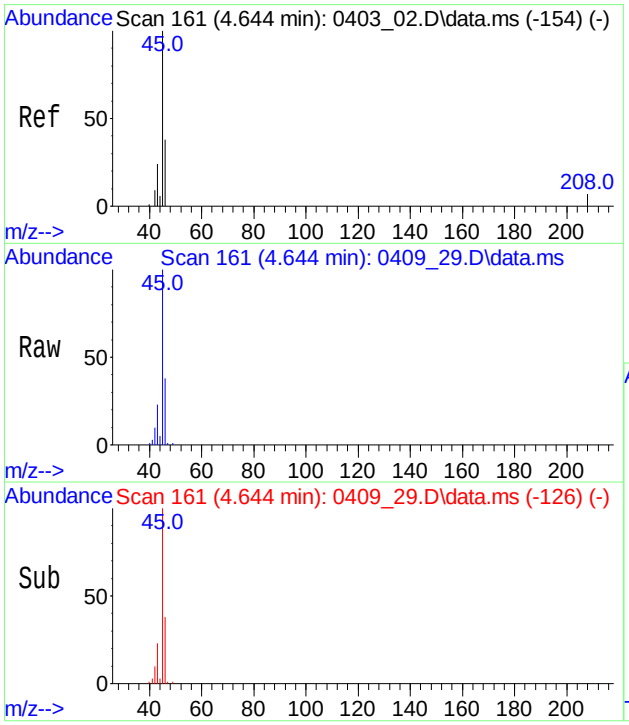




#4
Chloromethane
Conc: 8$ 0.652 ppbv
RT: 3.824 min Scan# 60
Delta R.T. -0.016 min
Lab File: 0409_29.D
Acq: 10 Apr 2019 12:06 am

Tgt Ion: 50 Resp: 7737

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 31.0 | 13.6 | 53.6 |

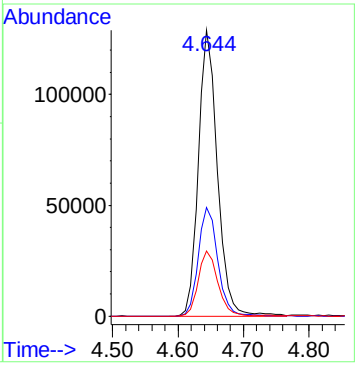


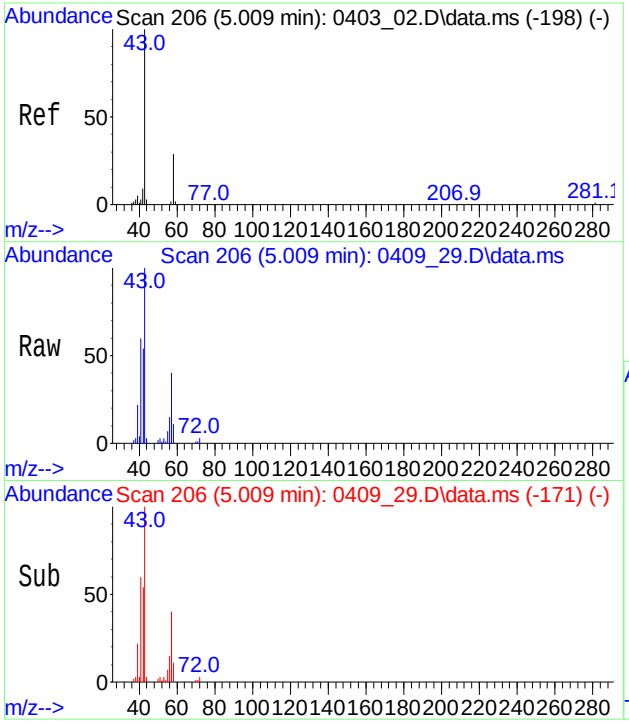



#11
Ethanol
Conc: 8$  54.395 ppbv
RT:  4.644 min  Scan# 161
Delta R.T.  -0.016 min
Lab File:  0409_29.D
Acq: 10 Apr 2019  12:06 am

Tgt Ion: 45 Resp:  259116

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 46 | 39.0 | 29.9 | 44.9 |
| 43 | 23.4 | 22.7 | 34.1 |

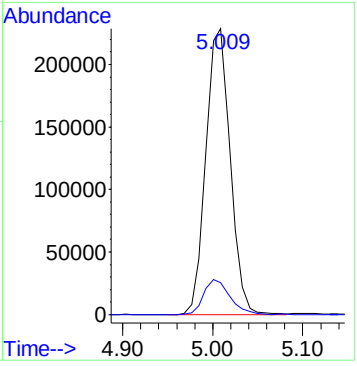


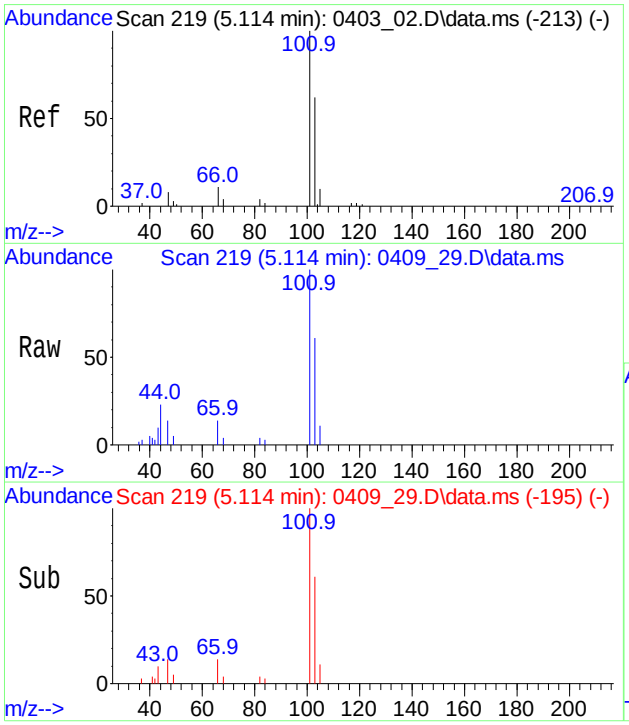




#12
Acetone
Conc: 8$  17.331 ppbv
RT:  5.009 min  Scan# 206
Delta R.T.  -0.016 min
Lab File:  0409_29.D
Acq: 10 Apr 2019  12:06 am

Tgt Ion: 43 Resp:  428966

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 13.1 | 25.9 | 38.9# |

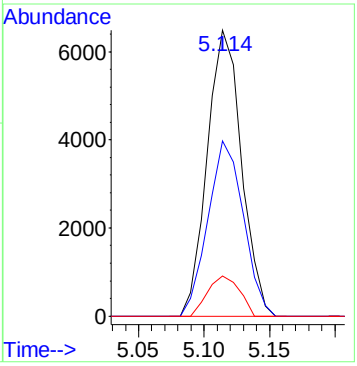


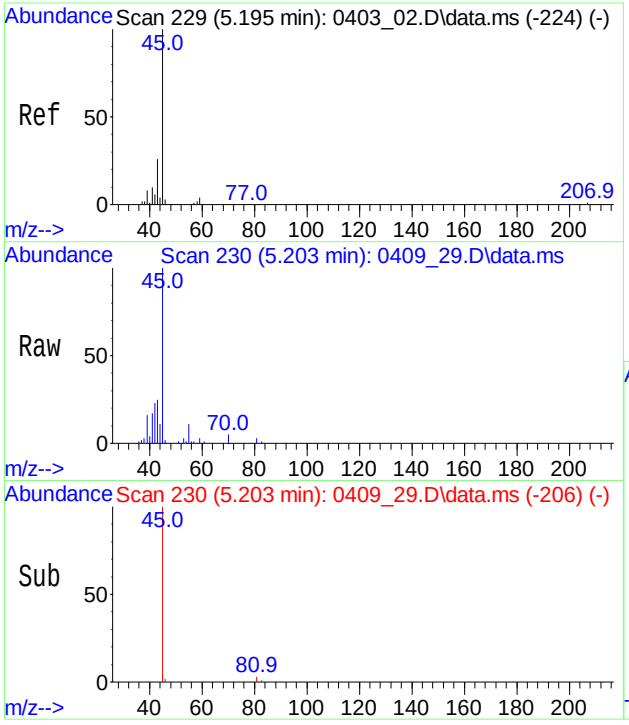



#13
Trichlorofluoromethane
Conc: 8$ 0.319 ppbv
RT: 5.114 min Scan# 219
Delta R.T. -0.008 min
Lab File: 0409_29.D
Acq: 10 Apr 2019 12:06 am

Tgt Ion:101 Resp: 11829

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 63.4 | 51.6 | 77.4 |
| 66 | 13.1 | 9.4 | 14.0 |

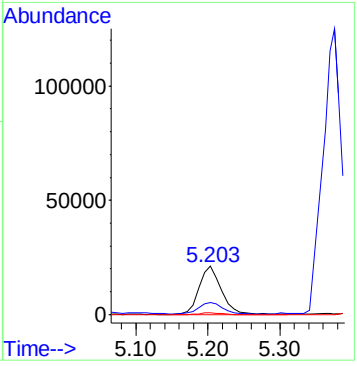


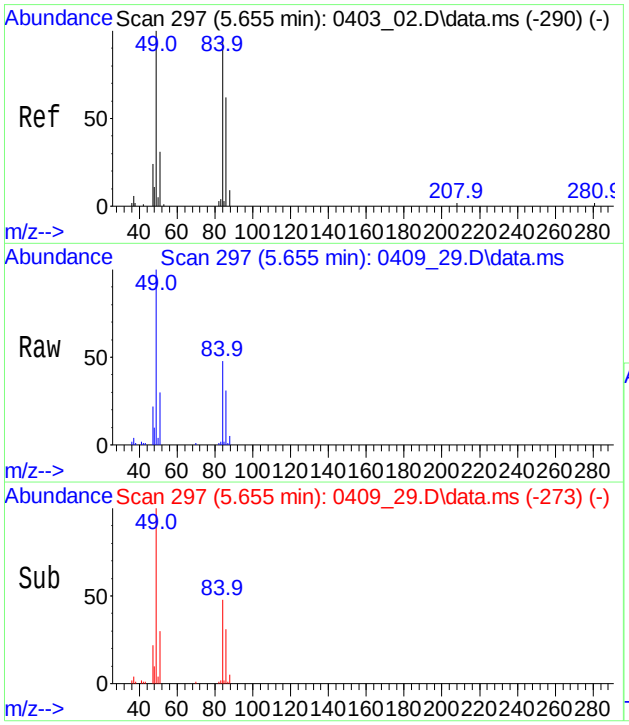




#14
Isopropylalcohol
Conc: 8$ 1.764 ppbv
RT: 5.203 min Scan# 230
Delta R.T. -0.009 min
Lab File: 0409_29.D
Acq: 10 Apr 2019 12:06 am

Tgt Ion: 45 Resp: 45996

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 43 | 25.0 | 18.6 | 27.8 |
| 59 | 3.1 | 3.7 | 5.5# |

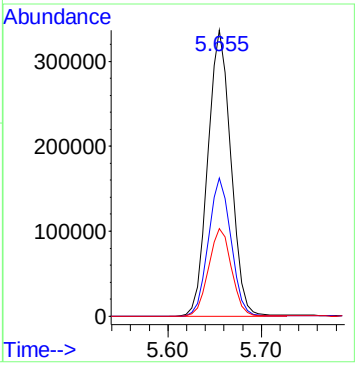


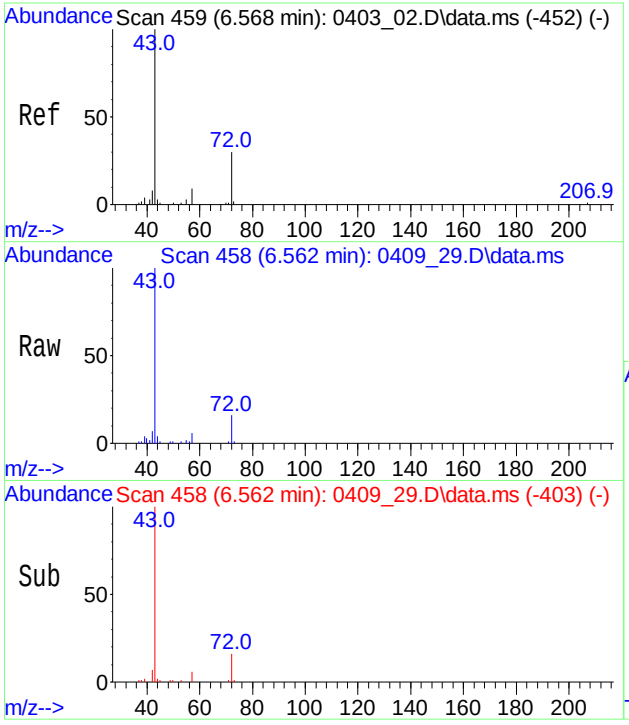



#17
Methylene Chloride
Conc: 8$  34.622 ppbv
RT:  5.655 min  Scan# 297
Delta R.T.  -0.006 min
Lab File:  0409_29.D
Acq: 10 Apr 2019  12:06 am

Tgt Ion: 49 Resp:  574383

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 84 | 47.5 | 75.4 | 113.0# |
| 86 | 30.5 | 48.9 | 73.3# |

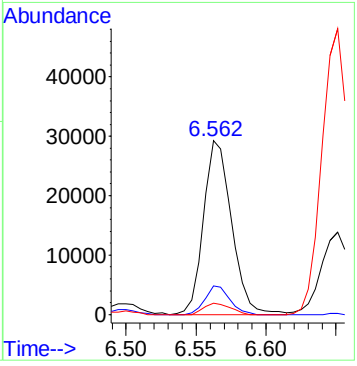


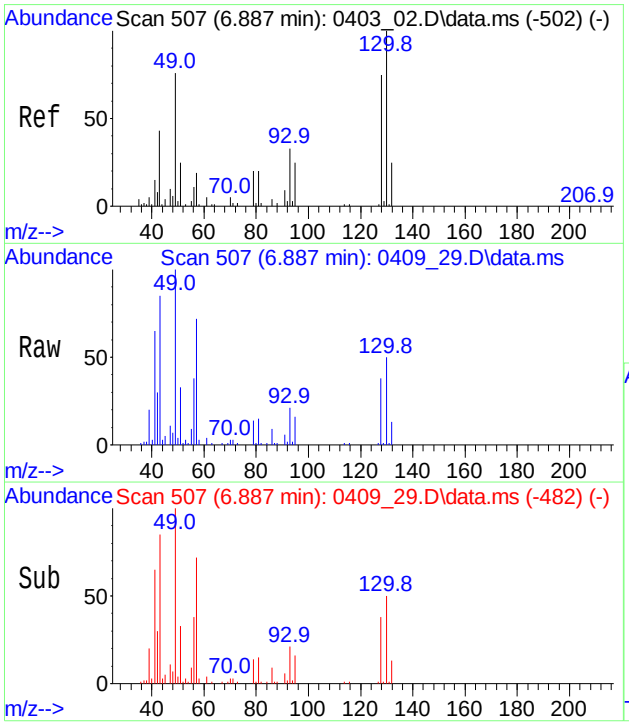




#25
Methyl Ethyl Ketone
Conc: 8$  1.311 ppbv
RT:  6.562 min  Scan# 458
Delta R.T.  -0.011 min
Lab File:  0409_29.D
Acq: 10 Apr 2019  12:06 am

Tgt Ion: 43 Resp:  40822

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 72 | 14.2 | 24.6 | 37.0# |
| 57 | 6.1 | 7.4 | 11.2# |

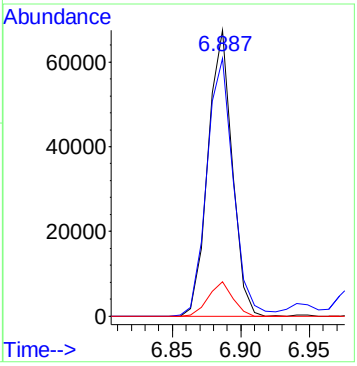


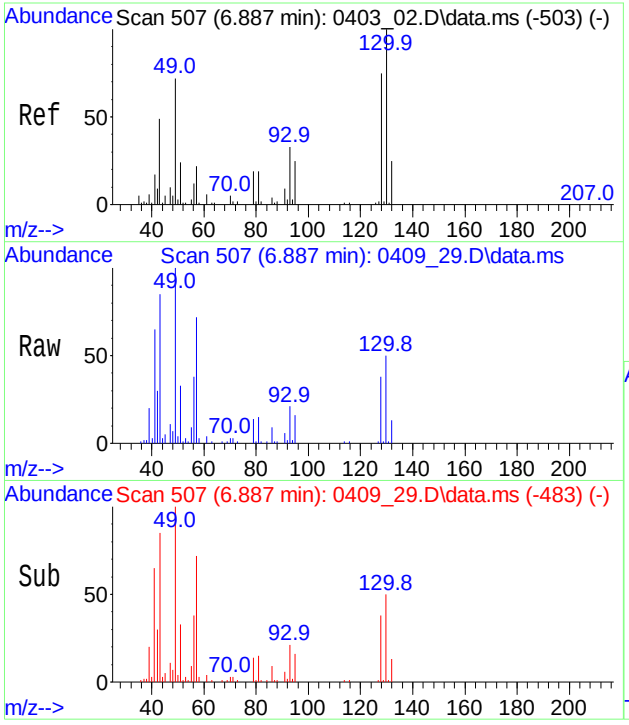



#27
Hexane
Conc: 8$ 4.638 ppbv
RT: 6.887 min Scan# 507
Delta R.T. -0.000 min
Lab File: 0409_29.D
Acq: 10 Apr 2019 12:06 am

Tgt Ion: 57 Resp: 83029

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 57 | 100 | | |
| 41 | 98.8 | 58.9 | 88.3# |
| 86 | 11.9 | 16.4 | 24.6# |

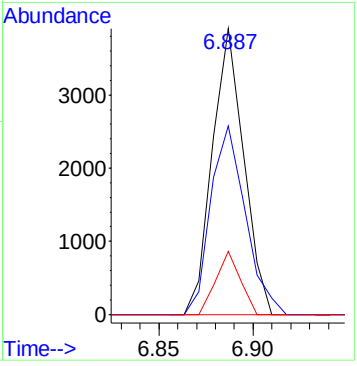


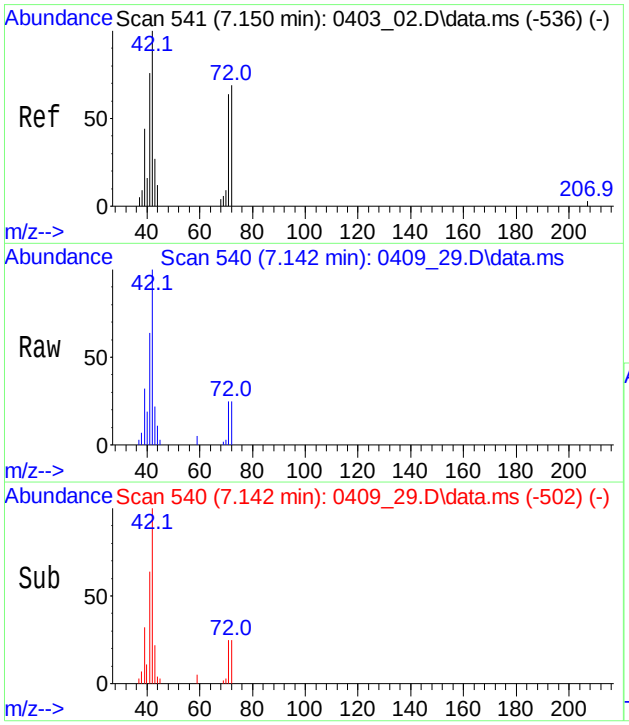




#29
Ethyl acetate
Conc: 8$ 1.316 ppbv
RT: 6.887 min Scan# 507
Delta R.T. -0.007 min
Lab File: 0409_29.D
Acq: 10 Apr 2019 12:06 am

Tgt Ion: 61 Resp: 4577

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 70 | 72.6 | 73.8 | 110.8# |
| 88 | 17.0 | 28.8 | 43.2# |

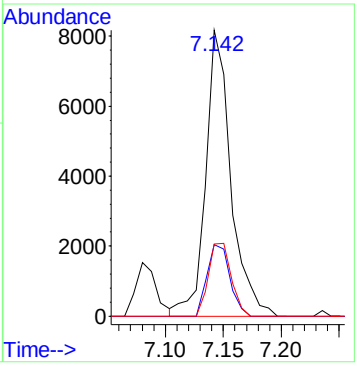


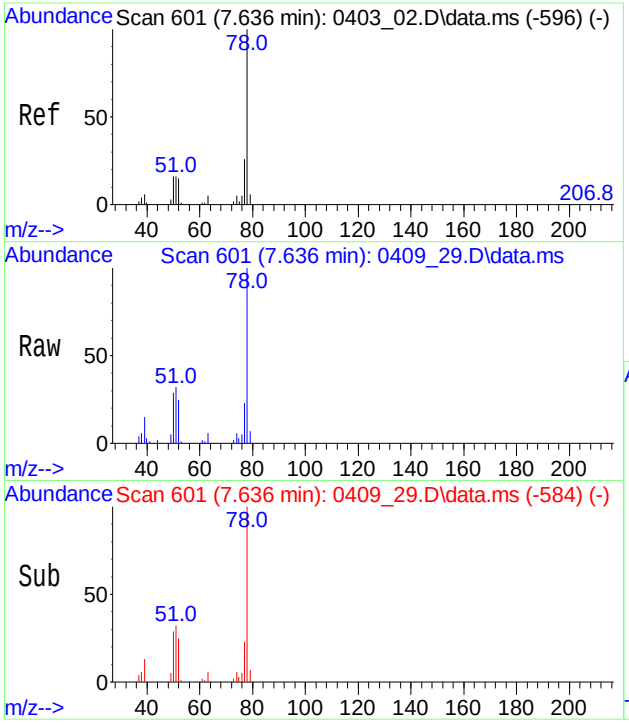



#30
Tetrahydrofuran
Conc: 8$ 0.926 ppbv
RT: 7.142 min Scan# 540
Delta R.T. -0.008 min
Lab File: 0409_29.D
Acq: 10 Apr 2019 12:06 am

Tgt Ion: 42 Resp: 12135

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 42 | 100 | | |
| 71 | 22.5 | 45.8 | 68.6# |
| 72 | 22.9 | 46.5 | 69.7# |

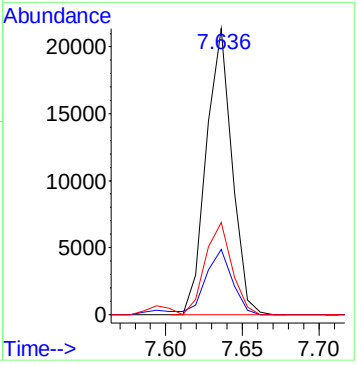


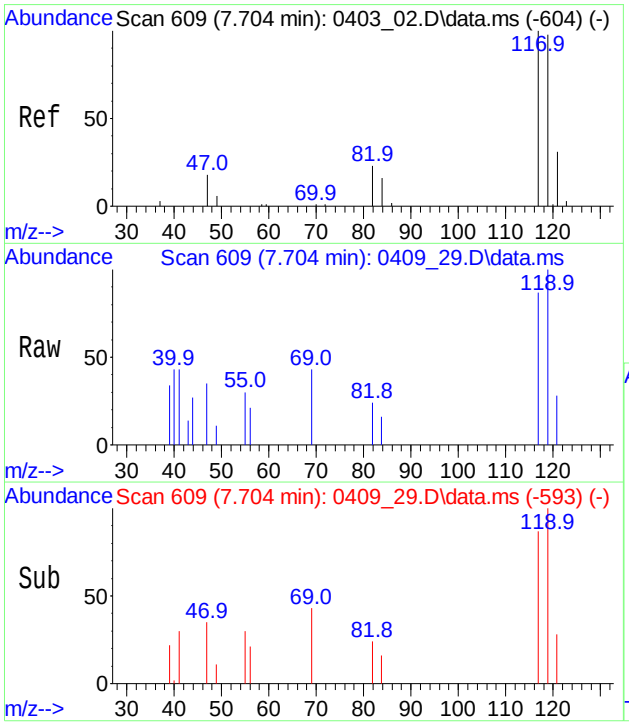




#33
Benzene
Conc: 8$ 1.025 ppbv
RT: 7.636 min Scan# 601
Delta R.T. 0.000 min
Lab File: 0409_29.D
Acq: 10 Apr 2019 12:06 am

Tgt Ion: 78 Resp: 24886

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 28.6 | 18.6 | 27.8# |
| 51 | 33.5 | 12.9 | 19.3# |

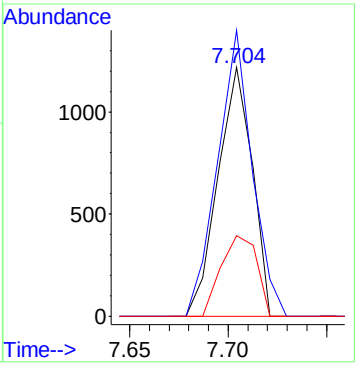


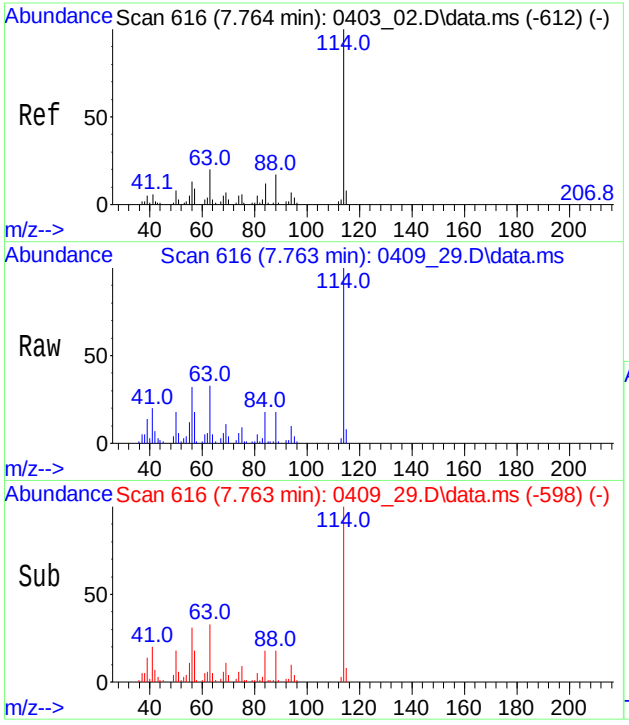



#34
Carbon Tetrachloride
Conc: 8$  Below Cal
RT:  7.704 min  Scan# 609
Delta R.T.  0.000 min
Lab File:  0409_29.D
Acq: 10 Apr 2019  12:06 am

Tgt Ion:117 Resp:  1465

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 116.7 | 75.8 | 115.8# |
| 121 | 33.9 | 10.7 | 50.7 |

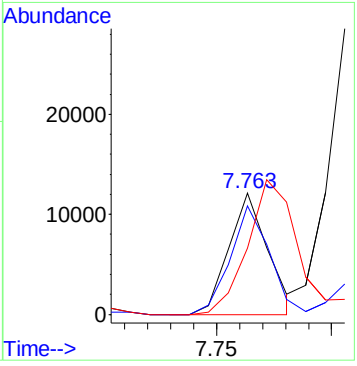


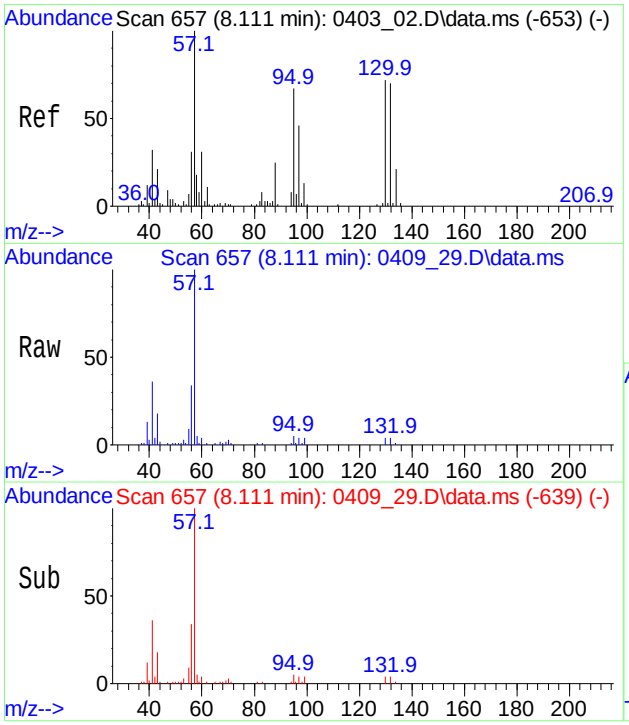




#35
Cyclohexane
Conc: 8$  1.470 ppbv
RT:  7.763 min  Scan# 616
Delta R.T.  0.000 min
Lab File:  0409_29.D
Acq: 10 Apr 2019  12:06 am

Tgt Ion: 41 Resp:  14347

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 84 | 90.4 | 158.4 | 237.6# |
| 69 | 146.7 | 69.1 | 103.7# |

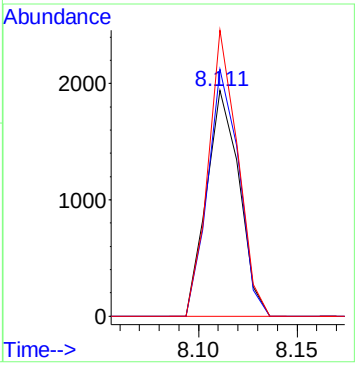


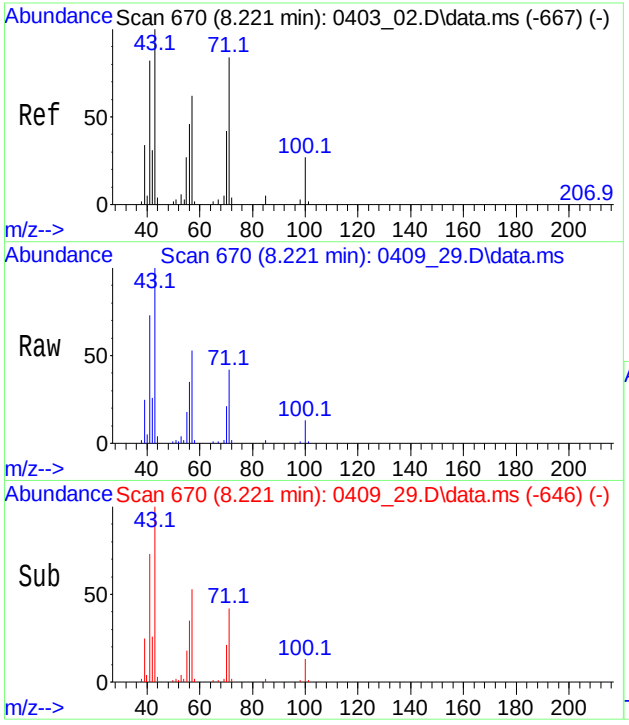



#39
Trichloroethene
Conc: 8$ 0.162 ppbv
RT: 8.111 min Scan# 657
Delta R.T. -0.000 min
Lab File: 0409_29.D
Acq: 10 Apr 2019 12:06 am

Tgt Ion:130 Resp: 2214

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 104.4 | 78.0 | 117.0 |
| 95 | 114.8 | 73.0 | 109.4# |

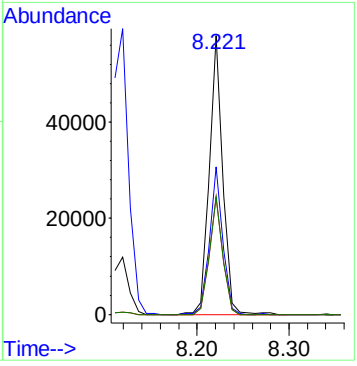


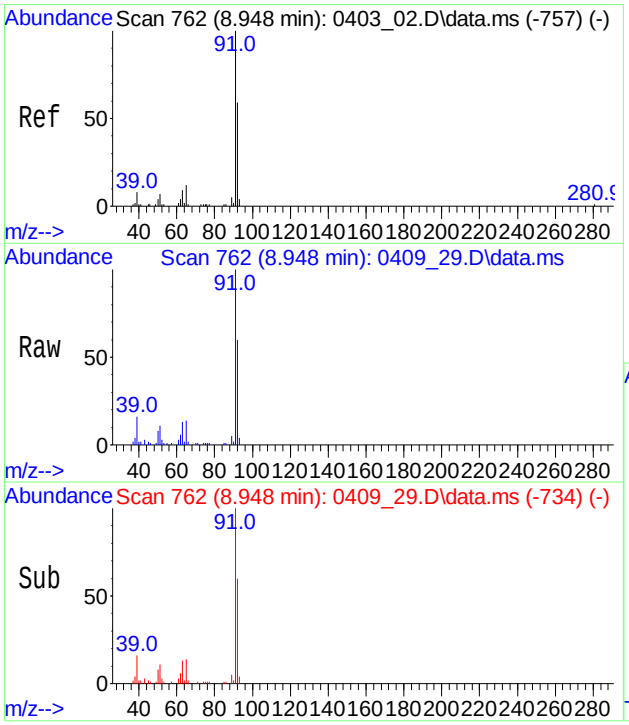




#43
Heptane
Conc: 8$ 3.203 ppbv
RT: 8.221 min Scan# 670
Delta R.T. -0.000 min
Lab File: 0409_29.D
Acq: 10 Apr 2019 12:06 am

Tgt Ion: 43 Resp: 58928

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 57 | 52.0 | 49.7 | 74.5 |
| 71 | 41.8 | 62.2 | 93.2# |
| 71 | 41.8 | 62.2 | 93.2# |

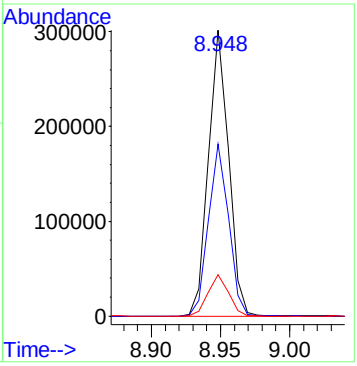


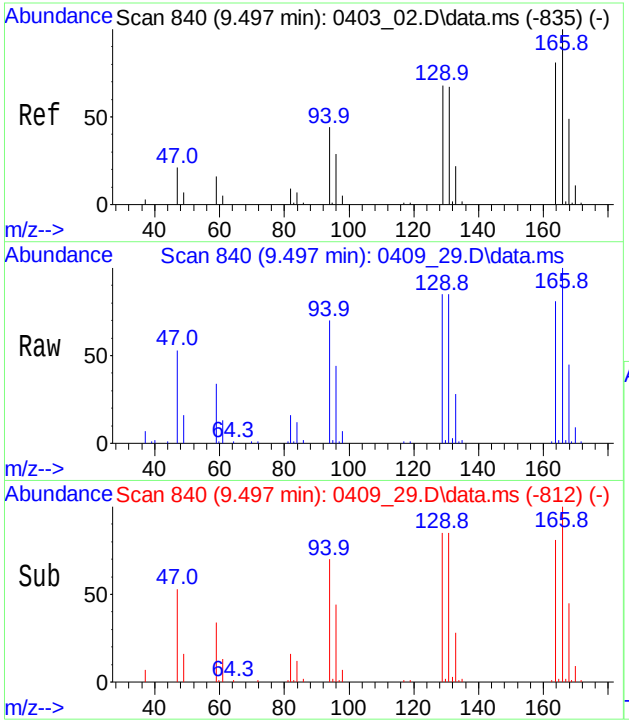



#48
Toluene
Conc: 8$  10.180 ppbv
RT:  8.948 min  Scan# 762
Delta R.T.  -0.000 min
Lab File:  0409_29.D
Acq: 10 Apr 2019  12:06 am

Tgt Ion: 91 Resp:  304484

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 60.1 | 47.7 | 71.5 |
| 65 | 14.7 | 9.3 | 13.9# |

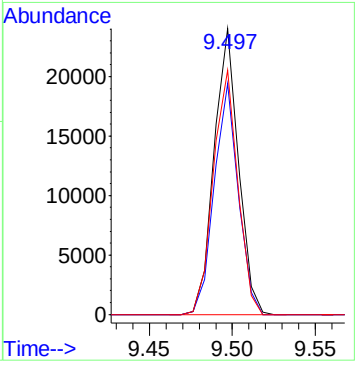


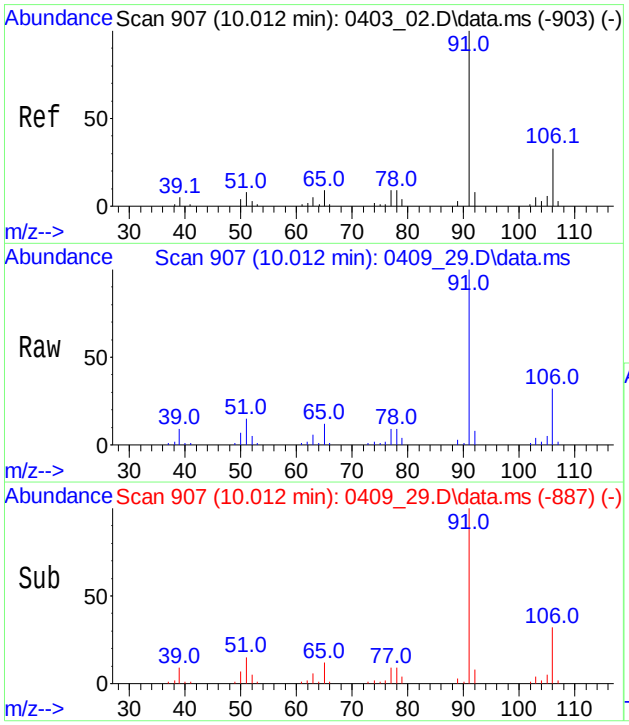




#52
Tetrachloroethene
Conc: 8$  1.693 ppbv
RT:  9.497 min  Scan# 840
Delta R.T.  -0.000 min
Lab File:  0409_29.D
Acq: 10 Apr 2019  12:06 am

Tgt Ion:166 Resp:  24525

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 79.2 | 62.2 | 93.2 |
| 129 | 86.0 | 54.9 | 82.3# |

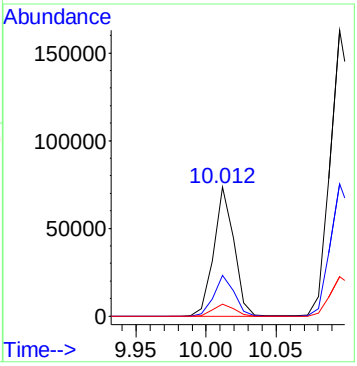


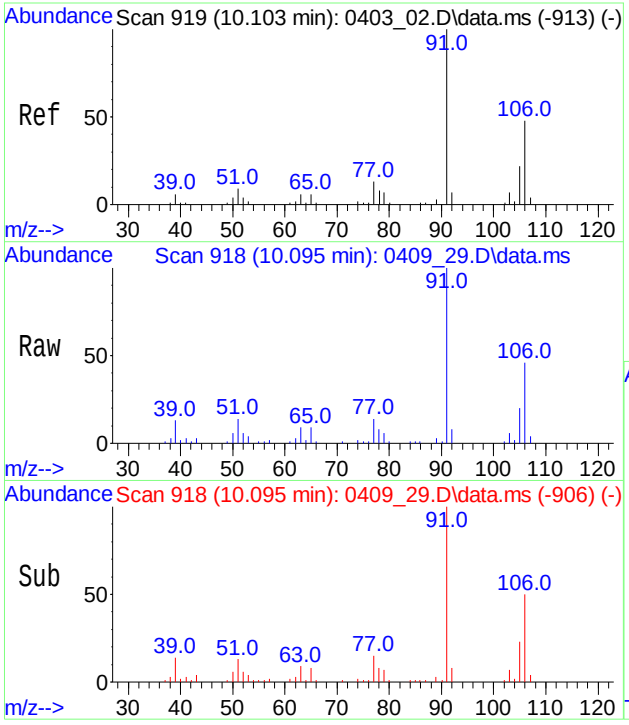



#56
Ethylbenzene
Conc: 8$ 1.670 ppbv
RT: 10.012 min Scan# 907
Delta R.T. -0.000 min
Lab File: 0409_29.D
Acq: 10 Apr 2019 12:06 am

Tgt Ion: 91 Resp: 73791

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 31.9 | 12.6 | 52.6 |
| 77 | 9.6 | 0.0 | 29.1 |

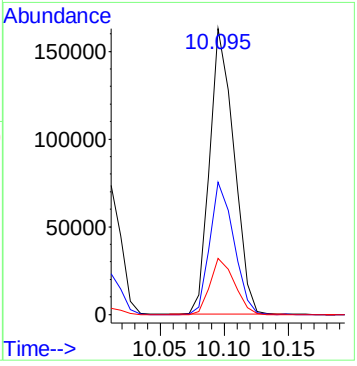


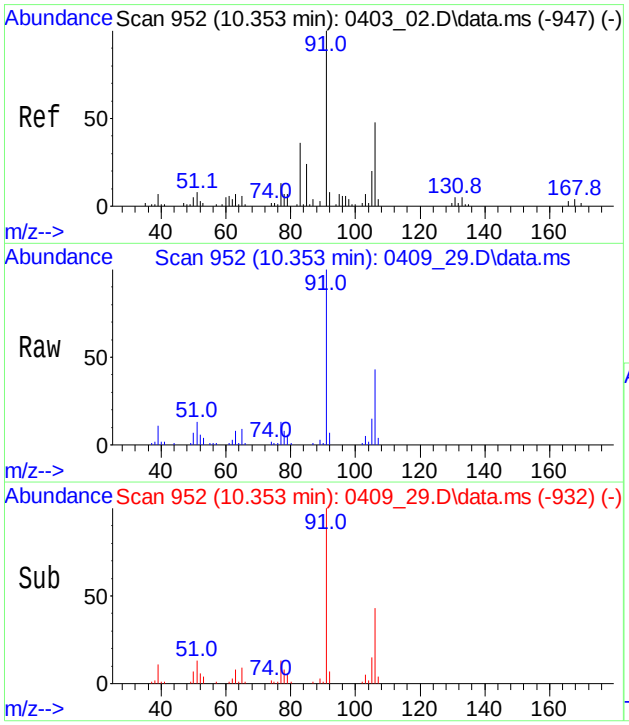




#57
m,p-Xylene
Conc: 8$ 6.327 ppbv
RT: 10.095 min Scan# 918
Delta R.T. -0.008 min
Lab File: 0409_29.D
Acq: 10 Apr 2019 12:06 am

Tgt Ion: 91 Resp: 213362

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 45.9 | 40.9 | 61.3 |
| 105 | 19.6 | 17.8 | 26.8 |

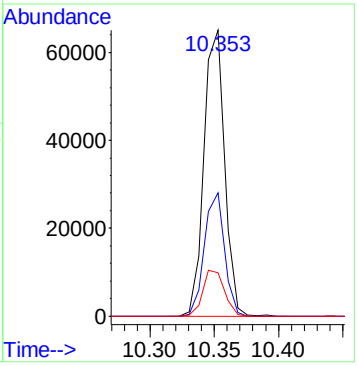


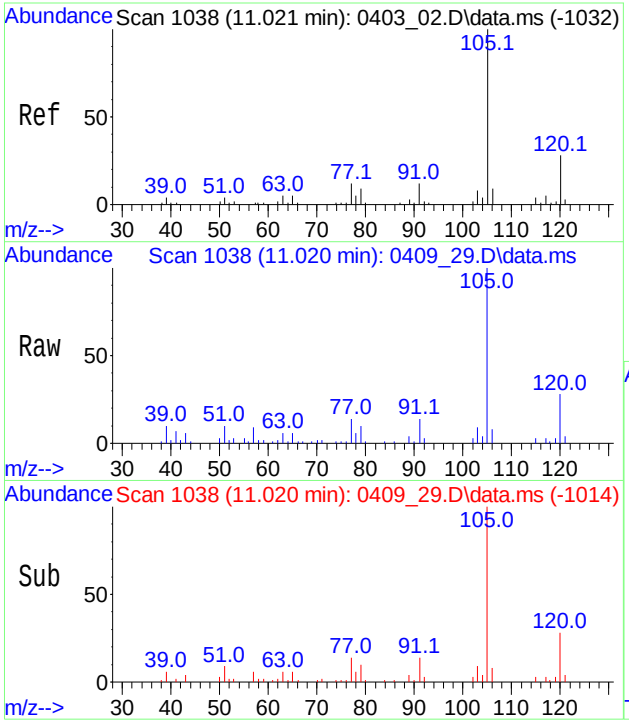



#61
o-Xylene
Conc: 8$ 2.061 ppbv
RT: 10.353 min Scan# 952
Delta R.T. -0.000 min
Lab File: 0409_29.D
Acq: 10 Apr 2019 12:06 am

Tgt Ion: 91 Resp: 72710

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 41.9 | 38.3 | 57.5 |
| 105 | 16.8 | 15.2 | 22.8 |

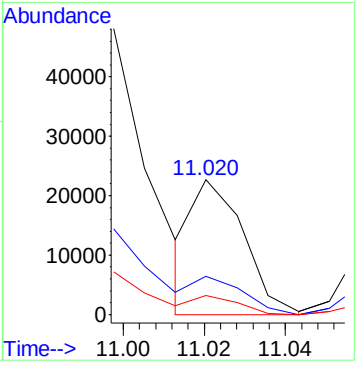


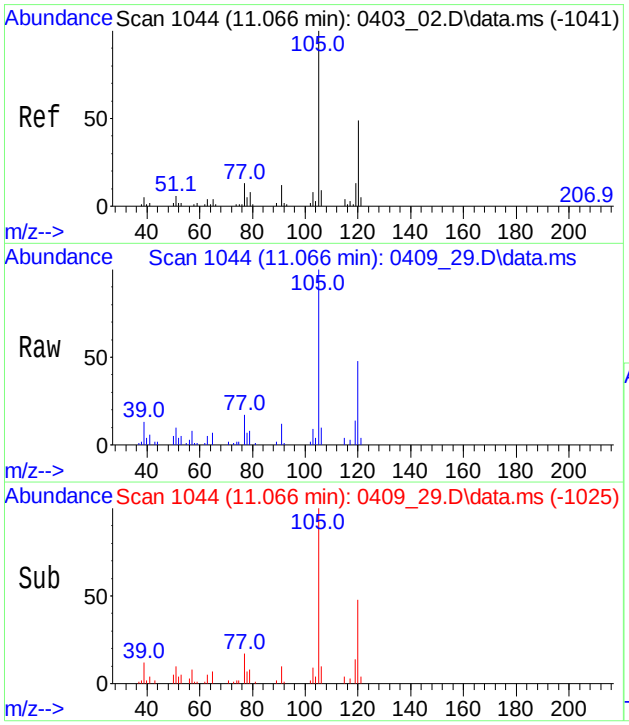




#66
4-Ethyltoluene
Conc: 8$ 0.419 ppbv
RT: 11.020 min Scan# 1038
Delta R.T. -0.000 min
Lab File: 0409_29.D
Acq: 10 Apr 2019 12:06 am

Tgt Ion:105 Resp: 19580

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 107.4 | 25.0 | 37.4# |
| 77 | 52.0 | 9.4 | 14.0# |

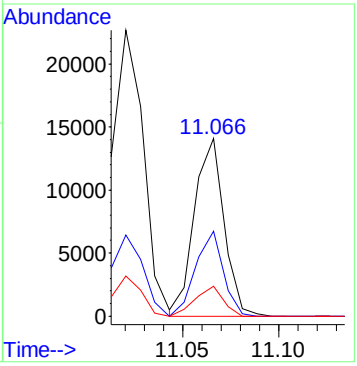


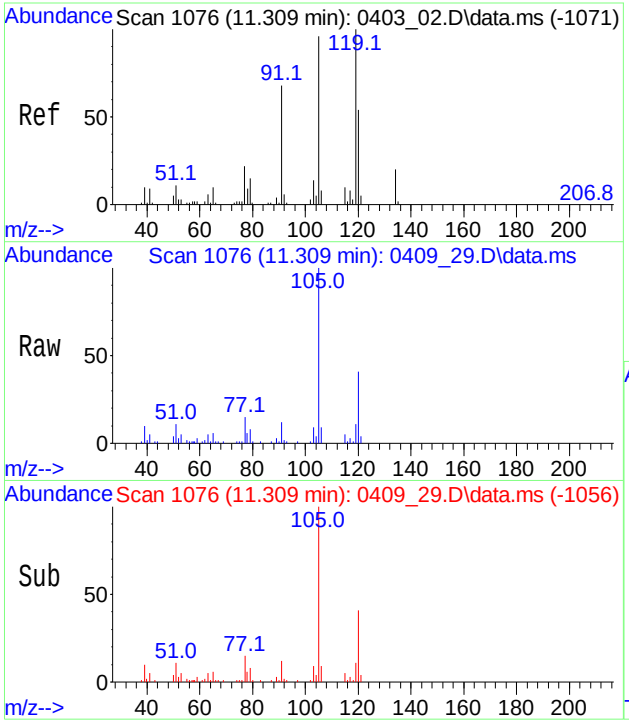



#67
1,3,5-Trimethylbenzene
Conc: 8$ 0.375 ppbv
RT: 11.066 min Scan# 1044
Delta R.T. -0.000 min
Lab File: 0409_29.D
Acq: 10 Apr 2019 12:06 am

Tgt Ion:105 Resp: 15068

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 44.6 | 39.7 | 59.5 |
| 77 | 16.0 | 10.2 | 15.4# |

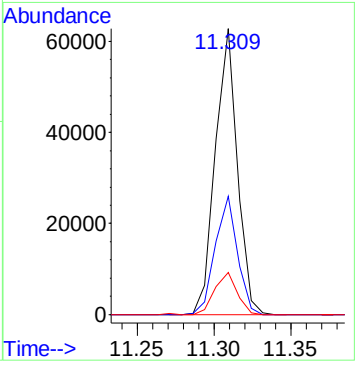


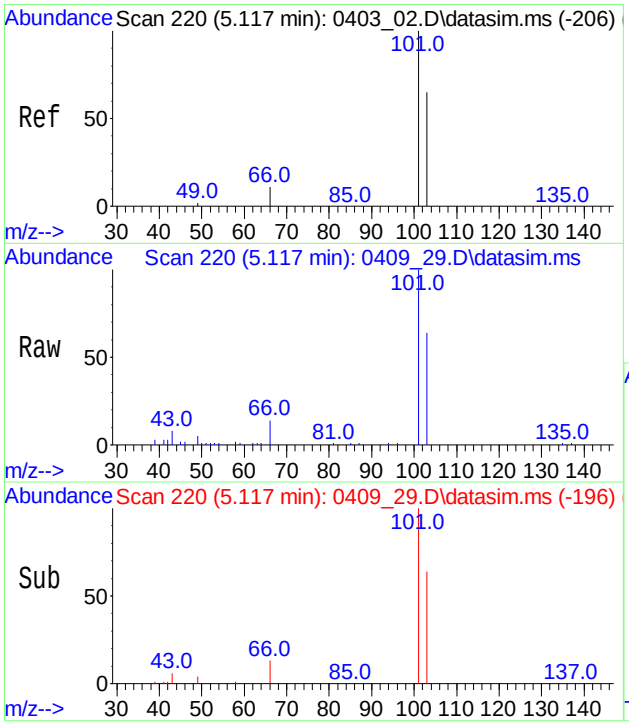




#68
1,2,4-Trimethylbenzene
Conc: 8$ 1.581 ppbv
RT: 11.309 min Scan# 1076
Delta R.T. -0.000 min
Lab File: 0409_29.D
Acq: 10 Apr 2019 12:06 am

Tgt Ion:105 Resp: 62241

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 41.6 | 44.5 | 66.7# |
| 77 | 15.1 | 19.7 | 29.5# |

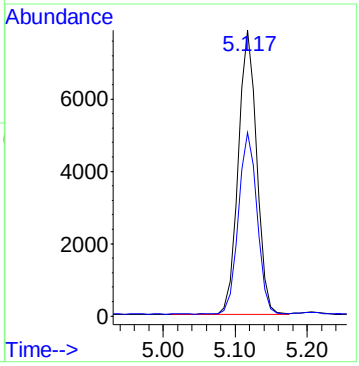


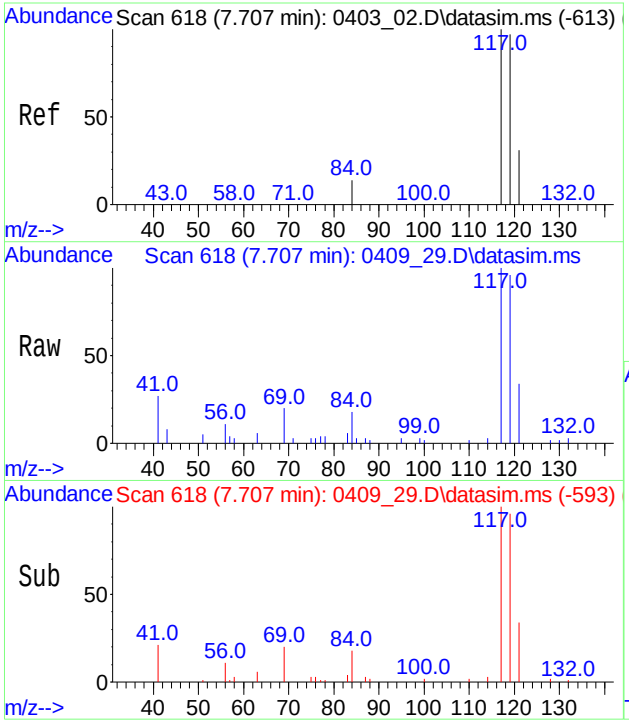



#84
Trichlorofluoromethane(sim)
Conc: 8$  0.274 ppbv
RT:  5.117 min  Scan# 220
Delta R.T.  -0.008 min
Lab File:  0409_29.D
Acq: 10 Apr 2019  12:06 am

Tgt Ion:101 Resp:  14080

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 64.7 | 51.9 | 77.9 |

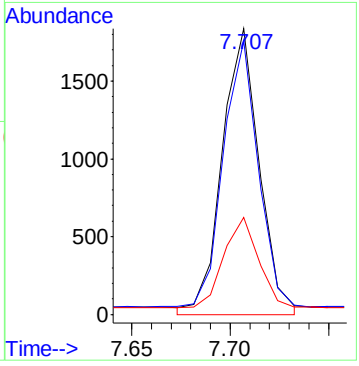


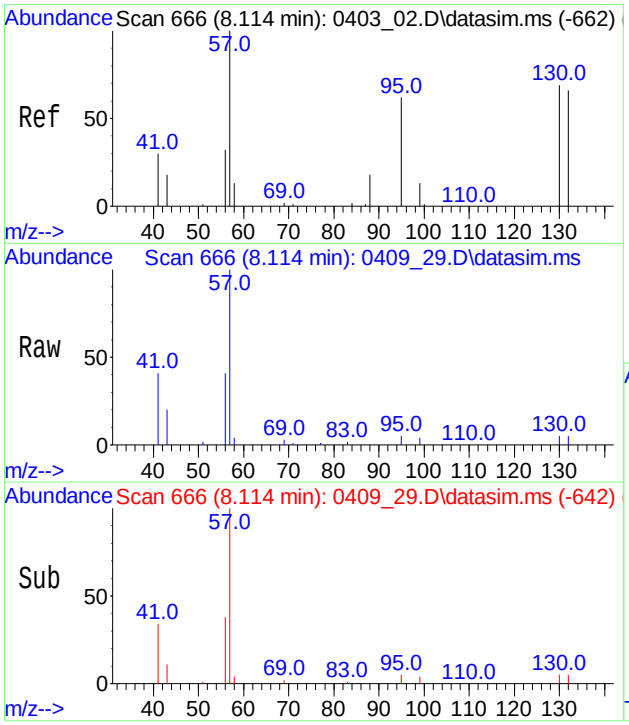




#87
Carbon Tetrachloride(sim)
Conc: 8$  0.073 ppbv
RT:  7.704 min  Scan# 618
Delta R.T.  -0.000 min
Lab File:  0409_29.D
Acq: 10 Apr 2019  12:06 am

Tgt Ion:117 Resp:  1465

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 116.7 | 76.6 | 115.0# |
| 121 | 33.9 | 24.6 | 36.8 |

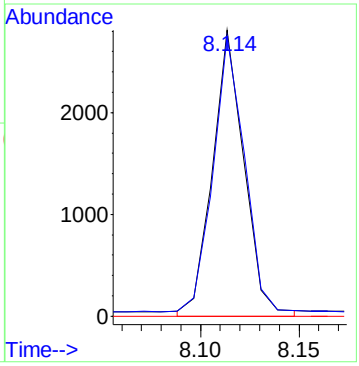


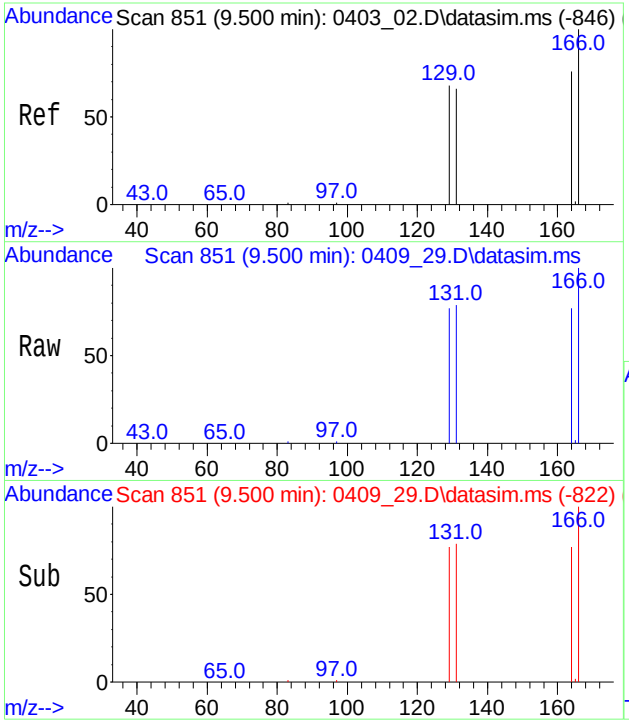



#97
Trichloroethene(sim)
Conc: 8$  0.145 ppbv
RT:  8.111 min  Scan# 666
Delta R.T.  -0.000 min
Lab File:  0409_29.D
Acq: 10 Apr 2019  12:06 am

Tgt Ion:130 Resp:  2214

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 104.4 | 78.0 | 117.0 |
| 97 | 91.1 | 47.2 | 70.8# |

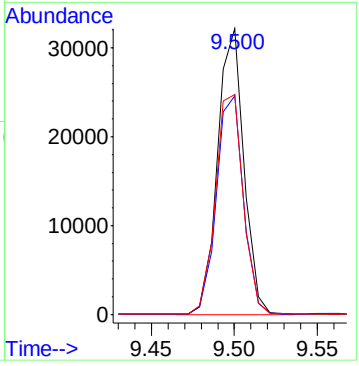


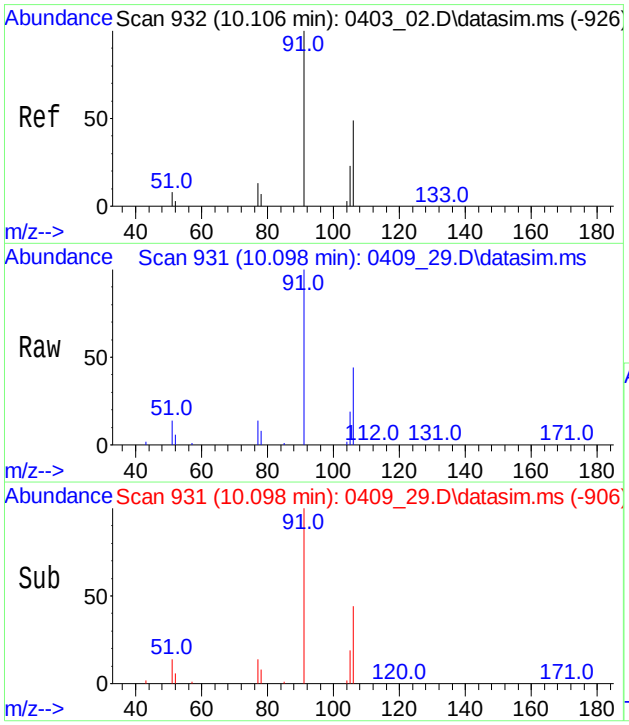




#103
Tetrachloroethene(sim)
Conc: 8$  1.475 ppbv
RT:  9.497 min  Scan# 851
Delta R.T.  -0.000 min
Lab File:  0409_29.D
Acq: 10 Apr 2019  12:06 am

Tgt Ion:166 Resp:  24525

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 79.2 | 57.7 | 97.7 |
| 129 | 86.0 | 48.6 | 88.6 |

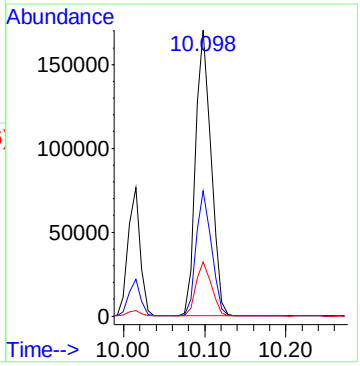





#106
m,p-Xylene(sim)
Conc: 8$ 5.833 ppbv
RT: 10.098 min Scan# 931
Delta R.T. -0.008 min
Lab File: 0409_29.D
Acq: 10 Apr 2019 12:06 am

Tgt Ion: 91 Resp: 225848

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 43.4 | 44.3 | 54.1# |
| 105 | 18.9 | 17.7 | 26.5 |



AIR ANALYSIS DATA SHEET

CLIENT ID: IA-DUP

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90522

Canister: 156 Lab File ID: 0409_30.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/10/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 115-07-1 | Propylene | 0.581 | U | 0.581 | 0.581 | r |
| 75-71-8 | Dichlorodifluoromethane | 0.475 | | 0.202 | 0.202 | r |
| 74-87-3 | Chloromethane | 0.580 | | 0.485 | 0.485 | r |
| 106-99-0 | 1,3-Butadiene | 0.452 | U | 0.452 | 0.452 | r |
| 75-00-3 | Chloroethane | 0.379 | U | 0.379 | 0.379 | r |
| 64-17-5 | Ethanol | 17.9 | S | 0.531 | 0.531 | r |
| 67-64-1 | Acetone | 8.49 | S | 0.421 | 0.421 | r |
| 75-69-4 | Trichlorofluoromethane | 0.264 | | 0.178 | 0.178 | r |
| 67-63-0 | Isopropylalcohol | 0.750 | S | 0.407 | 0.407 | r |
| 107-13-1 | Acrylonitrile | 0.461 | U | 0.461 | 0.461 | r |
| 75-09-2 | Methylene Chloride | 0.864 | U | 0.864 | 0.864 | r |
| 75-15-0 | Carbon Disulfide | 0.321 | U | 0.321 | 0.321 | r |
| 1634-04-4 | Methyl tert-butyl ether(MTBE) | 0.278 | U | 0.278 | 0.278 | r |
| 78-93-3 | Methyl Ethyl Ketone | 0.861 | | 0.339 | 0.339 | r |
| 110-54-3 | Hexane | 2.35 | S | 0.284 | 0.284 | r |
| 141-78-6 | Ethyl acetate | 0.278 | U | 0.278 | 0.278 | r |
| 109-99-9 | Tetrahydrofuran | 1.95 | | 0.339 | 0.339 | r |
| 71-43-2 | Benzene | 0.516 | | 0.313 | 0.313 | r |
| 110-82-7 | Cyclohexane | 0.902 | | 0.291 | 0.291 | r |
| 142-82-5 | Heptane | 1.05 | | 0.244 | 0.244 | r |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | 0.244 | U | 0.244 | 0.244 | r |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.221 | U | 0.221 | 0.221 | r |
| 108-88-3 | Toluene | 2.89 | | 0.266 | 0.266 | r |
| 591-78-6 | 2-Hexanone(MBK) | 0.244 | U | 0.244 | 0.244 | r |
| 127-18-4 | Tetrachloroethene | 1.34 | | 0.037 | 0.037 | r |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.146 | U | 0.146 | 0.146 | r |
| 108-90-7 | Chlorobenzene | 0.217 | U | 0.217 | 0.217 | r |
| 100-41-4 | Ethylbenzene | 0.581 | | 0.230 | 0.230 | r |
| 179601-23-1 | m,p-Xylene | 2.35 | | 0.230 | 0.230 | r |
| 100-42-5 | Styrene | 0.235 | U | 0.235 | 0.235 | r |
| 95-47-6 | o-Xylene | 0.977 | | 0.230 | 0.230 | r |
| 98-82-8 | Isopropylbenzene | 0.238 | | 0.204 | 0.204 | r |
| 622-96-8 | 4-Ethyltoluene | 1.29 | | 0.204 | 0.204 | r |
| 108-67-8 | 1,3,5-Trimethylbenzene | 1.01 | | 0.204 | 0.204 | r |
| 95-63-6 | 1,2,4-Trimethylbenzene | 3.44 | | 0.204 | 0.204 | r |
| 76-14-2 | 1,2-Dichlorotetrafluoroethane(sim) | 0.143 | U | 0.143 | 0.143 | r |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

1

AIR ANALYSIS DATA SHEET

CLIENT ID: IA-DUP

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90522

Canister: 156 Lab File ID: 0409_30.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/10/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 75-01-4 | Vinyl Chloride(sim) | 0.078 | U | 0.078 | 0.078 | r |
| 74-83-9 | Bromomethane(sim) | 0.258 | U | 0.258 | 0.258 | r |
| 107-06-2 | 1,2-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 71-55-6 | 1,1,1-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 56-23-5 | Carbon Tetrachloride(sim) | 0.074 | | 0.032 | 0.032 | r |
| 75-35-4 | 1,1-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 76-13-1 | Trichlorotrifluoroethane(sim) | 0.131 | U | 0.131 | 0.131 | r |
| 156-60-5 | Trans-1,2-Dichloroethene(sim) | 0.252 | U | 0.252 | 0.252 | r |
| 75-34-3 | 1,1-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 156-59-2 | Cis-1,2-Dichloroethene(sim) | 0.058 | | 0.051 | 0.051 | r |
| 67-66-3 | Chloroform(sim) | 0.205 | U | 0.205 | 0.205 | r |
| 78-87-5 | 1,2-dichloropropane(sim) | 0.217 | U | 0.217 | 0.217 | r |
| 75-27-4 | Bromodichloromethane(sim) | 0.149 | U | 0.149 | 0.149 | r |
| 79-01-6 | Trichloroethene(sim) | 0.047 | | 0.037 | 0.037 | r |
| 123-91-1 | 1,4-Dioxane(sim) | 0.278 | U | 0.278 | 0.278 | r |
| 10061-01-5 | cis-1,3-Dichloropropene(sim) | 0.221 | U | 0.221 | 0.221 | r |
| 79-00-5 | 1,1,2-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 124-48-1 | Dibromochloromethane(sim) | 0.118 | U | 0.118 | 0.118 | r |
| 106-93-4 | 1,2-Dibromoethane(EDB)(sim) | 0.130 | U | 0.130 | 0.130 | r |
| 75-25-2 | Bromoform(sim) | 0.097 | U | 0.097 | 0.097 | r |
| 79-34-5 | 1,1,2,2-Tetrachloroethane(sim) | 0.146 | U | 0.146 | 0.146 | r |
| 100-44-7 | Benzyl chloride(sim) | 0.193 | U | 0.193 | 0.193 | r |
| 541-73-1 | 1,3-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 106-46-7 | 1,4-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 135-98-8 | sec-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 99-87-6 | 4-Isopropyltoluene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 95-50-1 | 1,2-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 104-51-8 | n-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 120-82-1 | 1,2,4-Trichlorobenzene(sim) | 0.135 | U | 0.135 | 0.135 | r |
| 87-68-3 | Hexachlorobutadiene(sim) | 0.094 | U | 0.094 | 0.094 | r |
| | | | | | | |
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FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_30.D
Acq On : 10 Apr 2019 12:47 am
Operator : CORTEX\ms
Client ID : IA-DUP
Lab ID : CC90522
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 10:28:03 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration

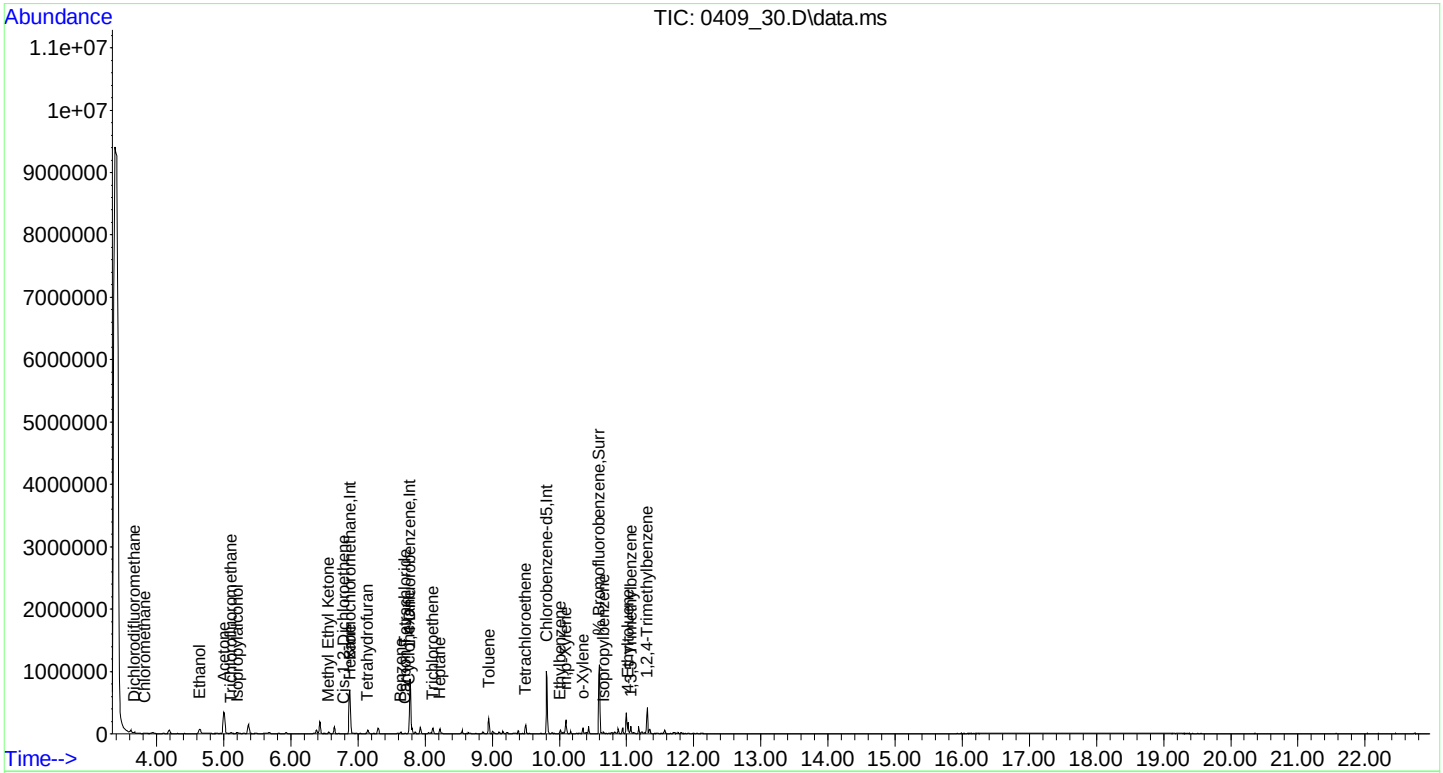
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.879 | 130 | 115319 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.772 | 114 | 377508 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.807 | 82 | 189140 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.874 | 130 | 160015 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 436620 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 190281 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 247197 | 9.969 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 99.70% | | | |
| Target Compounds | | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 3.670 | 85 | 14037 | 0.475 | ppbv | # | 94 |
| 4) Chloromethane | 3.825 | 50 | 7161 | 0.580 | ppbv | | 100 |
| 11) Ethanol | 4.644 | 45 | 88638 | 17.863 | ppbv | | 96 |
| 12) Acetone | 5.001 | 43 | 218863 | 8.489 | ppbv | # | 70 |
| 13) Trichlorofluoromethane | 5.114 | 101 | 10212 | 0.264 | ppbv | | 99 |
| 14) Isopropylalcohol | 5.204 | 45 | 20384 | 0.750 | ppbv | # | 89 |
| 25) Methyl Ethyl Ketone | 6.562 | 43 | 27923 | 0.861 | ppbv | # | 75 |
| 26) Cis-1,2-Dichloroethene | 6.786 | 61 | 996 | 0.053 | ppbv | # | 78 |
| 27) Hexane | 6.887 | 57 | 43726 | 2.345 | ppbv | # | 74 |
| 30) Tetrahydrofuran | 7.142 | 42 | 26617 | 1.950 | ppbv | # | 57 |
| 33) Benzene | 7.636 | 78 | 13057 | 0.516 | ppbv | # | 85 |
| 34) Carbon Tetrachloride | 7.704 | 117 | 1552 | 0.071 | ppbv | | 94 |
| 35) Cyclohexane | 7.763 | 41 | 9171 | 0.902 | ppbv | # | 9 |
| 39) Trichloroethene | 8.111 | 130 | 740 | 0.052 | ppbv | | 83 |
| 43) Heptane | 8.221 | 43 | 19920 | 1.046 | ppbv | # | 69 |
| 48) Toluene | 8.948 | 91 | 89494 | 2.891 | ppbv | # | 98 |
| 52) Tetrachloroethene | 9.497 | 166 | 20124 | 1.342 | ppbv | # | 89 |
| 56) Ethylbenzene | 10.012 | 91 | 26020 | 0.581 | ppbv | | 94 |
| 57) m,p-Xylene | 10.095 | 91 | 80427 | 2.352 | ppbv | | 92 |
| 61) o-Xylene | 10.353 | 91 | 34963 | 0.977 | ppbv | | 92 |
| 64) Isopropylbenzene | 10.656 | 105 | 11195 | 0.238 | ppbv | | 96 |
| 66) 4-Ethyltoluene | 11.021 | 105 | 61216m | 1.292 | ppbv | | 96 |
| 67) 1,3,5-Trimethylbenzene | 11.066 | 105 | 41350 | 1.014 | ppbv | # | 93 |
| 68) 1,2,4-Trimethylbenzene | 11.309 | 105 | 137276 | 3.438 | ppbv | # | 80 |
| 84] Trichlorofluoromethane... | 5.117 | 101 | 12202 | 0.228 | ppbv | | 99 |
| 87] Carbon Tetrachloride(sim) | 7.704 | 117 | 1552 | 0.074 | ppbv | | 94 |
| 92] Cis-1,2-Dichloroethene... | 6.789 | 61 | 1392 | 0.058 | ppbv | # | 74 |
| 97] Trichloroethene(sim) | 8.111 | 130 | 740 | 0.047 | ppbv | # | 72 |
| 103] Tetrachloroethene(sim) | 9.497 | 166 | 20124 | 1.173 | ppbv | | 89 |
| 106] m,p-Xylene(sim) | 10.098 | 91 | 85707 | 2.331 | ppbv | # | 92 |

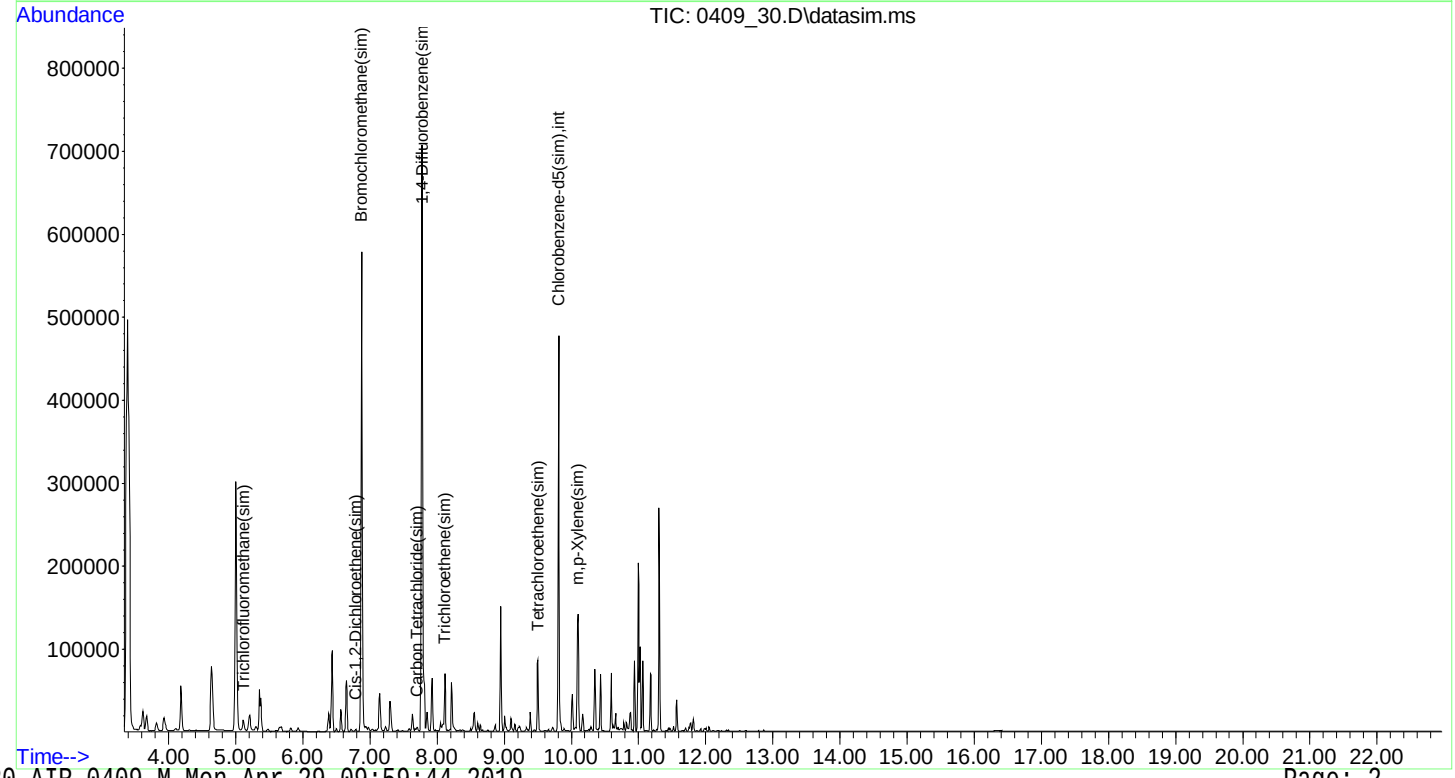
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

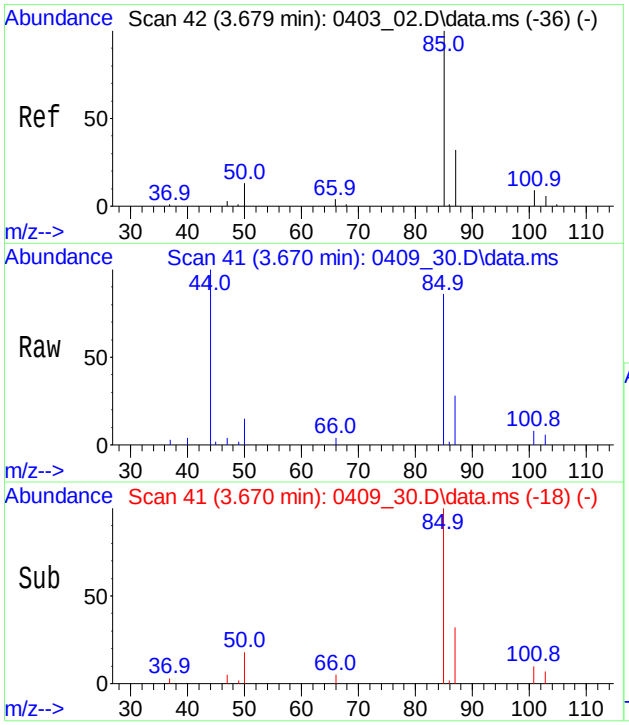
Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_30.D
Acq On : 10 Apr 2019 12:47 am
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Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration



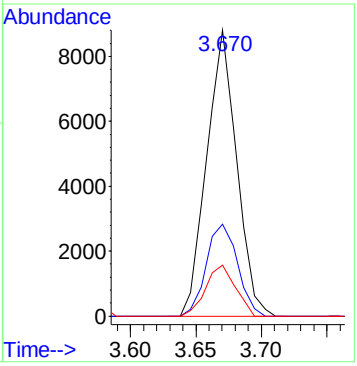



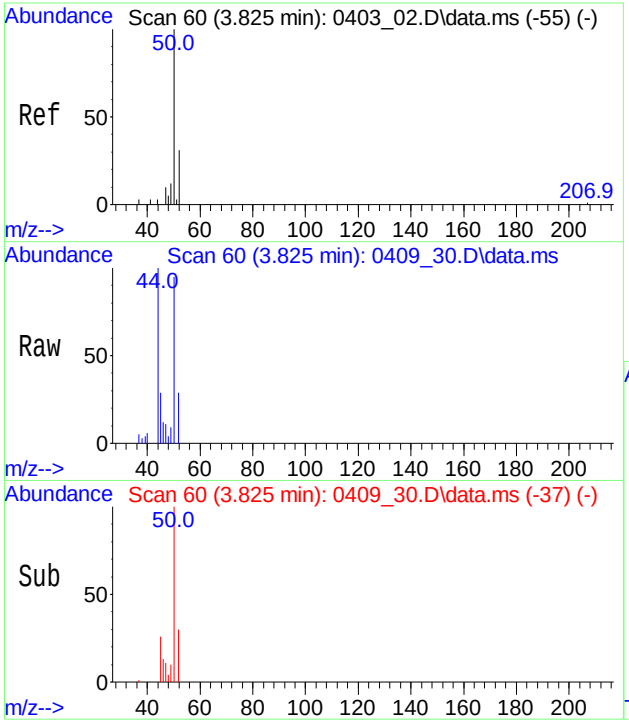



#3
Dichlorodifluoromethane
Conc: 8$ 0.475 ppbv
RT: 3.670 min Scan# 41
Delta R.T. -0.016 min
Lab File: 0409_30.D
Acq: 10 Apr 2019 12:47 am

Tgt Ion: 85 Resp: 14037

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 33.6 | 25.6 | 38.4 |
| 50 | 17.7 | 9.4 | 14.2# |

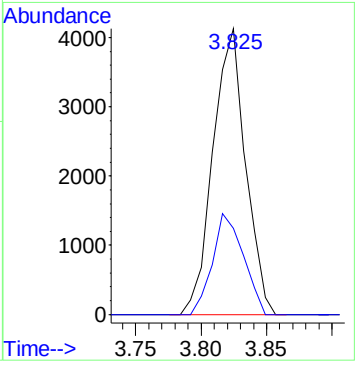


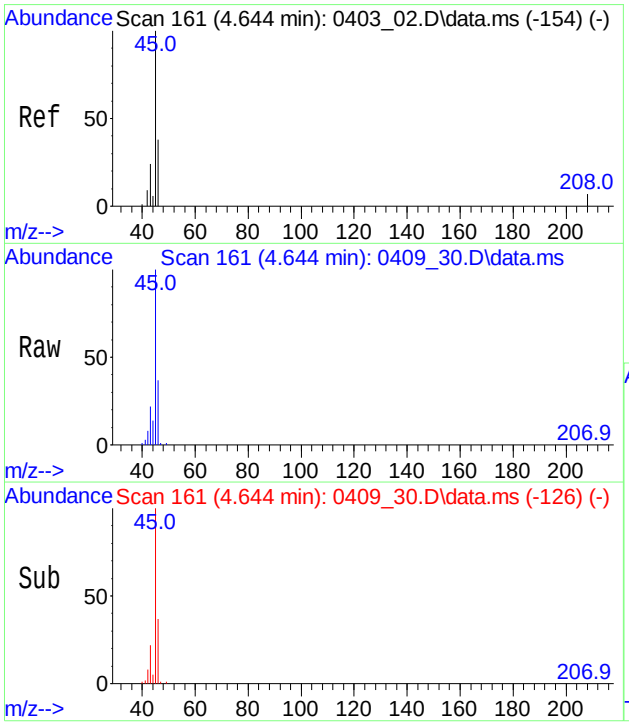




#4
Chloromethane
Conc: 8$ 0.580 ppbv
RT: 3.825 min Scan# 60
Delta R.T. -0.016 min
Lab File: 0409_30.D
Acq: 10 Apr 2019 12:47 am

Tgt Ion: 50 Resp: 7161

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 33.4 | 13.6 | 53.6 |

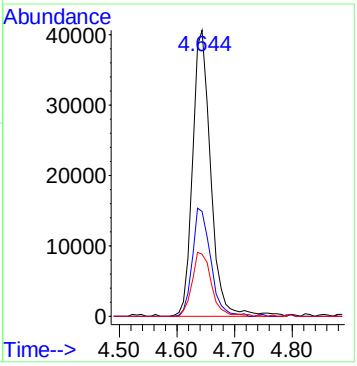


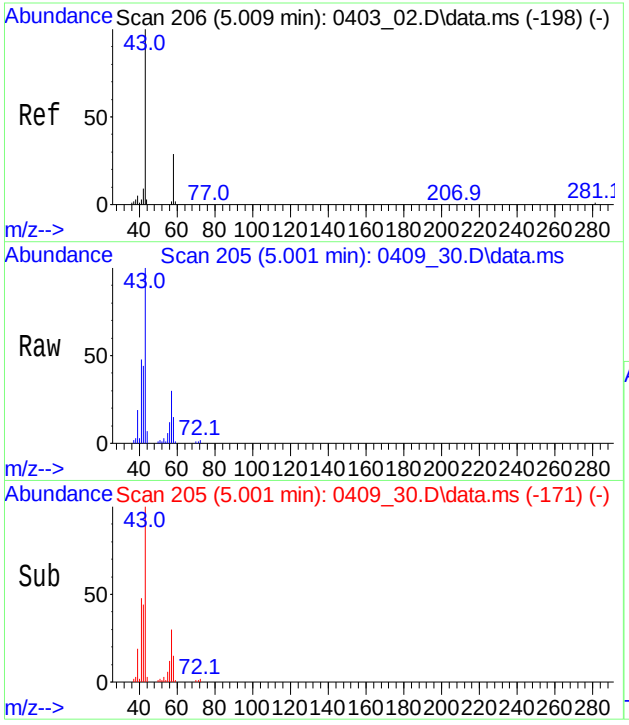



#11
Ethanol
Conc: 8$  17.863 ppbv
RT:  4.644 min  Scan# 161
Delta R.T.  -0.016 min
Lab File:  0409_30.D
Acq: 10 Apr 2019  12:47 am

Tgt Ion: 45 Resp:  88638

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 46 | 37.9 | 29.9 | 44.9 |
| 43 | 23.7 | 22.7 | 34.1 |

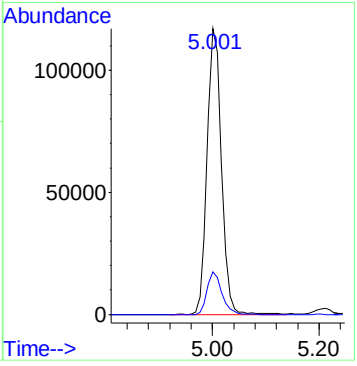


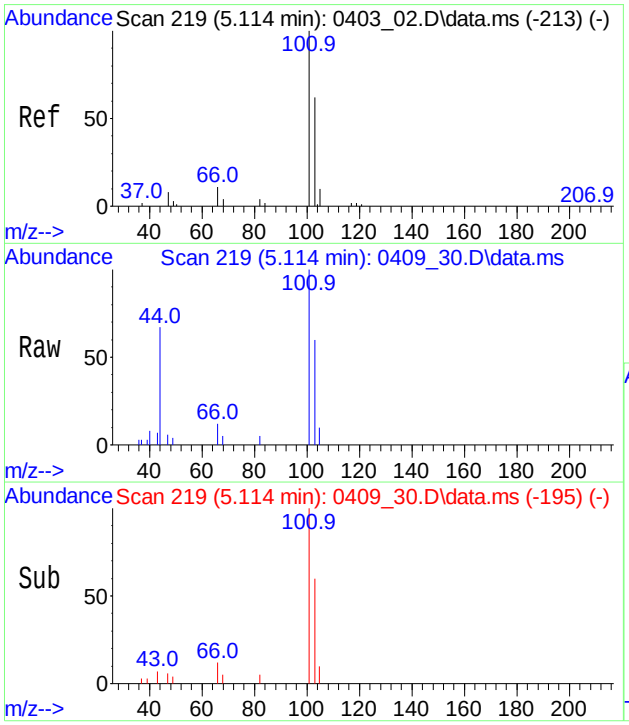




#12
Acetone
Conc: 8$  8.489 ppbv
RT:  5.001 min  Scan# 205
Delta R.T.  -0.024 min
Lab File:  0409_30.D
Acq: 10 Apr 2019  12:47 am

Tgt Ion: 43 Resp:  218863

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 15.5 | 25.9 | 38.9# |

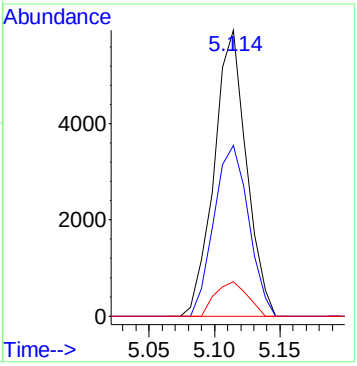


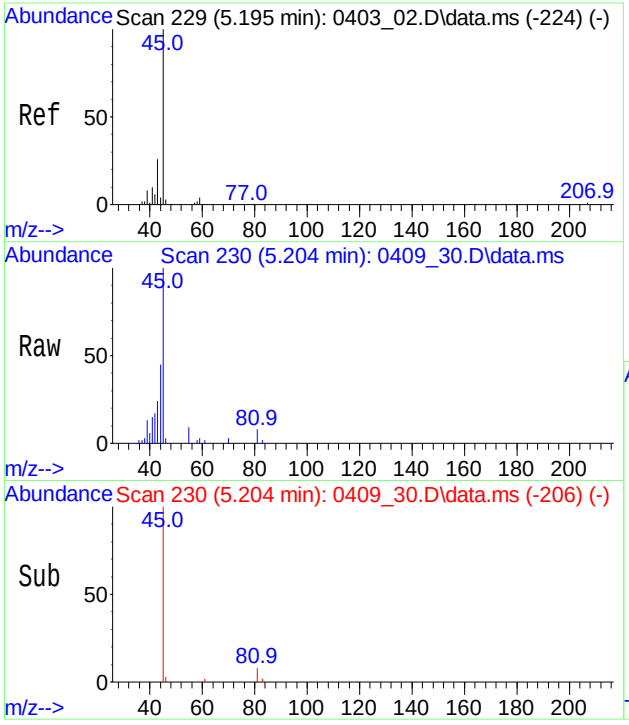



#13
Trichlorofluoromethane
Conc: 8$ 0.264 ppbv
RT: 5.114 min Scan# 219
Delta R.T. -0.008 min
Lab File: 0409_30.D
Acq: 10 Apr 2019 12:47 am

Tgt Ion:101 Resp: 10212

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 64.0 | 51.6 | 77.4 |
| 66 | 11.9 | 9.4 | 14.0 |

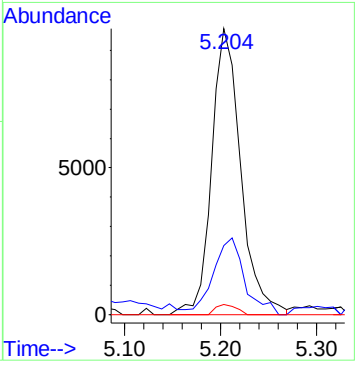


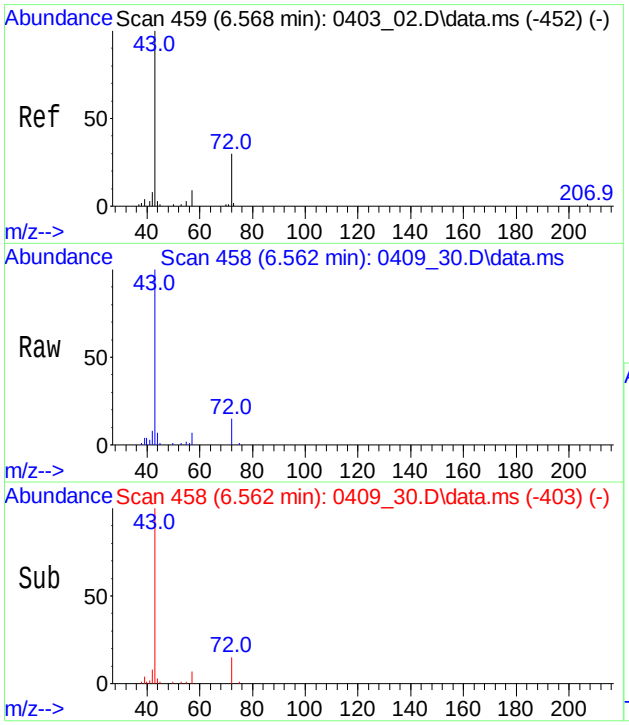




#14
Isopropylalcohol
Conc: 8$ 0.750 ppbv
RT: 5.204 min Scan# 230
Delta R.T. -0.008 min
Lab File: 0409_30.D
Acq: 10 Apr 2019 12:47 am

Tgt Ion: 45 Resp: 20384

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 43 | 28.8 | 18.6 | 27.8# |
| 59 | 2.5 | 3.7 | 5.5# |

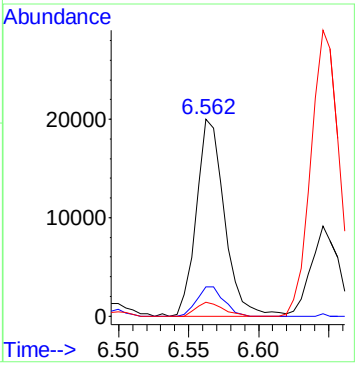


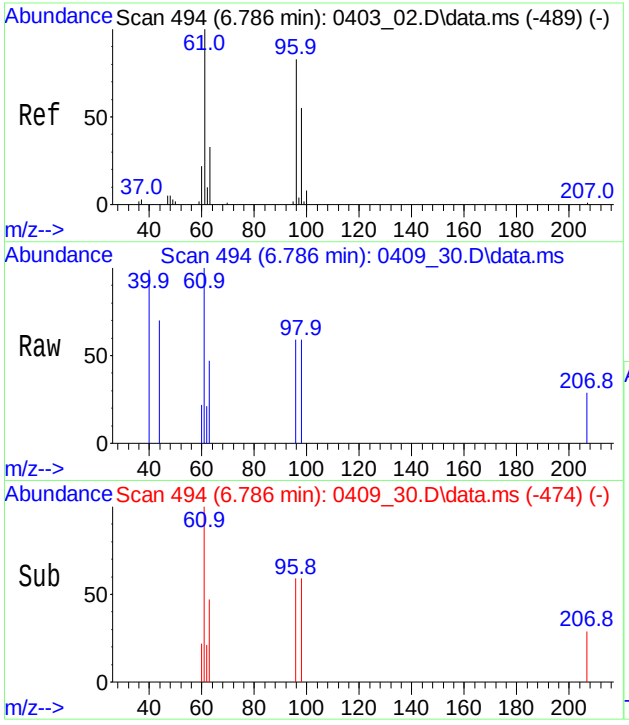



#25
Methyl Ethyl Ketone
Conc: 8$  0.861 ppbv
RT:  6.562 min  Scan# 458
Delta R.T.  -0.011 min
Lab File:  0409_30.D
Acq: 10 Apr 2019  12:47 am

Tgt Ion: 43 Resp:  27923

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 72 | 14.1 | 24.6 | 37.0# |
| 57 | 6.6 | 7.4 | 11.2# |

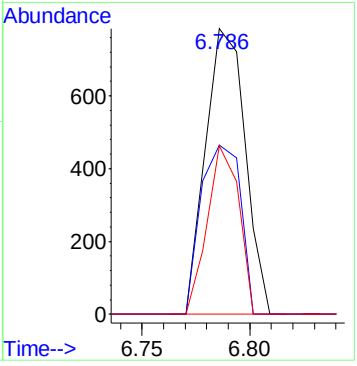


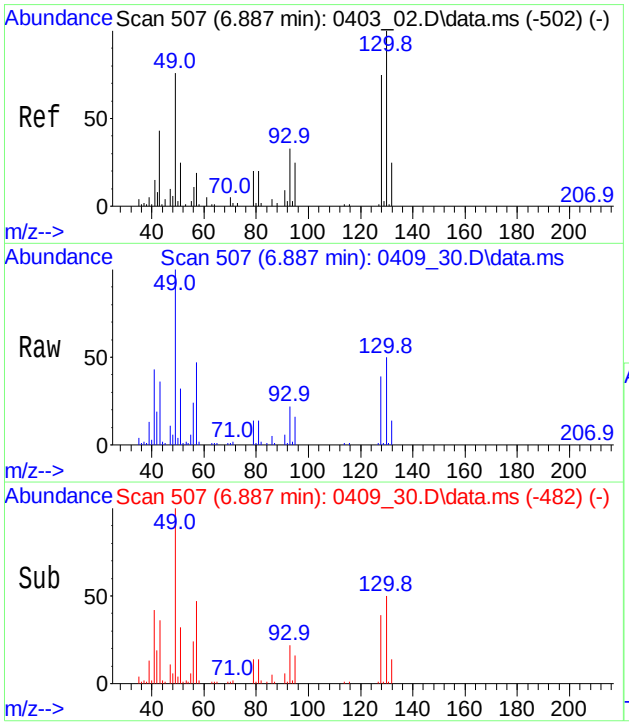




#26
Cis-1,2-Dichloroethene
Conc: 8$  Below Cal
RT:  6.786 min  Scan# 494
Delta R.T.  -0.008 min
Lab File:  0409_30.D
Acq: 10 Apr 2019  12:47 am

Tgt Ion: 61 Resp:  996

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 58.8 | 67.8 | 101.8# |
| 98 | 46.8 | 43.8 | 65.6 |

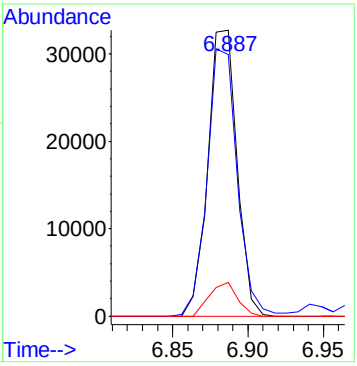


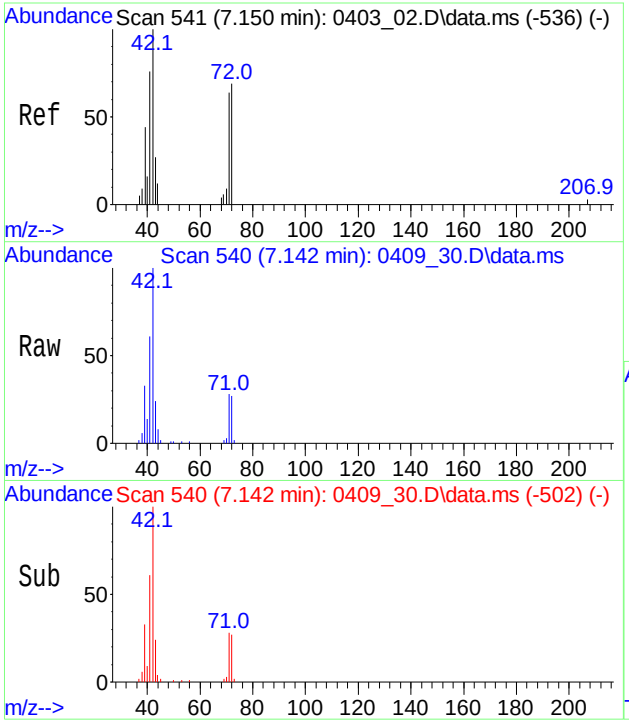



#27
Hexane
Conc: 8$ 2.345 ppbv
RT: 6.887 min Scan# 507
Delta R.T. -0.000 min
Lab File: 0409_30.D
Acq: 10 Apr 2019 12:47 am

Tgt Ion: 57 Resp: 43726

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 57 | 100 | | |
| 41 | 97.1 | 58.9 | 88.3# |
| 86 | 11.3 | 16.4 | 24.6# |

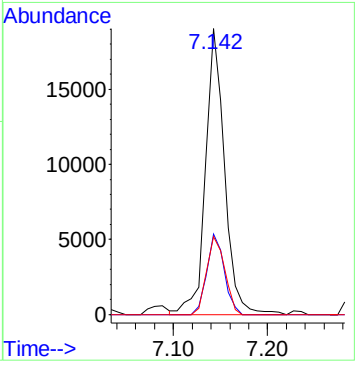


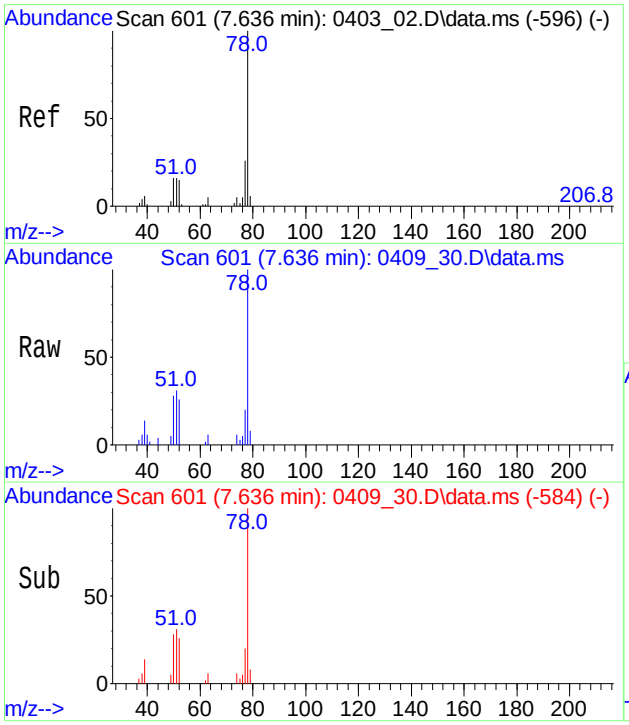




#30
Tetrahydrofuran
Conc: 8$ 1.950 ppbv
RT: 7.142 min Scan# 540
Delta R.T. -0.008 min
Lab File: 0409_30.D
Acq: 10 Apr 2019 12:47 am

Tgt Ion: 42 Resp: 26617

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 42 | 100 | | |
| 71 | 25.6 | 45.8 | 68.6# |
| 72 | 25.8 | 46.5 | 69.7# |

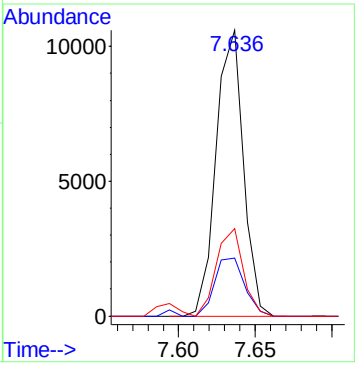


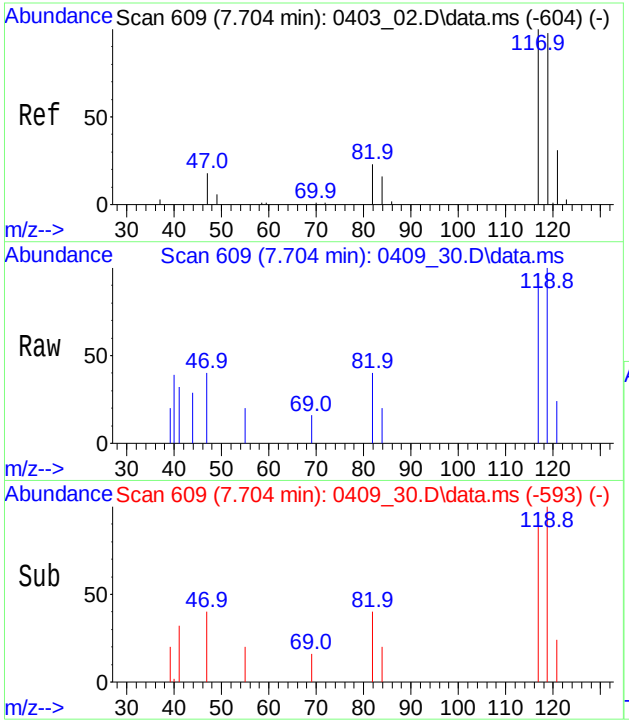



#33
Benzene
Conc: 8$  0.516 ppbv
RT:  7.636 min  Scan# 601
Delta R.T.  0.000 min
Lab File:  0409_30.D
Acq: 10 Apr 2019  12:47 am

Tgt Ion: 78 Resp:  13057

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 22.4 | 18.6 | 27.8 |
| 51 | 30.4 | 12.9 | 19.3# |

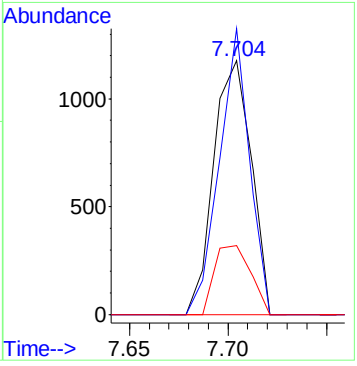


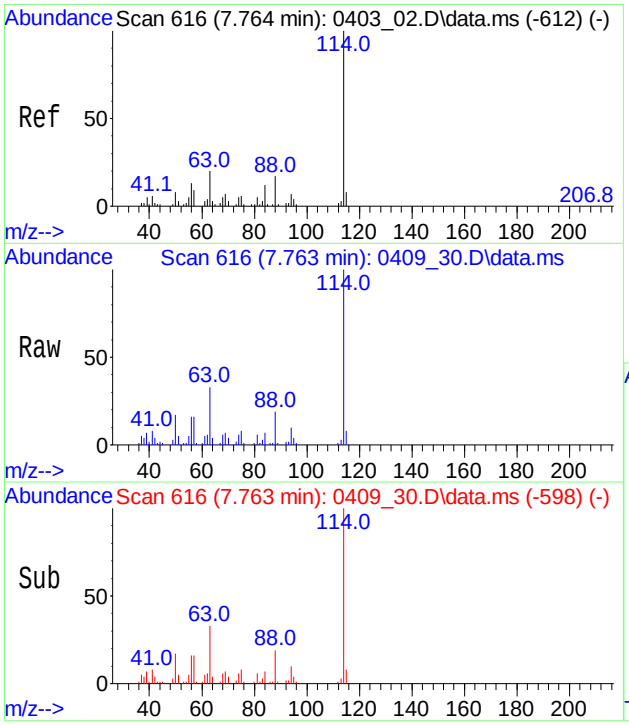




#34
Carbon Tetrachloride
Conc: 8$  Below Cal
RT:  7.704 min  Scan# 609
Delta R.T.  0.000 min
Lab File:  0409_30.D
Acq: 10 Apr 2019  12:47 am

Tgt Ion:117 Resp:  1552

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 90.6 | 75.8 | 115.8 |
| 121 | 26.2 | 10.7 | 50.7 |

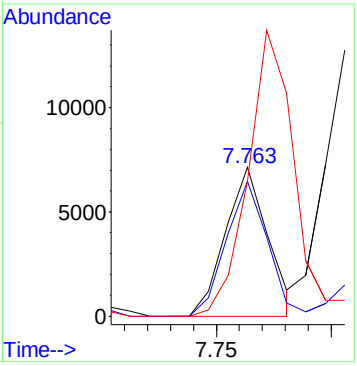


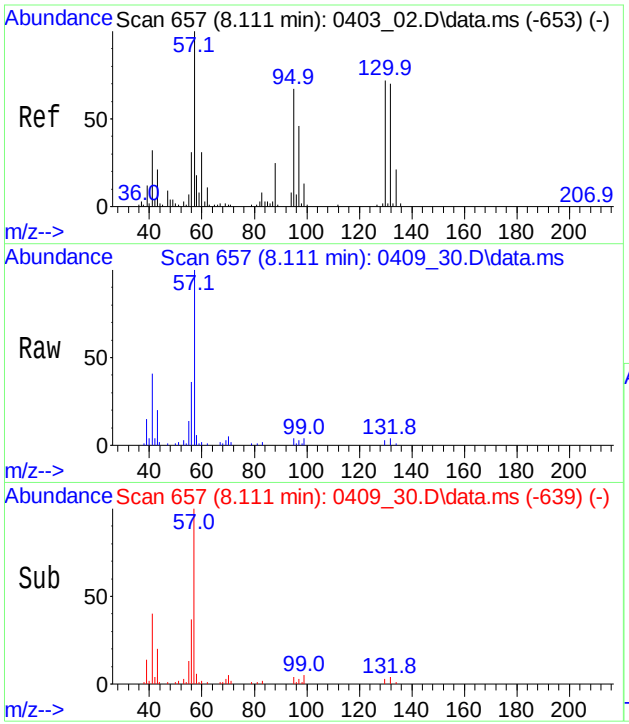



#35
Cyclohexane
Conc: 8$  0.902 ppbv
RT:  7.763 min  Scan# 616
Delta R.T.  0.000 min
Lab File:  0409_30.D
Acq: 10 Apr 2019  12:47 am

Tgt Ion: 41 Resp:  9171

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 84 | 88.5 | 158.4 | 237.6# |
| 69 | 209.4 | 69.1 | 103.7# |

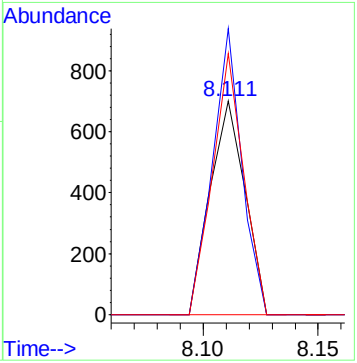


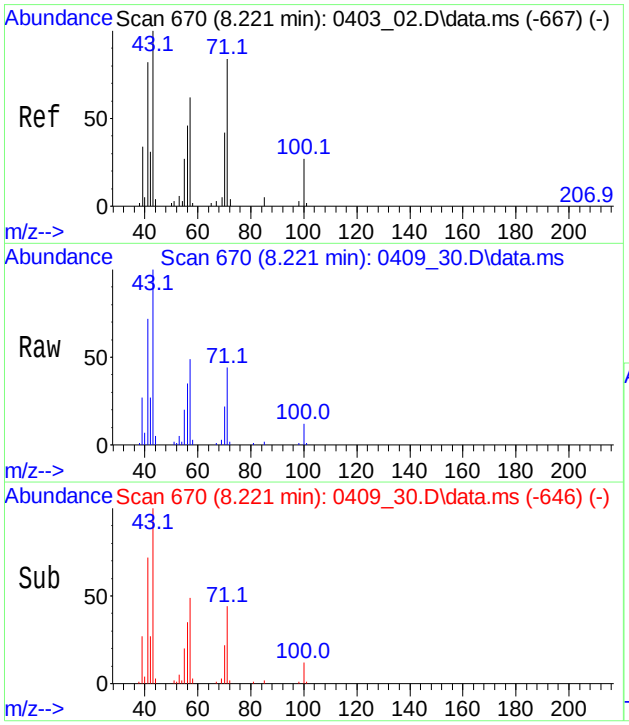




#39
Trichloroethene
Conc: 8$  Below Cal
RT:  8.111 min  Scan# 657
Delta R.T.  -0.000 min
Lab File:  0409_30.D
Acq: 10 Apr 2019  12:47 am

Tgt Ion:130 Resp:  740

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 112.4 | 78.0 | 117.0 |
| 95 | 109.3 | 73.0 | 109.4 |

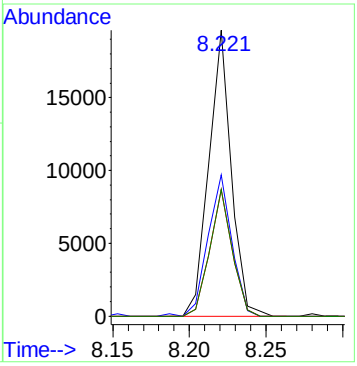


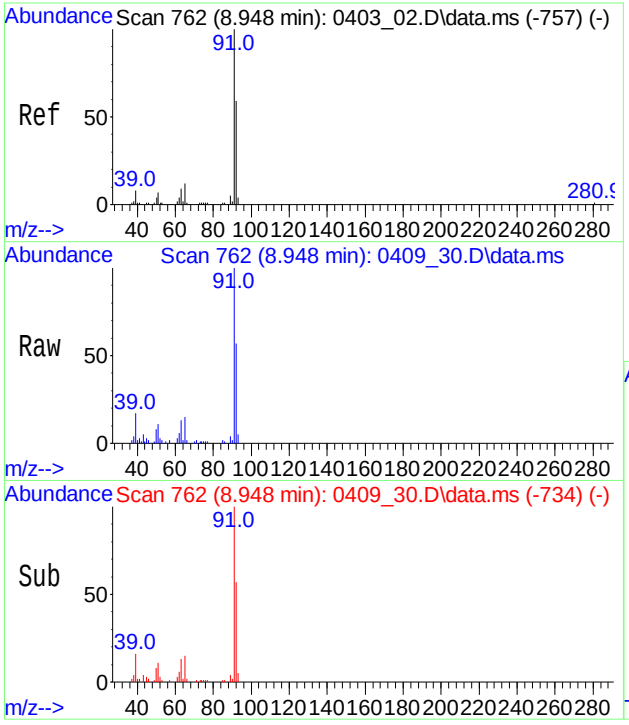



#43
Heptane
Conc: 8$ 1.046 ppbv
RT: 8.221 min Scan# 670
Delta R.T. 0.000 min
Lab File: 0409_30.D
Acq: 10 Apr 2019 12:47 am

Tgt Ion: 43 Resp: 19920

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 57 | 52.7 | 49.7 | 74.5 |
| 71 | 44.2 | 62.2 | 93.2# |
| 71 | 44.2 | 62.2 | 93.2# |

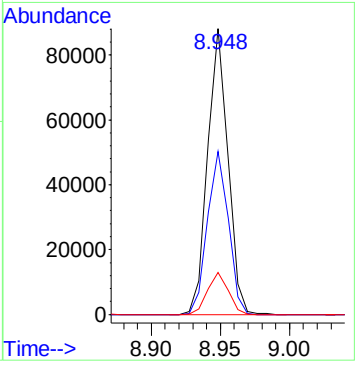


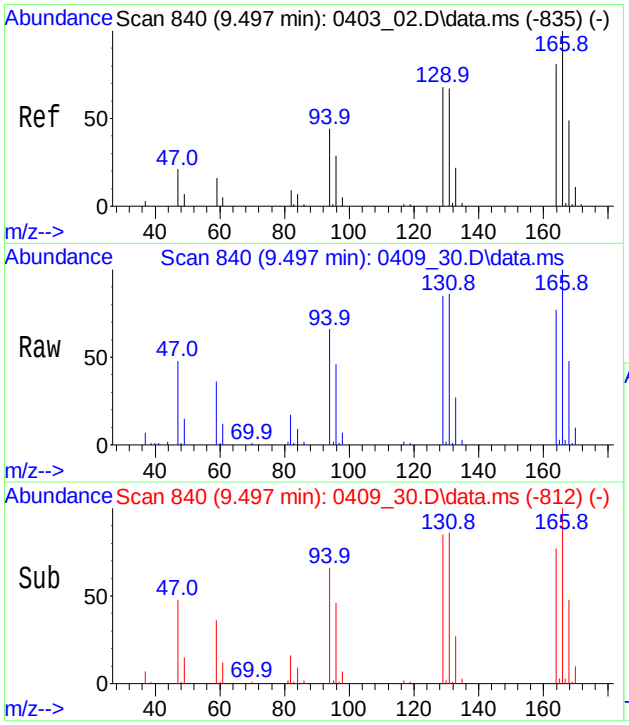




#48
Toluene
Conc: 8$ 2.891 ppbv
RT: 8.948 min Scan# 762
Delta R.T. 0.000 min
Lab File: 0409_30.D
Acq: 10 Apr 2019 12:47 am

Tgt Ion: 91 Resp: 89494

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 58.8 | 47.7 | 71.5 |
| 65 | 15.1 | 9.3 | 13.9# |

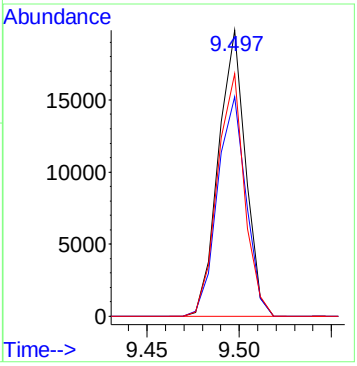


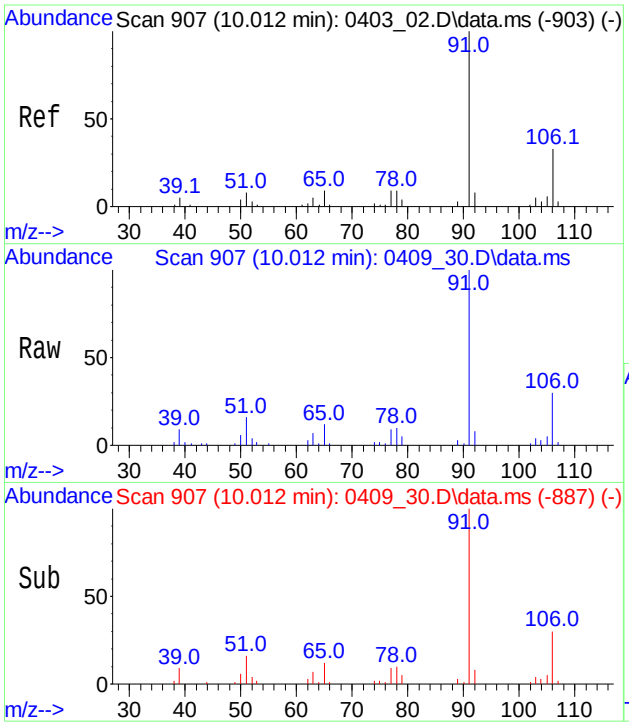



#52
Tetrachloroethene
Conc: 8$ 1.342 ppbv
RT: 9.497 min Scan# 840
Delta R.T. 0.000 min
Lab File: 0409_30.D
Acq: 10 Apr 2019 12:47 am

Tgt Ion:166 Resp: 20124

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 80.8 | 62.2 | 93.2 |
| 129 | 84.8 | 54.9 | 82.3# |

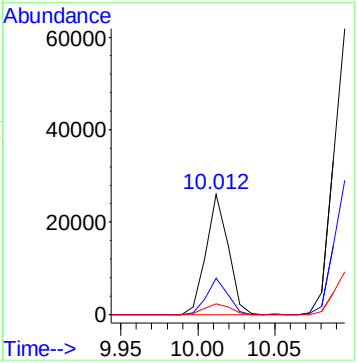


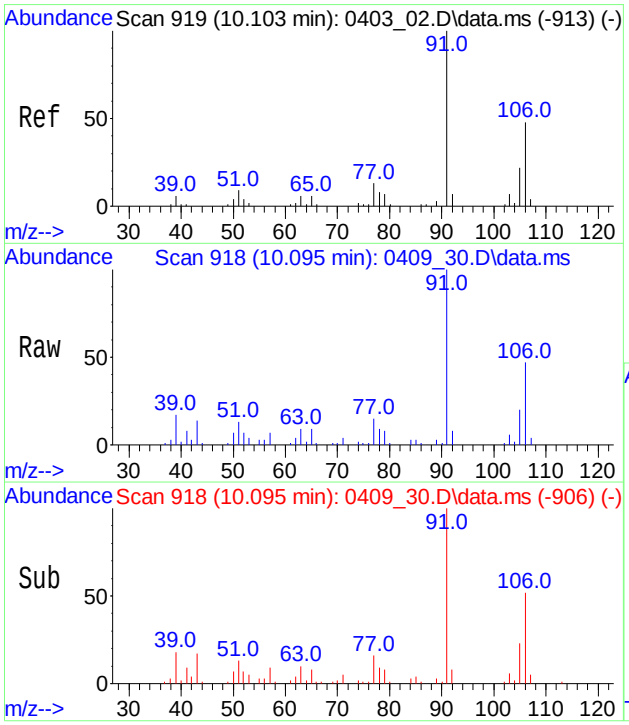




#56
Ethylbenzene
Conc: 8$ 0.581 ppbv
RT: 10.012 min Scan# 907
Delta R.T. 0.000 min
Lab File: 0409_30.D
Acq: 10 Apr 2019 12:47 am

Tgt Ion: 91 Resp: 26020

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 29.0 | 12.6 | 52.6 |
| 77 | 10.1 | 0.0 | 29.1 |

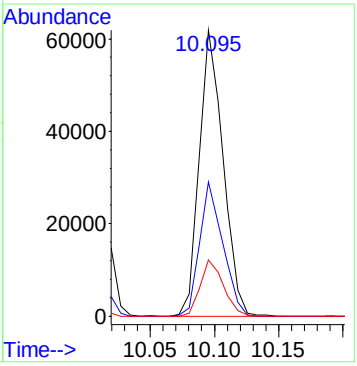


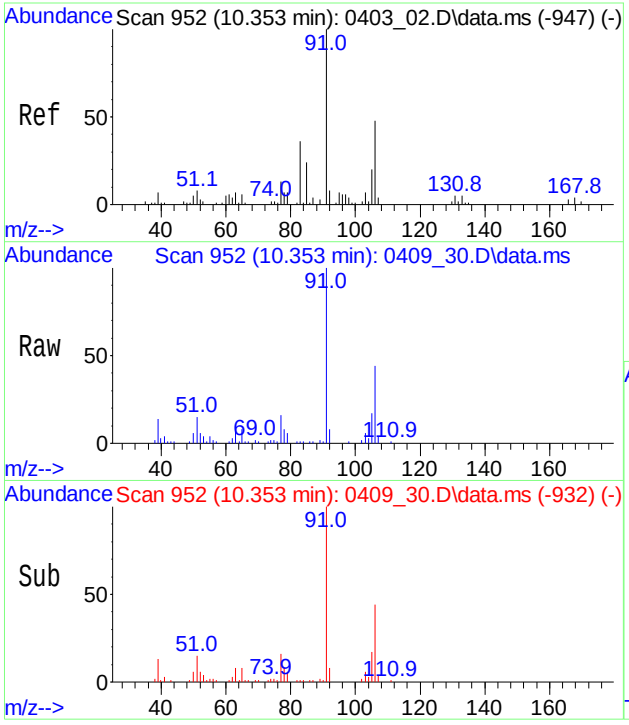



#57
m,p-Xylene
Conc: 8$ 2.352 ppbv
RT: 10.095 min Scan# 918
Delta R.T. -0.008 min
Lab File: 0409_30.D
Acq: 10 Apr 2019 12:47 am

Tgt Ion: 91 Resp: 80427

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 45.5 | 40.9 | 61.3 |
| 105 | 19.1 | 17.8 | 26.8 |

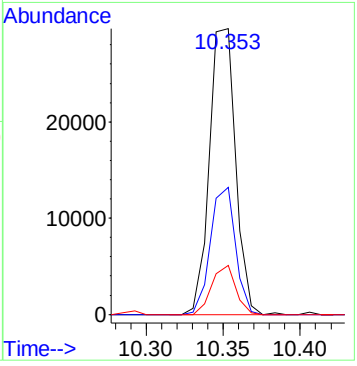


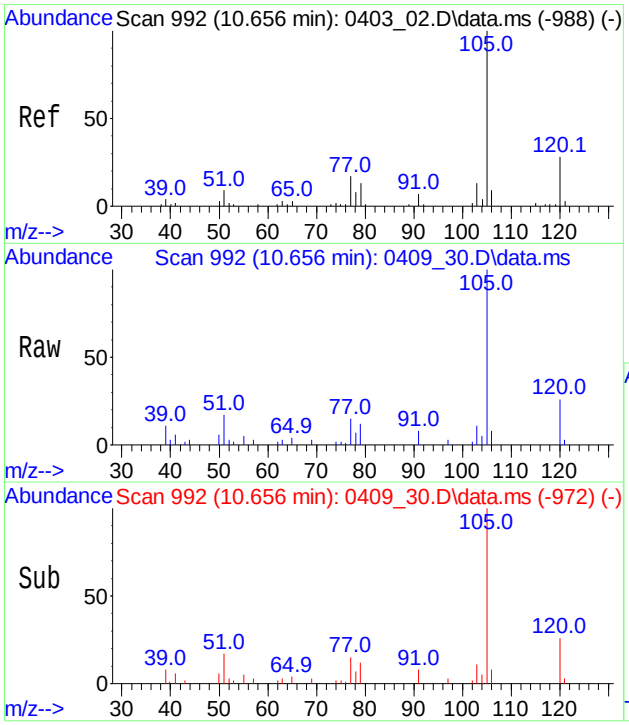




#61
o-Xylene
Conc: 8$ 0.977 ppbv
RT: 10.353 min Scan# 952
Delta R.T. 0.000 min
Lab File: 0409_30.D
Acq: 10 Apr 2019 12:47 am

Tgt Ion: 91 Resp: 34963

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 42.4 | 38.3 | 57.5 |
| 105 | 15.7 | 15.2 | 22.8 |

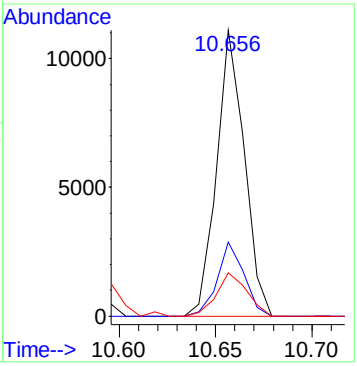


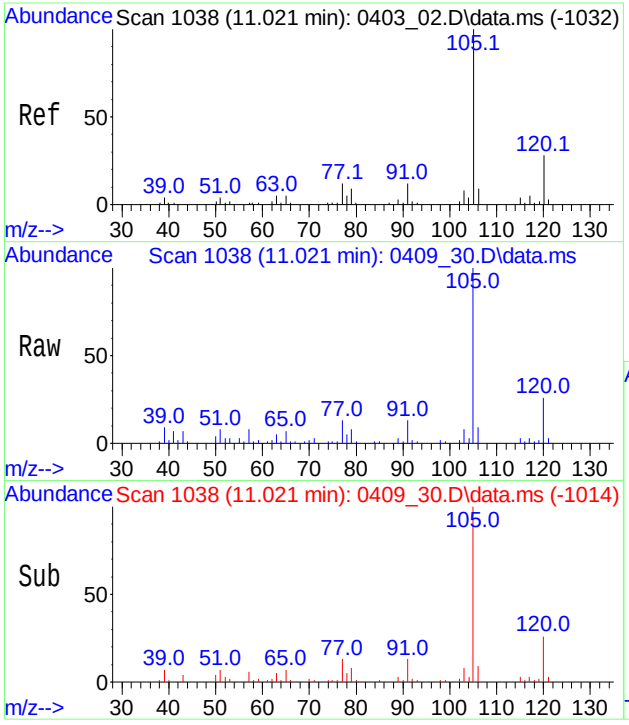



#64
Isopropylbenzene
Conc: 8$ 0.238 ppbv
RT: 10.656 min Scan# 992
Delta R.T. 0.000 min
Lab File: 0409_30.D
Acq: 10 Apr 2019 12:47 am

Tgt Ion:105 Resp: 11195

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 24.8 | 22.0 | 33.0 |
| 77 | 16.6 | 12.7 | 19.1 |

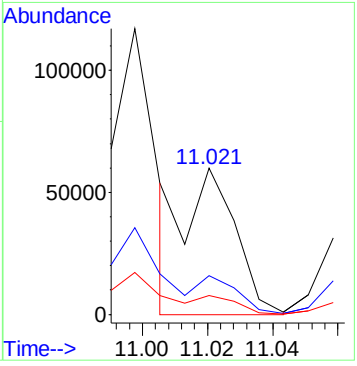


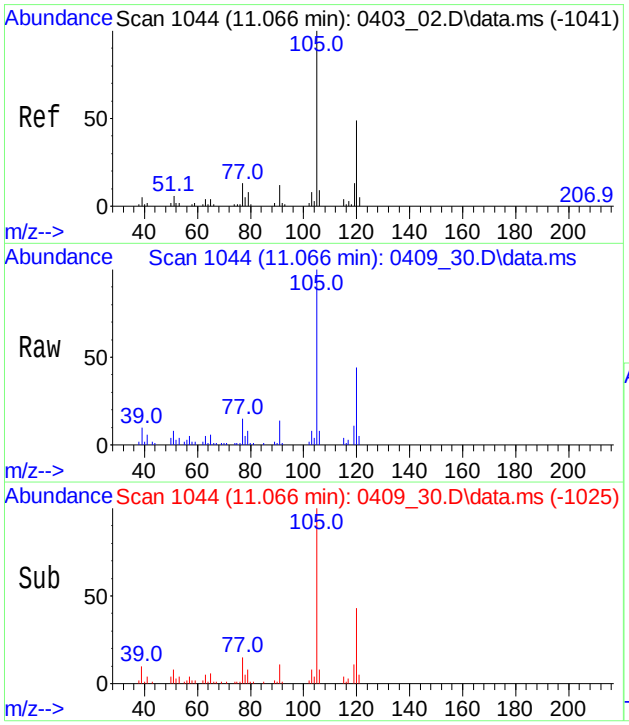




#66
4-Ethyltoluene
Conc: 8$ 1.292 ppbv
RT: 11.021 min Scan# 1038
Delta R.T. 0.000 min
Lab File: 0409_30.D
Acq: 10 Apr 2019 12:47 am

Tgt Ion:105 Resp: 61216

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 83.4 | 25.0 | 37.4# |
| 77 | 40.5 | 9.4 | 14.0# |

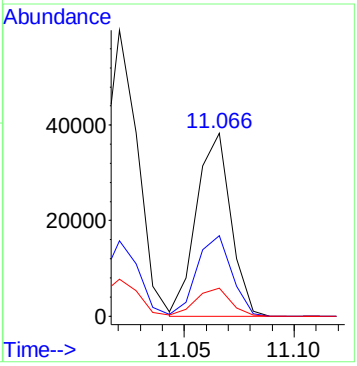


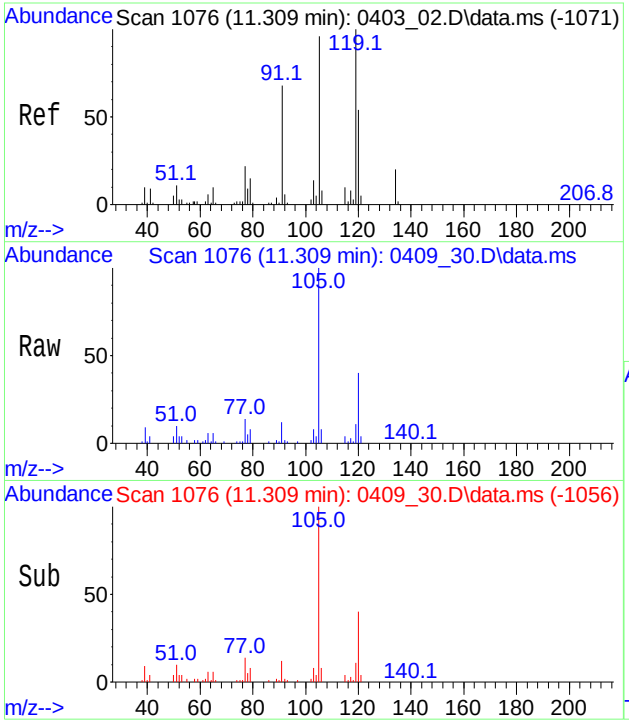



#67
1,3,5-Trimethylbenzene
Conc: 8$ 1.014 ppbv
RT: 11.066 min Scan# 1044
Delta R.T. 0.000 min
Lab File: 0409_30.D
Acq: 10 Apr 2019 12:47 am

Tgt Ion:105 Resp: 41350

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 44.5 | 39.7 | 59.5 |
| 77 | 15.4 | 10.2 | 15.4# |

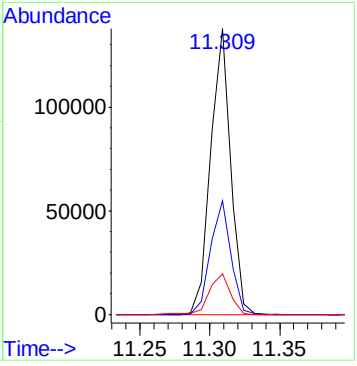


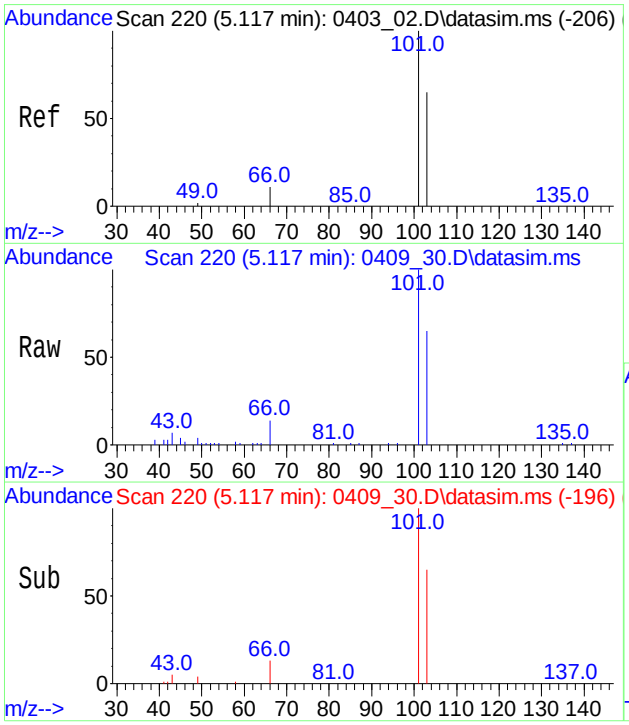




#68
1,2,4-Trimethylbenzene
Conc: 8$ 3.438 ppbv
RT: 11.309 min Scan# 1076
Delta R.T. 0.000 min
Lab File: 0409_30.D
Acq: 10 Apr 2019 12:47 am

Tgt Ion:105 Resp: 137276

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 40.5 | 44.5 | 66.7# |
| 77 | 15.1 | 19.7 | 29.5# |

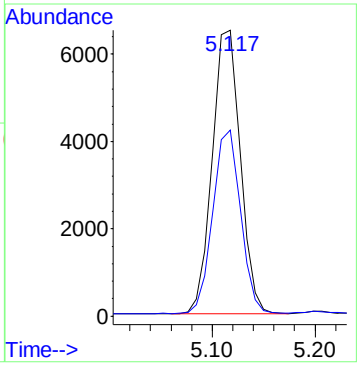


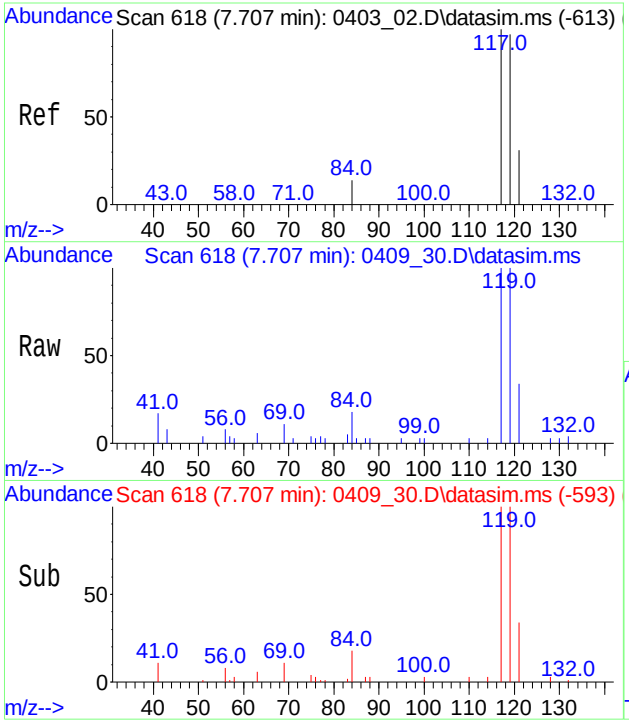



#84
Trichlorofluoromethane(sim)
Conc: 8$ 0.228 ppbv
RT: 5.117 min Scan# 220
Delta R.T. -0.008 min
Lab File: 0409_30.D
Acq: 10 Apr 2019 12:47 am

Tgt Ion:101 Resp: 12202

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 63.7 | 51.9 | 77.9 |

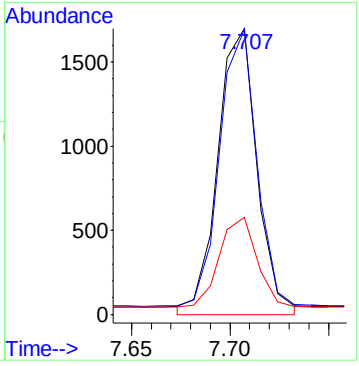


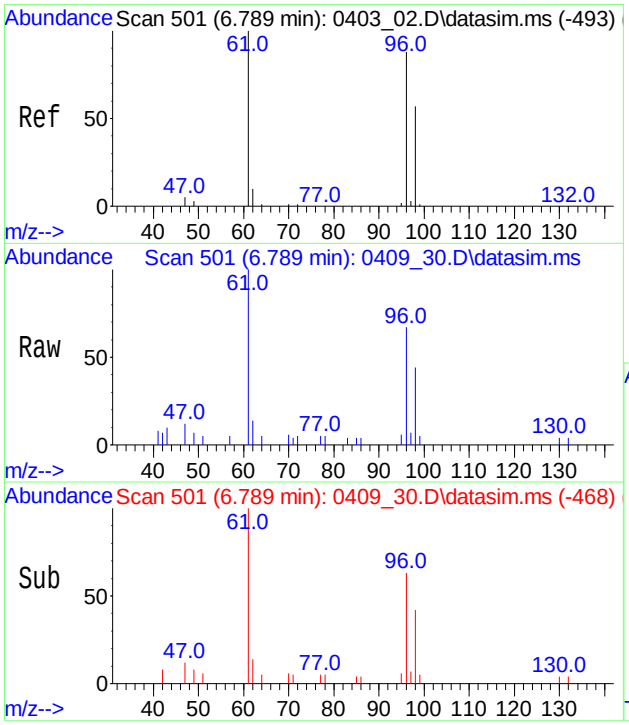




#87
Carbon Tetrachloride(sim)
Conc: 8$ 0.074 ppbv
RT: 7.704 min Scan# 618
Delta R.T. 0.000 min
Lab File: 0409_30.D
Acq: 10 Apr 2019 12:47 am

Tgt Ion:117 Resp: 1552

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 90.6 | 76.6 | 115.0 |
| 121 | 26.2 | 24.6 | 36.8 |

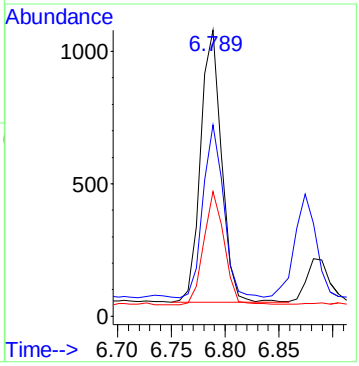


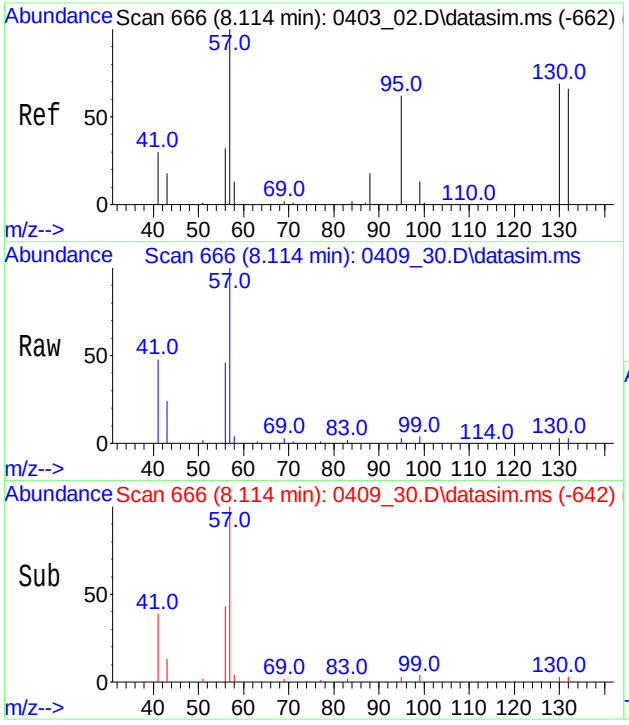



#92
Cis-1,2-Dichloroethene(sim)
Conc: 8$ 0.058 ppbv
RT: 6.789 min Scan# 501
Delta R.T. 0.000 min
Lab File: 0409_30.D
Acq: 10 Apr 2019 12:47 am

Tgt Ion: 61 Resp: 1392

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 61.6 | 69.7 | 104.5# |
| 98 | 39.9 | 45.3 | 67.9# |

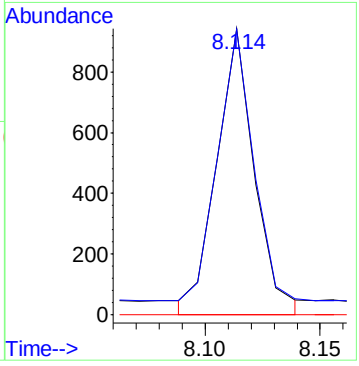


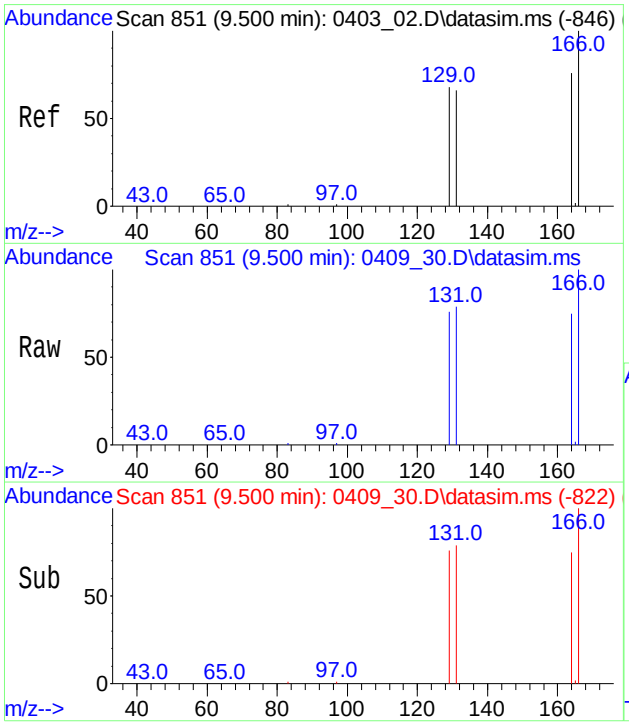




#97
Trichloroethene(sim)
Conc: 8$ 0.047 ppbv
RT: 8.111 min Scan# 666
Delta R.T. 0.000 min
Lab File: 0409_30.D
Acq: 10 Apr 2019 12:47 am

Tgt Ion:130 Resp: 740

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 112.4 | 78.0 | 117.0 |
| 97 | 95.8 | 47.2 | 70.8# |

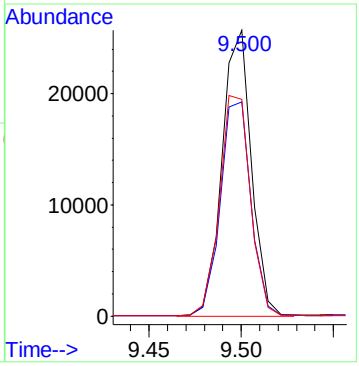


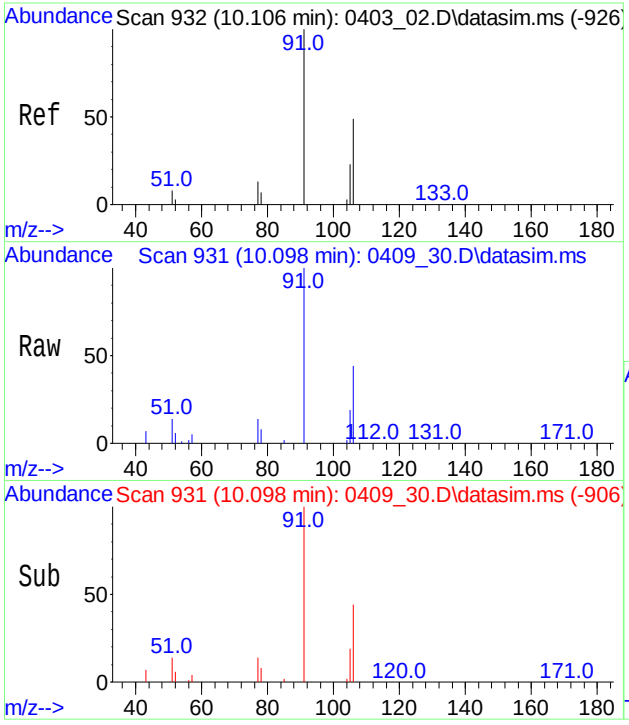



#103
Tetrachloroethene(sim)
Conc: 8$ 1.173 ppbv
RT: 9.497 min Scan# 851
Delta R.T. 0.000 min
Lab File: 0409_30.D
Acq: 10 Apr 2019 12:47 am

Tgt Ion:166 Resp: 20124

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 80.8 | 57.7 | 97.7 |
| 129 | 84.2 | 48.6 | 88.6 |

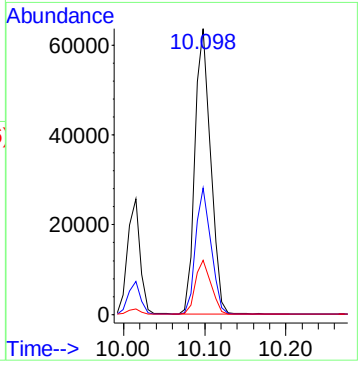



#106
m,p-Xylene(sim)
Conc: 8$ 2.331 ppbv
RT: 10.098 min Scan# 931
Delta R.T. -0.008 min
Lab File: 0409_30.D
Acq: 10 Apr 2019 12:47 am

Tgt Ion: 91 Resp: 85707

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 43.3 | 44.3 | 54.1# |
| 105 | 18.8 | 17.7 | 26.5 |



AIR ANALYSIS DATA SHEET

CLIENT ID: SS-10 5X

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90523 5X

Canister: 23327 Lab File ID: 0409_36.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/10/19

Matrix: AIR Dilution Factor: 5

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 115-07-1 | Propylene | 2.91 | U | 2.91 | 2.91 | r |
| 75-71-8 | Dichlorodifluoromethane | 1.01 | U | 1.01 | 1.01 | r |
| 74-87-3 | Chloromethane | 2.42 | U | 2.42 | 2.42 | r |
| 106-99-0 | 1,3-Butadiene | 2.26 | U | 2.26 | 2.26 | r |
| 75-00-3 | Chloroethane | 1.90 | U | 1.90 | 1.90 | r |
| 64-17-5 | Ethanol | 10.0 | S | 2.66 | 2.66 | r |
| 67-64-1 | Acetone | 78.5 | S | 2.11 | 2.11 | r |
| 67-63-0 | Isopropylalcohol | 2.04 | U | 2.04 | 2.04 | r |
| 107-13-1 | Acrylonitrile | 2.31 | U | 2.31 | 2.31 | r |
| 75-09-2 | Methylene Chloride | 4.32 | U | 4.32 | 4.32 | r |
| 75-15-0 | Carbon Disulfide | 1.66 | | 1.61 | 1.61 | r |
| 1634-04-4 | Methyl tert-butyl ether(MTBE) | 1.39 | U | 1.39 | 1.39 | r |
| 78-93-3 | Methyl Ethyl Ketone | 6.72 | | 1.70 | 1.70 | r |
| 110-54-3 | Hexane | 1.90 | S | 1.42 | 1.42 | r |
| 67-66-3 | Chloroform | 5.46 | | 1.02 | 1.02 | r |
| 141-78-6 | Ethyl acetate | 1.39 | U | 1.39 | 1.39 | r |
| 109-99-9 | Tetrahydrofuran | 1.70 | U | 1.70 | 1.70 | r |
| 71-43-2 | Benzene | 2.08 | | 1.57 | 1.57 | r |
| 110-82-7 | Cyclohexane | 1.45 | U | 1.45 | 1.45 | r |
| 79-01-6 | Trichloroethene | 15.3 | | 0.186 | 0.186 | r |
| 142-82-5 | Heptane | 2.60 | | 1.22 | 1.22 | r |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | 1.22 | U | 1.22 | 1.22 | r |
| 10061-02-6 | trans-1,3-Dichloropropene | 1.10 | U | 1.10 | 1.10 | r |
| 108-88-3 | Toluene | 9.43 | | 1.33 | 1.33 | r |
| 591-78-6 | 2-Hexanone(MBK) | 1.22 | U | 1.22 | 1.22 | r |
| 127-18-4 | Tetrachloroethene | 852 | E | 0.184 | 0.184 | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.729 | U | 0.729 | 0.729 | r |
| 108-90-7 | Chlorobenzene | 1.09 | U | 1.09 | 1.09 | r |
| 100-41-4 | Ethylbenzene | 2.36 | | 1.15 | 1.15 | r |
| 179601-23-1 | m,p-Xylene | 11.2 | | 1.15 | 1.15 | r |
| 100-42-5 | Styrene | 1.17 | U | 1.17 | 1.17 | r |
| 95-47-6 | o-Xylene | 3.12 | | 1.15 | 1.15 | r |
| 98-82-8 | Isopropylbenzene | 1.02 | U | 1.02 | 1.02 | r |
| 622-96-8 | 4-Ethyltoluene | 1.54 | | 1.02 | 1.02 | r |
| 108-67-8 | 1,3,5-Trimethylbenzene | 1.11 | | 1.02 | 1.02 | r |
| 95-63-6 | 1,2,4-Trimethylbenzene | 4.96 | | 1.02 | 1.02 | r |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

1

AIR ANALYSIS DATA SHEET

CLIENT ID: SS-10 5X

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90523 5X

Canister: 23327 Lab File ID: 0409_36.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/10/19

Matrix: AIR Dilution Factor: 5

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 76-14-2 | 1,2-Dichlorotetrafluoroethane(sim) | 0.716 | U | 0.716 | 0.716 | r |
| 75-01-4 | Vinyl Chloride(sim) | 0.391 | U | 0.391 | 0.391 | r |
| 74-83-9 | Bromomethane(sim) | 1.29 | U | 1.29 | 1.29 | r |
| 75-69-4 | Trichlorofluoromethane(sim) | 0.891 | U | 0.891 | 0.891 | r |
| 107-06-2 | 1,2-Dichloroethane(sim) | 1.24 | U | 1.24 | 1.24 | r |
| 71-55-6 | 1,1,1-Trichloroethane(sim) | 0.917 | U | 0.917 | 0.917 | r |
| 56-23-5 | Carbon Tetrachloride(sim) | 0.159 | U | 0.159 | 0.159 | r |
| 75-35-4 | 1,1-Dichloroethene(sim) | 0.252 | U | 0.252 | 0.252 | r |
| 76-13-1 | Trichlorotrifluoroethane(sim) | 0.653 | U | 0.653 | 0.653 | r |
| 156-60-5 | Trans-1,2-Dichloroethene(sim) | 1.26 | U | 1.26 | 1.26 | r |
| 75-34-3 | 1,1-Dichloroethane(sim) | 1.24 | U | 1.24 | 1.24 | r |
| 156-59-2 | Cis-1,2-Dichloroethene(sim) | 0.252 | U | 0.252 | 0.252 | r |
| 78-87-5 | 1,2-dichloropropane(sim) | 1.08 | U | 1.08 | 1.08 | r |
| 75-27-4 | Bromodichloromethane(sim) | 0.747 | U | 0.747 | 0.747 | r |
| 123-91-1 | 1,4-Dioxane(sim) | 1.39 | U | 1.39 | 1.39 | r |
| 10061-01-5 | cis-1,3-Dichloropropene(sim) | 1.10 | U | 1.10 | 1.10 | r |
| 79-00-5 | 1,1,2-Trichloroethane(sim) | 0.917 | U | 0.917 | 0.917 | r |
| 124-48-1 | Dibromochloromethane(sim) | 0.587 | U | 0.587 | 0.587 | r |
| 106-93-4 | 1,2-Dibromoethane(EDB)(sim) | 0.651 | U | 0.651 | 0.651 | r |
| 75-25-2 | Bromoform(sim) | 0.484 | U | 0.484 | 0.484 | r |
| 79-34-5 | 1,1,2,2-Tetrachloroethane(sim) | 0.729 | U | 0.729 | 0.729 | r |
| 100-44-7 | Benzyl chloride(sim) | 0.966 | U | 0.966 | 0.966 | r |
| 541-73-1 | 1,3-Dichlorobenzene(sim) | 0.832 | U | 0.832 | 0.832 | r |
| 106-46-7 | 1,4-Dichlorobenzene(sim) | 0.832 | U | 0.832 | 0.832 | r |
| 135-98-8 | sec-Butylbenzene(sim) | 0.911 | U | 0.911 | 0.911 | r |
| 99-87-6 | 4-Isopropyltoluene(sim) | 0.911 | U | 0.911 | 0.911 | r |
| 95-50-1 | 1,2-Dichlorobenzene(sim) | 0.832 | U | 0.832 | 0.832 | r |
| 104-51-8 | n-Butylbenzene(sim) | 0.911 | U | 0.911 | 0.911 | r |
| 120-82-1 | 1,2,4-Trichlorobenzene(sim) | 0.674 | U | 0.674 | 0.674 | r |
| 87-68-3 | Hexachlorobutadiene(sim) | 0.469 | U | 0.469 | 0.469 | r |
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FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_36.D
Acq On : 10 Apr 2019 04:33 am
Operator : CORTEX\ms
Client ID : SS-10 5X
Lab ID : CC90523 5X
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 10:29:28 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration

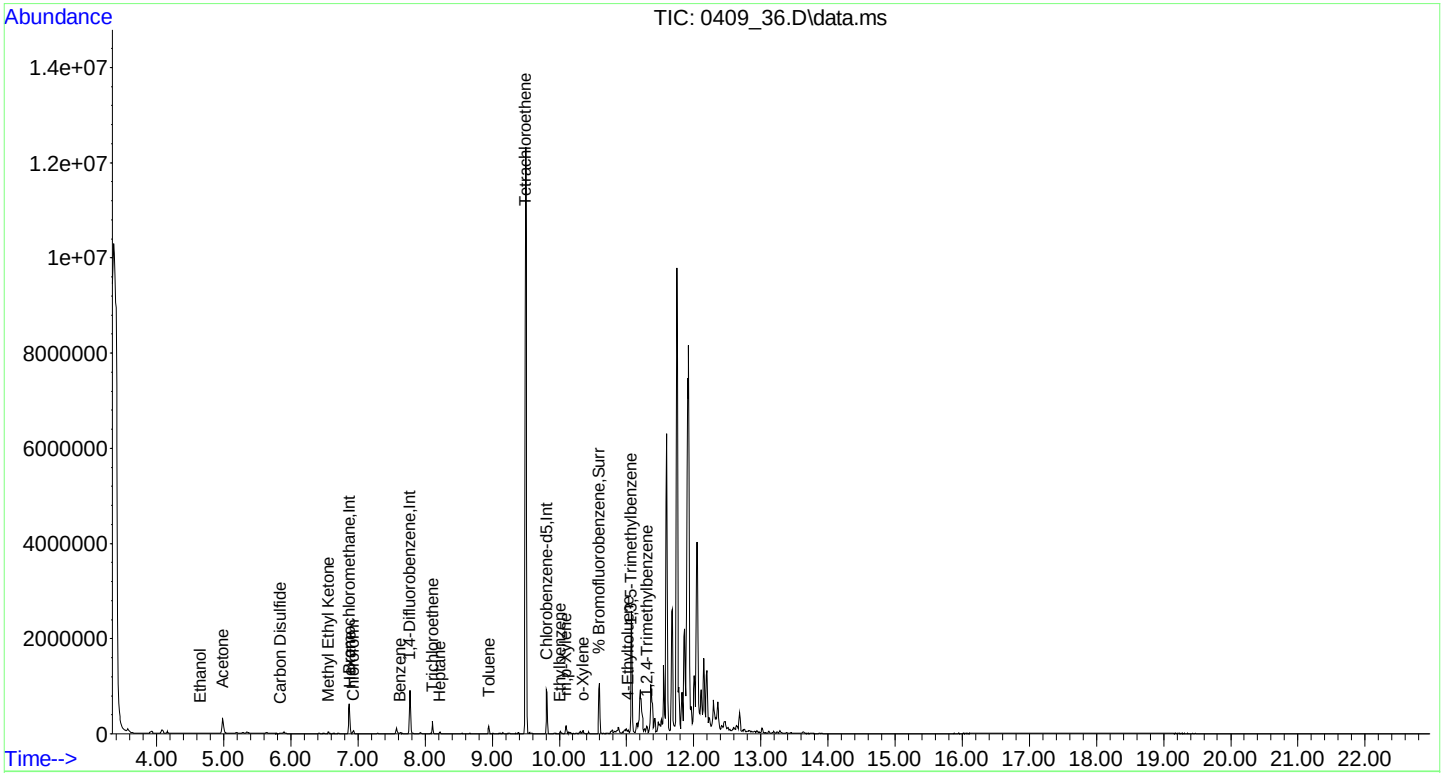
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.871 | 130 | 108660 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.772 | 114 | 370681 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.807 | 82 | 178139 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.874 | 130 | 153033 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 424362 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 177125 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 243255 | 10.416 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 104.20% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 11) Ethanol | 4.652 | 45 | 9345 | 1.999 | ppbv | | 99 |
| 12) Acetone | 4.984 | 43 | 381450 | 15.701 | ppbv# | | 85 |
| 20) Carbon Disulfide | 5.840 | 76 | 7919 | 0.332 | ppbv# | | 95 |
| 25) Methyl Ethyl Ketone | 6.557 | 43 | 41083 | 1.344 | ppbv# | | 76 |
| 27) Hexane | 6.879 | 57 | 6666 | 0.379 | ppbv# | | 53 |
| 28) Chloroform | 6.933 | 83 | 27555 | 1.091 | ppbv | | 89 |
| 33) Benzene | 7.628 | 78 | 9902 | 0.416 | ppbv# | | 84 |
| 39) Trichloroethene | 8.111 | 130 | 42461 | 3.051 | ppbv# | | 86 |
| 43) Heptane | 8.221 | 43 | 9716 | 0.520 | ppbv# | | 62 |
| 48) Toluene | 8.948 | 91 | 57311 | 1.886 | ppbv# | | 98 |
| 52) Tetrachloroethene | 9.497 | 166 | 2507576 | 170.357 | ppbv | | 93 |
| 56) Ethylbenzene | 10.012 | 91 | 19919 | 0.472 | ppbv | | 92 |
| 57) m,p-Xylene | 10.095 | 91 | 71894 | 2.232 | ppbv | | 92 |
| 61) o-Xylene | 10.353 | 91 | 21028 | 0.624 | ppbv | | 96 |
| 66) 4-Ethyltoluene | 11.021 | 105 | 13673m | 0.306 | ppbv | | 85 |
| 67) 1,3,5-Trimethylbenzene | 11.066 | 105 | 8498 | 0.221 | ppbv# | | 76 |
| 68) 1,2,4-Trimethylbenzene | 11.309 | 105 | 37298 | 0.992 | ppbv# | | 79 |
| 93] Chloroform(sim) | 6.933 | 83 | 27555 | 0.950 | ppbv# | | 89 |
| 97] Trichloroethene(sim) | 8.111 | 130 | 42461 | 2.777 | ppbv# | | 90 |
| 103] Tetrachloroethene(sim) | 9.497 | 166 | 2507576 | 150.438 | ppbv | | 93 |
| 106] m,p-Xylene(sim) | 10.098 | 91 | 75327 | 2.206 | ppbv# | | 92 |

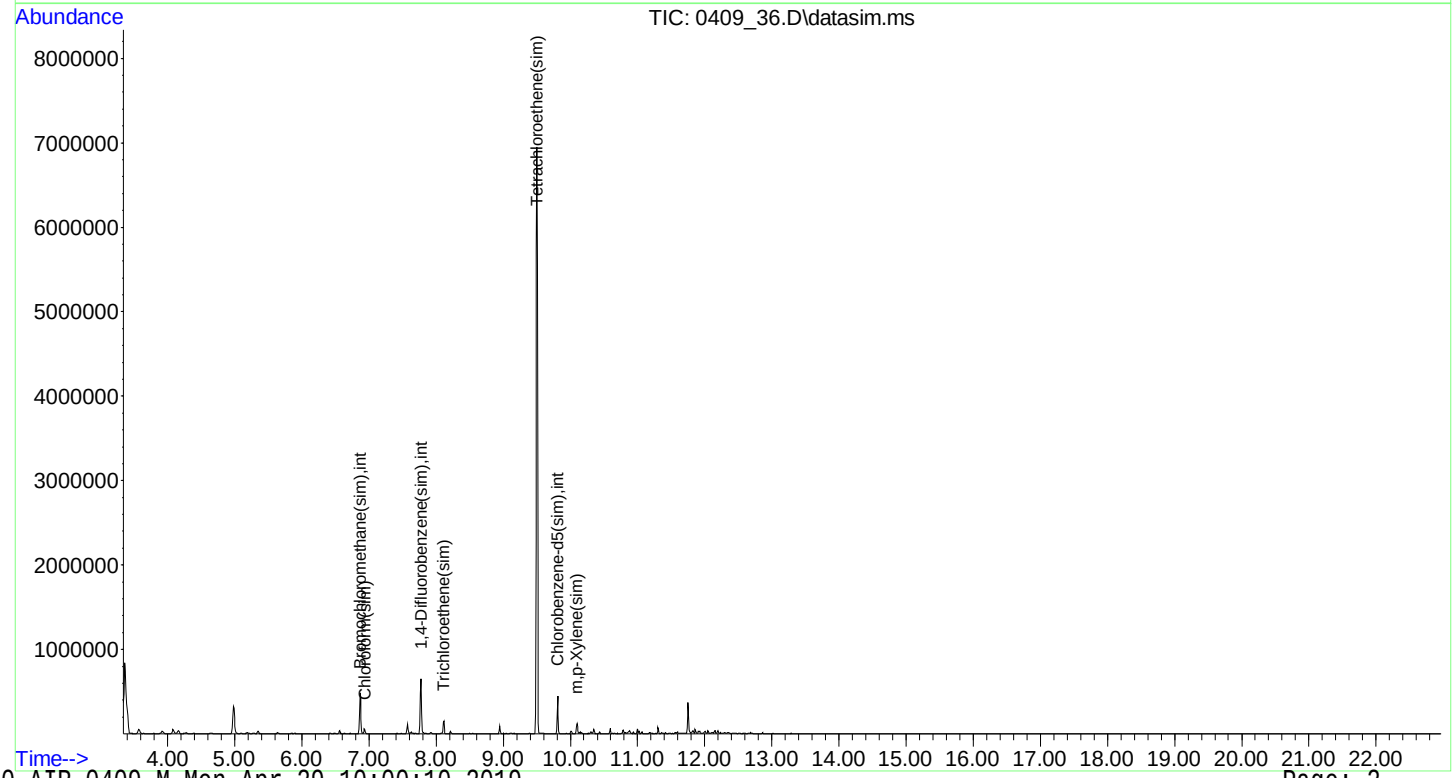
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

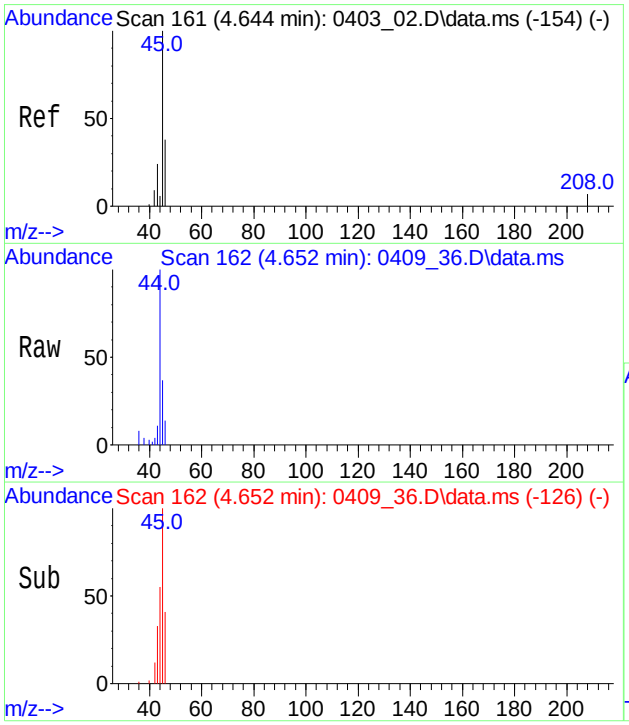
Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_36.D
Acq On : 10 Apr 2019 04:33 am
Operator : CORTEX\ms
Client ID : SS-10 5X
Lab ID : CC90523 5X
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 10:29:28 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration



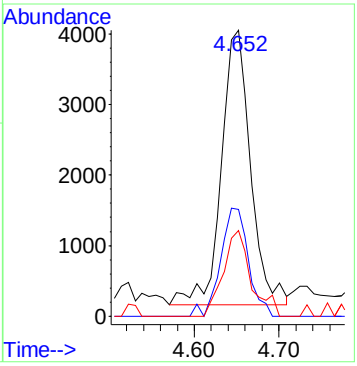



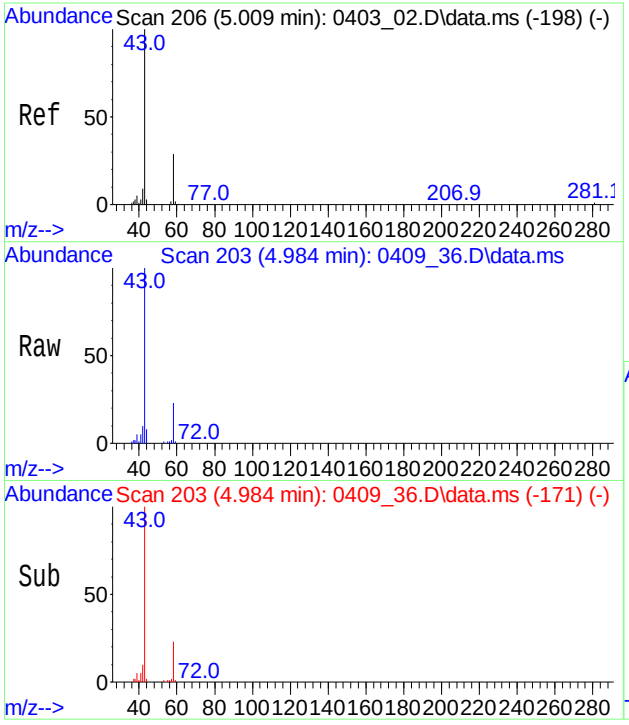



#11
Ethanol
Conc: 8$  1.999 ppbv
RT:  4.652 min  Scan# 162
Delta R.T.  -0.008 min
Lab File:  0409_36.D
Acq: 10 Apr 2019  04:33 am

Tgt Ion: 45 Resp:  9345

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 46 | 37.2 | 29.9 | 44.9 |
| 43 | 29.5 | 22.7 | 34.1 |

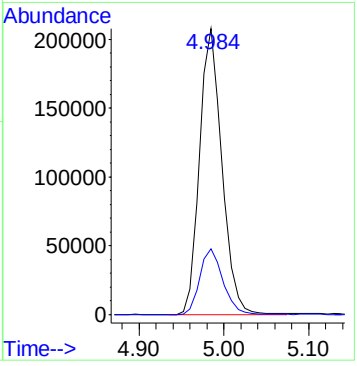


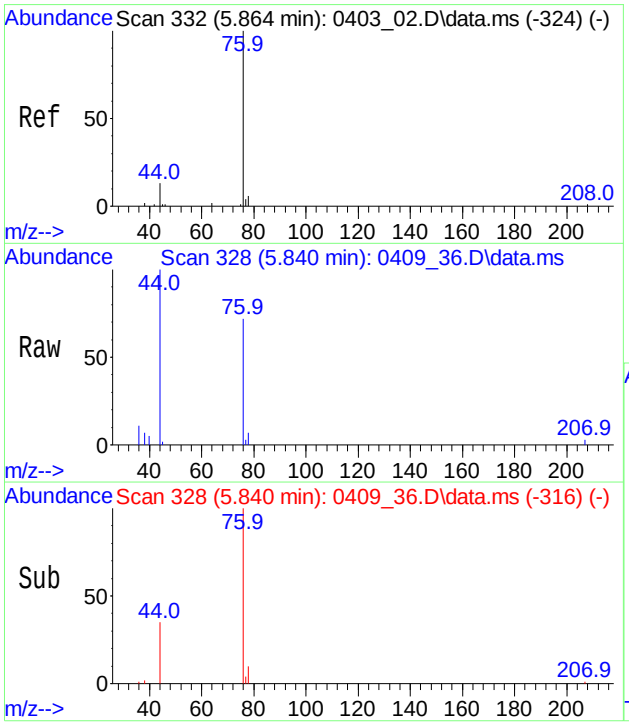




#12
Acetone
Conc: 8$  15.701 ppbv
RT:  4.984 min  Scan# 203
Delta R.T.  -0.041 min
Lab File:  0409_36.D
Acq: 10 Apr 2019  04:33 am

Tgt Ion: 43 Resp:  381450

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 23.8 | 25.9 | 38.9# |

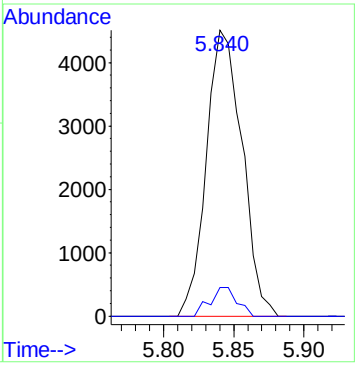


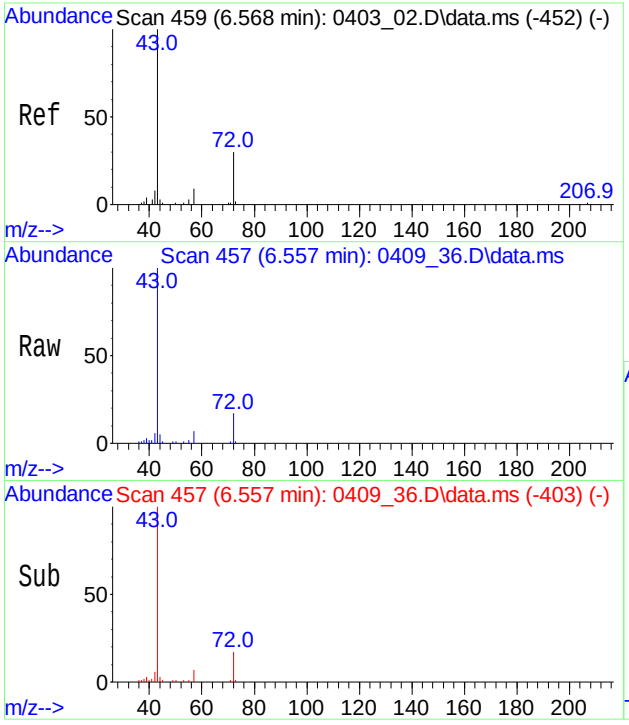



#20
Carbon Disulfide
Conc: 8$ 0.332 ppbv
RT: 5.840 min Scan# 328
Delta R.T. -0.030 min
Lab File: 0409_36.D
Acq: 10 Apr 2019 04:33 am

Tgt Ion: 76 Resp: 7919

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 78 | 7.6 | 7.6 | 11.4# |

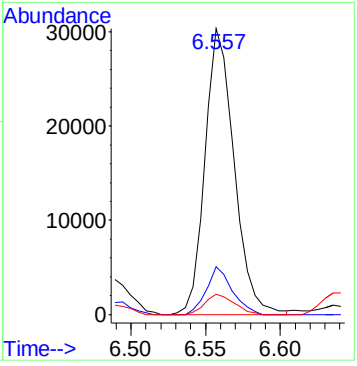


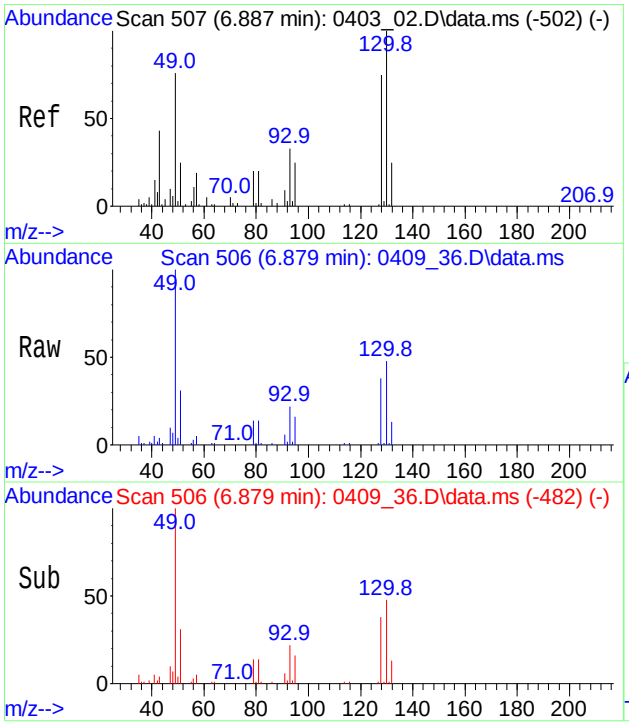




#25
Methyl Ethyl Ketone
Conc: 8$ 1.344 ppbv
RT: 6.557 min Scan# 457
Delta R.T. -0.016 min
Lab File: 0409_36.D
Acq: 10 Apr 2019 04:33 am

Tgt Ion: 43 Resp: 41083

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 72 | 14.8 | 24.6 | 37.0# |
| 57 | 7.1 | 7.4 | 11.2# |

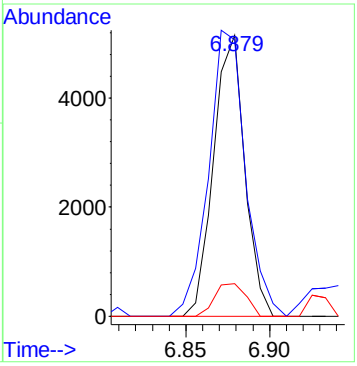


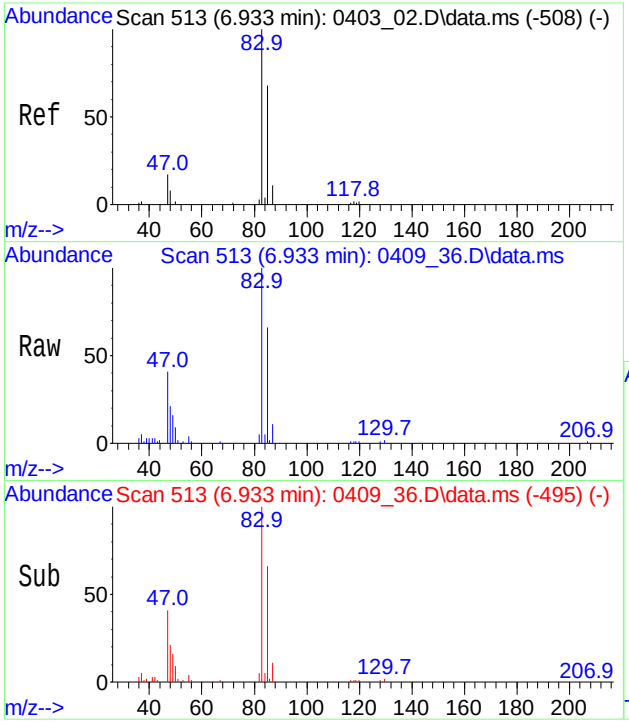



#27
Hexane
Conc: 8$ 0.379 ppbv
RT: 6.879 min Scan# 506
Delta R.T. -0.008 min
Lab File: 0409_36.D
Acq: 10 Apr 2019 04:33 am

Tgt Ion: 57 Resp: 6666

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 57 | 100 | | |
| 41 | 119.7 | 58.9 | 88.3# |
| 86 | 11.6 | 16.4 | 24.6# |

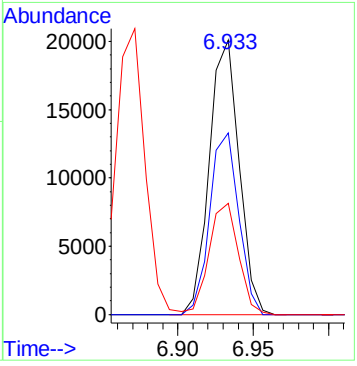


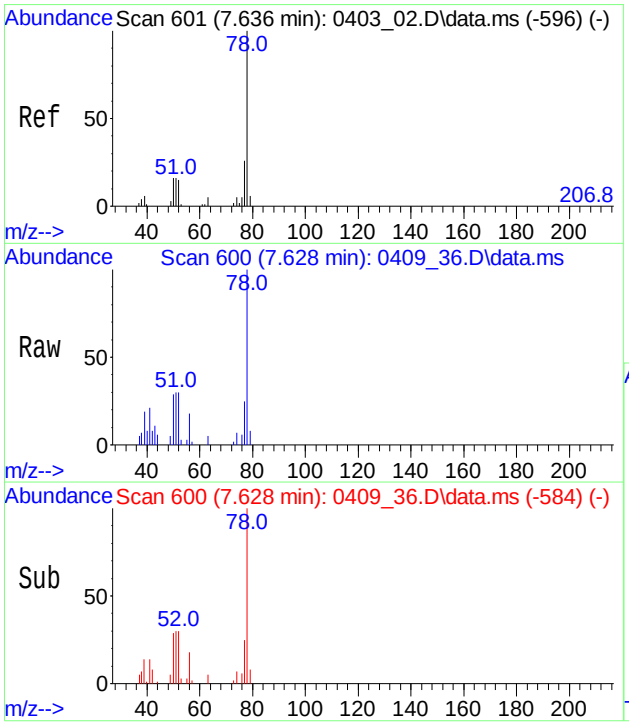




#28
Chloroform
Conc: 8$ 1.091 ppbv
RT: 6.933 min Scan# 513
Delta R.T. -0.008 min
Lab File: 0409_36.D
Acq: 10 Apr 2019 04:33 am

Tgt Ion: 83 Resp: 27555

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 64.3 | 45.9 | 85.9 |
| 47 | 40.0 | 0.8 | 40.8 |

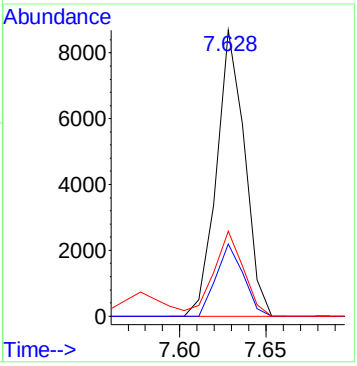


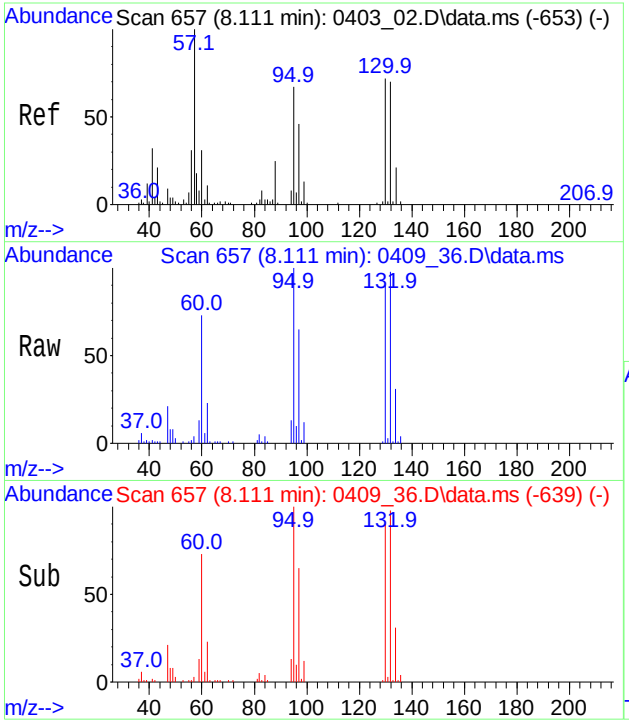



#33
Benzene
Conc: 8$ 0.416 ppbv
RT: 7.628 min Scan# 600
Delta R.T. -0.008 min
Lab File: 0409_36.D
Acq: 10 Apr 2019 04:33 am

Tgt Ion: 78 Resp: 9902

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 24.6 | 18.6 | 27.8 |
| 51 | 31.3 | 12.9 | 19.3# |

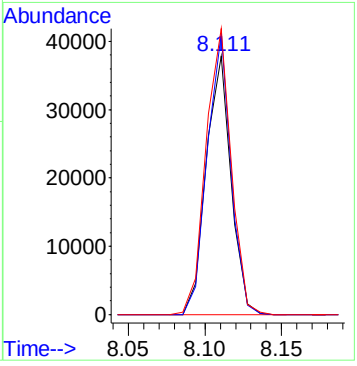


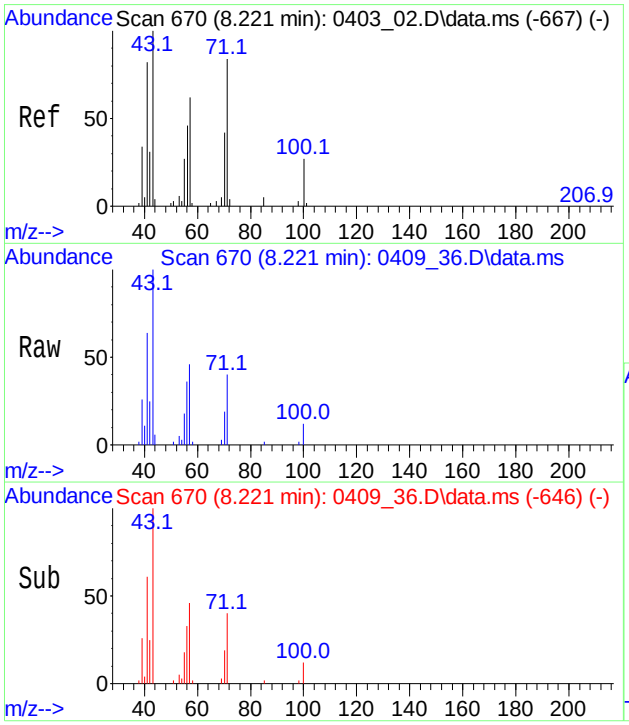




#39
Trichloroethene
Conc: 8$ 3.051 ppbv
RT: 8.111 min Scan# 657
Delta R.T. -0.000 min
Lab File: 0409_36.D
Acq: 10 Apr 2019 04:33 am

Tgt Ion:130 Resp: 42461

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 103.9 | 78.0 | 117.0 |
| 95 | 112.6 | 73.0 | 109.4# |

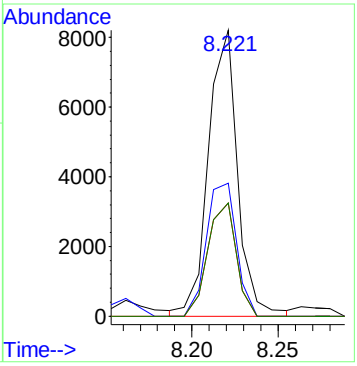


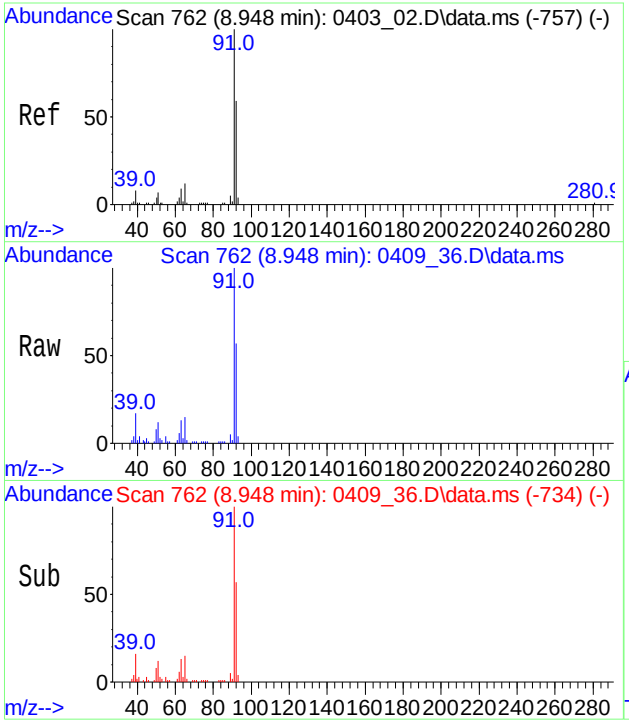



#43
Heptane
Conc: 8$ 0.520 ppbv
RT: 8.221 min Scan# 670
Delta R.T. 0.000 min
Lab File: 0409_36.D
Acq: 10 Apr 2019 04:33 am

Tgt Ion: 43 Resp: 9716

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 57 | 47.8 | 49.7 | 74.5# |
| 71 | 38.4 | 62.2 | 93.2# |
| 71 | 38.4 | 62.2 | 93.2# |

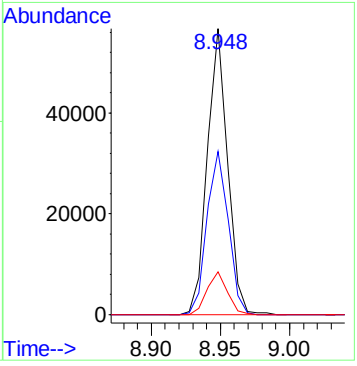


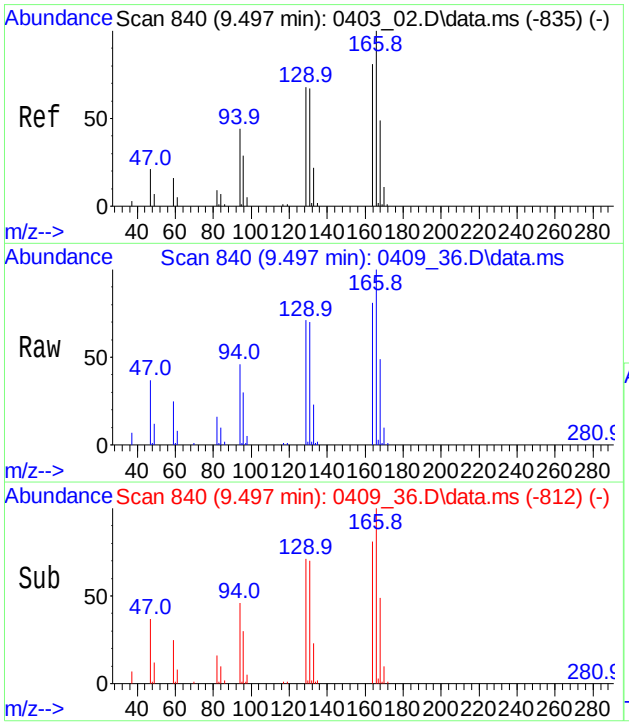




#48
Toluene
Conc: 8$ 1.886 ppbv
RT: 8.948 min Scan# 762
Delta R.T. 0.000 min
Lab File: 0409_36.D
Acq: 10 Apr 2019 04:33 am

Tgt Ion: 91 Resp: 57311

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 60.1 | 47.7 | 71.5 |
| 65 | 14.9 | 9.3 | 13.9# |

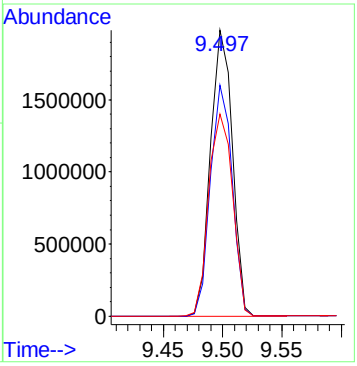


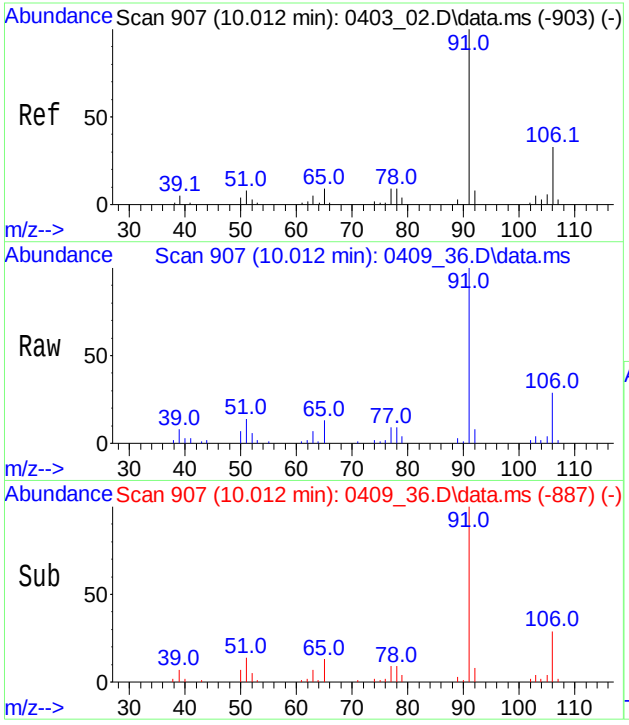



#52
Tetrachloroethene
Conc: 8$ 170.357 ppbv
RT: 9.497 min Scan# 840
Delta R.T. 0.000 min
Lab File: 0409_36.D
Acq: 10 Apr 2019 04:33 am

Tgt Ion:166 Resp: 2507576

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 80.4 | 62.2 | 93.2 |
| 129 | 77.0 | 54.9 | 82.3 |

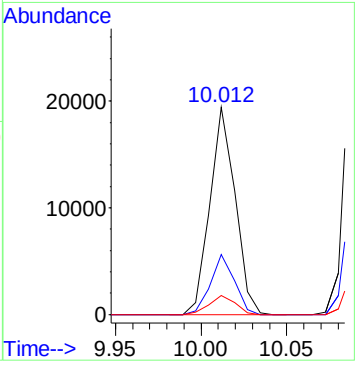


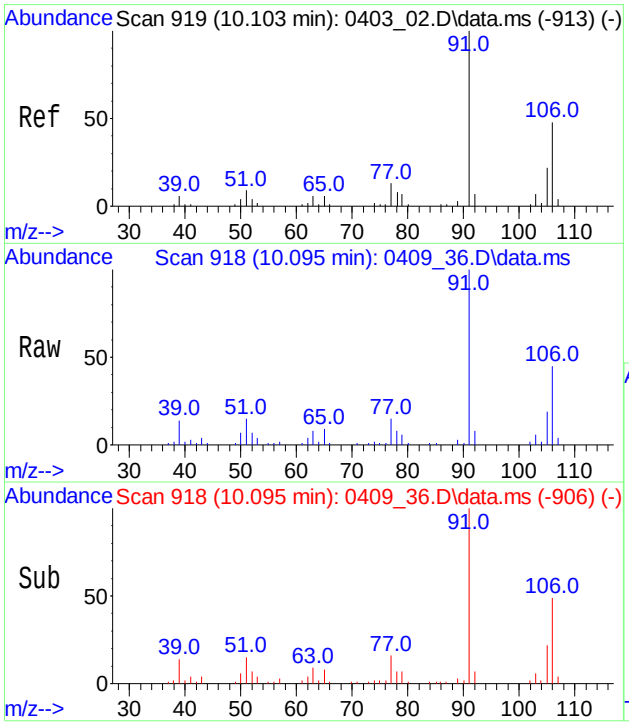




#56
Ethylbenzene
Conc: 8$ 0.472 ppbv
RT: 10.012 min Scan# 907
Delta R.T. 0.000 min
Lab File: 0409_36.D
Acq: 10 Apr 2019 04:33 am

Tgt Ion: 91 Resp: 19919

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 27.3 | 12.6 | 52.6 |
| 77 | 9.5 | 0.0 | 29.1 |

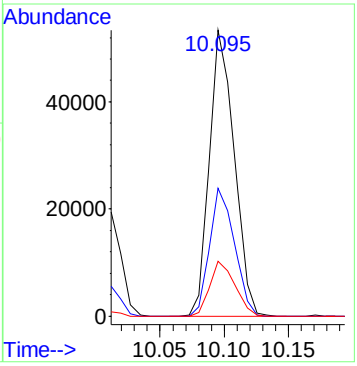


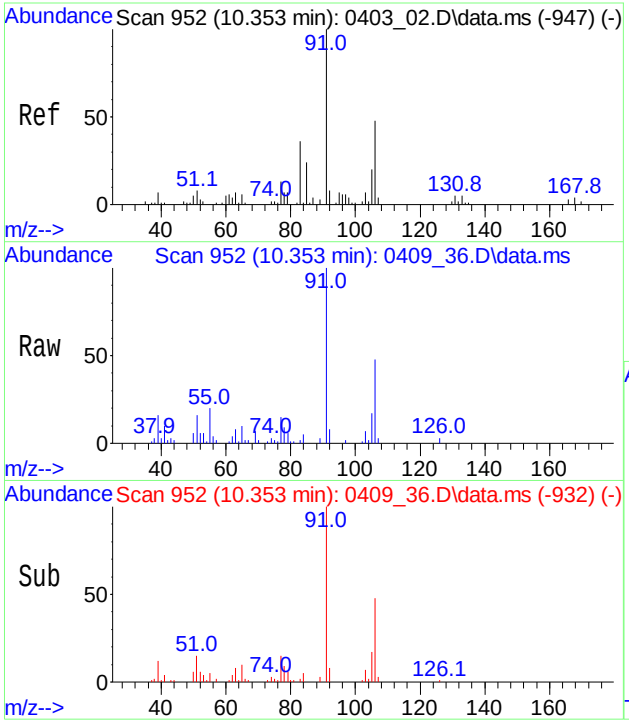



#57
m,p-Xylene
Conc: 8$ 2.232 ppbv
RT: 10.095 min Scan# 918
Delta R.T. -0.008 min
Lab File: 0409_36.D
Acq: 10 Apr 2019 04:33 am

Tgt Ion: 91 Resp: 71894

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 44.7 | 40.9 | 61.3 |
| 105 | 19.5 | 17.8 | 26.8 |

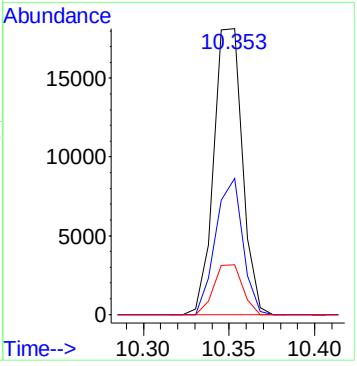


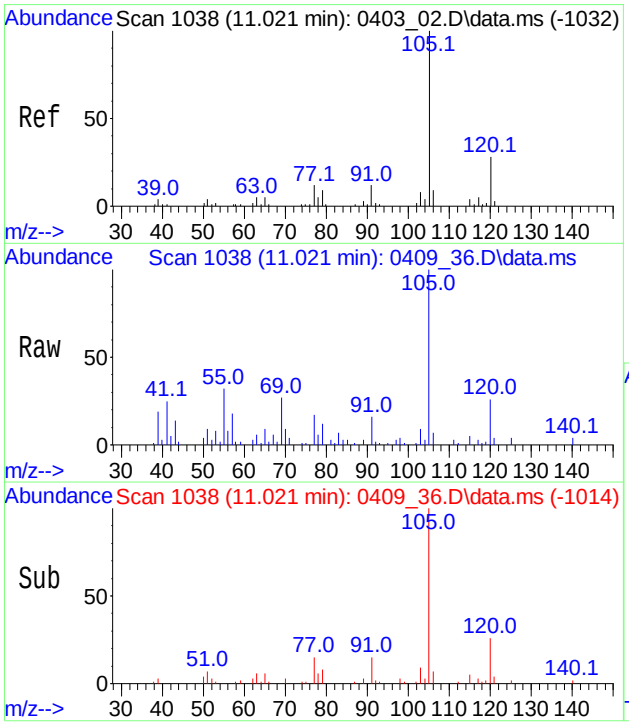




#61
o-Xylene
Conc: 8$ 0.624 ppbv
RT: 10.353 min Scan# 952
Delta R.T. 0.000 min
Lab File: 0409_36.D
Acq: 10 Apr 2019 04:33 am

Tgt Ion: 91 Resp: 21028

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 45.1 | 38.3 | 57.5 |
| 105 | 17.4 | 15.2 | 22.8 |

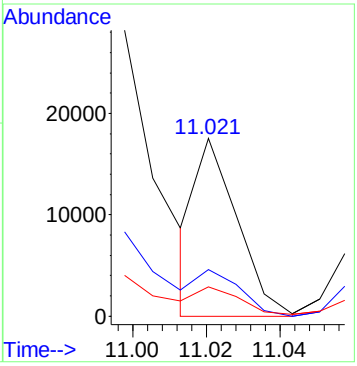


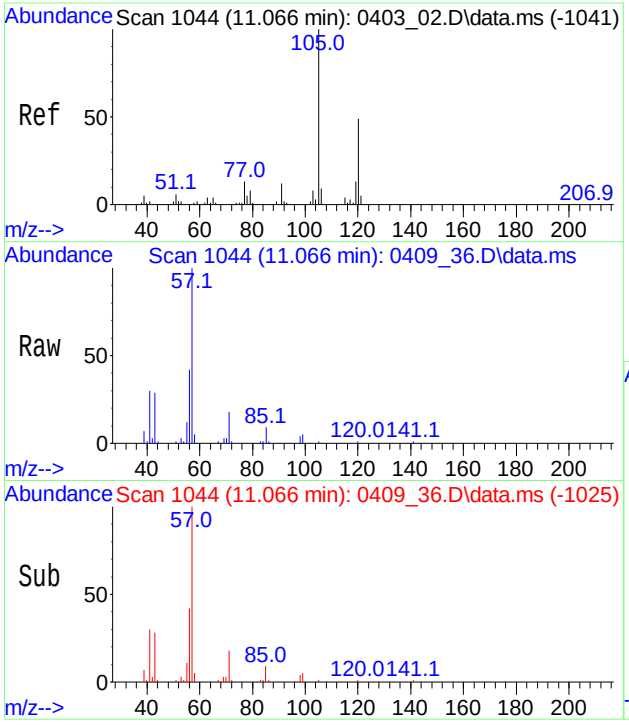



#66
4-Ethyltoluene
Conc: 8$ 0.306 ppbv
RT: 11.021 min Scan# 1038
Delta R.T. 0.000 min
Lab File: 0409_36.D
Acq: 10 Apr 2019 04:33 am

Tgt Ion:105 Resp: 13673

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 98.6 | 25.0 | 37.4# |
| 77 | 32.4 | 9.4 | 14.0# |

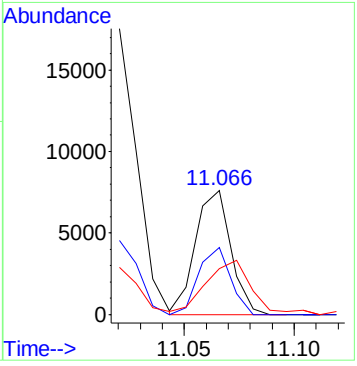


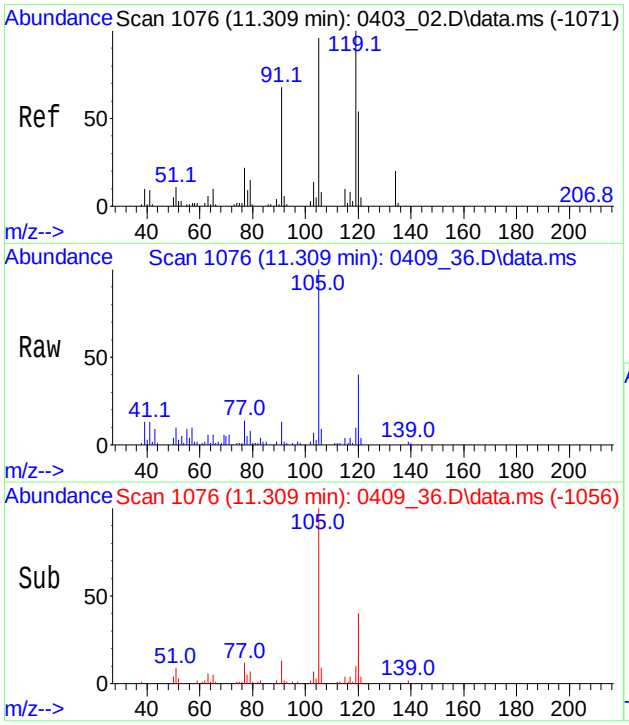




#67
1,3,5-Trimethylbenzene
Conc: 8$ 0.221 ppbv
RT: 11.066 min Scan# 1044
Delta R.T. 0.000 min
Lab File: 0409_36.D
Acq: 10 Apr 2019 04:33 am

Tgt Ion:105 Resp: 8498

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 48.6 | 39.7 | 59.5 |
| 77 | 56.2 | 10.2 | 15.4# |

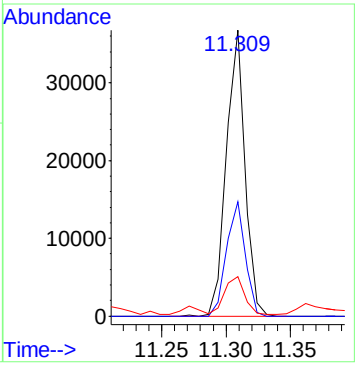


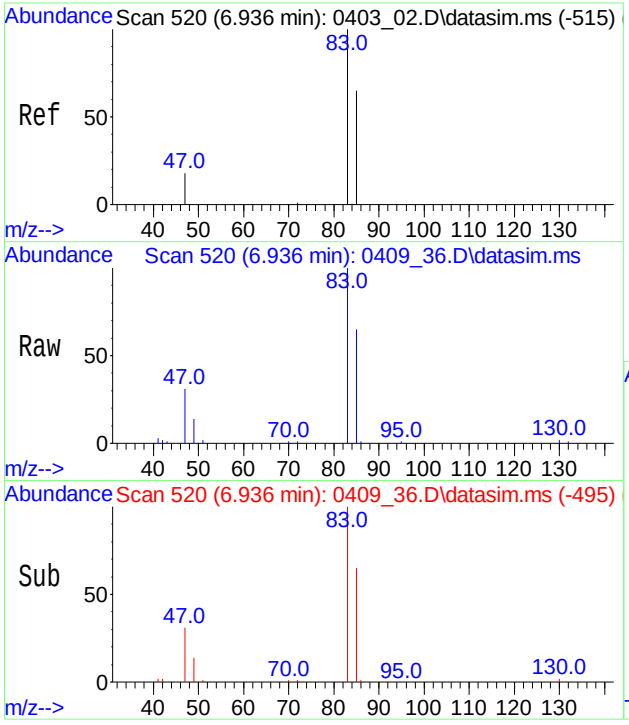



#68
1,2,4-Trimethylbenzene
Conc: 8$ 0.992 ppbv
RT: 11.309 min Scan# 1076
Delta R.T. 0.000 min
Lab File: 0409_36.D
Acq: 10 Apr 2019 04:33 am

Tgt Ion:105 Resp: 37298

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 40.3 | 44.5 | 66.7# |
| 77 | 14.1 | 19.7 | 29.5# |

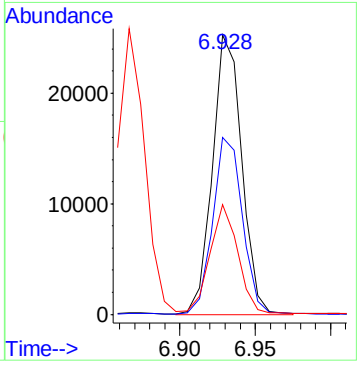


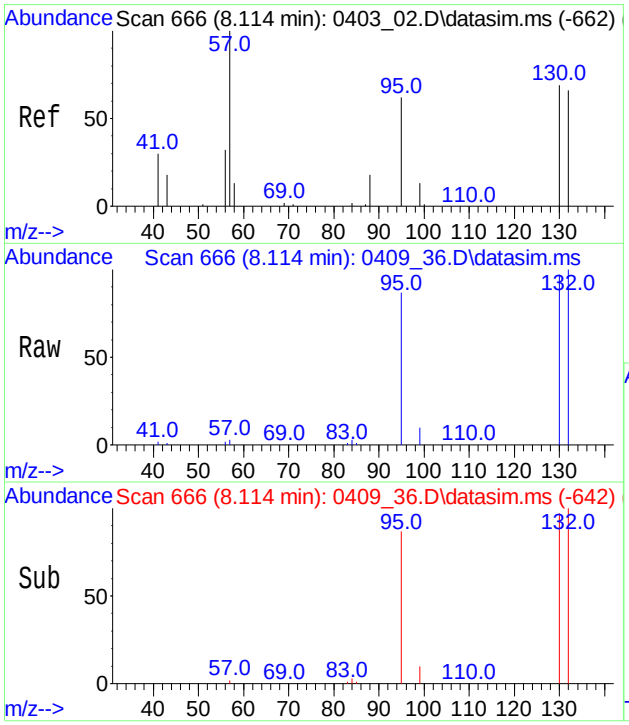




#93
Chloroform(sim)
Conc: 8$ 0.950 ppbv
RT: 6.933 min Scan# 520
Delta R.T. -0.008 min
Lab File: 0409_36.D
Acq: 10 Apr 2019 04:33 am

Tgt Ion: 83 Resp: 27555

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 64.3 | 52.7 | 79.1 |
| 47 | 40.0 | 16.6 | 25.0# |

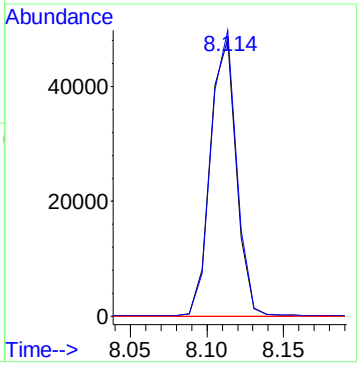


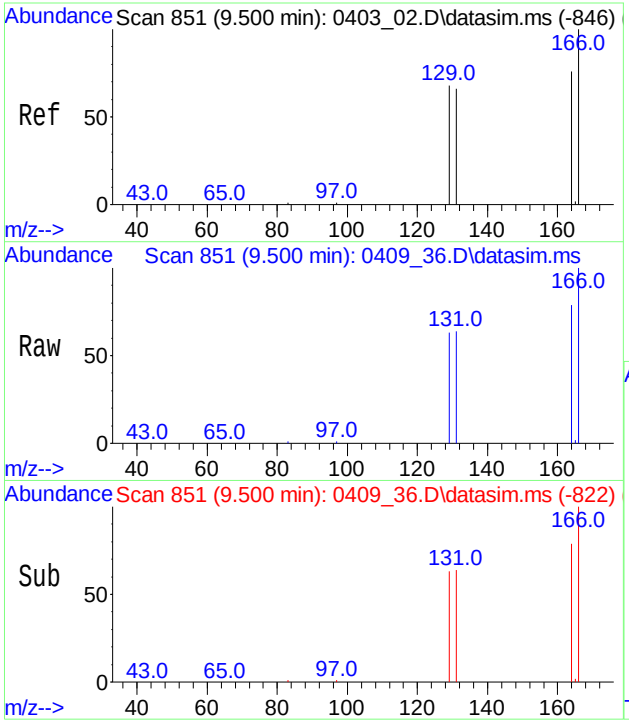



#97
Trichloroethene(sim)
Conc: 8$ 2.777 ppbv
RT: 8.111 min Scan# 666
Delta R.T. 0.000 min
Lab File: 0409_36.D
Acq: 10 Apr 2019 04:33 am

Tgt Ion:130 Resp: 42461

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 103.9 | 78.0 | 117.0 |
| 97 | 71.2 | 47.2 | 70.8# |

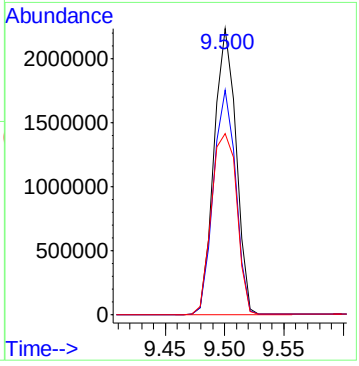


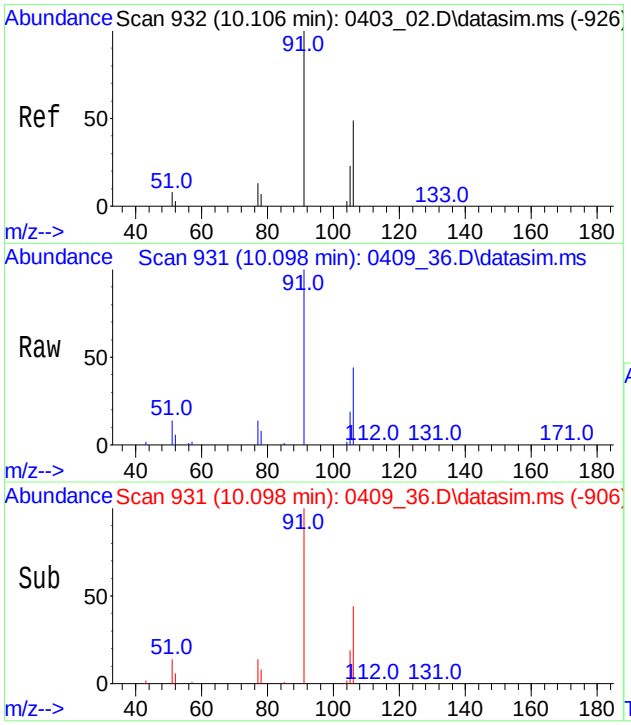




#103
Tetrachloroethene(sim)
Conc: 8$ 150.438 ppbv
RT: 9.497 min Scan# 851
Delta R.T. 0.000 min
Lab File: 0409_36.D
Acq: 10 Apr 2019 04:33 am

Tgt Ion:166 Resp: 2507576

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 80.4 | 57.7 | 97.7 |
| 129 | 77.0 | 48.6 | 88.6 |

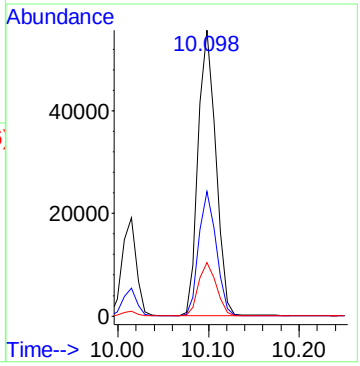





#106
m,p-Xylene(sim)
Conc: 8$  2.206 ppbv
RT:  10.098 min  Scan# 931
Delta R.T.  -0.008 min
Lab File:  0409_36.D
Acq: 10 Apr 2019  04:33 am

Tgt Ion: 91 Resp:  75327

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 43.2 | 44.3 | 54.1# |
| 105 | 18.9 | 17.7 | 26.5 |



1

AIR ANALYSIS DATA SHEET

CLIENT ID: SS-10 75X

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90523 75X

Canister: 23327 Lab File ID: 0409_51.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/10/19

Matrix: AIR Dilution Factor: 75

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 64-17-5 | Ethanol | 39.8 | U | 39.8 | 39.8 | |
| 67-64-1 | Acetone | 87.5 | X | 31.6 | 31.6 | |
| 75-15-0 | Carbon Disulfide | 24.1 | U | 24.1 | 24.1 | |
| 78-93-3 | Methyl Ethyl Ketone | 25.4 | U | 25.4 | 25.4 | |
| 110-54-3 | Hexane | 21.3 | U | 21.3 | 21.3 | |
| 71-43-2 | Benzene | 23.5 | U | 23.5 | 23.5 | |
| 142-82-5 | Heptane | 18.3 | U | 18.3 | 18.3 | |
| 108-88-3 | Toluene | 19.9 | U | 19.9 | 19.9 | |
| 127-18-4 | Tetrachloroethene | 1050 | D | 2.77 | 2.77 | r |
| 100-41-4 | Ethylbenzene | 17.3 | U | 17.3 | 17.3 | |
| 95-47-6 | o-Xylene | 17.3 | U | 17.3 | 17.3 | |
| 622-96-8 | 4-Ethyltoluene | 15.3 | U | 15.3 | 15.3 | |
| 108-67-8 | 1,3,5-Trimethylbenzene | 15.3 | U | 15.3 | 15.3 | |
| 95-63-6 | 1,2,4-Trimethylbenzene | 15.3 | U | 15.3 | 15.3 | |
| 67-66-3 | Chloroform(sim) | 15.4 | U | 15.4 | 15.4 | |
| 79-01-6 | Trichloroethene(sim) | 11.7 | X | 2.79 | 2.79 | |
| 179601-23-1 | m,p-Xylene(sim) | 17.3 | U | 17.3 | 17.3 | |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

This form 1 and the associated quantitation report are filtered for detected compounds in the undiluted analysis.

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_51.D
Acq On : 10 Apr 2019 02:35 pm
Operator : CORTEX\ms
Client ID : SS-10 75X
Lab ID : CC90523 75X
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 16:00:36 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:42:38 2019
Response via : Initial Calibration

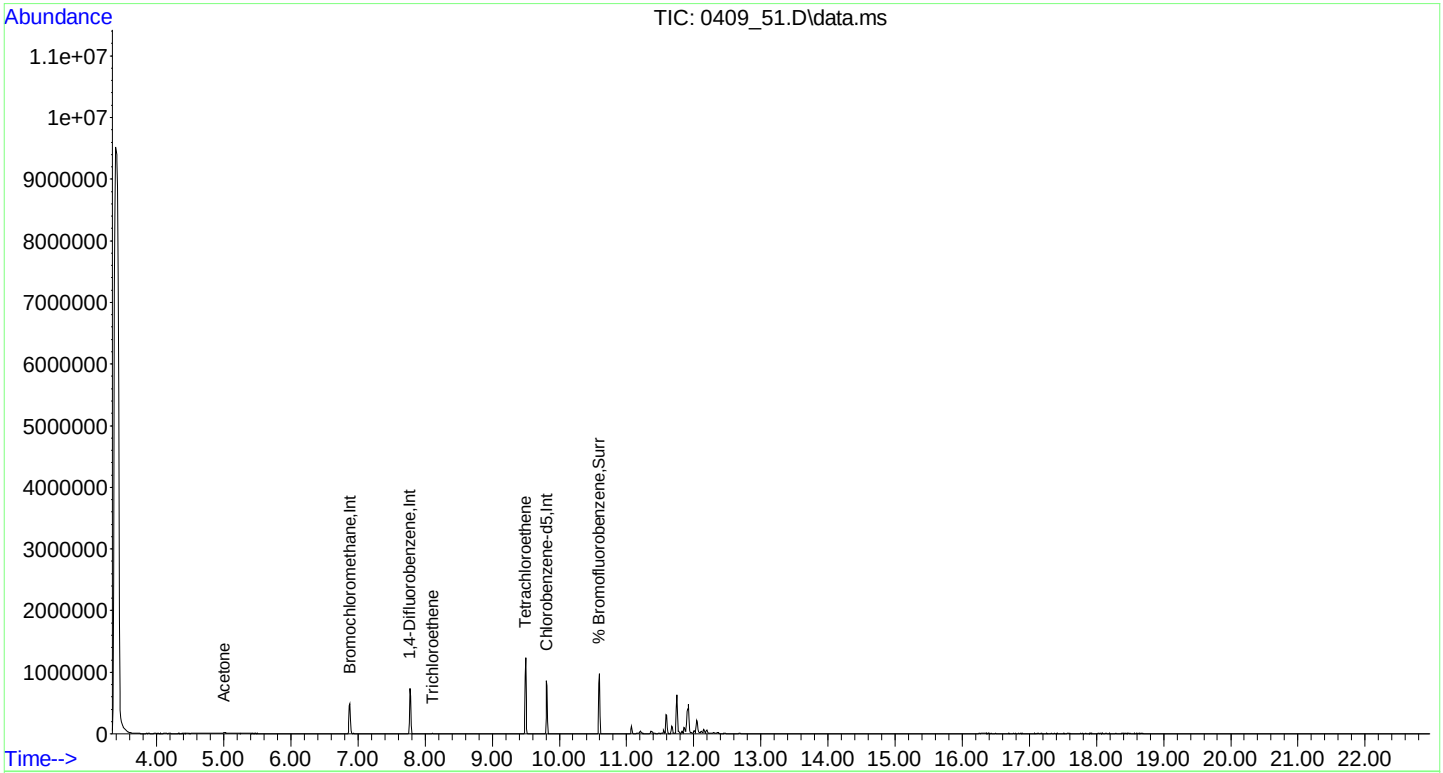
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.879 | 130 | 87556 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.772 | 114 | 301959 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.807 | 82 | 158326 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.874 | 130 | 124556 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 353647 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 158517 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 206996 | 9.973 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 99.70% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 12) Acetone | 5.009 | 43 | 22850 | 1.167 | ppbv | # | 84 |
| 39) Trichloroethene | 8.111 | 130 | 1986 | 0.175 | ppbv | | 98 |
| 52) Tetrachloroethene | 9.497 | 166 | 167467 | 13.967 | ppbv | # | 88 |
| 97] Trichloroethene(sim) | 8.111 | 130 | 1986 | 0.156 | ppbv | | 96 |
| 103] Tetrachloroethene(sim) | 9.497 | 166 | 167467 | 12.056 | ppbv | | 88 |

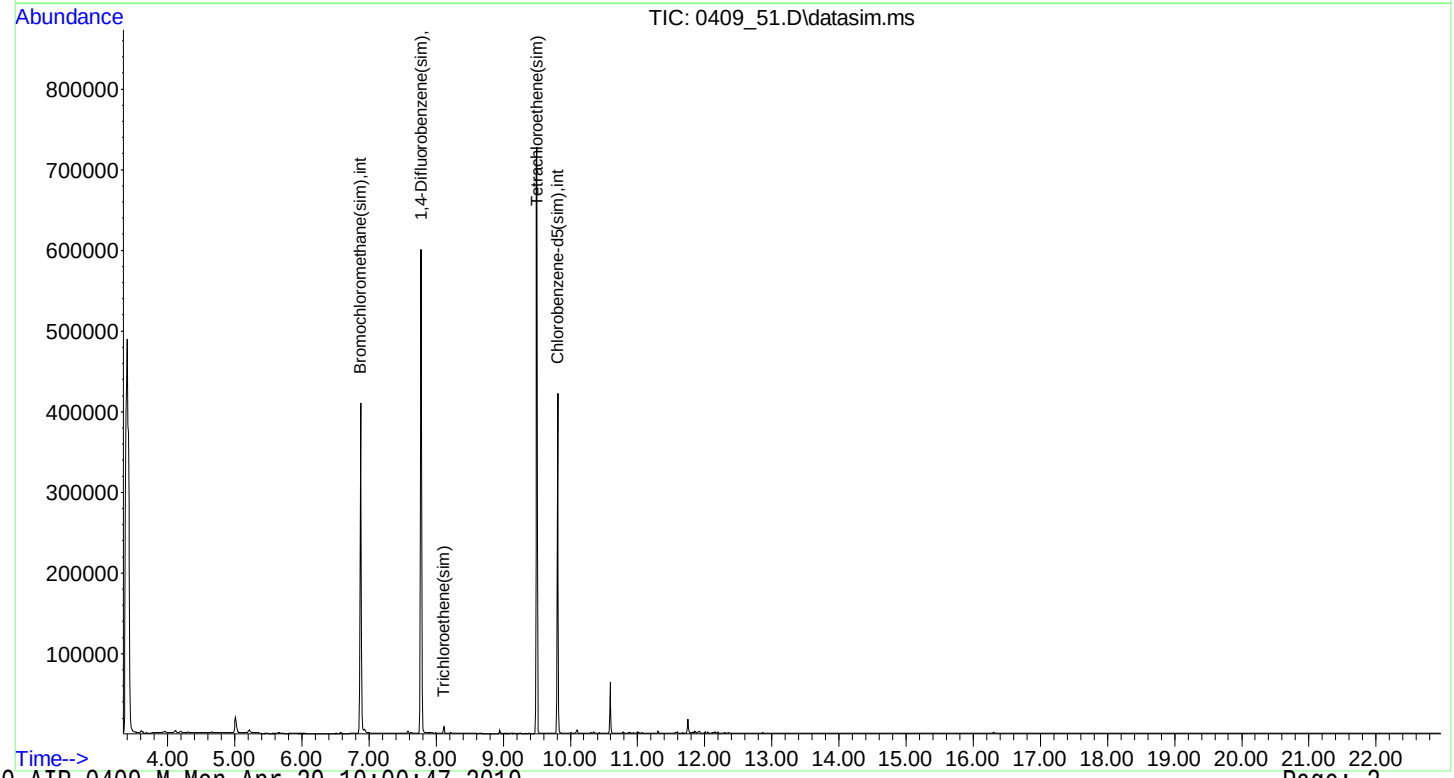
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

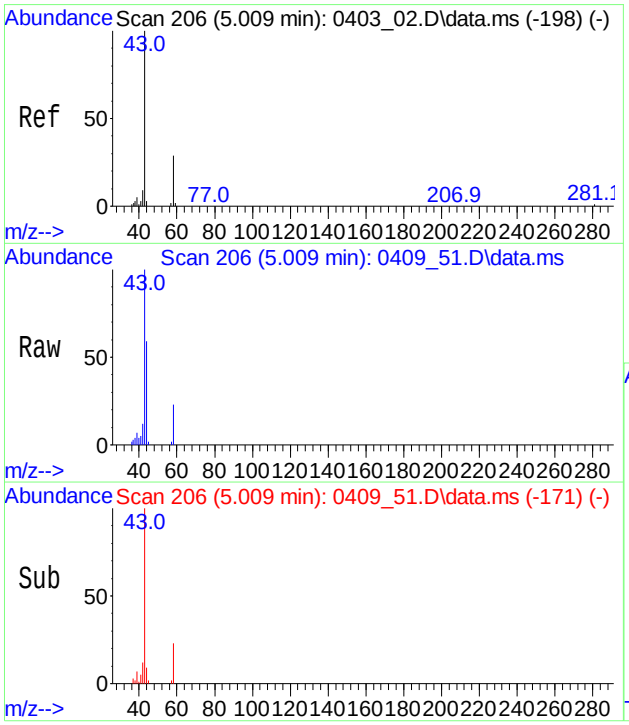
Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_51.D
Acq On : 10 Apr 2019 02:35 pm
Operator : CORTEX\ms
Client ID : SS-10 75X
Lab ID : CC90523 75X
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 16:00:36 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:42:38 2019
Response via : Initial Calibration



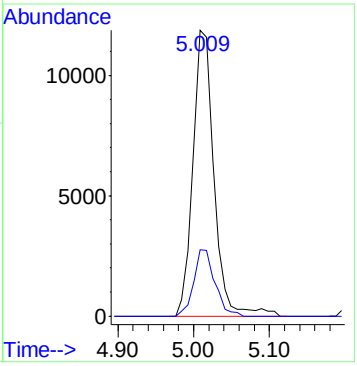



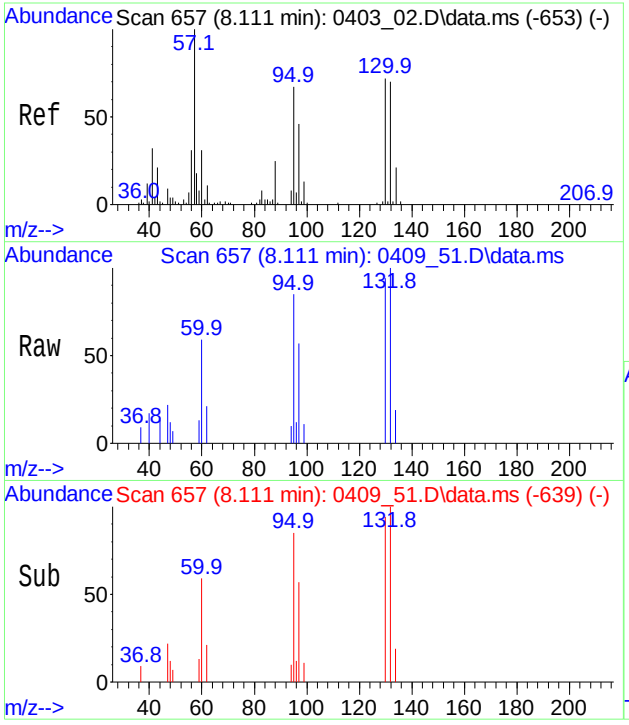



#12
Acetone
Conc: 8$ 1.167 ppbv
RT: 5.009 min Scan# 206
Delta R.T. -0.016 min
Lab File: 0409_51.D
Acq: 10 Apr 2019 02:35 pm

Tgt Ion: 43 Resp: 22850

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 23.2 | 25.9 | 38.9# |

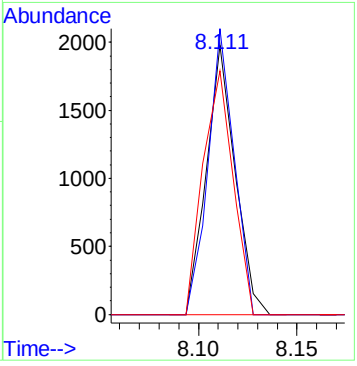


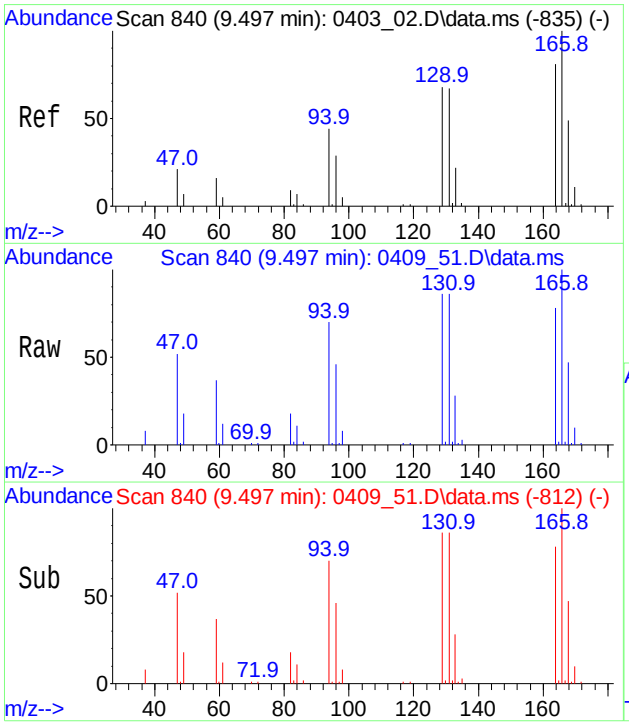




#39
Trichloroethene
Conc: 8$ 0.175 ppbv
RT: 8.111 min Scan# 657
Delta R.T. -0.000 min
Lab File: 0409_51.D
Acq: 10 Apr 2019 02:35 pm

Tgt Ion:130 Resp: 1986

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 96.2 | 78.0 | 117.0 |
| 95 | 94.7 | 73.0 | 109.4 |

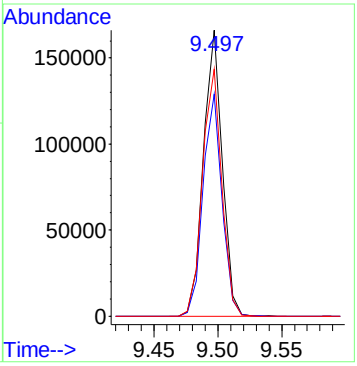


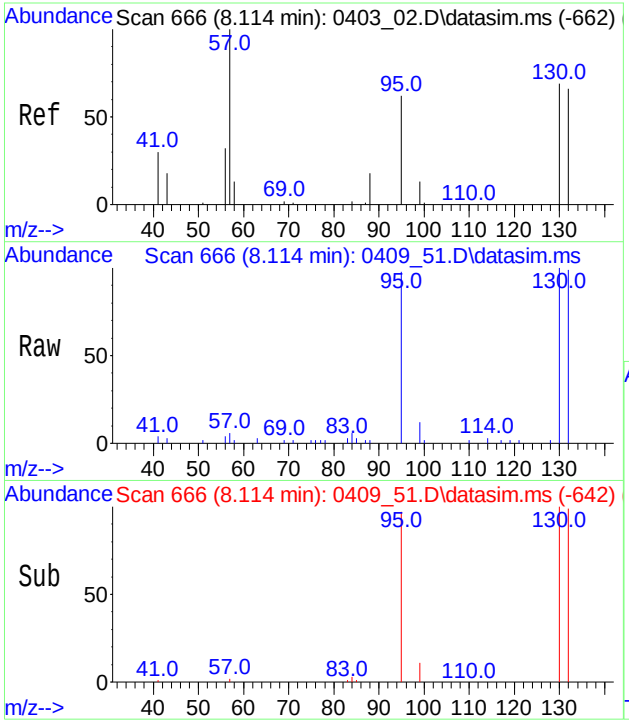



#52
Tetrachloroethene
Conc: 8$ 13.967 ppbv
RT: 9.497 min Scan# 840
Delta R.T. 0.000 min
Lab File: 0409_51.D
Acq: 10 Apr 2019 02:35 pm

Tgt Ion:166 Resp: 167467

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 78.1 | 62.2 | 93.2 |
| 129 | 88.5 | 54.9 | 82.3# |

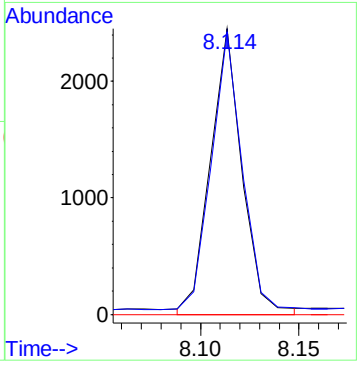


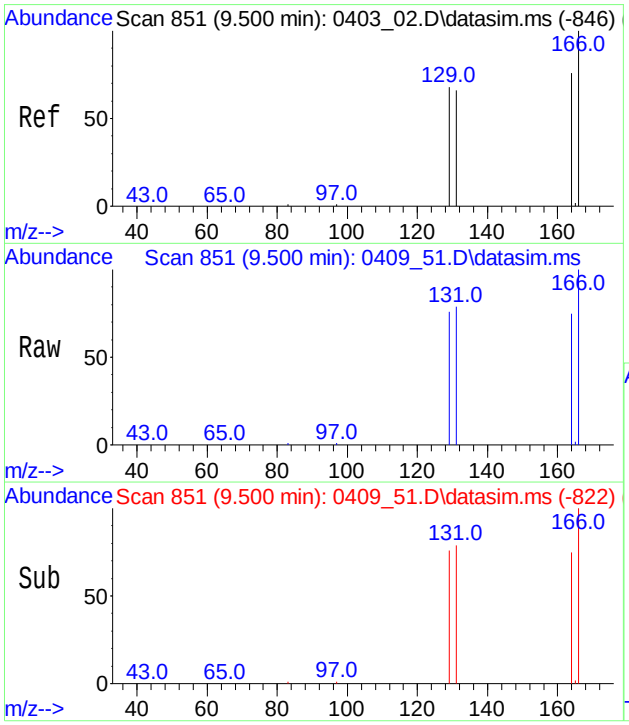




#97
Trichloroethene(sim)
Conc: 8$ 0.156 ppbv
RT: 8.111 min Scan# 666
Delta R.T. -0.000 min
Lab File: 0409_51.D
Acq: 10 Apr 2019 02:35 pm

Tgt Ion:130 Resp: 1986

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 96.2 | 78.0 | 117.0 |
| 97 | 65.1 | 47.2 | 70.8 |

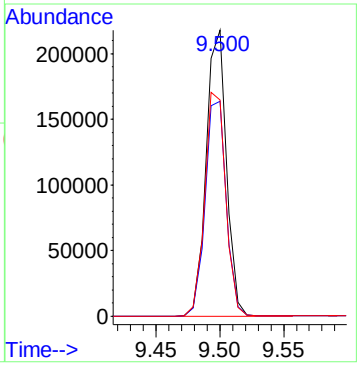





#103
Tetrachloroethene(sim)
Conc: 8$  12.056 ppbv
RT:  9.497 min  Scan# 851
Delta R.T.  0.000 min
Lab File:  0409_51.D
Acq: 10 Apr 2019  02:35 pm

Tgt Ion:166 Resp:  167467

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 78.1 | 57.7 | 97.7 |
| 129 | 88.5 | 48.6 | 88.6 |



1

CLIENT ID

AIR ANALYSIS DATA SHEET

SS-1 5X

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90524 5X

Canister: 28557 Lab File ID: 0409_37.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/10/19

Matrix: AIR Dilution Factor: 5

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 115-07-1 | Propylene | 2.91 | U | 2.91 | 2.91 | r |
| 75-71-8 | Dichlorodifluoromethane | 1.01 | U | 1.01 | 1.01 | r |
| 74-87-3 | Chloromethane | 2.42 | U | 2.42 | 2.42 | r |
| 106-99-0 | 1,3-Butadiene | 2.26 | U | 2.26 | 2.26 | r |
| 75-00-3 | Chloroethane | 1.90 | U | 1.90 | 1.90 | r |
| 64-17-5 | Ethanol | 2.71 | S | 2.66 | 2.66 | r |
| 67-64-1 | Acetone | 3.58 | S | 2.11 | 2.11 | r |
| 67-63-0 | Isopropylalcohol | 2.04 | U | 2.04 | 2.04 | r |
| 107-13-1 | Acrylonitrile | 2.31 | U | 2.31 | 2.31 | r |
| 75-09-2 | Methylene Chloride | 4.32 | U | 4.32 | 4.32 | r |
| 75-15-0 | Carbon Disulfide | 1.61 | U | 1.61 | 1.61 | r |
| 156-60-5 | Trans-1,2-Dichloroethene | 4.31 | | 1.26 | 1.26 | r |
| 1634-04-4 | Methyl tert-butyl ether(MTBE) | 1.39 | U | 1.39 | 1.39 | r |
| 78-93-3 | Methyl Ethyl Ketone | 1.70 | U | 1.70 | 1.70 | r |
| 156-59-2 | Cis-1,2-Dichloroethene | 85.9 | | 0.252 | 0.252 | r |
| 110-54-3 | Hexane | 1.42 | U | 1.42 | 1.42 | r |
| 67-66-3 | Chloroform | 1.60 | | 1.02 | 1.02 | r |
| 141-78-6 | Ethyl acetate | 1.39 | U | 1.39 | 1.39 | r |
| 109-99-9 | Tetrahydrofuran | 1.70 | U | 1.70 | 1.70 | r |
| 71-43-2 | Benzene | 1.57 | U | 1.57 | 1.57 | r |
| 110-82-7 | Cyclohexane | 1.45 | U | 1.45 | 1.45 | r |
| 79-01-6 | Trichloroethene | 49.5 | | 0.186 | 0.186 | r |
| 142-82-5 | Heptane | 1.22 | U | 1.22 | 1.22 | r |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | 1.22 | U | 1.22 | 1.22 | r |
| 10061-02-6 | trans-1,3-Dichloropropene | 1.10 | U | 1.10 | 1.10 | r |
| 108-88-3 | Toluene | 2.66 | | 1.33 | 1.33 | r |
| 591-78-6 | 2-Hexanone(MBK) | 1.22 | U | 1.22 | 1.22 | r |
| 127-18-4 | Tetrachloroethene | 1560 | E | 0.184 | 0.184 | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.729 | U | 0.729 | 0.729 | r |
| 108-90-7 | Chlorobenzene | 1.09 | U | 1.09 | 1.09 | r |
| 100-41-4 | Ethylbenzene | 1.15 | U | 1.15 | 1.15 | r |
| 100-42-5 | Styrene | 1.17 | U | 1.17 | 1.17 | r |
| 95-47-6 | o-Xylene | 1.15 | U | 1.15 | 1.15 | r |
| 98-82-8 | Isopropylbenzene | 1.02 | U | 1.02 | 1.02 | r |
| 622-96-8 | 4-Ethyltoluene | 1.02 | U | 1.02 | 1.02 | r |
| 108-67-8 | 1,3,5-Trimethylbenzene | 1.02 | U | 1.02 | 1.02 | r |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

1

AIR ANALYSIS DATA SHEET

CLIENT ID: SS-1 5X

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90524 5X

Canister: 28557 Lab File ID: 0409_37.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/10/19

Matrix: AIR Dilution Factor: 5

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | 1.02 | U | 1.02 | 1.02 | r |
| 76-14-2 | 1,2-Dichlorotetrafluoroethane(sim) | 0.716 | U | 0.716 | 0.716 | r |
| 75-01-4 | Vinyl Chloride(sim) | 0.391 | U | 0.391 | 0.391 | r |
| 74-83-9 | Bromomethane(sim) | 1.29 | U | 1.29 | 1.29 | r |
| 75-69-4 | Trichlorofluoromethane(sim) | 0.891 | U | 0.891 | 0.891 | r |
| 107-06-2 | 1,2-Dichloroethane(sim) | 1.24 | U | 1.24 | 1.24 | r |
| 71-55-6 | 1,1,1-Trichloroethane(sim) | 0.917 | U | 0.917 | 0.917 | r |
| 56-23-5 | Carbon Tetrachloride(sim) | 0.159 | U | 0.159 | 0.159 | r |
| 75-35-4 | 1,1-Dichloroethene(sim) | 0.252 | U | 0.252 | 0.252 | r |
| 76-13-1 | Trichlorotrifluoroethane(sim) | 0.653 | U | 0.653 | 0.653 | r |
| 75-34-3 | 1,1-Dichloroethane(sim) | 1.24 | U | 1.24 | 1.24 | r |
| 78-87-5 | 1,2-dichloropropane(sim) | 1.08 | U | 1.08 | 1.08 | r |
| 75-27-4 | Bromodichloromethane(sim) | 0.747 | U | 0.747 | 0.747 | r |
| 123-91-1 | 1,4-Dioxane(sim) | 1.39 | U | 1.39 | 1.39 | r |
| 10061-01-5 | cis-1,3-Dichloropropene(sim) | 1.10 | U | 1.10 | 1.10 | r |
| 79-00-5 | 1,1,2-Trichloroethane(sim) | 0.917 | U | 0.917 | 0.917 | r |
| 124-48-1 | Dibromochloromethane(sim) | 0.587 | U | 0.587 | 0.587 | r |
| 106-93-4 | 1,2-Dibromoethane(EDB)(sim) | 0.651 | U | 0.651 | 0.651 | r |
| 75-25-2 | Bromoform(sim) | 0.484 | U | 0.484 | 0.484 | r |
| 179601-23-1 | m,p-Xylene(sim) | 1.73 | | 1.15 | 1.15 | r |
| 79-34-5 | 1,1,2,2-Tetrachloroethane(sim) | 0.729 | U | 0.729 | 0.729 | r |
| 100-44-7 | Benzyl chloride(sim) | 0.966 | U | 0.966 | 0.966 | r |
| 541-73-1 | 1,3-Dichlorobenzene(sim) | 0.832 | U | 0.832 | 0.832 | r |
| 106-46-7 | 1,4-Dichlorobenzene(sim) | 0.832 | U | 0.832 | 0.832 | r |
| 135-98-8 | sec-Butylbenzene(sim) | 0.911 | U | 0.911 | 0.911 | r |
| 99-87-6 | 4-Isopropyltoluene(sim) | 0.911 | U | 0.911 | 0.911 | r |
| 95-50-1 | 1,2-Dichlorobenzene(sim) | 0.832 | U | 0.832 | 0.832 | r |
| 104-51-8 | n-Butylbenzene(sim) | 0.911 | U | 0.911 | 0.911 | r |
| 120-82-1 | 1,2,4-Trichlorobenzene(sim) | 0.674 | U | 0.674 | 0.674 | r |
| 87-68-3 | Hexachlorobutadiene(sim) | 0.469 | U | 0.469 | 0.469 | r |
| | | | | | | |
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FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_37.D
Acq On : 10 Apr 2019 05:11 am
Operator : CORTEX\ms
Client ID : SS-1 5X
Lab ID : CC90524 5X
ALS Vial : 1 Sample Multiplier: 1

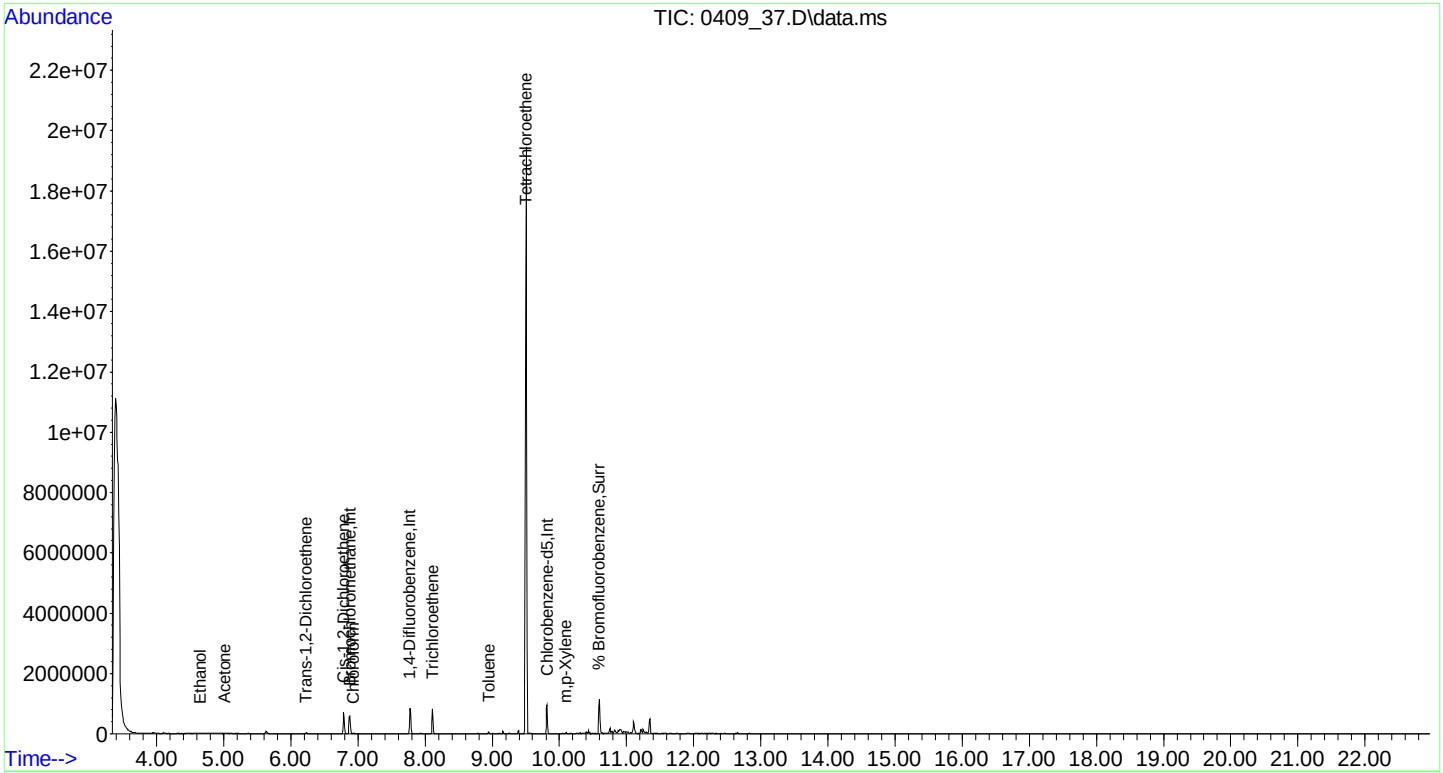
Quant Time: Apr 10 10:29:42 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration

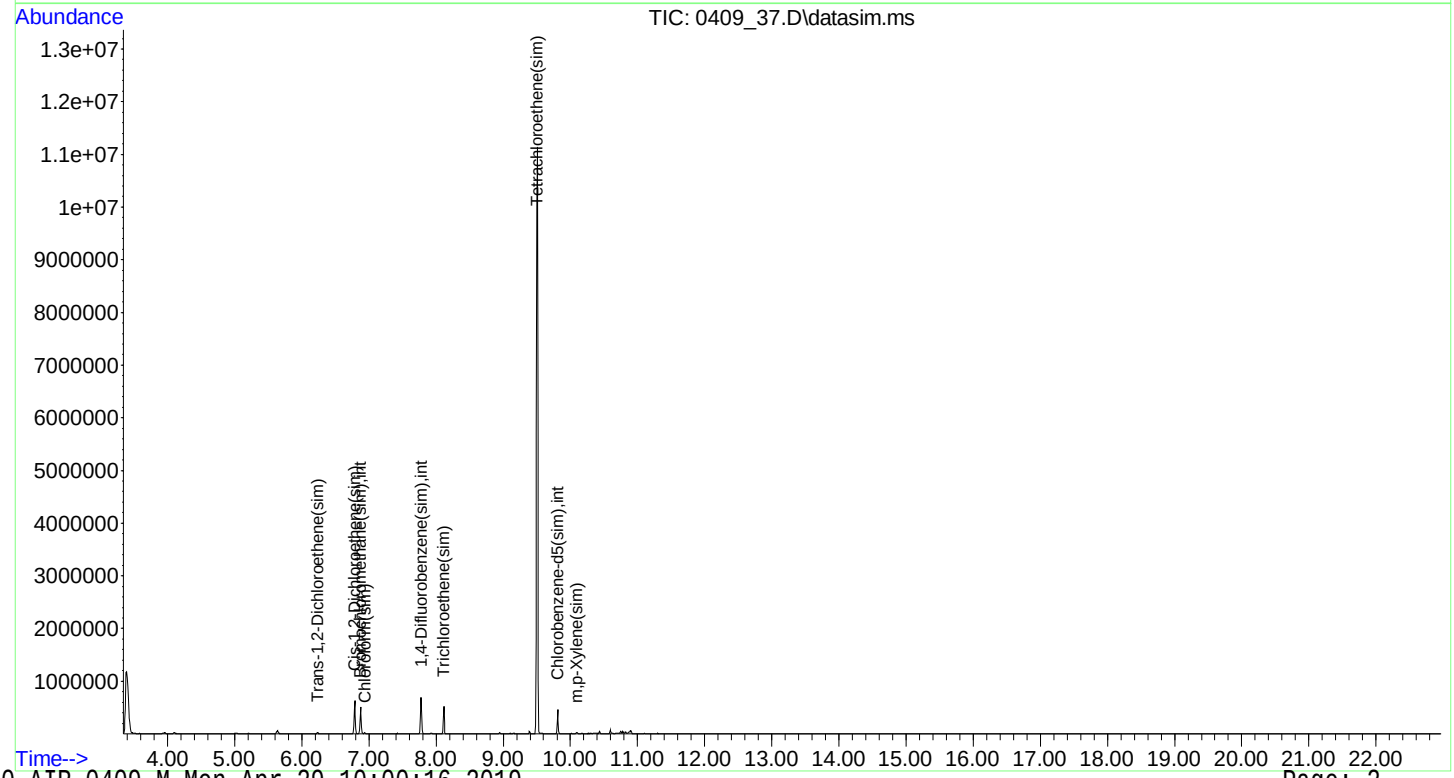
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.879 | 130 | 111696 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.772 | 114 | 372099 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.815 | 82 | 178488 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.874 | 130 | 155548 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 430137 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 180414 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 244330 | 10.442 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 104.40% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 11) Ethanol | 4.652 | 45 | 2605 | 0.542 | ppbv | # | 88 |
| 12) Acetone | 5.017 | 43 | 17856 | 0.715 | ppbv | | 97 |
| 22) Trans-1,2-Dichloroethene | 6.229 | 61 | 16453 | 0.861 | ppbv | # | 81 |
| 26) Cis-1,2-Dichloroethene | 6.786 | 61 | 315075 | 17.178 | ppbv | # | 70 |
| 28) Chloroform | 6.933 | 83 | 8303 | 0.320 | ppbv | # | 87 |
| 39) Trichloroethene | 8.111 | 130 | 138371 | 9.905 | ppbv | | 91 |
| 48) Toluene | 8.948 | 91 | 16190 | 0.531 | ppbv | # | 96 |
| 52) Tetrachloroethene | 9.505 | 166 | 4613472 | 312.231 | ppbv | | 95 |
| 57) m,p-Xylene | 10.095 | 91 | 10875 | 0.337 | ppbv | | 91 |
| 90] Trans-1,2-Dichloroethe... | 6.232 | 61 | 19240 | 0.772 | ppbv | # | 78 |
| 92] Cis-1,2-Dichloroethene... | 6.789 | 61 | 366455 | 15.602 | ppbv | # | 72 |
| 93] Chloroform(sim) | 6.933 | 83 | 8303 | 0.282 | ppbv | # | 87 |
| 97] Trichloroethene(sim) | 8.111 | 130 | 138371 | 8.929 | ppbv | | 94 |
| 103] Tetrachloroethene(sim) | 9.505 | 166 | 4610542 | 272.888 | ppbv | | 95 |
| 106] m,p-Xylene(sim) | 10.098 | 91 | 11489 | 0.345 | ppbv | # | 93 |

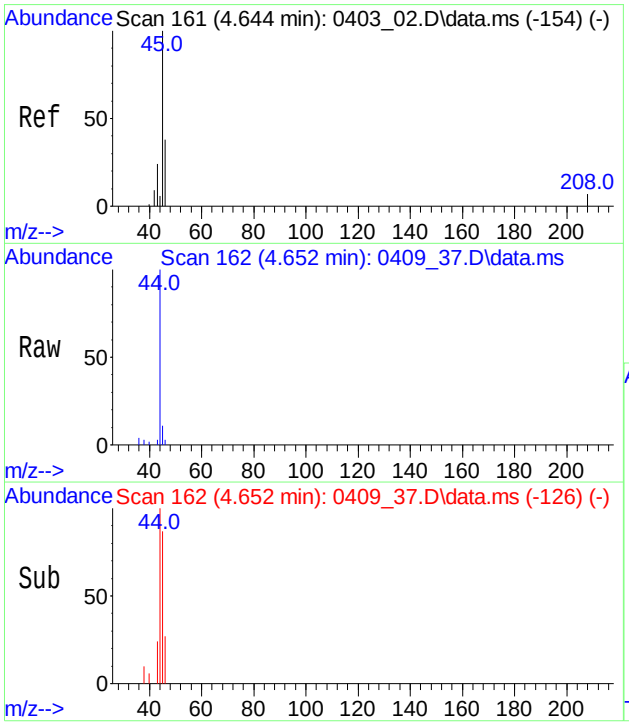
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_37.D
Acq On : 10 Apr 2019 05:11 am
Operator : CORTEX\ms
Client ID : SS-1 5X
Lab ID : CC90524 5X
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 10:29:42 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration



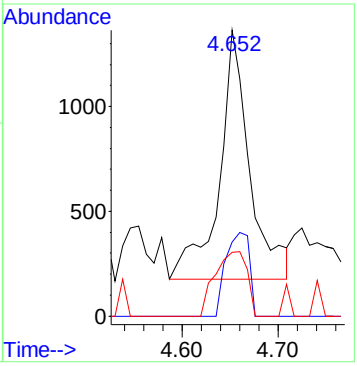



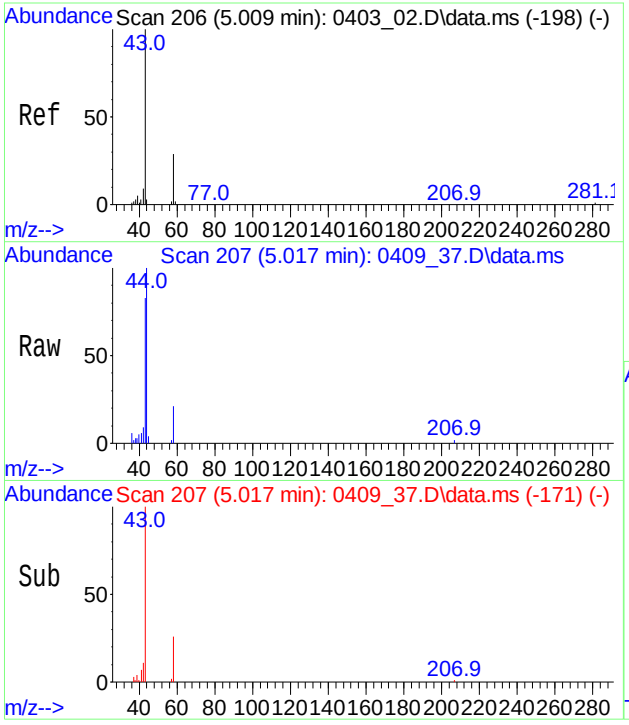



#11
Ethanol
Conc: 8$ 0.542 ppbv
RT: 4.652 min Scan# 162
Delta R.T. -0.008 min
Lab File: 0409_37.D
Acq: 10 Apr 2019 05:11 am

Tgt Ion: 45 Resp: 2605

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 46 | 26.0 | 29.9 | 44.9# |
| 43 | 27.3 | 22.7 | 34.1 |

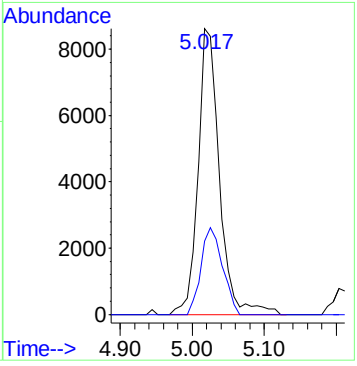


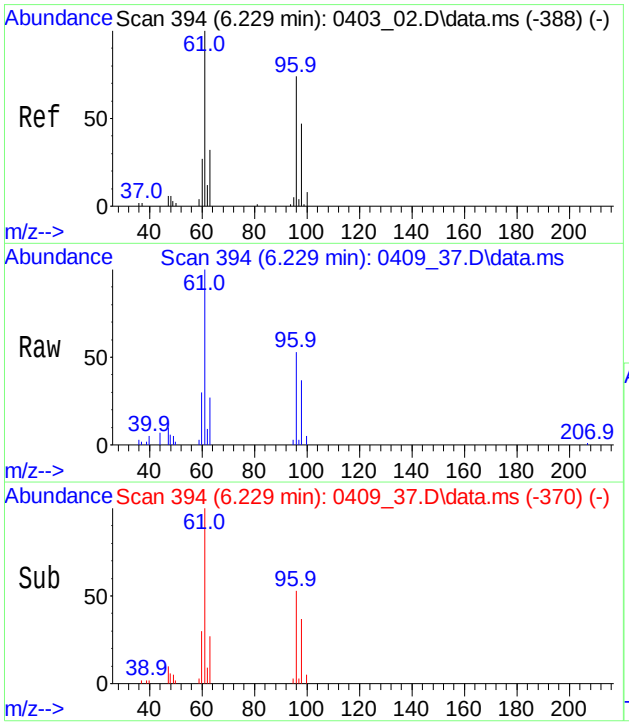




#12
Acetone
Conc: 8$ 0.715 ppbv
RT: 5.017 min Scan# 207
Delta R.T. -0.008 min
Lab File: 0409_37.D
Acq: 10 Apr 2019 05:11 am

Tgt Ion: 43 Resp: 17856

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 30.5 | 25.9 | 38.9 |

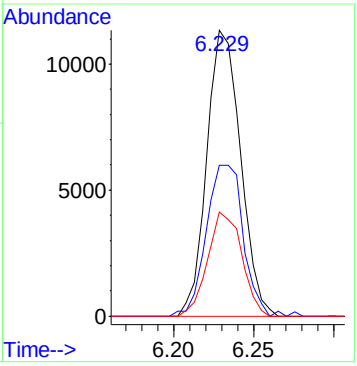


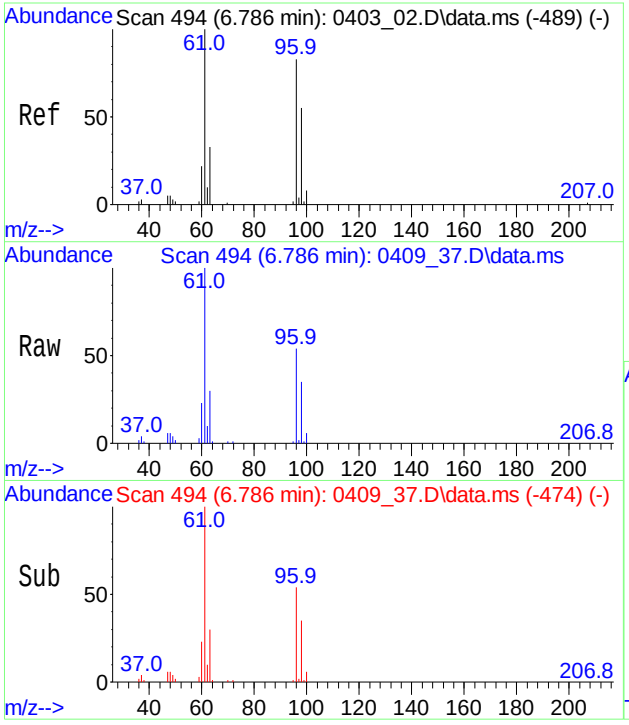



#22
Trans-1,2-Dichloroethene
Conc: 8$ 0.861 ppbv
RT: 6.229 min Scan# 394
Delta R.T. -0.010 min
Lab File: 0409_37.D
Acq: 10 Apr 2019 05:11 am

Tgt Ion: 61 Resp: 16453

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 58.0 | 60.6 | 90.8# |
| 98 | 36.7 | 38.9 | 58.3# |

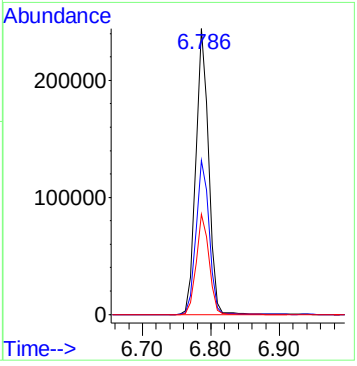


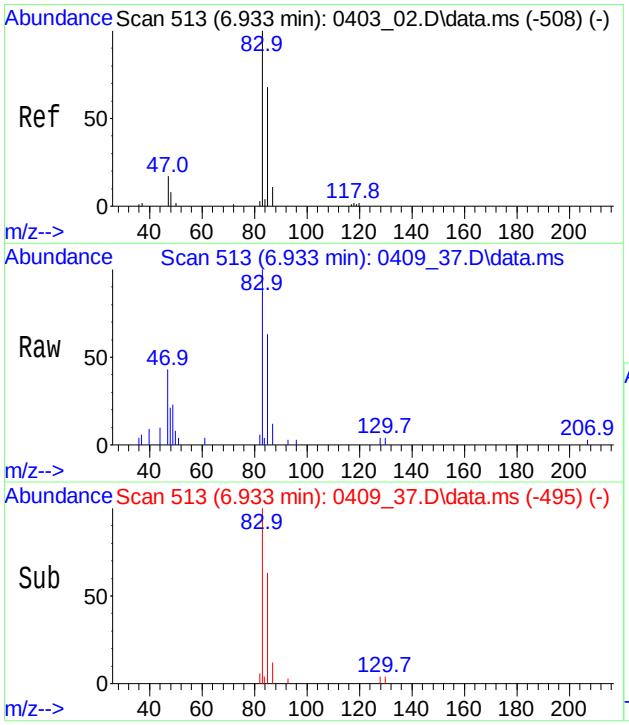




#26
Cis-1,2-Dichloroethene
Conc: 8$ 17.178 ppbv
RT: 6.786 min Scan# 494
Delta R.T. -0.008 min
Lab File: 0409_37.D
Acq: 10 Apr 2019 05:11 am

Tgt Ion: 61 Resp: 315075

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 55.7 | 67.8 | 101.8# |
| 98 | 34.9 | 43.8 | 65.6# |

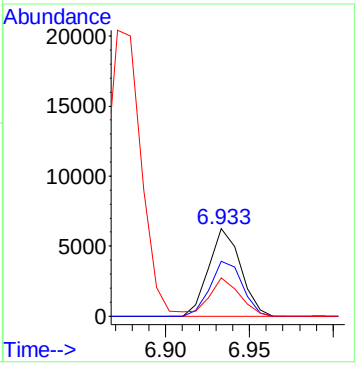


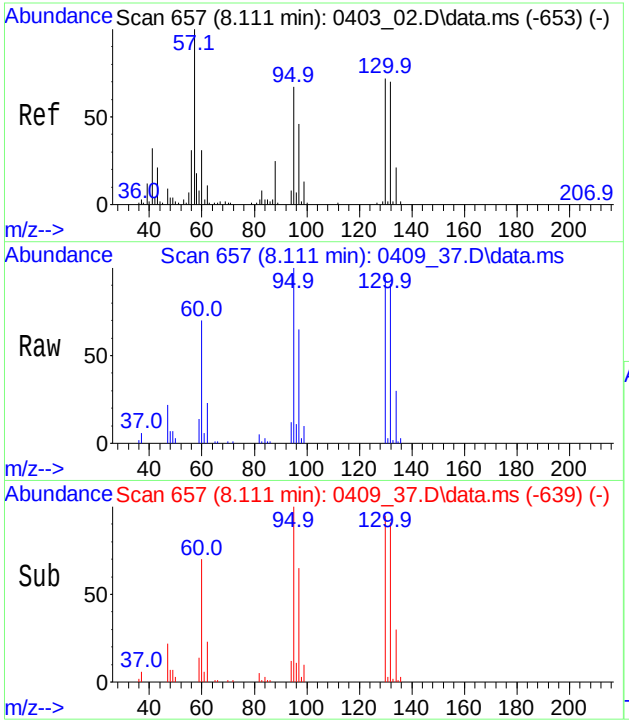



#28
Chloroform
Conc: 8$  0.320 ppbv
RT:  6.933 min  Scan# 513
Delta R.T.  -0.008 min
Lab File:  0409_37.D
Acq: 10 Apr 2019  05:11 am

Tgt Ion: 83 Resp:  8303

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.2 | 45.9 | 85.9 |
| 47 | 41.3 | 0.8 | 40.8# |

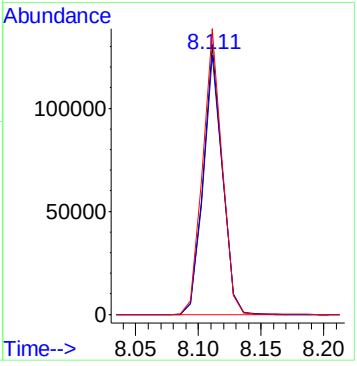


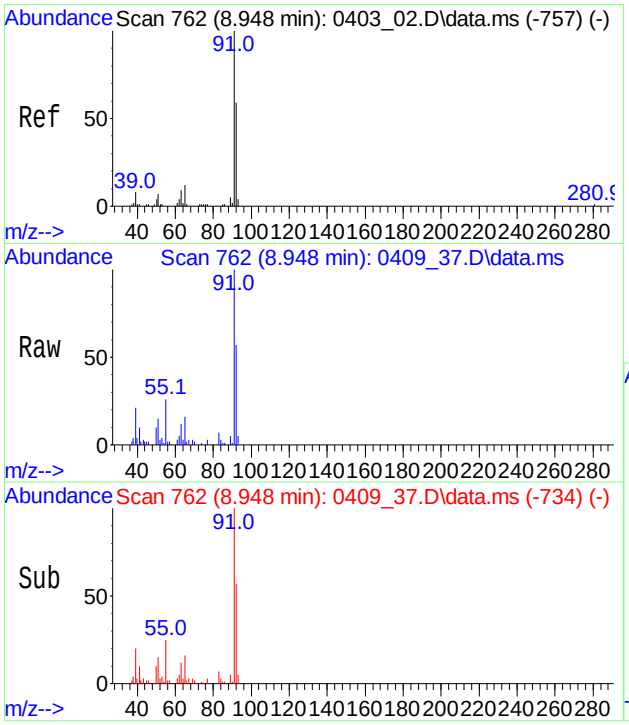




#39
Trichloroethene
Conc: 8$  9.905 ppbv
RT:  8.111 min  Scan# 657
Delta R.T.  -0.000 min
Lab File:  0409_37.D
Acq: 10 Apr 2019  05:11 am

Tgt Ion:130 Resp:  138371

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 97.4 | 78.0 | 117.0 |
| 95 | 107.8 | 73.0 | 109.4 |

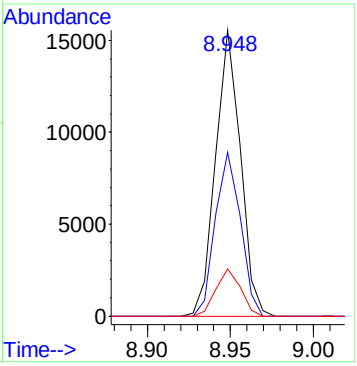


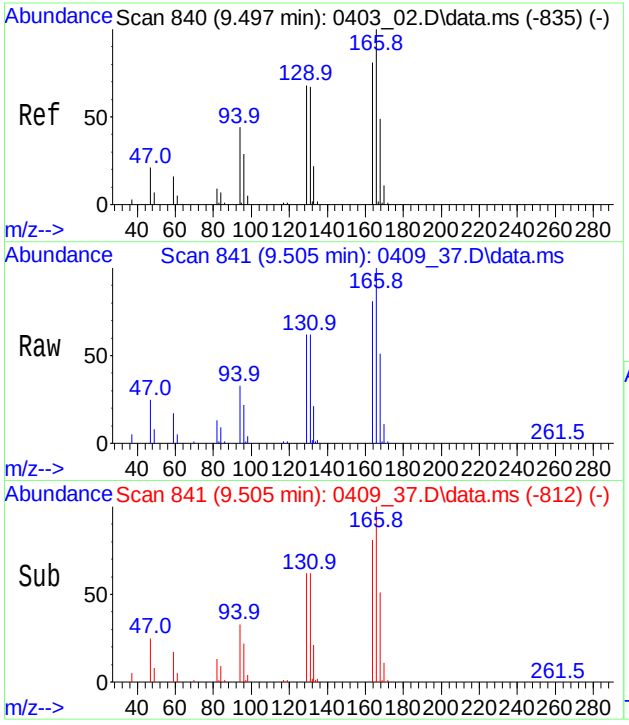



#48
Toluene
Conc: 8$ 0.531 ppbv
RT: 8.948 min Scan# 762
Delta R.T. 0.000 min
Lab File: 0409_37.D
Acq: 10 Apr 2019 05:11 am

Tgt Ion: 91 Resp: 16190

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 57.8 | 47.7 | 71.5 |
| 65 | 16.4 | 9.3 | 13.9# |

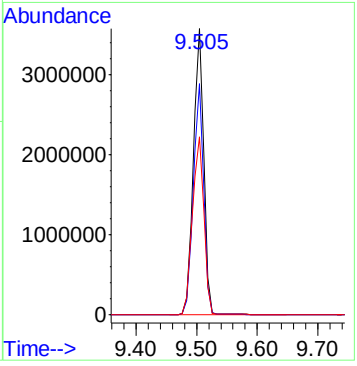


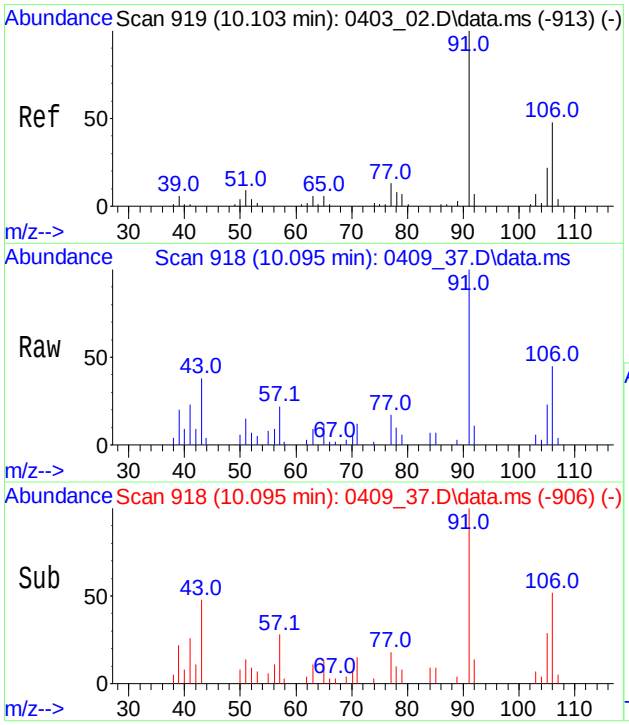




#52
Tetrachloroethene
Conc: 8$ 312.231 ppbv
RT: 9.505 min Scan# 841
Delta R.T. 0.007 min
Lab File: 0409_37.D
Acq: 10 Apr 2019 05:11 am

Tgt Ion:166 Resp: 4613472

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 80.5 | 62.2 | 93.2 |
| 129 | 62.8 | 54.9 | 82.3 |

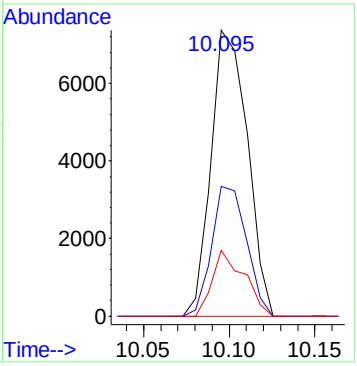


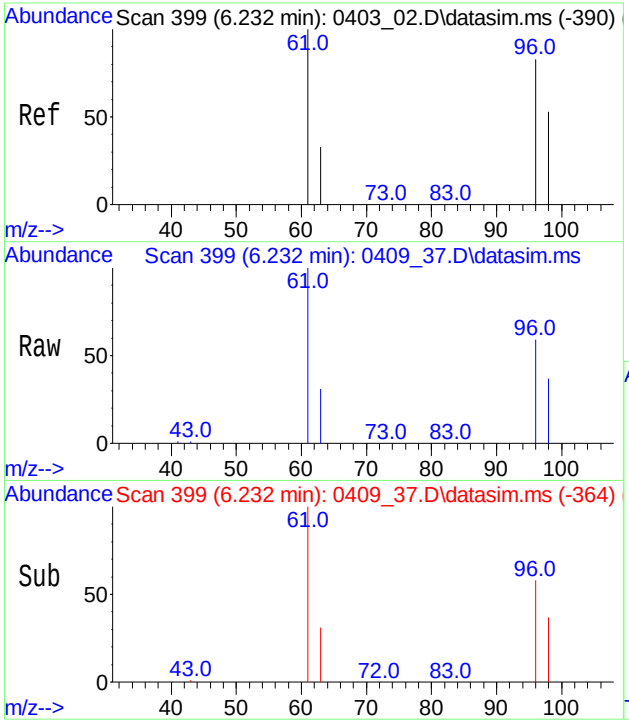



#57
m,p-Xylene
Conc: 8$  0.337 ppbv
RT:  10.095 min  Scan# 918
Delta R.T.  -0.007 min
Lab File:  0409_37.D
Acq: 10 Apr 2019  05:11 am

Tgt Ion: 91 Resp:  10875

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 43.5 | 40.9 | 61.3 |
| 105 | 20.2 | 17.8 | 26.8 |

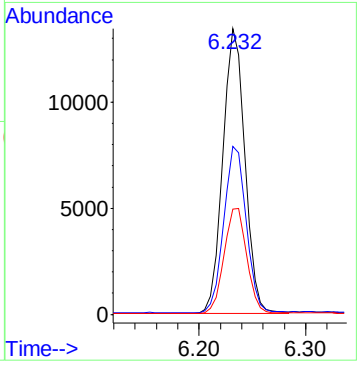


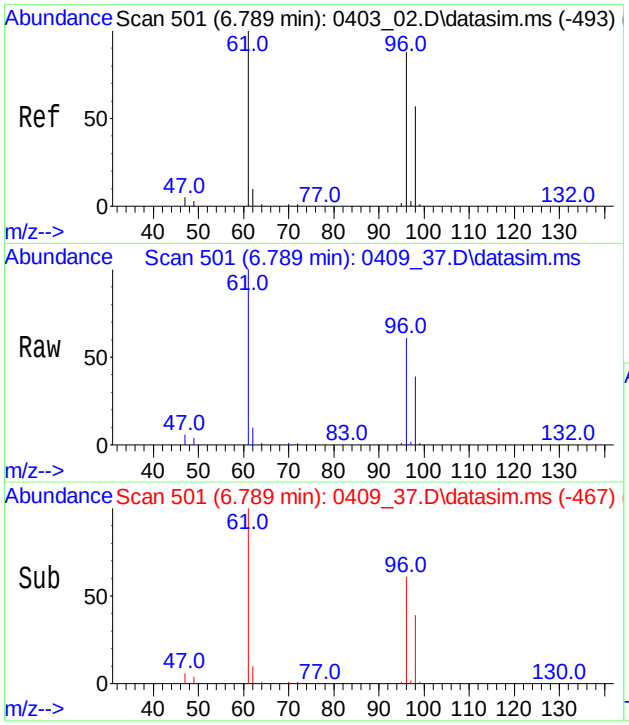




#90
Trans-1,2-Dichloroethene(sim)
Conc: 8$  0.772 ppbv
RT:  6.232 min  Scan# 399
Delta R.T.  -0.005 min
Lab File:  0409_37.D
Acq: 10 Apr 2019  05:11 am

Tgt Ion: 61 Resp:  19240

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 59.6 | 64.6 | 97.0# |
| 98 | 38.0 | 41.7 | 62.5# |

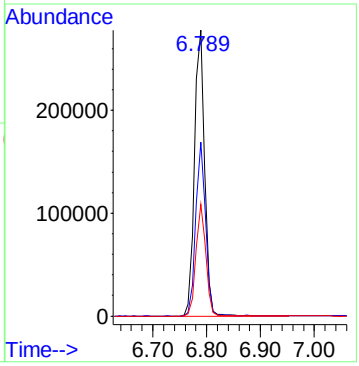


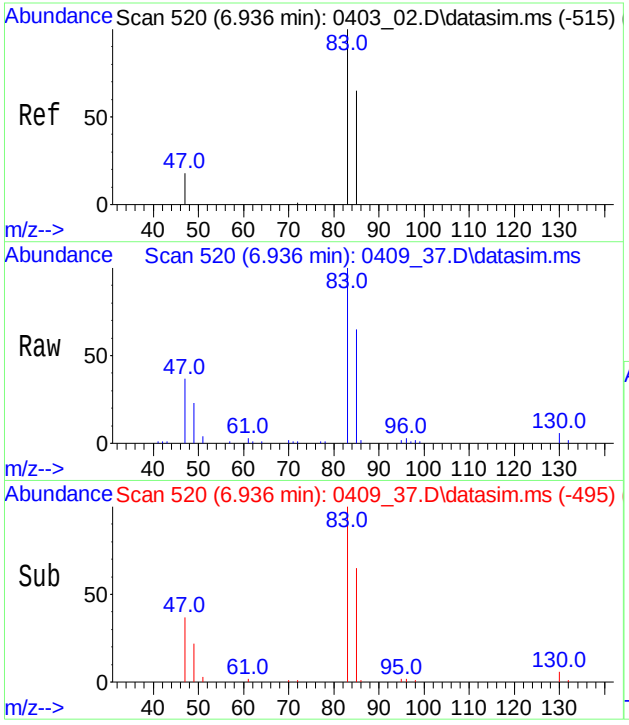



#92
Cis-1,2-Dichloroethene(sim)
Conc: 8$  15.602 ppbv
RT:  6.789 min  Scan# 501
Delta R.T.  0.000 min
Lab File:  0409_37.D
Acq: 10 Apr 2019  05:11 am

Tgt Ion: 61 Resp:  366455

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 58.9 | 69.7 | 104.5# |
| 98 | 38.0 | 45.3 | 67.9# |

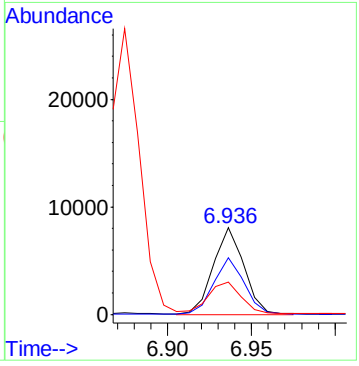


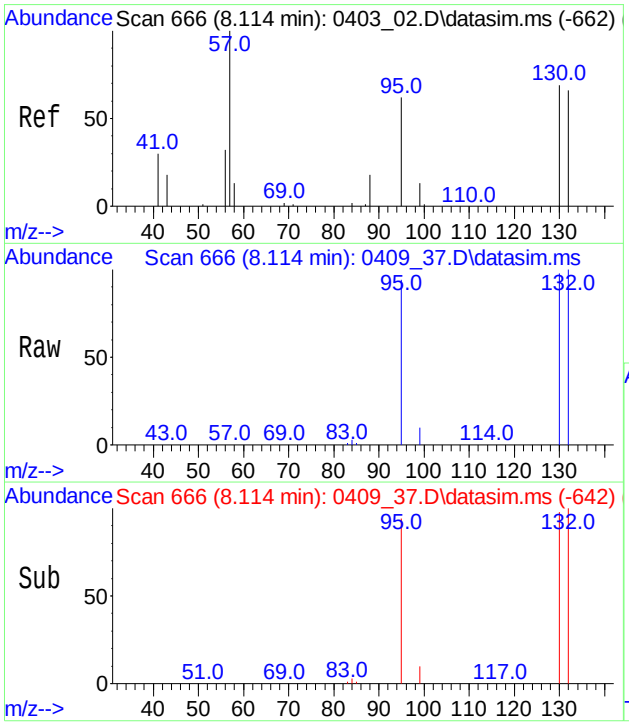




#93
Chloroform(sim)
Conc: 8$  0.282 ppbv
RT:  6.933 min  Scan# 520
Delta R.T.  -0.008 min
Lab File:  0409_37.D
Acq: 10 Apr 2019  05:11 am

Tgt Ion: 83 Resp:  8303

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.2 | 52.7 | 79.1 |
| 47 | 41.3 | 16.6 | 25.0# |

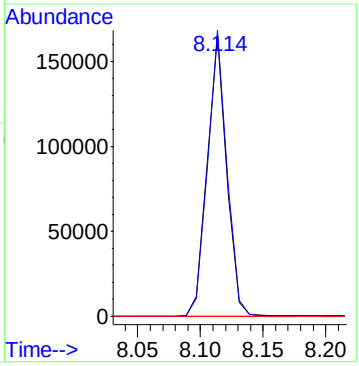


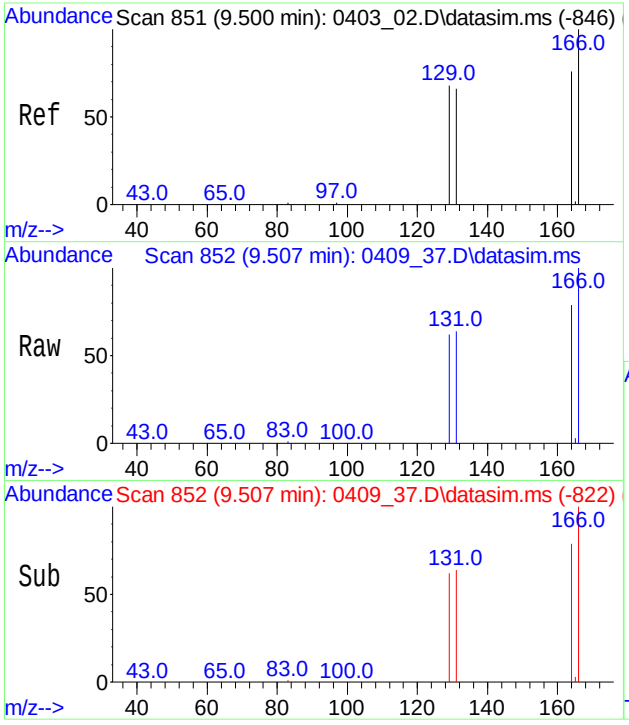



#97
Trichloroethene(sim)
Conc: 8$ 8.929 ppbv
RT: 8.111 min Scan# 666
Delta R.T. 0.000 min
Lab File: 0409_37.D
Acq: 10 Apr 2019 05:11 am

Tgt Ion:130 Resp: 138371

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 97.4 | 78.0 | 117.0 |
| 97 | 70.0 | 47.2 | 70.8 |

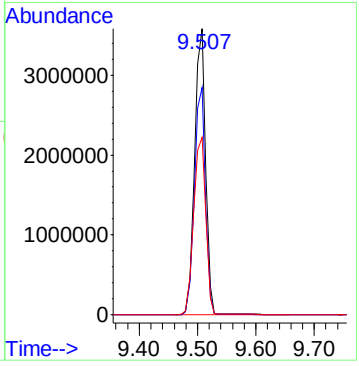


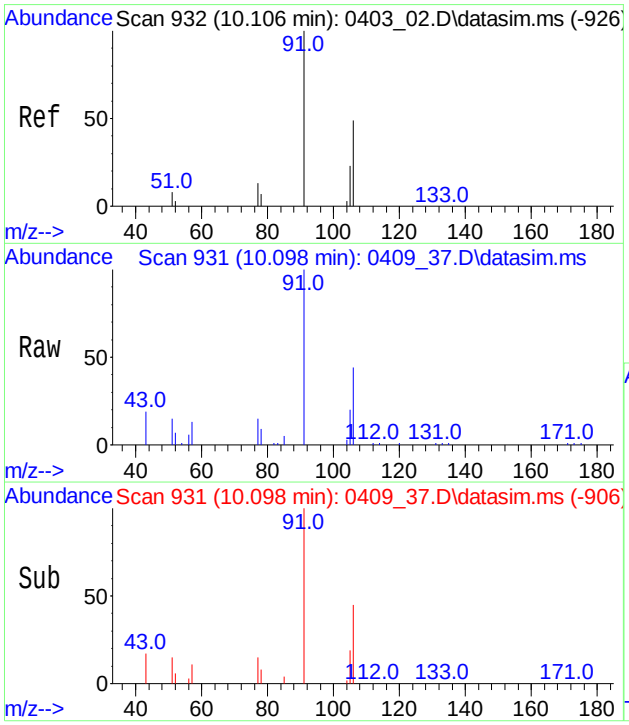




#103
Tetrachloroethene(sim)
Conc: 8$ 272.888 ppbv
RT: 9.505 min Scan# 852
Delta R.T. 0.007 min
Lab File: 0409_37.D
Acq: 10 Apr 2019 05:11 am

Tgt Ion:166 Resp: 4610542

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 80.6 | 57.7 | 97.7 |
| 129 | 62.9 | 48.6 | 88.6 |

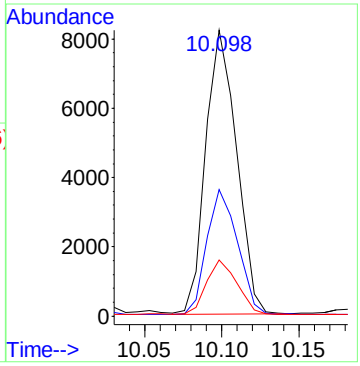





#106
m,p-Xylene(sim)
Conc: 8$  0.345 ppbv
RT:  10.098 min  Scan# 931
Delta R.T.  -0.007 min
Lab File:  0409_37.D
Acq: 10 Apr 2019  05:11 am

Tgt Ion: 91 Resp:  11489

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 43.7 | 44.3 | 54.1# |
| 105 | 19.1 | 17.7 | 26.5 |



AIR ANALYSIS DATA SHEET

CLIENT ID: SS-1 75X

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90524 75X

Canister: 28557 Lab File ID: 0409_52.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/10/19

Matrix: AIR Dilution Factor: 75

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 64-17-5 | Ethanol | 39.8 | U | 39.8 | 39.8 | |
| 67-64-1 | Acetone | 31.6 | U | 31.6 | 31.6 | |
| 156-59-2 | Cis-1,2-Dichloroethene | 58.9 | X | 3.79 | 3.79 | |
| 79-01-6 | Trichloroethene | 37.3 | X | 2.79 | 2.79 | |
| 108-88-3 | Toluene | 19.9 | U | 19.9 | 19.9 | |
| 127-18-4 | Tetrachloroethene | 1840 | D | 2.77 | 2.77 | r |
| 156-60-5 | Trans-1,2-Dichloroethene(sim) | 18.9 | U | 18.9 | 18.9 | |
| 67-66-3 | Chloroform(sim) | 15.4 | U | 15.4 | 15.4 | |
| 179601-23-1 | m,p-Xylene(sim) | 17.3 | U | 17.3 | 17.3 | |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

This form 1 and the associated quantitation report are filtered for detected compounds in the undiluted analysis.

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_52.D
Acq On : 10 Apr 2019 03:12 pm
Operator : CORTEX\ms
Client ID : SS-1 75X
Lab ID : CC90524 75X
ALS Vial : 1 Sample Multiplier: 1

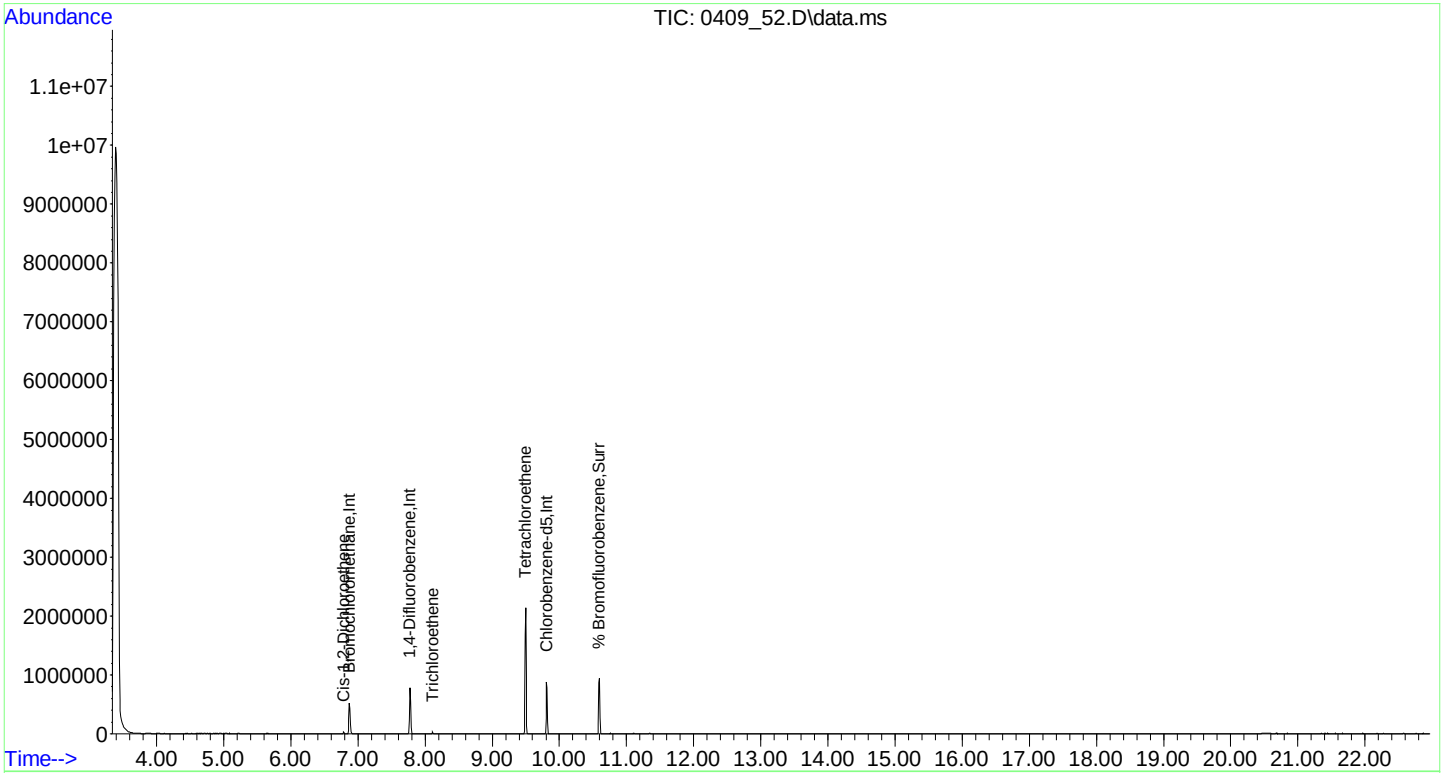
Quant Time: Apr 10 16:00:39 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:42:38 2019
Response via : Initial Calibration

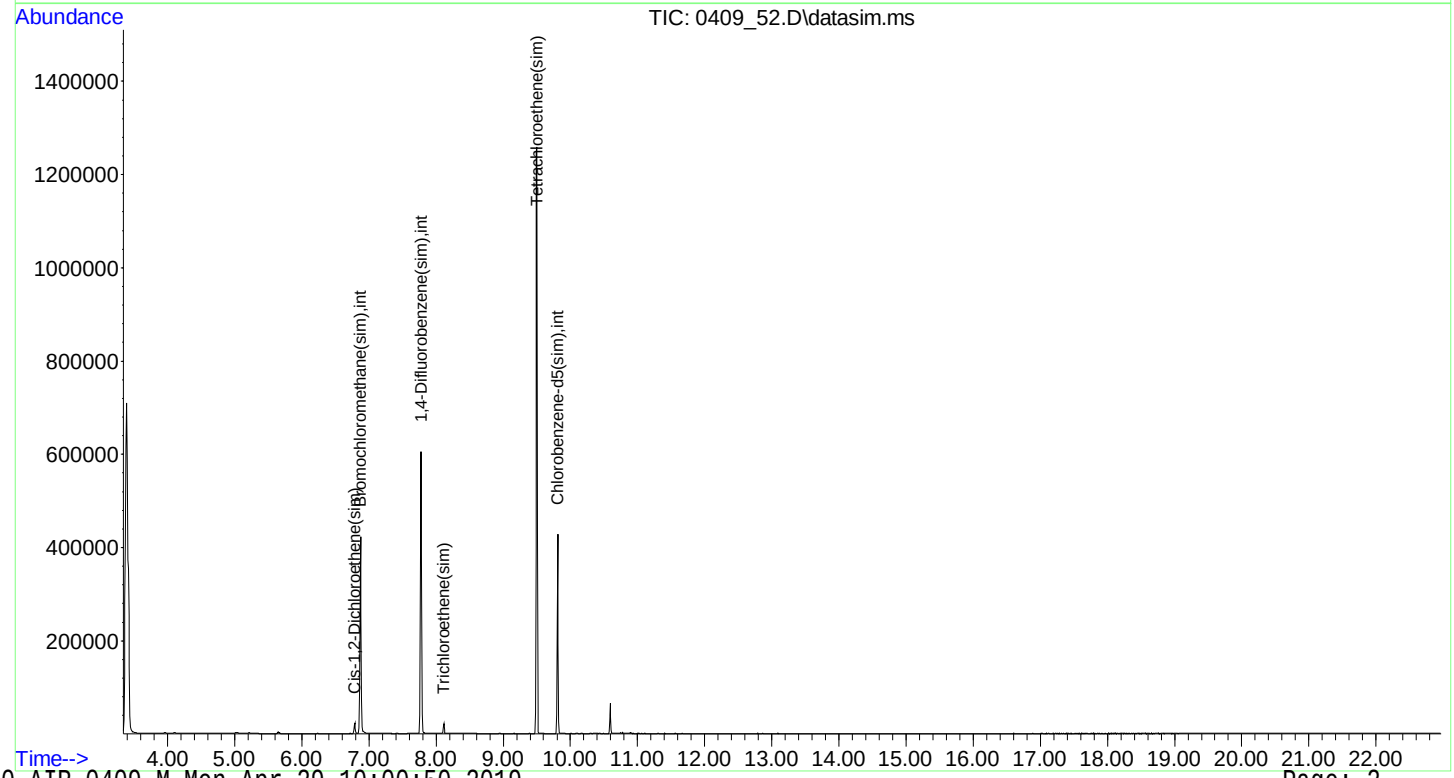
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.871 | 130 | 89308 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.772 | 114 | 306244 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.807 | 82 | 158510 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.874 | 130 | 127172 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 358698 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 160556 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 208689 | 10.043 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 100.40% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 26) Cis-1,2-Dichloroethene | 6.786 | 61 | 11514 | 0.785 | ppbv | # | 70 |
| 39) Trichloroethene | 8.111 | 130 | 5714 | 0.497 | ppbv | # | 89 |
| 52) Tetrachloroethene | 9.498 | 166 | 297563 | 24.469 | ppbv | # | 87 |
| 92] Cis-1,2-Dichloroethene... | 6.789 | 61 | 13521 | 0.704 | ppbv | # | 72 |
| 97] Trichloroethene(sim) | 8.111 | 130 | 5714 | 0.442 | ppbv | # | 93 |
| 103] Tetrachloroethene(sim) | 9.498 | 166 | 297563 | 21.120 | ppbv | | 87 |

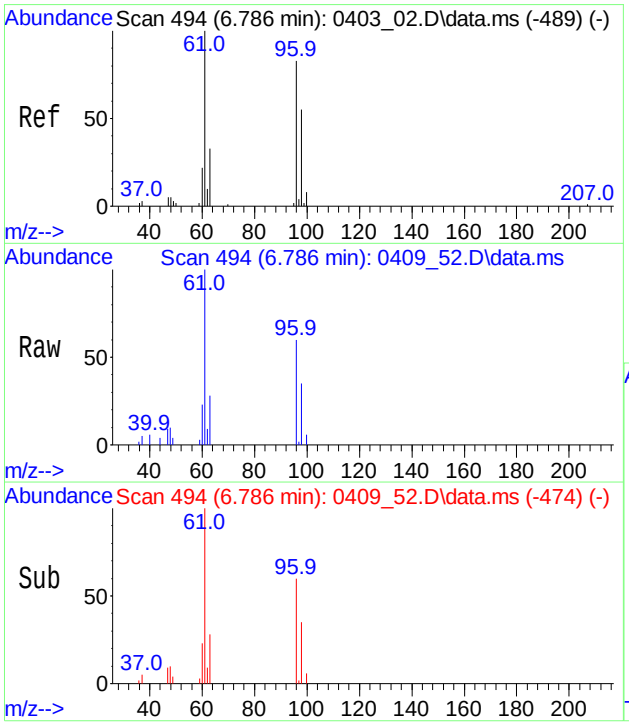
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_52.D
Acq On : 10 Apr 2019 03:12 pm
Operator : CORTEX\ms
Client ID : SS-1 75X
Lab ID : CC90524 75X
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 16:00:39 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:42:38 2019
Response via : Initial Calibration



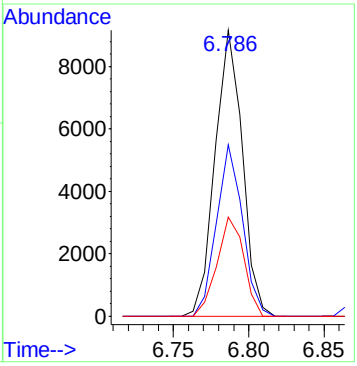



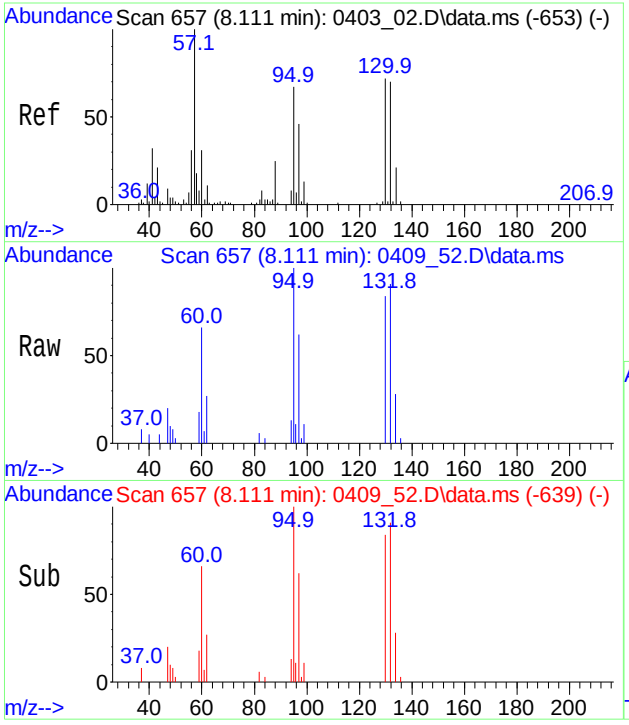



#26
Cis-1,2-Dichloroethene
Conc: 8$ 0.785 ppbv
RT: 6.786 min Scan# 494
Delta R.T. -0.008 min
Lab File: 0409_52.D
Acq: 10 Apr 2019 03:12 pm

Tgt Ion: 61 Resp: 11514

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 57.0 | 67.8 | 101.8# |
| 98 | 34.0 | 43.8 | 65.6# |

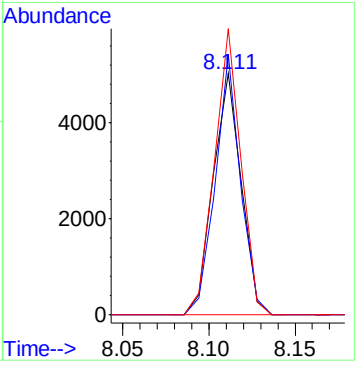


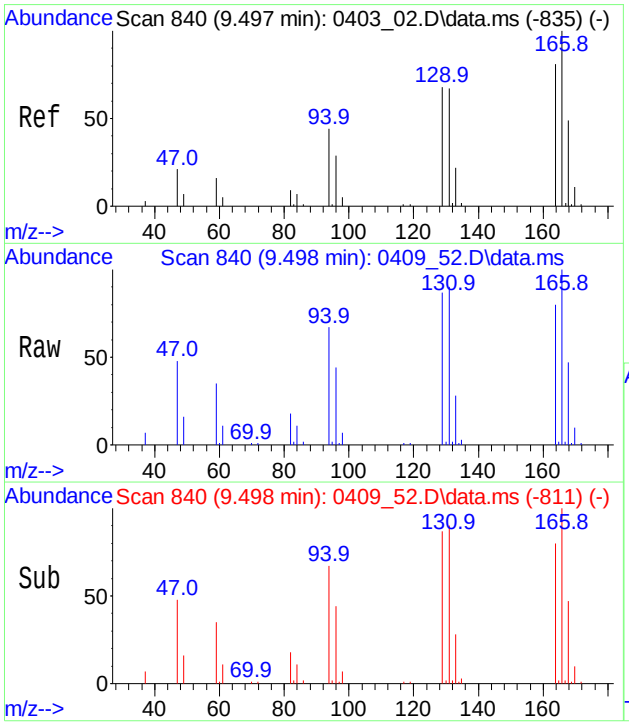




#39
Trichloroethene
Conc: 8$ 0.497 ppbv
RT: 8.111 min Scan# 657
Delta R.T. 0.000 min
Lab File: 0409_52.D
Acq: 10 Apr 2019 03:12 pm

Tgt Ion:130 Resp: 5714

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 96.8 | 78.0 | 117.0 |
| 95 | 112.2 | 73.0 | 109.4# |

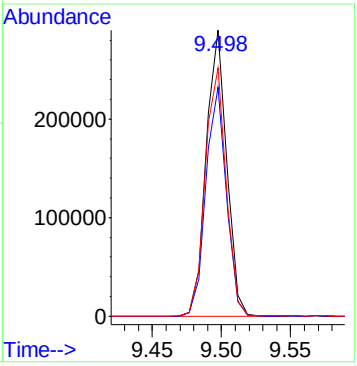


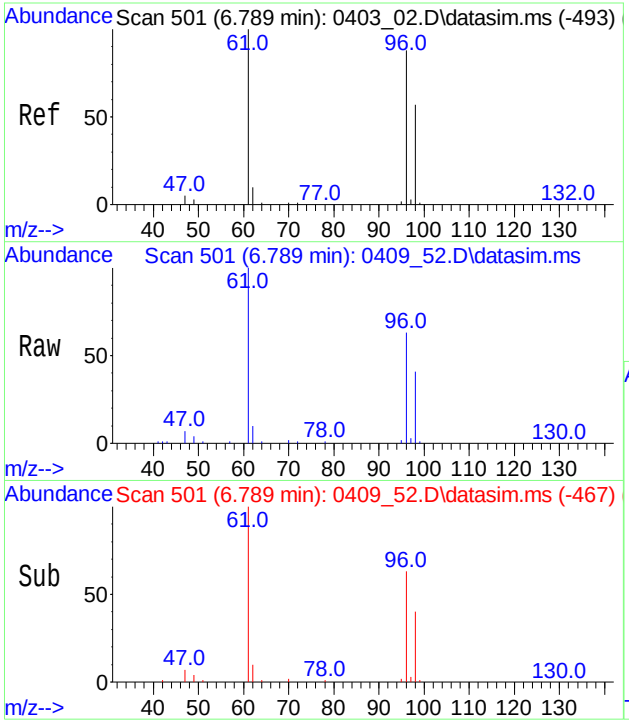



#52
Tetrachloroethene
Conc: 8$ 24.469 ppbv
RT: 9.498 min Scan# 840
Delta R.T. 0.001 min
Lab File: 0409_52.D
Acq: 10 Apr 2019 03:12 pm

Tgt Ion:166 Resp: 297563

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 79.7 | 62.2 | 93.2 |
| 129 | 88.2 | 54.9 | 82.3# |

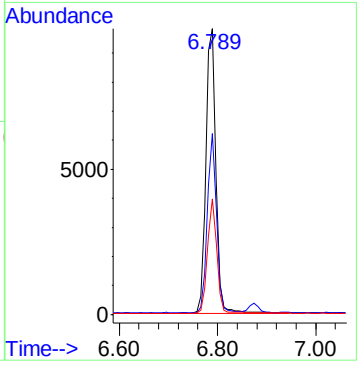


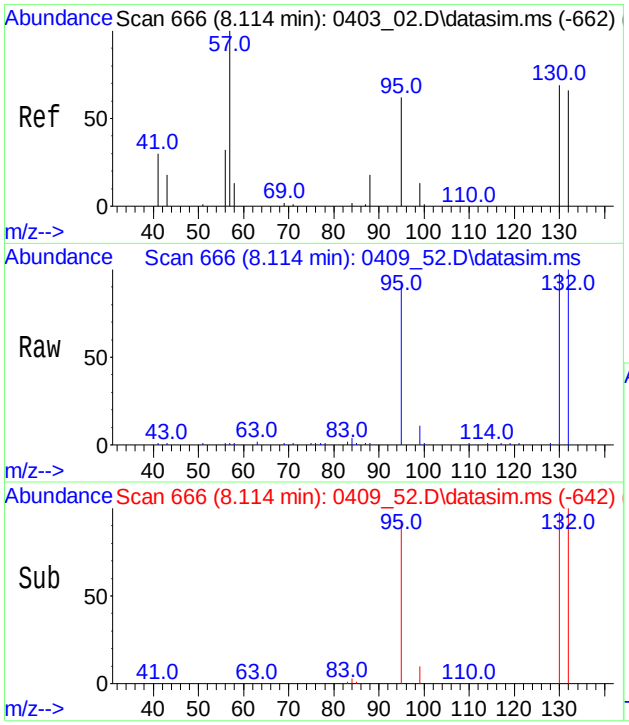




#92
Cis-1,2-Dichloroethene(sim)
Conc: 8$ 0.704 ppbv
RT: 6.789 min Scan# 501
Delta R.T. 0.000 min
Lab File: 0409_52.D
Acq: 10 Apr 2019 03:12 pm

Tgt Ion: 61 Resp: 13521

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 59.5 | 69.7 | 104.5# |
| 98 | 38.1 | 45.3 | 67.9# |

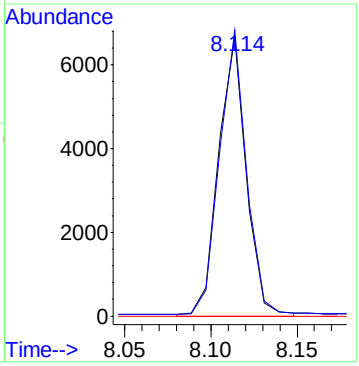


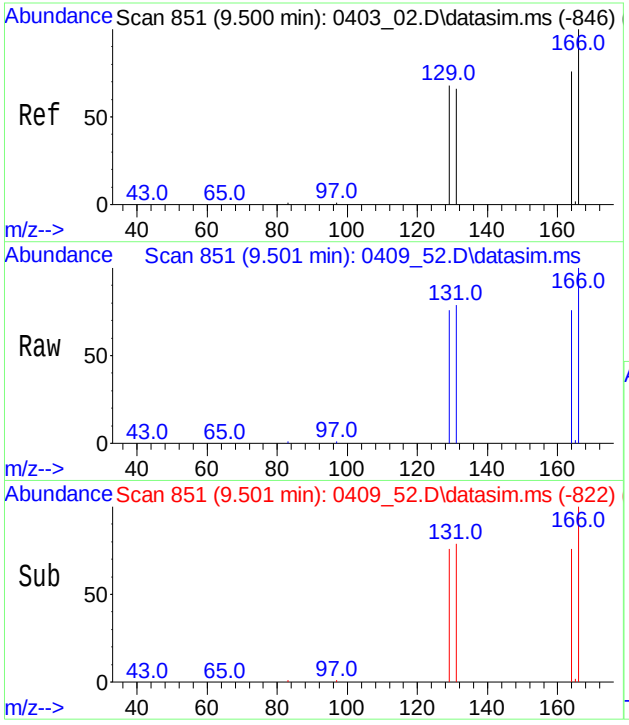



#97
Trichloroethene(sim)
Conc: 8$ 0.442 ppbv
RT: 8.111 min Scan# 666
Delta R.T. 0.000 min
Lab File: 0409_52.D
Acq: 10 Apr 2019 03:12 pm

Tgt Ion:130 Resp: 5714

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 96.8 | 78.0 | 117.0 |
| 97 | 72.1 | 47.2 | 70.8# |

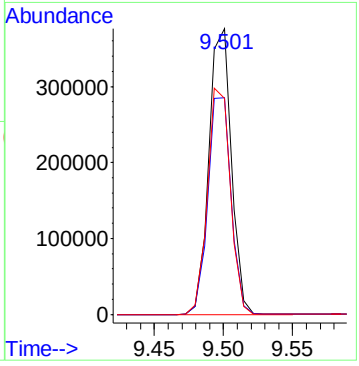



#103
Tetrachloroethene(sim)
Conc: 8$ 21.120 ppbv
RT: 9.498 min Scan# 851
Delta R.T. 0.001 min
Lab File: 0409_52.D
Acq: 10 Apr 2019 03:12 pm

Tgt Ion:166 Resp: 297563

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 79.7 | 57.7 | 97.7 |
| 129 | 88.2 | 48.6 | 88.6 |



# Response Factor Report Chem 20

Method Path : H:\AIR2019\CHEM20\METHODS\
Method File : 20_AIR_0409.M
Title : VOA Standards for 5 point calibration
Last Update : Wed Apr 10 09:42:38 2019
Response Via : Initial Calibration

Calibration Files (Note: Curves (l,lf,q,qf) display calculated conc and corr. coefficient.)
.035=0409_05.D 0.05=0409_06.D 0.10=0409_07.D 0.2 =0409_15.D 0.5 =0409_08.D 1.0 =0409_14.D 2.5 =0409_09.D 5.0 =0409_10.D
10 =0409_16.D 25 =0409_11.D 40 =0409_12.D 0.02=0409_04.D

| | Compound | .035 | 0.05 | 0.10 | 0.2 | 0.5 | 1.0 | 2.5 | 5.0 | 10 | 25 | 40 | 0.02 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1) | Int Bromochloromethane | ---------- | | | | | ISTD | | | | | | | | |
| 2) | Propylene | | | | 1.351 | 1.158 | 1.150 | 1.165 | 1.292 | 1.201 | 1.086 | 1.022 | | 1.178 | 8.93 |
| 3) | Dichlorodifluo... | | | | 2.758 | 2.514 | 2.556 | 2.572 | 2.819 | 2.596 | 2.353 | 2.347 | | 2.564 | 6.55 |
| 4) | Chloromethane | | | | 1.133 | 1.115 | 1.155 | 1.090 | 1.188 | 1.110 | 0.938 | 0.841 | | 1.071 | 11.08 |
| 5) | 1,2-Dichlorote... | | | | 2.560 | 2.661 | 2.689 | 2.651 | 2.765 | 2.583 | 2.166 | 1.879 | | 2.494 | 12.34 |
| 6) | Vinyl Chloride | | | | 1.057 | 1.050 | 1.160 | 1.084 | 1.158 | 1.078 | 0.915 | 0.822 | | 1.041 | 11.20 |
| 7) | 1,3-Butadiene | | | | 0.869 | 0.860 | 0.896 | 0.932 | 0.986 | 0.951 | 0.802 | 0.717 | | 0.877 | 9.88 |
| 8) | Bromomethane | | | | 0.911 | 0.843 | 0.958 | 0.915 | 0.964 | 0.912 | 0.778 | 0.687 | | 0.871 | 11.07 |
| 9) | Chloroethane | | | | 0.490 | 0.519 | 0.525 | 0.514 | 0.542 | 0.501 | 0.429 | 0.386 | | 0.488 | 10.97 |
| 11) | Ethanol | | | | 0.538 | 0.443 | 0.482 | 0.429 | 0.448 | 0.430 | 0.361 | 0.311 | | 0.430 | 16.14 |
| 12) | Acetone | | | | 2.669 | 2.368 | 2.356 | 2.267 | 2.380 | 2.292 | 1.900 | 1.654 | | 2.236 | 14.10 |
| 13) | Trichlorofluor... | | | | 3.488 | 3.497 | 3.608 | 3.575 | 3.703 | 3.510 | 2.928 | 2.519 | | 3.354 | 12.22 |
| 14) | Isopropylalcohol | | | | 2.747 | 2.427 | 2.590 | 2.393 | 2.706 | 2.358 | 1.932 | 1.692 | | 2.356 | 15.70 |
| 15) | Acrylonitrile | | | | 0.602 | 0.680 | 0.560 | 0.551 | 0.702 | 0.674 | 0.467 | 0.426 | | 0.583 | 17.39 |
| 16) | 1,1-Dichloroet... | | | | 2.200 | 2.059 | 2.128 | 2.088 | 2.224 | 2.106 | 1.784 | 1.541 | | 2.016 | 11.62 |
| 17) | Methylene Chlo... | | | | 1.792 | 1.518 | 1.554 | 1.513 | 1.660 | 1.562 | 1.280 | 1.110 | | 1.499 | 14.23 |
| 20) | Carbon Disulfide | | | | 2.476 | 2.320 | 2.381 | 2.248 | 2.368 | 2.224 | 1.899 | 1.624 | | 2.193 | 13.09 |
| 21) | Trichlorotrifl... | | | | 2.057 | 2.145 | 2.149 | 2.058 | 2.233 | 2.042 | 1.711 | 1.474 | | 1.983 | 12.98 |
| 22) | Trans-1,2-Dich... | | | | 1.707 | 1.640 | 1.817 | 1.706 | 1.903 | 1.826 | 1.612 | 1.470 | | 1.710 | 8.10 |
| 23) | 1,1-Dichloroet... | | | | 2.212 | 2.084 | 2.326 | 2.196 | 2.357 | 2.201 | 1.895 | 1.680 | | 2.119 | 10.78 |
| 24) | Methyl tert-bu... | | | | 2.621 | 2.405 | 2.808 | 2.590 | 2.922 | 2.790 | 2.482 | 2.239 | | 2.607 | 8.77 |
| 25) | Methyl Ethyl K... | | | | 2.916 | 2.779 | 3.061 | 2.846 | 3.111 | 3.024 | 2.538 | 2.234 | | 2.814 | 10.57 |
| 26) | Cis-1,2-Dichlo... | | | | 1.723 | 1.574 | 1.763 | 1.636 | 1.802 | 1.748 | 1.540 | 1.352 | | 1.642 | 9.13 |
| 27) | Hexane | | | | 1.749 | 1.567 | 1.760 | 1.626 | 1.817 | 1.725 | 1.448 | 1.241 | | 1.617 | 11.97 |
| 28) | Chloroform | | | | 2.426 | 2.347 | 2.544 | 2.417 | 2.595 | 2.431 | 2.059 | 1.780 | | 2.325 | 11.71 |
| 29) | Ethyl acetate | | | | 0.290 | 0.267 | 0.343 | 0.316 | 0.369 | 0.357 | 0.305 | 0.265 | | 0.314 | 12.58 |
| 30) | Tetrahydrofuran | | | | 1.203 | 1.086 | 1.275 | 1.160 | 1.337 | 1.320 | 1.120 | 0.970 | | 1.184 | 10.61 |
| 31) | 1,2-Dichloroet... | | | | 2.126 | 1.935 | 2.109 | 2.049 | 2.202 | 2.103 | 1.797 | 1.542 | | 1.983 | 11.02 |
| 32) | 1,1,1-Trichlor... | | | | 2.403 | 2.134 | 2.510 | 2.269 | 2.499 | 2.434 | 2.087 | 1.810 | | 2.269 | 10.78 |
| 33) | Benzene | | | | 2.163 | 2.091 | 2.426 | 2.296 | 2.438 | 2.334 | 2.035 | 1.759 | | 2.193 | 10.48 |
| 34) | Carbon Tetrach... | | | | 1.846 | 1.443 | 2.104 | 1.665 | 2.043 | 2.212 | 2.013 | 1.808 | | 1.892 | 13.37 |
| 35) | Cyclohexane | | | | 0.958 | 0.922 | 0.931 | 0.902 | 0.995 | 0.939 | 0.758 | 0.647 | | 0.881 | 13.35 |
| 36) | Int 1,4-Difluorobenzene | ---------- | | | | | ISTD | | | | | | | | |
| 37) | 1,2-dichloropr... | | | | 0.291 | 0.310 | 0.327 | 0.305 | 0.350 | 0.341 | 0.333 | 0.318 | | 0.322 | 6.08 |
| 38) | Bromodichlorom... | | | | 0.674 | 0.567 | 0.678 | 0.619 | 0.702 | 0.698 | 0.674 | 0.627 | | 0.655 | 7.09 |
| 39) | Trichloroethene | | | | 0.376 | 0.358 | 0.381 | 0.349 | 0.407 | 0.378 | 0.382 | 0.372 | | 0.375 | 4.61 |
| 41) | 1,4-Dioxane | | | | 0.156 | 0.140 | 0.158 | 0.138 | 0.176 | 0.165 | 0.165 | 0.151 | | 0.156 | 8.28 |
| 43) | Heptane | | | | 0.499 | 0.451 | 0.518 | 0.493 | 0.554 | 0.547 | 0.506 | 0.467 | | 0.504 | 7.04 |
| 44) | cis-1,3-Dichlo... | | | | 0.350 | 0.324 | 0.409 | 0.375 | 0.463 | 0.461 | 0.449 | 0.431 | | 0.408 | 12.92 |
| 45) | 4-Methyl-2-pen... | | | | 0.679 | 0.601 | 0.679 | 0.679 | 0.775 | 0.763 | 0.692 | 0.658 | | 0.691 | 8.09 |
| 46) | trans-1,3-Dich... | | | | 0.327 | 0.294 | 0.365 | 0.356 | 0.436 | 0.454 | 0.466 | 0.450 | | 0.394 | 16.76 |

Method Path : H:\AIR2019\CHEM20\METHODS\
Method File : 20_AIR_0409.M
Title : VOA Standards for 5 point calibration

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47) | 1,1,2-Trichlor... | 0.306 | 0.303 | 0.302 | 0.299 | 0.349 | 0.328 | 0.326 | 0.317 | | | 0.316 | 5.48 |
| 48) | Toluene | 0.721 | 0.683 | 0.801 | 0.768 | 0.922 | 0.907 | 0.889 | 0.870 | | | 0.820 | 11.00 |
| 49) | Dibromochlorom... | 0.481 | 0.378 | 0.525 | 0.469 | 0.465 | 0.502 | 0.532 | 0.525 | | | 0.485 | 10.41 |
| 50) | 2-Hexanone(MBK) | | 0.498 | 0.592 | 0.576 | 0.711 | 0.708 | 0.679 | 0.641 | | | 0.629 | 12.48 |
| 51) | 1,2-Dibromoeth... | 0.488 | 0.460 | 0.528 | 0.503 | 0.586 | 0.572 | 0.573 | 0.555 | | | 0.533 | 8.60 |
| 52) | Tetrachloroethene | 0.390 | 0.361 | 0.392 | 0.384 | 0.426 | 0.417 | 0.410 | 0.396 | | | 0.397 | 5.20 |
| 53) | Int Chlorobenzene-d5 | ----------ISTD---------- | | | | | | | | | | | |
| 54) | 1,1,1,2-Tetrac... | 0.690 | 0.567 | 0.772 | 0.696 | 0.870 | 0.914 | 0.840 | 0.803 | | | 0.769 | 14.73 |
| 55) | Chlorobenzene | 1.653 | 1.507 | 1.519 | 1.536 | 1.643 | 1.570 | 1.440 | 1.367 | | | 1.529 | 6.28 |
| 56) | Ethylbenzene | 2.300 | 2.129 | 2.402 | 2.400 | 2.659 | 2.607 | 2.290 | 2.163 | | | 2.369 | 8.04 |
| 57) | m,p-Xylene | 1.748 | 1.743 | 1.517 | 1.904 | 2.137 | 2.044 | 1.762 | 1.609 | | | 1.808 | 11.60 |
| 58) | Bromoform | 0.692 | 0.488 | 0.732 | 0.662 | | | | | | | 0.644 | 16.73 |
| 59) | Styrene | 1.164 | 1.116 | 1.249 | 1.330 | 1.515 | 1.471 | 1.356 | 1.305 | | | 1.313 | 10.49 |
| 60) | 1,1,2,2-Tetrac... | 1.370 | 1.264 | 1.411 | 1.398 | 1.535 | 1.478 | 1.254 | 1.137 | | | 1.356 | 9.60 |
| 61) | o-Xylene | 1.784 | 1.803 | 1.951 | 1.978 | 2.166 | 2.067 | 1.775 | 1.609 | | | 1.892 | 9.58 |
| 62) | Surr% Bromofluorob... | 1.331 | 1.354 | 1.324 | 1.361 | 1.338 | 1.352 | 1.232 | 1.196 | | | 1.311 | 4.73 |
| 64) | Isopropylbenzene | 2.539 | 2.323 | 2.427 | 2.537 | 2.787 | 2.697 | 2.367 | 2.235 | | | 2.489 | 7.56 |
| 66) | 4-Ethyltoluene | 2.243 | 2.187 | 2.458 | 2.574 | 2.908 | 2.820 | 2.508 | 2.338 | | | 2.504 | 10.30 |
| 67) | 1,3,5-Trimethy... | 2.078 | 1.917 | 2.184 | 2.206 | 2.444 | 2.364 | 2.097 | 1.961 | | | 2.156 | 8.48 |
| 68) | 1,2,4-Trimethy... | 1.863 | 1.886 | 2.173 | 2.236 | 2.469 | 2.392 | 2.062 | 1.811 | | | 2.111 | 11.76 |
| 70) | qi Benzyl chloride | | 0.713 | 0.914 | 1.443 | 4.902 | 10.87 | 25.69 | 39.46 | | | Coef R2 | 0.99 |
| 71) | 1,3-Dichlorobe... | 1.411 | 1.245 | 1.407 | 1.416 | 1.560 | 1.535 | 1.372 | 1.301 | | | 1.406 | 7.53 |
| 72) | 1,4-Dichlorobe... | 1.417 | 1.183 | 1.362 | 1.368 | 1.546 | 1.496 | 1.368 | 1.298 | | | 1.380 | 8.14 |
| 73) | sec-Butylbenzene | 2.726 | 2.673 | 2.959 | 3.028 | 3.395 | 3.243 | 2.867 | 2.658 | | | 2.944 | 9.16 |
| 74) | 4-Isopropyltol... | 2.213 | 2.263 | 2.592 | 2.642 | 2.983 | 2.890 | 2.595 | 2.354 | | | 2.566 | 10.90 |
| 75) | 1,2-Dichlorobe... | 1.275 | 1.181 | 1.358 | 1.359 | 1.487 | 1.446 | 1.321 | 1.262 | | | 1.336 | 7.45 |
| 76) | n-Butylbenzene | | 1.796 | 2.199 | 2.257 | 2.705 | 2.681 | 2.372 | 2.190 | | | 2.314 | 13.57 |
| 77) | 1,2,4-Trichlor... | 0.531 | 0.270 | 0.430 | 0.437 | 0.548 | 0.655 | 0.661 | 0.671 | | | 0.525 | 26.85 |
| 79) | Hexachlorobuta... | 0.531 | 0.471 | 0.550 | 0.537 | 0.649 | 0.632 | 0.568 | 0.543 | | | 0.560 | 10.18 |
| 80) | int Bromochloromethane... | ----------ISTD---------- | | | | | | | | | | | |
| 81) | 1,2-Dichlorote... | 2.066 | 2.190 | 1.895 | 1.908 | 1.973 | 1.972 | 1.994 | 2.071 | | 2.245 | 2.035 | 5.91 |
| 82) | Vinyl Chloride... | 0.990 | 0.964 | 0.964 | 0.922 | 0.893 | 0.929 | 0.917 | 0.979 | | 1.119 | 0.964 | 6.88 |
| 83) | Bromomethane(sim) | 0.948 | 0.924 | 0.812 | 0.679 | 0.625 | 0.702 | 0.688 | 0.722 | | 1.124 | 0.803 | 20.44 |
| 84) | Trichlorofluor... | 3.465 | 3.388 | 3.396 | 3.185 | 3.142 | 3.194 | 3.202 | 3.374 | | 3.692 | 3.337 | 5.30 |
| 85) | 1,2-Dichloroet... | 1.737 | 1.647 | 1.457 | 1.584 | 1.435 | 1.546 | 1.541 | 1.650 | | 1.944 | 1.616 | 9.64 |
| 86) | 1,1,1-Trichlor... | 2.012 | 2.054 | 2.045 | 2.204 | 2.022 | 2.243 | 2.073 | 2.315 | | 2.132 | 2.122 | 5.11 |
| 87) | Carbon Tetrach... | 1.405 | 1.181 | 1.084 | 1.376 | 1.070 | 1.543 | 1.252 | 1.530 | | 1.287 | 1.303 | 13.42 |
| 88) | 1,1-Dichloroet... | 2.013 | 1.930 | 1.889 | 1.812 | 1.753 | 1.830 | 1.793 | 1.916 | | 2.079 | 1.891 | 5.65 |
| 89) | Trichlorotrifl... | 1.680 | 1.716 | 1.484 | 1.533 | 1.591 | 1.576 | 1.548 | 1.672 | | 2.268 | 1.674 | 14.05 |
| 90) | Trans-1,2-Dich... | 1.727 | 1.609 | 1.541 | 1.527 | 1.462 | 1.571 | 1.515 | 1.667 | | 1.799 | 1.602 | 6.84 |
| 91) | 1,1-Dichloroet... | 1.745 | 1.724 | 1.722 | 1.649 | 1.545 | 1.705 | 1.652 | 1.765 | | 2.293 | 1.755 | 12.08 |
| 92) | Cis-1,2-Dichlo... | 1.561 | 1.518 | 1.452 | 1.464 | 1.372 | 1.490 | 1.454 | 1.593 | | 1.686 | 1.510 | 6.12 |
| 93) | Chloroform(sim) | 1.929 | 1.890 | 1.983 | 1.808 | 1.740 | 1.865 | 1.818 | 1.944 | | 2.074 | 1.895 | 5.34 |
| 94) | int 1,4-Difluorobenzen... | ----------ISTD---------- | | | | | | | | | | | |
| 95) | 1,2-dichloropr... | 0.261 | 0.341 | 0.288 | 0.255 | 0.270 | 0.286 | 0.268 | 0.308 | | 0.393 | 0.297 | 15.10 |
| 96) | Bromodichlorom... | 0.384 | 0.400 | 0.392 | 0.443 | 0.381 | 0.443 | 0.413 | 0.470 | | 0.412 | 0.415 | 7.37 |
| 97) | Trichloroethen... | 0.441 | 0.417 | 0.271 | 0.330 | 0.312 | 0.333 | 0.308 | 0.359 | | 0.473 | 0.360 | 18.93 |
| 98) | 1,4-Dioxane(sim) | 0.190 | 0.148 | 0.148 | 0.158 | 0.142 | 0.148 | 0.136 | 0.164 | | 0.209 | 0.160 | 15.08 |
| 99) | cis-1,3-Dichlo... | 0.254 | 0.273 | 0.238 | 0.307 | 0.283 | 0.357 | 0.330 | 0.407 | | 0.378 | 0.314 | 18.52 |

Method Path : H:\AIR2019\CHEM20\METHODS\
Method File : 20_AIR_0409.M
Title : VOA Standards for 5 point calibration

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100) | | 1,1,2-Trichlor... | 0.358 | 0.321 | 0.333 | 0.327 | 0.316 | 0.327 | 0.324 | 0.365 | | 0.377 | 0.339 | 6.53 |
| 101) | | Dibromochlorom... | 0.400 | 0.407 | 0.335 | 0.422 | 0.330 | 0.460 | 0.413 | 0.409 | | 0.393 | 0.397 | 10.35 |
| 102) | | 1,2-Dibromoeth... | 0.496 | 0.492 | 0.498 | 0.538 | 0.492 | 0.553 | 0.542 | 0.627 | | 0.490 | 0.525 | 8.67 |
| 103) | | Tetrachloroeth... | 0.515 | 0.483 | 0.318 | 0.342 | 0.314 | 0.343 | 0.338 | 0.376 | 0.371 | 0.528 | 0.393 | 21.13 |
| 104) | int | Chlorobenzene-d5(sim) | ----------ISTD---------- | | | | | | | | | | | |
| 105) | | Bromoform(sim) | 0.616 | 0.594 | 0.385 | 0.681 | 0.475 | 0.731 | 0.650 | | | 0.642 | 0.597 | 19.04 |
| 106) | qi | m,p-Xylene(sim) | 0.070 | 0.096 | 0.189 | 0.397 | 0.965 | 2.092 | 4.945 | 10.01 | | 0.044 | Coef R2 | 1.00 |
| 107) | | 1,1,2,2-Tetrac... | 1.590 | 1.138 | 1.281 | 1.349 | 1.230 | 1.408 | 1.373 | 1.511 | | 1.050 | 1.325 | 12.97 |
| 110) | qi | Benzyl chlorid... | 0.032 | 0.043 | 0.079 | 0.252 | 0.401 | 1.191 | 2.360 | 5.030 | | 0.024 | Coef R2 | 0.99 |
| 111) | | 1,3-Dichlorobe... | 1.148 | 0.977 | 0.934 | 1.389 | 1.211 | 1.404 | 1.390 | 1.536 | | 1.138 | 1.236 | 16.70 |
| 112) | | 1,4-Dichlorobe... | 1.050 | 1.016 | 1.204 | 1.685 | 1.452 | 1.698 | 1.655 | 1.865 | | 1.117 | 1.416 | 22.89 |
| 113) | qi | sec-Butylbenze... | 0.037 | 0.046 | 0.087 | 0.204 | 0.479 | 1.051 | 2.473 | 5.005 | | 0.023 | Coef R2 | 1.00 |
| 114) | qi | 4-Isopropyltol... | 0.035 | 0.044 | 0.086 | 0.195 | 0.475 | 1.046 | 2.503 | 4.994 | | 0.026 | Coef R2 | 1.00 |
| 115) | | 1,2-Dichlorobe... | 0.989 | 0.914 | 0.928 | 1.255 | 1.149 | 1.355 | 1.333 | 1.464 | | 0.791 | 1.131 | 20.78 |
| 116) | qi | n-Butylbenzene... | 0.035 | 0.045 | 0.083 | 0.193 | 0.454 | 1.056 | 2.518 | 4.989 | | 0.026 | Coef R2 | 1.00 |
| 117) | qi | 1,2,4-Trichlor... | 0.032 | 0.042 | 0.082 | 0.271 | 0.485 | 1.055 | 2.386 | 5.036 | | 0.021 | Coef R2 | 1.00 |
| 119) | | Hexachlorobuta... | 0.885 | 0.581 | 0.462 | 0.523 | 0.458 | 0.549 | 0.527 | 0.642 | | | 0.578 | 23.79 |

(#,$,@)=Out of Range l=linear lf=linear(0,0) q=Quadratic qf=Quadratic(0,0)

6B
AIR INITIAL CALIBRATION DATA

Lab Name: Phoenix Environmental Labs | Client: WALDENE

Lab Code: Phoenix | SDG No.: GCC90508

Instrument ID: CHEM20 | Calibration Date From: 04/09/19 10:16

Heated Purge (Y/N): Y | Calibration Date Thru: 04/09/19 15:24

GC Column: RTX-1 60M | Method File: 20_AIR_0409.M

Laboratory File Ids

RRF1 0409_04.D RRF2 0409_05.D RRF3 0409_06.D RRF4 0409_07.D RRF5 0409_15.D RRF6 0409_08.D
RRF7 0409_14.D RRF8 0409_09.D RRF9 0409_10.D RRF10 0409_16.D RRF11 0409_11.D RRF12 0409_12.D

| COMPOUND | RRF1 0.02 | RRF2 0.035 | RRF3 0.05 | RRF4 0.1 | RRF5 0.2 | RRF6 0.5 | RRF7 1 | RRF8 2.5 | RRF9 5 | RRF10 10 | RRF11 25 | RRF12 40 | __ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Propylene | | | | | 1.351 | 1.158 | 1.150 | 1.165 | 1.292 | 1.201 | 1.086 | 1.022 | 1.178 | 8.93 |
| Dichlorodifluoromethane | | | | | 2.758 | 2.514 | 2.556 | 2.572 | 2.819 | 2.596 | 2.353 | 2.347 | 2.564 | 6.55 |
| Chloromethane | | | | | 1.133 | 1.115 | 1.155 | 1.090 | 1.188 | 1.110 | 0.938 | 0.841 | 1.071 | 11.08 |
| 1,2-Dichlorotetrafluoroethane | | | | | 2.560 | 2.661 | 2.689 | 2.651 | 2.765 | 2.583 | 2.166 | 1.879 | 2.494 | 12.34 |
| Vinyl Chloride | | | | | 1.057 | 1.050 | 1.160 | 1.084 | 1.158 | 1.078 | 0.915 | 0.822 | 1.041 | 11.20 |
| 1,3-Butadiene | | | | | 0.869 | 0.860 | 0.896 | 0.932 | 0.986 | 0.951 | 0.802 | 0.717 | 0.877 | 9.88 |
| Bromomethane | | | | | 0.911 | 0.843 | 0.958 | 0.915 | 0.964 | 0.912 | 0.778 | 0.687 | 0.871 | 11.07 |
| Chloroethane | | | | | 0.490 | 0.519 | 0.525 | 0.514 | 0.542 | 0.501 | 0.429 | 0.386 | 0.488 | 10.97 |
| Ethanol | | | | | 0.538 | 0.443 | 0.482 | 0.429 | 0.448 | 0.430 | 0.361 | 0.311 | 0.430 | 16.14 |
| Acetone | | | | | 2.669 | 2.368 | 2.356 | 2.267 | 2.380 | 2.292 | 1.900 | 1.654 | 2.236 | 14.10 |
| Trichlorofluoromethane | | | | | 3.488 | 3.497 | 3.608 | 3.575 | 3.703 | 3.510 | 2.928 | 2.519 | 3.354 | 12.22 |
| Isopropylalcohol | | | | | 2.747 | 2.427 | 2.590 | 2.393 | 2.706 | 2.358 | 1.932 | 1.692 | 2.356 | 15.70 |
| Acrylonitrile | | | | | 0.602 | 0.680 | 0.560 | 0.551 | 0.702 | 0.674 | 0.467 | 0.426 | 0.583 | 17.39 |
| 1,1-Dichloroethene | | | | | 2.200 | 2.059 | 2.128 | 2.088 | 2.224 | 2.106 | 1.784 | 1.541 | 2.016 | 11.62 |
| Methylene Chloride | | | | | 1.792 | 1.518 | 1.554 | 1.513 | 1.660 | 1.562 | 1.280 | 1.110 | 1.499 | 14.23 |
| Carbon Disulfide | | | | | 2.476 | 2.320 | 2.381 | 2.248 | 2.368 | 2.224 | 1.899 | 1.624 | 2.193 | 13.09 |
| Trichlorotrifluoroethane | | | | | 2.057 | 2.145 | 2.149 | 2.058 | 2.233 | 2.042 | 1.711 | 1.474 | 1.983 | 12.98 |
| Trans-1,2-Dichloroethene | | | | | 1.707 | 1.640 | 1.817 | 1.706 | 1.903 | 1.826 | 1.612 | 1.470 | 1.710 | 8.10 |
| 1,1-Dichloroethane | | | | | 2.212 | 2.084 | 2.326 | 2.196 | 2.357 | 2.201 | 1.895 | 1.680 | 2.119 | 10.78 |
| Methyl tert-butyl ether(MTBE) | | | | | 2.621 | 2.405 | 2.808 | 2.590 | 2.922 | 2.790 | 2.482 | 2.239 | 2.607 | 8.77 |
| Methyl Ethyl Ketone | | | | | 2.916 | 2.779 | 3.061 | 2.846 | 3.111 | 3.024 | 2.538 | 2.234 | 2.814 | 10.57 |
| Cis-1,2-Dichloroethene | | | | | 1.723 | 1.574 | 1.763 | 1.636 | 1.802 | 1.748 | 1.540 | 1.352 | 1.642 | 9.13 |
| Hexane | | | | | 1.749 | 1.567 | 1.760 | 1.626 | 1.817 | 1.725 | 1.448 | 1.241 | 1.617 | 11.97 |
| Chloroform | | | | | 2.426 | 2.347 | 2.544 | 2.417 | 2.595 | 2.431 | 2.059 | 1.780 | 2.325 | 11.71 |
| Ethyl acetate | | | | | 0.290 | 0.267 | 0.343 | 0.316 | 0.369 | 0.357 | 0.305 | 0.265 | 0.314 | 12.58 |
| Tetrahydrofuran | | | | | 1.203 | 1.086 | 1.275 | 1.160 | 1.337 | 1.320 | 1.120 | 0.970 | 1.184 | 10.61 |
| 1,2-Dichloroethane | | | | | 2.126 | 1.935 | 2.109 | 2.049 | 2.202 | 2.103 | 1.797 | 1.542 | 1.983 | 11.02 |

(#) The maximum %RSD was not met for this compound

6B
AIR INITIAL CALIBRATION DATA

Lab Name: Phoenix Environmental Labs | Client: WALDENE

Lab Code: Phoenix | SDG No.: GCC90508

Instrument ID: CHEM20 | Calibration Date From: 04/09/19 10:16

Heated Purge (Y/N): Y | Calibration Date Thru: 04/09/19 15:24

GC Column: RTX-1 60M | Method File: 20_AIR_0409.M

Laboratory File Ids

RRF1 0409_04.D RRF2 0409_05.D RRF3 0409_06.D RRF4 0409_07.D RRF5 0409_15.D RRF6 0409_08.D
RRF7 0409_14.D RRF8 0409_09.D RRF9 0409_10.D RRF10 0409_16.D RRF11 0409_11.D RRF12 0409_12.D

| COMPOUND | RRF1 0.02 | RRF2 0.035 | RRF3 0.05 | RRF4 0.1 | RRF5 0.2 | RRF6 0.5 | RRF7 1 | RRF8 2.5 | RRF9 5 | RRF10 10 | RRF11 25 | RRF12 40 | __ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | | | | | 2.403 | 2.134 | 2.510 | 2.269 | 2.499 | 2.434 | 2.087 | 1.810 | 2.269 | 10.78 |
| Benzene | | | | | 2.163 | 2.091 | 2.426 | 2.296 | 2.438 | 2.334 | 2.035 | 1.759 | 2.193 | 10.48 |
| Carbon Tetrachloride | | | | | 1.846 | 1.443 | 2.104 | 1.665 | 2.043 | 2.212 | 2.013 | 1.808 | 1.892 | 13.37 |
| Cyclohexane | | | | | 0.958 | 0.922 | 0.931 | 0.902 | 0.995 | 0.939 | 0.758 | 0.647 | 0.881 | 13.35 |
| 1,2-dichloropropane | | | | | 0.291 | 0.310 | 0.327 | 0.305 | 0.350 | 0.341 | 0.333 | 0.318 | 0.322 | 6.08 |
| Bromodichloromethane | | | | | 0.674 | 0.567 | 0.678 | 0.619 | 0.702 | 0.698 | 0.674 | 0.627 | 0.655 | 7.09 |
| Trichloroethene | | | | | 0.376 | 0.358 | 0.381 | 0.349 | 0.407 | 0.378 | 0.382 | 0.372 | 0.375 | 4.61 |
| 1,4-Dioxane | | | | | 0.156 | 0.140 | 0.158 | 0.138 | 0.176 | 0.165 | 0.165 | 0.151 | 0.156 | 8.28 |
| Heptane | | | | | 0.499 | 0.451 | 0.518 | 0.493 | 0.554 | 0.547 | 0.506 | 0.467 | 0.504 | 7.04 |
| cis-1,3-Dichloropropene | | | | | 0.350 | 0.324 | 0.409 | 0.375 | 0.463 | 0.461 | 0.449 | 0.431 | 0.408 | 12.92 |
| 4-Methyl-2-pentanone(MIBK) | | | | | 0.679 | 0.601 | 0.679 | 0.679 | 0.775 | 0.763 | 0.692 | 0.658 | 0.691 | 8.09 |
| trans-1,3-Dichloropropene | | | | | 0.327 | 0.294 | 0.365 | 0.356 | 0.436 | 0.454 | 0.466 | 0.450 | 0.394 | 16.76 |
| 1,1,2-Trichloroethane | | | | | 0.306 | 0.303 | 0.302 | 0.299 | 0.349 | 0.328 | 0.326 | 0.317 | 0.316 | 5.48 |
| Toluene | | | | | 0.721 | 0.683 | 0.801 | 0.768 | 0.922 | 0.907 | 0.889 | 0.870 | 0.820 | 11.00 |
| Dibromochloromethane | | | | | 0.481 | 0.378 | 0.525 | 0.469 | 0.465 | 0.502 | 0.532 | 0.525 | 0.485 | 10.41 |
| 2-Hexanone(MBK) | | | | | | 0.498 | 0.592 | 0.576 | 0.711 | 0.708 | 0.679 | 0.641 | 0.629 | 12.48 |
| 1,2-Dibromoethane(EDB) | | | | | 0.488 | 0.460 | 0.528 | 0.503 | 0.586 | 0.572 | 0.573 | 0.555 | 0.533 | 8.60 |
| Tetrachloroethene | | | | | 0.390 | 0.361 | 0.392 | 0.384 | 0.426 | 0.417 | 0.410 | 0.396 | 0.397 | 5.20 |
| 1,1,1,2-Tetrachloroethane | | | | | 0.690 | 0.567 | 0.772 | 0.696 | 0.870 | 0.914 | 0.840 | 0.803 | 0.769 | 14.73 |
| Chlorobenzene | | | | | 1.653 | 1.507 | 1.519 | 1.536 | 1.643 | 1.570 | 1.440 | 1.367 | 1.529 | 6.28 |
| Ethylbenzene | | | | | 2.300 | 2.129 | 2.402 | 2.400 | 2.659 | 2.607 | 2.290 | 2.163 | 2.369 | 8.04 |
| m,p-Xylene | | | | | 1.748 | 1.743 | 1.517 | 1.904 | 2.137 | 2.044 | 1.762 | 1.609 | 1.808 | 11.60 |
| Bromoform | | | | | 0.692 | 0.488 | 0.732 | 0.662 | | | | | 0.644 | 16.73 |
| Styrene | | | | | 1.164 | 1.116 | 1.249 | 1.330 | 1.515 | 1.471 | 1.356 | 1.305 | 1.313 | 10.49 |
| 1,1,2,2-Tetrachloroethane | | | | | 1.370 | 1.264 | 1.411 | 1.398 | 1.535 | 1.478 | 1.254 | 1.137 | 1.356 | 9.60 |
| o-Xylene | | | | | 1.784 | 1.803 | 1.951 | 1.978 | 2.166 | 2.067 | 1.775 | 1.609 | 1.892 | 9.58 |
| Isopropylbenzene | | | | | 2.539 | 2.323 | 2.427 | 2.537 | 2.787 | 2.697 | 2.367 | 2.235 | 2.489 | 7.56 |

(#) The maximum %RSD was not met for this compound

6B
AIR INITIAL CALIBRATION DATA

Lab Name: Phoenix Environmental Labs | Client: WALDENE

Lab Code: Phoenix | SDG No.: GCC90508

Instrument ID: CHEM20 | Calibration Date From: 04/09/19 10:16

Heated Purge (Y/N): Y | Calibration Date Thru: 04/09/19 15:24

GC Column: RTX-1 60M | Method File: 20_AIR_0409.M

Laboratory File Ids

RRF1 0409_04.D RRF2 0409_05.D RRF3 0409_06.D RRF4 0409_07.D RRF5 0409_15.D RRF6 0409_08.D
RRF7 0409_14.D RRF8 0409_09.D RRF9 0409_10.D RRF10 0409_16.D RRF11 0409_11.D RRF12 0409_12.D

| COMPOUND | RRF1 0.02 | RRF2 0.035 | RRF3 0.05 | RRF4 0.1 | RRF5 0.2 | RRF6 0.5 | RRF7 1 | RRF8 2.5 | RRF9 5 | RRF10 10 | RRF11 25 | RRF12 40 | __ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4-Ethyltoluene | | | | | 2.243 | 2.187 | 2.458 | 2.574 | 2.908 | 2.820 | 2.508 | 2.338 | 2.504 | 10.30 |
| 1,3,5-Trimethylbenzene | | | | | 2.078 | 1.917 | 2.184 | 2.206 | 2.444 | 2.364 | 2.097 | 1.961 | 2.156 | 8.48 |
| 1,2,4-Trimethylbenzene | | | | | 1.863 | 1.886 | 2.173 | 2.236 | 2.469 | 2.392 | 2.062 | 1.811 | 2.111 | 11.76 |
| Benzyl chloride | | | | | | 1.025 | 1.203 | 1.674 | 4.789 | 10.330 | 25.000 | 39.980 | 0.000 | 0.99 |
| 1,3-Dichlorobenzene | | | | | 1.411 | 1.245 | 1.407 | 1.416 | 1.560 | 1.535 | 1.372 | 1.301 | 1.406 | 7.53 |
| 1,4-Dichlorobenzene | | | | | 1.417 | 1.183 | 1.362 | 1.368 | 1.546 | 1.496 | 1.368 | 1.298 | 1.380 | 8.14 |
| sec-Butylbenzene | | | | | 2.726 | 2.673 | 2.959 | 3.028 | 3.395 | 3.243 | 2.867 | 2.658 | 2.944 | 9.16 |
| 4-Isopropyltoluene | | | | | 2.213 | 2.263 | 2.592 | 2.642 | 2.983 | 2.890 | 2.595 | 2.354 | 2.566 | 10.90 |
| 1,2-Dichlorobenzene | | | | | 1.275 | 1.181 | 1.358 | 1.359 | 1.487 | 1.446 | 1.321 | 1.262 | 1.336 | 7.45 |
| n-Butylbenzene | | | | | | 1.796 | 2.199 | 2.257 | 2.705 | 2.681 | 2.372 | 2.190 | 2.314 | 13.57 |
| 1,2,4-Trichlorobenzene | | | | | 0.531 | 0.270 | 0.430 | 0.437 | 0.548 | 0.655 | 0.661 | 0.671 | 0.525 | 26.85 |
| Hexachlorobutadiene | | | | | 0.531 | 0.471 | 0.550 | 0.537 | 0.649 | 0.632 | 0.568 | 0.543 | 0.560 | 10.18 |
| 1,2-Dichlorotetrafluoroethane(sim) | 2.245 | 2.066 | 2.190 | 1.895 | 1.908 | 1.973 | 1.972 | 1.994 | 2.071 | | | | 2.035 | 5.91 |
| Vinyl Chloride(sim) | 1.119 | 0.990 | 0.964 | 0.964 | 0.922 | 0.893 | 0.929 | 0.917 | 0.979 | | | | 0.964 | 6.88 |
| Bromomethane(sim) | 1.124 | 0.948 | 0.924 | 0.812 | 0.679 | 0.625 | 0.702 | 0.688 | 0.722 | | | | 0.803 | 20.44 |
| Trichlorofluoromethane(sim) | 3.692 | 3.465 | 3.388 | 3.396 | 3.185 | 3.142 | 3.194 | 3.202 | 3.374 | | | | 3.337 | 5.30 |
| 1,2-Dichloroethane(sim) | 1.944 | 1.737 | 1.647 | 1.457 | 1.584 | 1.435 | 1.546 | 1.541 | 1.650 | | | | 1.616 | 9.64 |
| 1,1,1-Trichloroethane(sim) | 2.132 | 2.012 | 2.054 | 2.045 | 2.204 | 2.022 | 2.243 | 2.073 | 2.315 | | | | 2.122 | 5.11 |
| Carbon Tetrachloride(sim) | 1.287 | 1.405 | 1.181 | 1.084 | 1.376 | 1.070 | 1.543 | 1.252 | 1.530 | | | | 1.303 | 13.42 |
| 1,1-Dichloroethene(sim) | 2.079 | 2.013 | 1.930 | 1.889 | 1.812 | 1.753 | 1.830 | 1.793 | 1.916 | | | | 1.891 | 5.65 |
| Trichlorotrifluoroethane(sim) | 2.268 | 1.680 | 1.716 | 1.484 | 1.533 | 1.591 | 1.576 | 1.548 | 1.672 | | | | 1.674 | 14.05 |
| Trans-1,2-Dichloroethene(sim) | 1.799 | 1.727 | 1.609 | 1.541 | 1.527 | 1.462 | 1.571 | 1.515 | 1.667 | | | | 1.602 | 6.84 |
| 1,1-Dichloroethane(sim) | 2.293 | 1.745 | 1.724 | 1.722 | 1.649 | 1.545 | 1.705 | 1.652 | 1.765 | | | | 1.755 | 12.08 |
| Cis-1,2-Dichloroethene(sim) | 1.686 | 1.561 | 1.518 | 1.452 | 1.464 | 1.372 | 1.490 | 1.454 | 1.593 | | | | 1.510 | 6.12 |
| Chloroform(sim) | 2.074 | 1.929 | 1.890 | 1.983 | 1.808 | 1.740 | 1.865 | 1.818 | 1.944 | | | | 1.895 | 5.34 |
| 1,2-dichloropropane(sim) | 0.393 | 0.261 | 0.341 | 0.288 | 0.255 | 0.270 | 0.286 | 0.268 | 0.308 | | | | 0.297 | 15.10 |
| Bromodichloromethane(sim) | 0.412 | 0.384 | 0.400 | 0.392 | 0.443 | 0.381 | 0.443 | 0.413 | 0.470 | | | | 0.415 | 7.37 |

(#) The maximum %RSD was not met for this compound

6B
AIR INITIAL CALIBRATION DATA

Lab Name: Phoenix Environmental Labs | Client: WALDENE

Lab Code: Phoenix | SDG No.: GCC90508

Instrument ID: CHEM20 | Calibration Date From: 04/09/19 10:16

Heated Purge (Y/N): Y | Calibration Date Thru: 04/09/19 15:24

GC Column: RTX-1 60M | Method File: 20_AIR_0409.M

Laboratory File Ids

RRF1 0409_04.D RRF2 0409_05.D RRF3 0409_06.D RRF4 0409_07.D RRF5 0409_15.D RRF6 0409_08.D
RRF7 0409_14.D RRF8 0409_09.D RRF9 0409_10.D RRF10 0409_16.D RRF11 0409_11.D RRF12 0409_12.D

| COMPOUND | RRF1 0.02 | RRF2 0.035 | RRF3 0.05 | RRF4 0.1 | RRF5 0.2 | RRF6 0.5 | RRF7 1 | RRF8 2.5 | RRF9 5 | RRF10 10 | RRF11 25 | RRF12 40 | __ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trichloroethene(sim) | 0.473 | 0.441 | 0.417 | 0.271 | 0.330 | 0.312 | 0.333 | 0.308 | 0.359 | | | | 0.360 | 18.93 |
| 1,4-Dioxane(sim) | 0.209 | 0.190 | 0.148 | 0.148 | 0.158 | 0.142 | 0.148 | 0.136 | 0.164 | | | | 0.160 | 15.08 |
| cis-1,3-Dichloropropene(sim) | 0.378 | 0.254 | 0.273 | 0.238 | 0.307 | 0.283 | 0.357 | 0.330 | 0.407 | | | | 0.314 | 18.52 |
| 1,1,2-Trichloroethane(sim) | 0.377 | 0.358 | 0.321 | 0.333 | 0.327 | 0.316 | 0.327 | 0.324 | 0.365 | | | | 0.339 | 6.53 |
| Dibromochloromethane(sim) | 0.393 | 0.400 | 0.407 | 0.335 | 0.422 | 0.330 | 0.460 | 0.413 | 0.409 | | | | 0.397 | 10.35 |
| 1,2-Dibromoethane(EDB)(sim) | 0.490 | 0.496 | 0.492 | 0.498 | 0.538 | 0.492 | 0.553 | 0.542 | 0.627 | | | | 0.525 | 8.67 |
| Tetrachloroethene(sim) | 0.528 | 0.515 | 0.483 | 0.318 | 0.342 | 0.314 | 0.343 | 0.338 | 0.376 | 0.371 | | | 0.393 | 21.13 |
| Bromoform(sim) | 0.642 | 0.616 | 0.594 | 0.385 | 0.681 | 0.475 | 0.731 | 0.650 | | | | | 0.597 | 19.04 |
| m,p-Xylene(sim) | 0.040 | 0.067 | 0.093 | 0.186 | 0.395 | 0.967 | 2.099 | 4.955 | 10.010 | | | | 0.000 | 1.00 |
| 1,1,2,2-Tetrachloroethane(sim) | 1.050 | 1.590 | 1.138 | 1.281 | 1.349 | 1.230 | 1.408 | 1.373 | 1.511 | | | | 1.325 | 12.97 |
| Benzyl chloride(sim) | 0.022 | 0.006 | 0.048 | 0.247 | 0.412 | 1.243 | 2.413 | 5.009 | | | | | 0.000 | 1.00 |
| 1,3-Dichlorobenzene(sim) | 1.138 | 1.148 | 0.977 | 0.934 | 1.389 | 1.211 | 1.404 | 1.390 | 1.536 | | | | 1.236 | 16.70 |
| 1,4-Dichlorobenzene(sim) | 1.117 | 1.050 | 1.016 | 1.204 | 1.685 | 1.452 | 1.698 | 1.655 | 1.865 | | | | 1.416 | 22.89 |
| sec-Butylbenzene(sim) | 0.022 | 0.036 | 0.045 | 0.086 | 0.204 | 0.479 | 1.053 | 2.477 | 5.003 | | | | 0.000 | 1.00 |
| 4-Isopropyltoluene(sim) | 0.031 | 0.040 | 0.049 | 0.090 | 0.197 | 0.472 | 1.036 | 2.489 | 5.001 | | | | 0.000 | 1.00 |
| 1,2-Dichlorobenzene(sim) | 0.791 | 0.989 | 0.914 | 0.928 | 1.255 | 1.149 | 1.355 | 1.333 | 1.464 | | | | 1.131 | 20.78 |
| n-Butylbenzene(sim) | 0.036 | 0.045 | 0.054 | 0.091 | 0.197 | 0.450 | 1.039 | 2.494 | 5.001 | | | | 0.000 | 1.00 |
| 1,2,4-Trichlorobenzene(sim) | 0.036 | 0.006 | 0.017 | 0.061 | 0.268 | 0.499 | 1.100 | 2.446 | 5.007 | | | | 0.000 | 1.00 |
| Hexachlorobutadiene(sim) | | 0.885 | 0.581 | 0.462 | 0.523 | 0.458 | 0.549 | 0.527 | 0.642 | | | | 0.578 | 23.79 |
| % Bromofluorobenzene | | | | | 1.331 | 1.354 | 1.324 | 1.361 | 1.338 | 1.352 | 1.232 | 1.196 | 1.311 | 4.73 |
| | | | | | | | | | | | | | | |
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(#) The maximum %RSD was not met for this compound

Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_04.D
Acq On : 09 Apr 2019 07:45 am
Operator : CORTEX\ms
Client ID : ICAL 0.02
Lab ID : 0.02
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 09 10:33:20 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Tue Apr 09 10:32:02 2019
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.879 | 130 | 150704 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.780 | 114 | 454364 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.815 | 82 | 205345 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.882 | 130 | 199331 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 518707 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 208626 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 270035 | 0.000 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 0.00%# | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Propylene | 3.630 | 41 | 318 | 0.018 | ppbv | | 96 |
| 3) Dichlorodifluoromethane | 3.695 | 85 | 948 | 0.025 | ppbv# | | 60 |
| 4) Chloromethane | 3.841 | 50 | 516 | 0.032 | ppbv# | | 41 |
| 5) 1,2-Dichlorotetrafluor... | 3.938 | 85 | 895 | 0.024 | ppbv# | | 81 |
| 6) Vinyl Chloride | 4.035 | 62 | 286 | 0.018 | ppbv# | | 42 |
| 7) 1,3-Butadiene | 4.149 | 54 | 75 | 0.006 | ppbv# | | 1 |
| 8) Bromomethane | 4.384 | 94 | 349 | 0.027 | ppbv# | | 80 |
| 9) Chloroethane | 0.000 | 64 | 0 | 0.000 | ppbv | | 0 |
| 11) Ethanol | 4.676 | 45 | 101 | 0.016 | ppbv# | | 29 |
| 12) Acetone | 5.041 | 43 | 1401 | 0.042 | ppbv# | | 71 |
| 13) Trichlorofluoromethane | 5.122 | 101 | 1301 | 0.026 | ppbv# | | 92 |
| 14) Isopropylalcohol | 5.228 | 45 | 1196 | 0.034 | ppbv# | | 96 |
| 15) Acrylonitrile | 0.000 | 53 | 0 | 0.000 | ppbv | | 0 |
| 16) 1,1-Dichloroethene | 5.584 | 61 | 661 | 0.022 | ppbv# | | 68 |
| 17) Methylene Chloride | 5.661 | 49 | 949 | 0.042 | ppbv# | | 45 |
| 20) Carbon Disulfide | 5.870 | 76 | 1019 | 0.031 | ppbv# | | 74 |
| 21) Trichlorotrifluoroethane | 5.834 | 101 | 599 | 0.020 | ppbv | | 96 |
| 22) Trans-1,2-Dichloroethene | 6.234 | 61 | 595 | 0.023 | ppbv# | | 62 |
| 23) 1,1-Dichloroethane | 6.354 | 63 | 745 | 0.023 | ppbv | | 72 |
| 24) Methyl tert-butyl ethe... | 6.406 | 73 | 911 | 0.023 | ppbv# | | 83 |
| 25) Methyl Ethyl Ketone | 6.589 | 43 | 789 | 0.019 | ppbv# | | 60 |
| 26) Cis-1,2-Dichloroethene | 6.794 | 61 | 562 | 0.023 | ppbv# | | 58 |
| 27) Hexane | 6.887 | 57 | 470 | 0.019 | ppbv# | | 38 |
| 28) Chloroform | 6.941 | 83 | 827 | 0.024 | ppbv# | | 73 |
| 29) Ethyl acetate | 6.794 | 61 | 562 | 0.119 | ppbv# | | 13 |
| 30) Tetrahydrofuran | 7.166 | 42 | 244 | 0.014 | ppbv# | | 22 |
| 31) 1,2-Dichloroethane | 7.297 | 62 | 535 | 0.018 | ppbv# | | 95 |
| 32) 1,1,1-Trichloroethane | 7.414 | 97 | 751 | 0.022 | ppbv# | | 86 |
| 33) Benzene | 7.636 | 78 | 813 | 0.025 | ppbv# | | 78 |
| 34) Carbon Tetrachloride | 7.704 | 117 | 283 | 0.010 | ppbv# | | 69 |
| 35) Cyclohexane | 7.764 | 41 | 330 | 0.025 | ppbv# | | 1 |
| 37) 1,2-dichloropropane | 8.009 | 63 | 159 | 0.011 | ppbv# | | 58 |
| 38) Bromodichloromethane | 8.102 | 83 | 497 | 0.017 | ppbv | | 93 |
| 39) Trichloroethene | 8.111 | 130 | 527 | 0.031 | ppbv# | | 63 |
| 41) 1,4-Dioxane | 0.000 | 88 | 0 | 0.000 | ppbv | | 0 |
| 43) Heptane | 8.221 | 43 | 408 | 0.018 | ppbv# | | 48 |
| 44) cis-1,3-Dichloropropene | 8.492 | 75 | 272 | 0.015 | ppbv# | | 46 |
| 45) 4-Methyl-2-pentanone(M... | 8.509 | 43 | 489 | 0.016 | ppbv# | | 56 |
| 46) trans-1,3-Dichloropropene | 8.723 | 75 | 261 | 0.015 | ppbv# | | 46 |
| 47) 1,1,2-Trichloroethane | 8.815 | 97 | 280 | 0.019 | ppbv# | | 87 |
| 48) Toluene | 8.948 | 91 | 850 | 0.023 | ppbv | | 93 |
| 49) Dibromochloromethane | 9.160 | 129 | 230 | 0.010 | ppbv# | | 32 |
| 50) 2-Hexanone(MBK) | 9.047 | 43 | 515 | 0.018 | ppbv# | | 61 |
| 51) 1,2-Dibromoethane(EDB) | 9.286 | 107 | 391 | 0.016 | ppbv# | | 76 |

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_04.D
Acq On : 09 Apr 2019 07:45 am
Operator : CORTEX\ms
Client ID : ICAL 0.02
Lab ID : 0.02
ALS Vial : 1 Sample Multiplier: 1

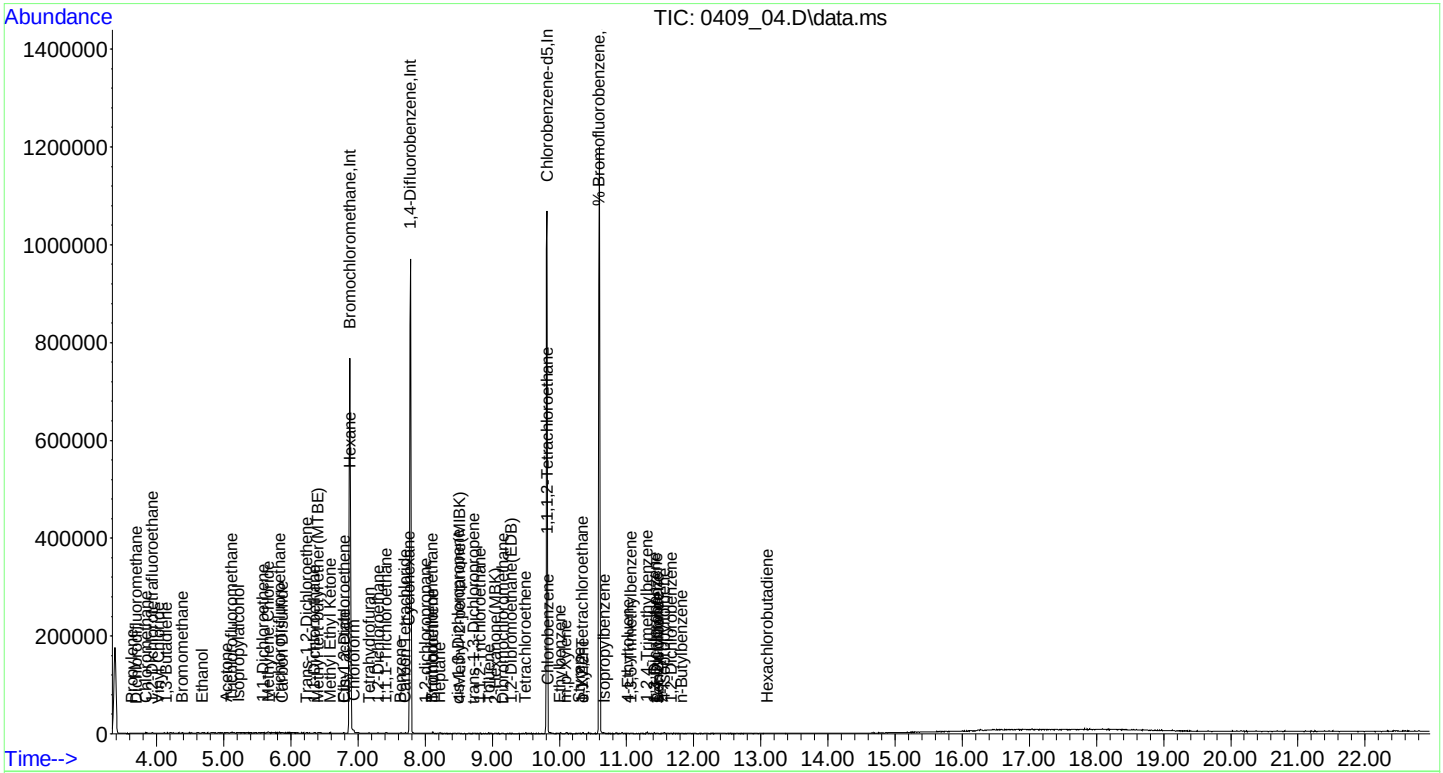
Quant Time: Apr 09 10:33:20 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Tue Apr 09 10:32:02 2019
Response via : Initial Calibration

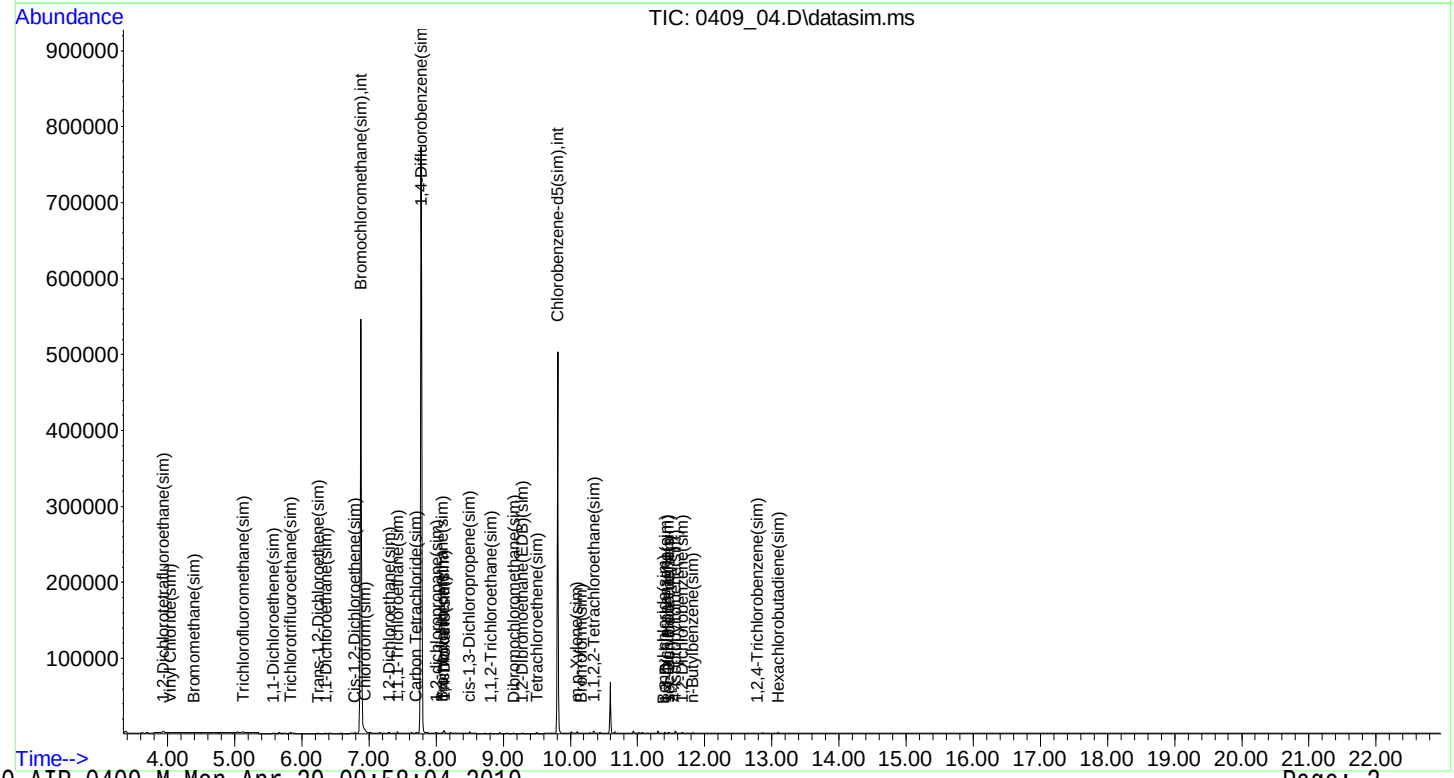
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 52) | Tetrachloroethene | 9.497 | 166 | 292 | 0.016 | ppbv# | 68 |
| 54) | 1,1,1,2-Tetrachloroethane | 9.822 | 131 | 136 | 0.009 | ppbv# | 74 |
| 55) | Chlorobenzene | 9.830 | 112 | 617 | 0.020 | ppbv# | 1 |
| 56) | Ethylbenzene | 10.012 | 91 | 1011 | 0.021 | ppbv | 82 |
| 57) | m,p-Xylene | 10.095 | 91 | 1534 | 0.041 | ppbv | 93 |
| 58) | Bromoform | 0.000 | 173 | 0 | 0.000 | ppbv | 0 |
| 60) | 1,1,2,2-Tetrachloroethane | 10.346 | 83 | 438 | 0.016 | ppbv# | 71 |
| 61) | o-Xylene | 10.353 | 91 | 622 | 0.016 | ppbv# | 88 |
| 64) | Isopropylbenzene | 10.664 | 105 | 1024 | 0.020 | ppbv# | 89 |
| 66) | 4-Ethyltoluene | 11.021 | 105 | 866 | 0.017 | ppbv# | 82 |
| 67) | 1,3,5-Trimethylbenzene | 11.066 | 105 | 919 | 0.021 | ppbv# | 79 |
| 68) | 1,2,4-Trimethylbenzene | 11.309 | 105 | 790 | 0.018 | ppbv# | 68 |
| 71) | 1,3-Dichlorobenzene | 11.416 | 146 | 475 | 0.016 | ppbv# | 74 |
| 72) | 1,4-Dichlorobenzene | 11.446 | 146 | 278 | 0.010 | ppbv# | 77 |
| 73) | sec-Butylbenzene | 11.469 | 105 | 904 | 0.015 | ppbv# | 70 |
| 74) | 4-Isopropyltoluene | 11.567 | 119 | 804 | 0.015 | ppbv | 92 |
| 75) | 1,2-Dichlorobenzene | 11.666 | 146 | 330 | 0.012 | ppbv | 94 |
| 76) | n-Butylbenzene | 11.826 | 91 | 519 | 0.011 | ppbv# | 75 |
| 79) | Hexachlorobutadiene | 13.094 | 225 | 211 | 0.018 | ppbv# | 66 |
| 81] | 1,2-Dichlorotetrafluor... | 3.938 | 85 | 895 | 0.022 | ppbv# | 81 |
| 82] | Vinyl Chloride(sim) | 4.038 | 62 | 446 | 0.023 | ppbv | 98 |
| 83] | Bromomethane(sim) | 4.395 | 94 | 448m | 0.028 | ppbv | 80 |
| 84] | Trichlorofluoromethane... | 5.125 | 101 | 1472 | 0.022 | ppbv | 100 |
| 85] | 1,2-Dichloroethane(sim) | 7.300 | 62 | 775m | 0.024 | ppbv | 95 |
| 86] | 1,1,1-Trichloroethane(... | 7.424 | 97 | 850 | 0.020 | ppbv# | 91 |
| 87] | Carbon Tetrachloride(sim) | 7.707 | 117 | 513m | 0.020 | ppbv | 69 |
| 88] | 1,1-Dichloroethene(sim) | 5.581 | 61 | 829 | 0.022 | ppbv# | 76 |
| 89] | Trichlorotrifluoroetha... | 5.831 | 101 | 904m | 0.027 | ppbv | 98 |
| 90] | Trans-1,2-Dichloroethe... | 6.242 | 61 | 717 | 0.022 | ppbv# | 83 |
| 91] | 1,1-Dichloroethane(sim) | 6.357 | 63 | 914m | 0.026 | ppbv | 72 |
| 92] | Cis-1,2-Dichloroethene... | 6.789 | 61 | 672 | 0.022 | ppbv# | 78 |
| 93] | Chloroform(sim) | 6.941 | 83 | 827 | 0.022 | ppbv# | 73 |
| 95] | 1,2-dichloropropane(sim) | 8.012 | 63 | 408m | 0.026 | ppbv | 58 |
| 96] | Bromodichloromethane(sim) | 8.097 | 85 | 427 | 0.020 | ppbv | 78 |
| 97] | Trichloroethene(sim) | 8.114 | 130 | 491m | 0.026 | ppbv | 56 |
| 98] | 1,4-Dioxane(sim) | 8.122 | 88 | 217 | 0.026 | ppbv# | 82 |
| 99] | cis-1,3-Dichloropropen... | 8.495 | 75 | 392m | 0.024 | ppbv | 46 |
| 100] | 1,1,2-Trichloroethane(... | 8.818 | 97 | 391 | 0.022 | ppbv | 99 |
| 101] | Dibromochloromethane(sim) | 9.163 | 129 | 408m | 0.020 | ppbv | 26 |
| 102] | 1,2-Dibromoethane(EDB)... | 9.282 | 107 | 508 | 0.019 | ppbv | 97 |
| 103] | Tetrachloroethene(sim) | 9.500 | 166 | 548m | 0.027 | ppbv | 68 |
| 105] | Bromoform(sim) | 10.167 | 173 | 268m | 0.022 | ppbv | 0 |
| 107] | 1,1,2,2-Tetrachloroeth... | 10.346 | 83 | 438 | 0.016 | ppbv# | 47 |
| 111] | 1,3-Dichlorobenzene(sim) | 11.416 | 146 | 475 | 0.018 | ppbv# | 74 |
| 112] | 1,4-Dichlorobenzene(sim) | 11.456 | 146 | 466 | 0.016 | ppbv | 96 |
| 115] | 1,2-Dichlorobenzene(sim) | 11.666 | 146 | 330 | 0.014 | ppbv | 94 |
| 119] | Hexachlorobutadiene(sim) | 13.094 | 225 | 211 | 0.017 | ppbv# | 66 |

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_04.D
Acq On : 09 Apr 2019 07:45 am
Operator : CORTEX\ms
Client ID : ICAL 0.02
Lab ID : 0.02
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 09 10:33:20 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Tue Apr 09 10:32:02 2019
Response via : Initial Calibration



Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_05.D
Acq On : 09 Apr 2019 08:22 am
Operator : CORTEX\ms
Client ID : ICAL 0.035
Lab ID : 0.035
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 09 10:34:42 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Tue Apr 09 10:33:33 2019
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.871 | 130 | 147499 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.772 | 114 | 445267 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.807 | 82 | 202585 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.874 | 130 | 195696 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 506266 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 205987 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 269572 | 0.000 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 0.00%# | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Propylene | 3.589 | 41 | 565 | 0.033 | ppbv | # | 76 |
| 3) Dichlorodifluoromethane | 3.654 | 85 | 1368 | 0.036 | ppbv | # | 81 |
| 4) Chloromethane | 3.800 | 50 | 613 | 0.039 | ppbv | # | 64 |
| 5) 1,2-Dichlorotetrafluor... | 3.906 | 85 | 1415 | 0.038 | ppbv | | 95 |
| 6) Vinyl Chloride | 4.011 | 62 | 581 | 0.038 | ppbv | # | 42 |
| 7) 1,3-Butadiene | 4.125 | 54 | 415 | 0.032 | ppbv | # | 42 |
| 8) Bromomethane | 4.360 | 94 | 483 | 0.038 | ppbv | # | 73 |
| 9) Chloroethane | 4.514 | 64 | 100 | 0.014 | ppbv | # | 46 |
| 11) Ethanol | 4.660 | 45 | 408 | 0.064 | ppbv | # | 57 |
| 12) Acetone | 5.025 | 43 | 1888 | 0.057 | ppbv | # | 79 |
| 13) Trichlorofluoromethane | 5.106 | 101 | 1862 | 0.038 | ppbv | # | 93 |
| 14) Isopropylalcohol | 5.212 | 45 | 1722 | 0.050 | ppbv | # | 97 |
| 15) Acrylonitrile | 5.341 | 53 | 413 | 0.048 | ppbv | # | 64 |
| 16) 1,1-Dichloroethene | 5.560 | 61 | 1173 | 0.039 | ppbv | # | 71 |
| 17) Methylene Chloride | 5.643 | 49 | 1351 | 0.061 | ppbv | # | 56 |
| 20) Carbon Disulfide | 5.852 | 76 | 1493 | 0.046 | ppbv | # | 94 |
| 21) Trichlorotrifluoroethane | 5.810 | 101 | 1151 | 0.039 | ppbv | # | 81 |
| 22) Trans-1,2-Dichloroethene | 6.223 | 61 | 792 | 0.031 | ppbv | # | 85 |
| 23) 1,1-Dichloroethane | 6.338 | 63 | 1195 | 0.038 | ppbv | | 77 |
| 24) Methyl tert-butyl ethe... | 6.396 | 73 | 1325 | 0.034 | ppbv | # | 68 |
| 25) Methyl Ethyl Ketone | 6.573 | 43 | 1396 | 0.034 | ppbv | # | 60 |
| 26) Cis-1,2-Dichloroethene | 6.786 | 61 | 802 | 0.033 | ppbv | # | 83 |
| 27) Hexane | 6.879 | 57 | 769 | 0.032 | ppbv | # | 62 |
| 28) Chloroform | 6.933 | 83 | 1321 | 0.039 | ppbv | # | 89 |
| 29) Ethyl acetate | 6.786 | 61 | 802 | 0.173 | ppbv | # | 13 |
| 30) Tetrahydrofuran | 7.158 | 42 | 492 | 0.028 | ppbv | # | 37 |
| 31) 1,2-Dichloroethane | 7.290 | 62 | 1190 | 0.041 | ppbv | # | 75 |
| 32) 1,1,1-Trichloroethane | 7.414 | 97 | 1079 | 0.032 | ppbv | | 90 |
| 33) Benzene | 7.628 | 78 | 1238 | 0.038 | ppbv | # | 76 |
| 34) Carbon Tetrachloride | 7.696 | 117 | 962 | 0.034 | ppbv | # | 66 |
| 35) Cyclohexane | 7.755 | 41 | 313 | 0.024 | ppbv | # | 1 |
| 37) 1,2-dichloropropane | 8.009 | 63 | 463 | 0.032 | ppbv | # | 71 |
| 38) Bromodichloromethane | 8.094 | 83 | 858 | 0.029 | ppbv | | 78 |
| 39) Trichloroethene | 8.111 | 130 | 593 | 0.035 | ppbv | | 95 |
| 41) 1,4-Dioxane | 8.111 | 88 | 81 | 0.012 | ppbv | # | 1 |
| 43) Heptane | 8.221 | 43 | 603 | 0.027 | ppbv | # | 70 |
| 44) cis-1,3-Dichloropropene | 8.492 | 75 | 450 | 0.025 | ppbv | | 89 |
| 45) 4-Methyl-2-pentanone(M... | 8.500 | 43 | 949 | 0.031 | ppbv | # | 71 |
| 46) trans-1,3-Dichloropropene | 8.723 | 75 | 455 | 0.026 | ppbv | # | 46 |
| 47) 1,1,2-Trichloroethane | 8.815 | 97 | 525 | 0.037 | ppbv | | 88 |
| 48) Toluene | 8.948 | 91 | 989 | 0.027 | ppbv | # | 90 |
| 49) Dibromochloromethane | 9.160 | 129 | 341 | 0.016 | ppbv | # | 75 |
| 50) 2-Hexanone(MBK) | 9.054 | 43 | 691 | 0.025 | ppbv | # | 62 |
| 51) 1,2-Dibromoethane(EDB) | 9.279 | 107 | 599 | 0.025 | ppbv | | 98 |

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_05.D
Acq On : 09 Apr 2019 08:22 am
Operator : CORTEX\ms
Client ID : ICAL 0.035
Lab ID : 0.035
ALS Vial : 1 Sample Multiplier: 1

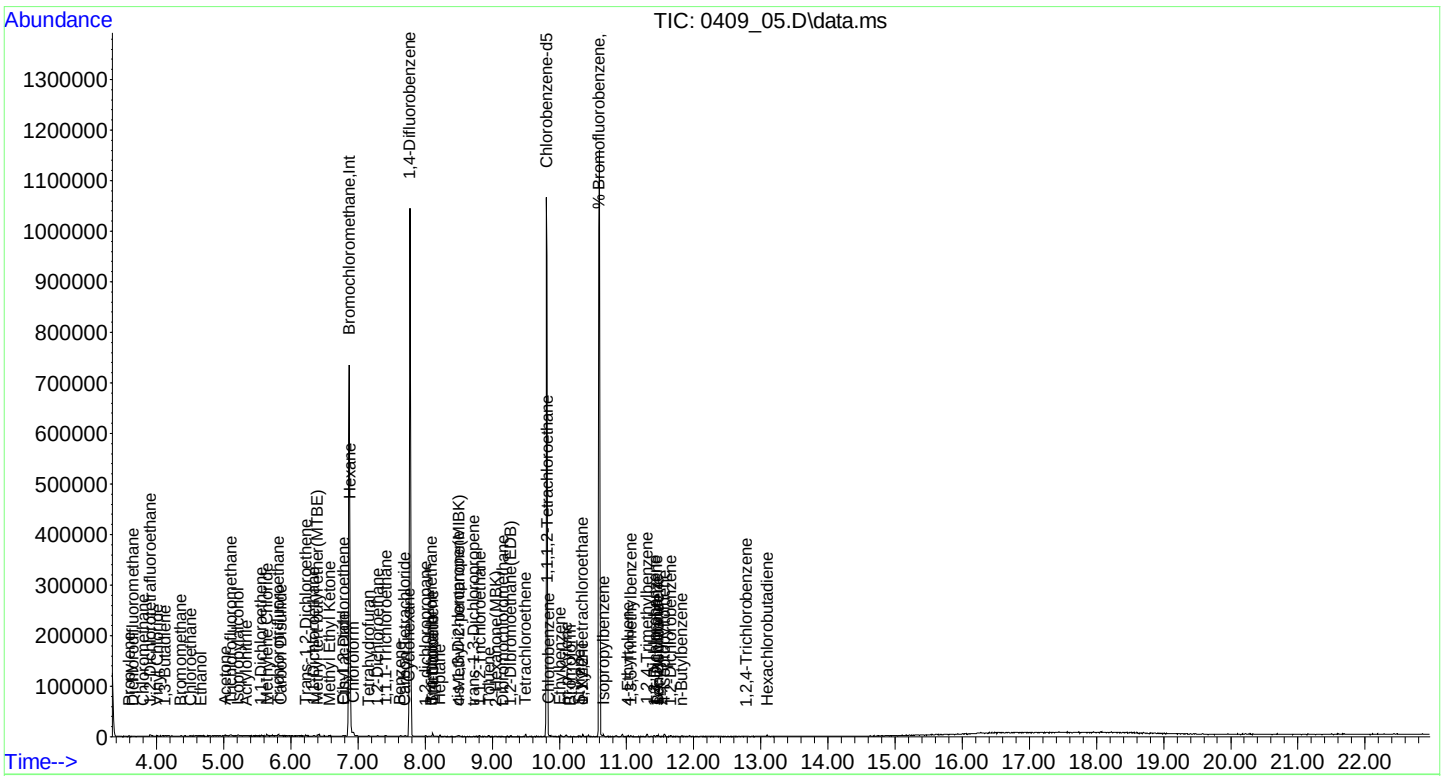
Quant Time: Apr 09 10:34:42 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Tue Apr 09 10:33:33 2019
Response via : Initial Calibration

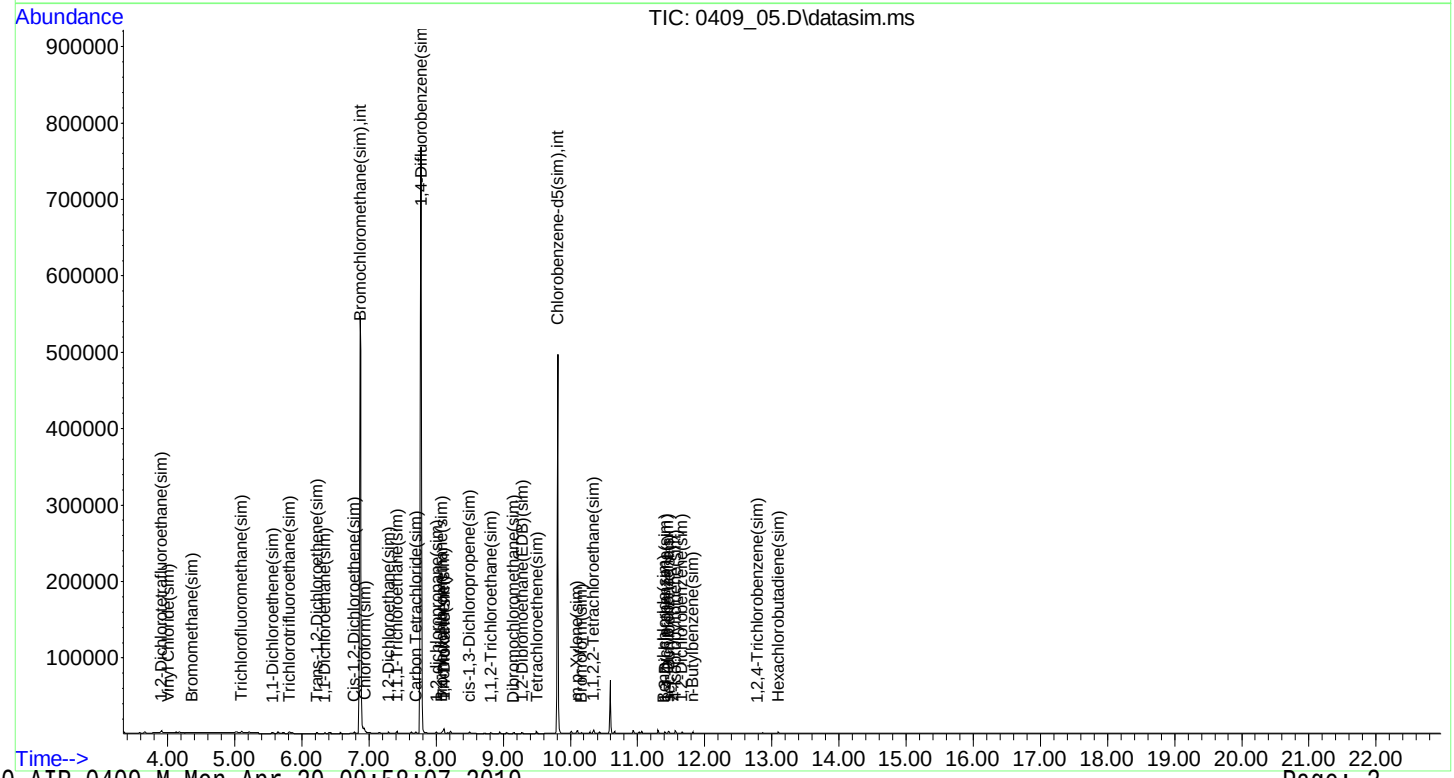
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 52) | Tetrachloroethene | 9.497 | 166 | 480 | 0.027 | ppbv# | 72 |
| 54) | 1,1,1,2-Tetrachloroethane | 9.822 | 131 | 227 | 0.015 | ppbv# | 58 |
| 55) | Chlorobenzene | 9.838 | 112 | 1112 | 0.036 | ppbv# | 1 |
| 56) | Ethylbenzene | 10.012 | 91 | 1796 | 0.037 | ppbv | 83 |
| 57) | m,p-Xylene | 10.103 | 91 | 2423 | 0.066 | ppbv | 94 |
| 58) | Bromoform | 10.164 | 173 | 133 | 0.010 | ppbv# | 51 |
| 60) | 1,1,2,2-Tetrachloroethane | 10.346 | 83 | 787 | 0.029 | ppbv# | 80 |
| 61) | o-Xylene | 10.346 | 91 | 1117 | 0.029 | ppbv# | 79 |
| 64) | Isopropylbenzene | 10.656 | 105 | 1856 | 0.037 | ppbv# | 94 |
| 66) | 4-Ethyltoluene | 11.021 | 105 | 1488 | 0.029 | ppbv# | 75 |
| 67) | 1,3,5-Trimethylbenzene | 11.066 | 105 | 1372 | 0.031 | ppbv# | 71 |
| 68) | 1,2,4-Trimethylbenzene | 11.309 | 105 | 1012 | 0.024 | ppbv | 95 |
| 71) | 1,3-Dichlorobenzene | 11.416 | 146 | 749 | 0.026 | ppbv# | 85 |
| 72) | 1,4-Dichlorobenzene | 11.453 | 146 | 527 | 0.019 | ppbv | 91 |
| 73) | sec-Butylbenzene | 11.469 | 105 | 1572 | 0.026 | ppbv# | 76 |
| 74) | 4-Isopropyltoluene | 11.560 | 119 | 1672 | 0.032 | ppbv# | 84 |
| 75) | 1,2-Dichlorobenzene | 11.659 | 146 | 713 | 0.026 | ppbv | 94 |
| 76) | n-Butylbenzene | 11.826 | 91 | 1000 | 0.021 | ppbv# | 75 |
| 79) | Hexachlorobutadiene | 13.101 | 225 | 301 | 0.027 | ppbv | 83 |
| 81] | 1,2-Dichlorotetrafluor... | 3.906 | 85 | 1415 | 0.036 | ppbv | 96 |
| 82] | Vinyl Chloride(sim) | 4.014 | 62 | 678 | 0.036 | ppbv | 90 |
| 83] | Bromomethane(sim) | 4.363 | 94 | 649m | 0.041 | ppbv | 73 |
| 84] | Trichlorofluoromethane... | 5.101 | 101 | 2373 | 0.036 | ppbv | 98 |
| 85] | 1,2-Dichloroethane(sim) | 7.290 | 62 | 1190 | 0.038 | ppbv# | 75 |
| 86] | 1,1,1-Trichloroethane(... | 7.417 | 97 | 1378 | 0.033 | ppbv# | 89 |
| 87] | Carbon Tetrachloride(sim) | 7.696 | 117 | 962 | 0.038 | ppbv# | 66 |
| 88] | 1,1-Dichloroethene(sim) | 5.563 | 61 | 1379 | 0.037 | ppbv# | 72 |
| 89] | Trichlorotrifluoroetha... | 5.810 | 101 | 1151 | 0.035 | ppbv | 97 |
| 90] | Trans-1,2-Dichloroethe... | 6.226 | 61 | 1183 | 0.038 | ppbv# | 79 |
| 91] | 1,1-Dichloroethane(sim) | 6.338 | 63 | 1195 | 0.035 | ppbv# | 77 |
| 92] | Cis-1,2-Dichloroethene... | 6.781 | 61 | 1069 | 0.036 | ppbv# | 79 |
| 93] | Chloroform(sim) | 6.933 | 83 | 1321 | 0.036 | ppbv# | 89 |
| 95] | 1,2-dichloropropane(sim) | 8.009 | 63 | 463 | 0.031 | ppbv# | 71 |
| 96] | Bromodichloromethane(sim) | 8.088 | 85 | 680 | 0.032 | ppbv# | 60 |
| 97] | Trichloroethene(sim) | 8.114 | 130 | 781m | 0.043 | ppbv | 91 |
| 98] | 1,4-Dioxane(sim) | 8.122 | 88 | 337 | 0.041 | ppbv# | 78 |
| 99] | cis-1,3-Dichloropropen... | 8.492 | 75 | 450 | 0.028 | ppbv# | 89 |
| 100] | 1,1,2-Trichloroethane(... | 8.818 | 97 | 635 | 0.037 | ppbv | 94 |
| 101] | Dibromochloromethane(sim) | 9.155 | 129 | 709m | 0.035 | ppbv | 83 |
| 102] | 1,2-Dibromoethane(EDB)... | 9.282 | 107 | 878 | 0.033 | ppbv | 98 |
| 103] | Tetrachloroethene(sim) | 9.500 | 166 | 913m | 0.046 | ppbv | 72 |
| 105] | Bromoform(sim) | 10.167 | 173 | 444m | 0.036 | ppbv | 51 |
| 107] | 1,1,2,2-Tetrachloroeth... | 10.341 | 83 | 1146m | 0.042 | ppbv | 88 |
| 111] | 1,3-Dichlorobenzene(sim) | 11.411 | 146 | 828m | 0.033 | ppbv | 85 |
| 112] | 1,4-Dichlorobenzene(sim) | 11.449 | 146 | 757 | 0.026 | ppbv | 95 |
| 115] | 1,2-Dichlorobenzene(sim) | 11.659 | 146 | 713 | 0.031 | ppbv | 94 |
| 119] | Hexachlorobutadiene(sim) | 13.097 | 225 | 638m | 0.054 | ppbv | 83 |

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_05.D
Acq On : 09 Apr 2019 08:22 am
Operator : CORTEX\ms
Client ID : ICAL 0.035
Lab ID : 0.035
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 09 10:34:42 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Tue Apr 09 10:33:33 2019
Response via : Initial Calibration



Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_06.D
Acq On : 09 Apr 2019 08:59 am
Operator : CORTEX\ms
Client ID : ICAL 0.05
Lab ID : 0.05
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 09 10:36:17 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Tue Apr 09 10:35:23 2019
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.879 | 130 | 143771 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.780 | 114 | 442046 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.815 | 82 | 205019 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.882 | 130 | 193754 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.783 | 114 | 505626 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 206756 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 267694 | 0.000 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 0.00%# | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Propylene | 3.622 | 41 | 911 | 0.054 | ppbv | | 96 |
| 3) Dichlorodifluoromethane | 3.695 | 85 | 1931 | 0.052 | ppbv# | | 89 |
| 4) Chloromethane | 3.849 | 50 | 1035 | 0.067 | ppbv# | | 53 |
| 5) 1,2-Dichlorotetrafluor... | 3.938 | 85 | 2122 | 0.059 | ppbv# | | 80 |
| 6) Vinyl Chloride | 4.044 | 62 | 869 | 0.058 | ppbv# | | 58 |
| 7) 1,3-Butadiene | 4.173 | 54 | 728 | 0.058 | ppbv# | | 79 |
| 8) Bromomethane | 4.392 | 94 | 808 | 0.065 | ppbv# | | 77 |
| 9) Chloroethane | 4.546 | 64 | 329 | 0.047 | ppbv# | | 46 |
| 11) Ethanol | 4.676 | 45 | 385 | 0.062 | ppbv# | | 41 |
| 12) Acetone | 5.049 | 43 | 2421 | 0.075 | ppbv# | | 88 |
| 13) Trichlorofluoromethane | 5.122 | 101 | 2613 | 0.054 | ppbv# | | 95 |
| 14) Isopropylalcohol | 5.236 | 45 | 2209 | 0.065 | ppbv# | | 82 |
| 15) Acrylonitrile | 5.370 | 53 | 782 | 0.093 | ppbv# | | 61 |
| 16) 1,1-Dichloroethene | 5.590 | 61 | 1500 | 0.052 | ppbv# | | 75 |
| 17) Methylene Chloride | 5.667 | 49 | 1938 | 0.090 | ppbv# | | 52 |
| 20) Carbon Disulfide | 5.876 | 76 | 2639 | 0.084 | ppbv# | | 74 |
| 21) Trichlorotrifluoroethane | 5.834 | 101 | 1662 | 0.058 | ppbv# | | 89 |
| 22) Trans-1,2-Dichloroethene | 6.244 | 61 | 1200 | 0.049 | ppbv# | | 85 |
| 23) 1,1-Dichloroethane | 6.359 | 63 | 1670 | 0.055 | ppbv | | 83 |
| 24) Methyl tert-butyl ethe... | 6.416 | 73 | 1753 | 0.047 | ppbv# | | 61 |
| 25) Methyl Ethyl Ketone | 6.589 | 43 | 2117 | 0.052 | ppbv# | | 63 |
| 26) Cis-1,2-Dichloroethene | 6.794 | 61 | 1281 | 0.054 | ppbv# | | 62 |
| 27) Hexane | 6.887 | 57 | 1288 | 0.055 | ppbv# | | 84 |
| 28) Chloroform | 6.941 | 83 | 1831 | 0.055 | ppbv# | | 72 |
| 29) Ethyl acetate | 6.794 | 61 | 1281 | 0.284 | ppbv# | | 13 |
| 30) Tetrahydrofuran | 7.173 | 42 | 931 | 0.055 | ppbv# | | 45 |
| 31) 1,2-Dichloroethane | 7.297 | 62 | 1596 | 0.056 | ppbv# | | 86 |
| 32) 1,1,1-Trichloroethane | 7.421 | 97 | 1467 | 0.045 | ppbv# | | 86 |
| 33) Benzene | 7.636 | 78 | 1785 | 0.057 | ppbv# | | 89 |
| 34) Carbon Tetrachloride | 7.704 | 117 | 1144 | 0.042 | ppbv | | 85 |
| 35) Cyclohexane | 7.772 | 41 | 635 | 0.050 | ppbv# | | 1 |
| 37) 1,2-dichloropropane | 8.009 | 63 | 700 | 0.049 | ppbv# | | 75 |
| 38) Bromodichloromethane | 8.094 | 83 | 1139 | 0.039 | ppbv | | 78 |
| 39) Trichloroethene | 8.111 | 130 | 781 | 0.047 | ppbv | | 95 |
| 41) 1,4-Dioxane | 8.128 | 88 | 265 | 0.038 | ppbv# | | 16 |
| 43) Heptane | 8.221 | 43 | 935 | 0.042 | ppbv# | | 68 |
| 44) cis-1,3-Dichloropropene | 8.492 | 75 | 689 | 0.038 | ppbv | | 70 |
| 45) 4-Methyl-2-pentanone(M... | 8.500 | 43 | 1189 | 0.039 | ppbv# | | 73 |
| 46) trans-1,3-Dichloropropene | 8.723 | 75 | 538 | 0.031 | ppbv# | | 58 |
| 47) 1,1,2-Trichloroethane | 8.815 | 97 | 839 | 0.060 | ppbv | | 95 |
| 48) Toluene | 8.948 | 91 | 1552 | 0.043 | ppbv# | | 99 |
| 49) Dibromochloromethane | 9.160 | 129 | 732 | 0.034 | ppbv | | 99 |
| 50) 2-Hexanone(MBK) | 9.054 | 43 | 917 | 0.033 | ppbv# | | 78 |
| 51) 1,2-Dibromoethane(EDB) | 9.279 | 107 | 977 | 0.041 | ppbv | | 88 |

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_06.D
Acq On : 09 Apr 2019 08:59 am
Operator : CORTEX\ms
Client ID : ICAL 0.05
Lab ID : 0.05
ALS Vial : 1 Sample Multiplier: 1

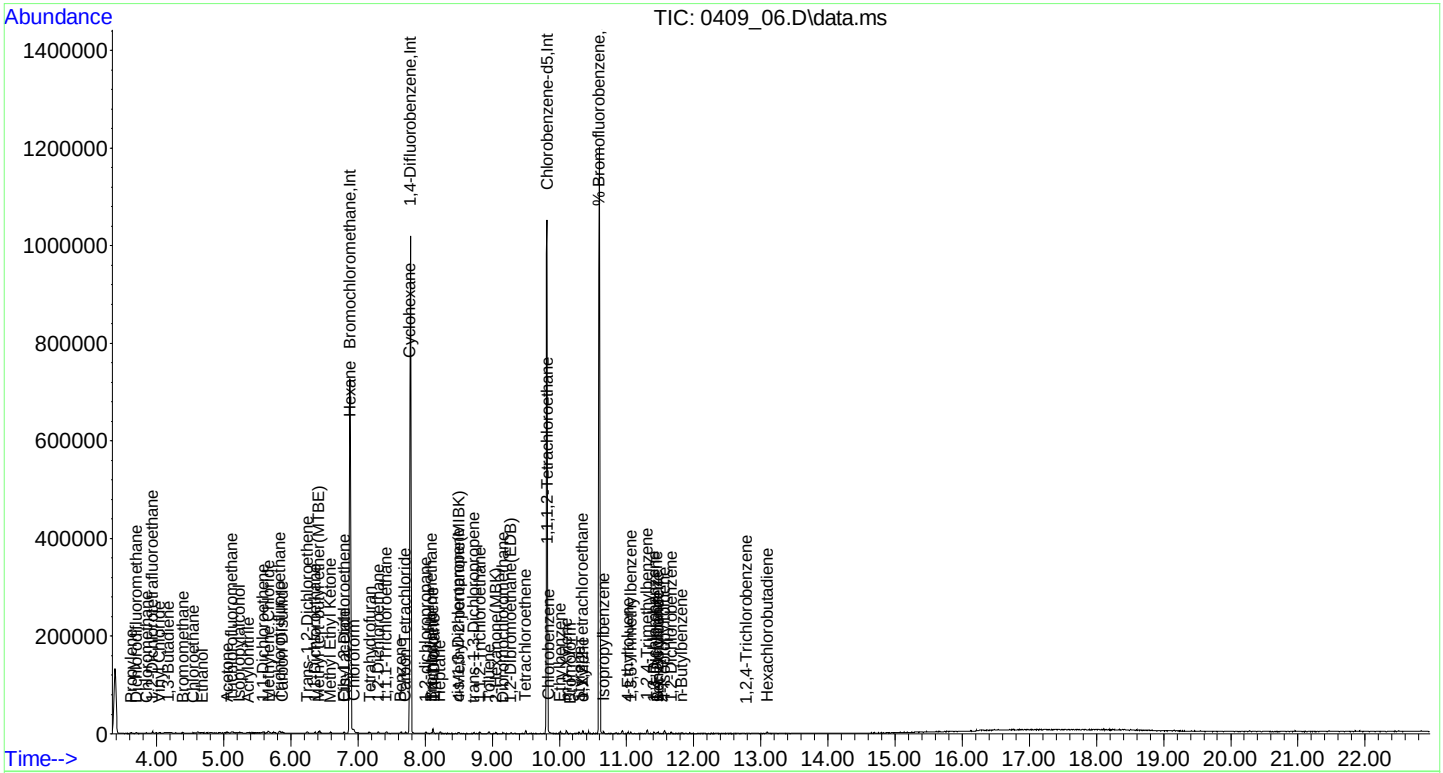
Quant Time: Apr 09 10:36:17 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Tue Apr 09 10:35:23 2019
Response via : Initial Calibration

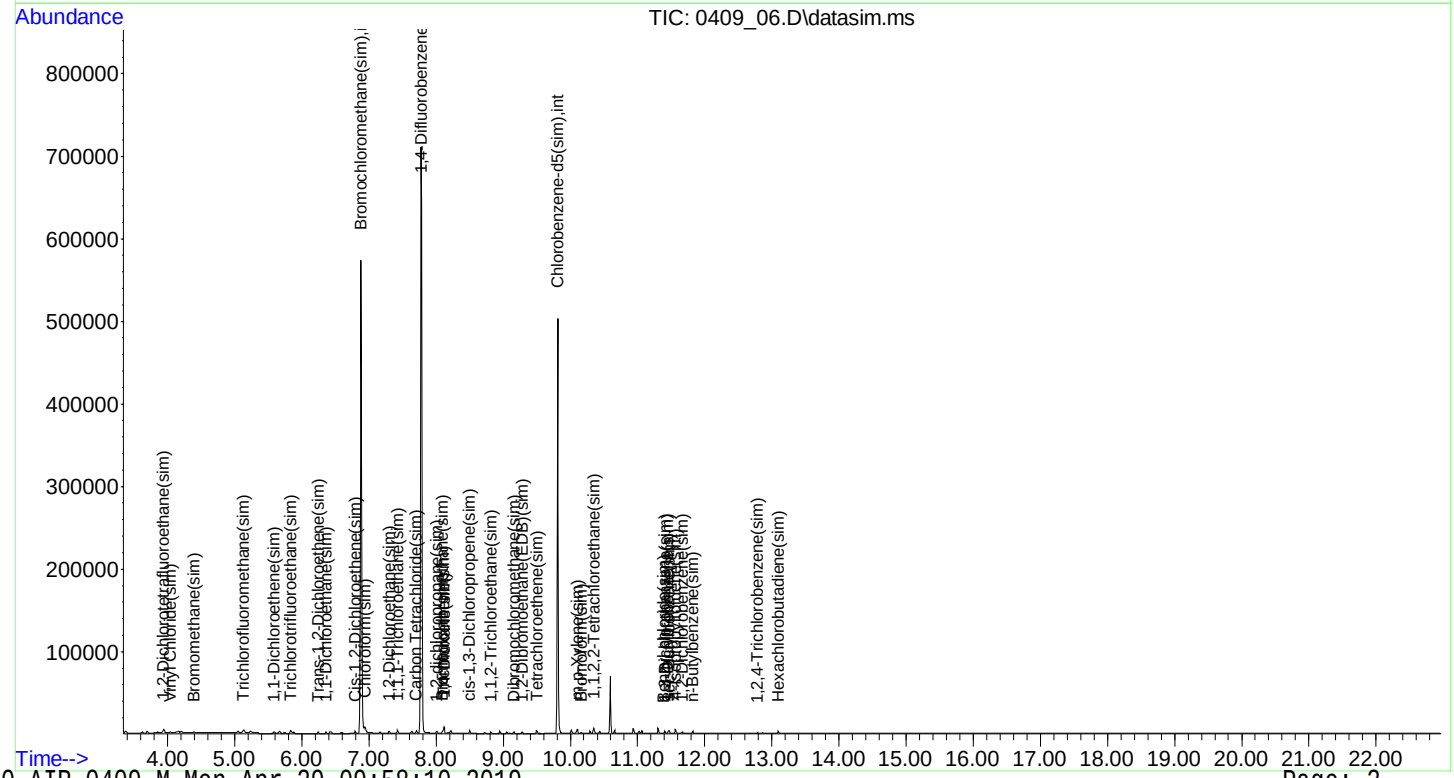
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 52) Tetrachloroethene | 9.497 | 166 | 875 | 0.050 | ppbv# | 78 |
| 54) 1,1,1,2-Tetrachloroethane | 9.822 | 131 | 486 | 0.031 | ppbv# | 92 |
| 55) Chlorobenzene | 9.838 | 112 | 1526 | 0.049 | ppbv# | 1 |
| 56) Ethylbenzene | 10.012 | 91 | 2235 | 0.046 | ppbv | 94 |
| 57) m,p-Xylene | 10.103 | 91 | 3412 | 0.092 | ppbv# | 91 |
| 58) Bromoform | 10.164 | 173 | 414 | 0.031 | ppbv# | 44 |
| 60) 1,1,2,2-Tetrachloroethane | 10.346 | 83 | 1176 | 0.042 | ppbv# | 86 |
| 61) o-Xylene | 10.353 | 91 | 1567 | 0.040 | ppbv# | 91 |
| 64) Isopropylbenzene | 10.656 | 105 | 2375 | 0.047 | ppbv | 93 |
| 66) 4-Ethyltoluene | 11.021 | 105 | 1762 | 0.034 | ppbv | 97 |
| 67) 1,3,5-Trimethylbenzene | 11.066 | 105 | 1763 | 0.040 | ppbv# | 86 |
| 68) 1,2,4-Trimethylbenzene | 11.309 | 105 | 1326 | 0.031 | ppbv | 92 |
| 71) 1,3-Dichlorobenzene | 11.408 | 146 | 1010 | 0.035 | ppbv | 88 |
| 72) 1,4-Dichlorobenzene | 11.453 | 146 | 744 | 0.026 | ppbv# | 85 |
| 73) sec-Butylbenzene | 11.469 | 105 | 2173 | 0.036 | ppbv | 95 |
| 74) 4-Isopropyltoluene | 11.560 | 119 | 1808 | 0.034 | ppbv | 97 |
| 75) 1,2-Dichlorobenzene | 11.666 | 146 | 945 | 0.035 | ppbv | 91 |
| 76) n-Butylbenzene | 11.826 | 91 | 1312 | 0.028 | ppbv# | 87 |
| 79) Hexachlorobutadiene | 13.094 | 225 | 670 | 0.058 | ppbv# | 59 |
| 81] 1,2-Dichlorotetrafluor... | 3.938 | 85 | 2122 | 0.054 | ppbv# | 80 |
| 82] Vinyl Chloride(sim) | 4.046 | 62 | 934 | 0.050 | ppbv | 99 |
| 83] Bromomethane(sim) | 4.395 | 94 | 895m | 0.058 | ppbv | 77 |
| 84] Trichlorofluoromethane... | 5.133 | 101 | 3282 | 0.051 | ppbv | 99 |
| 85] 1,2-Dichloroethane(sim) | 7.297 | 62 | 1596 | 0.051 | ppbv# | 86 |
| 86] 1,1,1-Trichloroethane(... | 7.424 | 97 | 1990 | 0.048 | ppbv# | 92 |
| 87] Carbon Tetrachloride(sim) | 7.704 | 117 | 1144 | 0.045 | ppbv# | 85 |
| 88] 1,1-Dichloroethene(sim) | 5.587 | 61 | 1870 | 0.051 | ppbv# | 70 |
| 89] Trichlorotrifluoroetha... | 5.834 | 101 | 1662 | 0.051 | ppbv | 96 |
| 90] Trans-1,2-Dichloroethe... | 6.242 | 61 | 1559 | 0.050 | ppbv# | 80 |
| 91] 1,1-Dichloroethane(sim) | 6.359 | 63 | 1670 | 0.049 | ppbv# | 83 |
| 92] Cis-1,2-Dichloroethene... | 6.797 | 61 | 1471 | 0.050 | ppbv# | 75 |
| 93] Chloroform(sim) | 6.941 | 83 | 1831 | 0.050 | ppbv# | 72 |
| 95] 1,2-dichloropropane(sim) | 8.012 | 63 | 862m | 0.057 | ppbv | 75 |
| 96] Bromodichloromethane(sim) | 8.097 | 85 | 1011 | 0.048 | ppbv | 97 |
| 97] Trichloroethene(sim) | 8.114 | 130 | 1053m | 0.058 | ppbv | 91 |
| 98] 1,4-Dioxane(sim) | 8.122 | 88 | 373 | 0.046 | ppbv# | 65 |
| 99] cis-1,3-Dichloropropen... | 8.492 | 75 | 689 | 0.043 | ppbv# | 70 |
| 100] 1,1,2-Trichloroethane(... | 8.818 | 97 | 811 | 0.047 | ppbv | 88 |
| 101] Dibromochloromethane(sim) | 9.162 | 129 | 1030m | 0.051 | ppbv | 99 |
| 102] 1,2-Dibromoethane(EDB)... | 9.282 | 107 | 1244 | 0.047 | ppbv | 97 |
| 103] Tetrachloroethene(sim) | 9.500 | 166 | 1220m | 0.061 | ppbv | 84 |
| 105] Bromoform(sim) | 10.166 | 173 | 614m | 0.050 | ppbv | 51 |
| 106] m,p-Xylene(sim) | 10.106 | 91 | 3559 | 0.098 | ppbv | 94 |
| 107] 1,1,2,2-Tetrachloroeth... | 10.346 | 83 | 1176 | 0.043 | ppbv# | 88 |
| 110] Benzyl chloride(sim) | 11.396 | 91 | 411 | 0.052 | ppbv | 92 |
| 111] 1,3-Dichlorobenzene(sim) | 11.408 | 146 | 1010 | 0.040 | ppbv | 88 |
| 112] 1,4-Dichlorobenzene(sim) | 11.449 | 146 | 1050 | 0.036 | ppbv | 96 |
| 113] sec-Butylbenzene(sim) | 11.469 | 105 | 2173 | 0.045 | ppbv | 95 |
| 114] 4-Isopropyltoluene(sim) | 11.563 | 119 | 1813 | 0.049 | ppbv# | 91 |
| 115] 1,2-Dichlorobenzene(sim) | 11.666 | 146 | 945 | 0.040 | ppbv | 91 |
| 116] n-Butylbenzene(sim) | 11.821 | 91 | 1379 | 0.050 | ppbv | 91 |
| 117] 1,2,4-Trichlorobenzene... | 12.785 | 180 | 359m | 0.047 | ppbv | 65 |
| 119] Hexachlorobutadiene(sim) | 13.094 | 225 | 601 | 0.050 | ppbv# | 64 |

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_06.D
Acq On : 09 Apr 2019 08:59 am
Operator : CORTEX\ms
Client ID : ICAL 0.05
Lab ID : 0.05
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 09 10:36:17 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Tue Apr 09 10:35:23 2019
Response via : Initial Calibration



Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_07.D
Acq On : 09 Apr 2019 09:36 am
Operator : CORTEX\ms
Client ID : ICAL 0.1
Lab ID : 0.10
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 09 10:37:13 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Tue Apr 09 10:36:27 2019
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.879 | 130 | 142350 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.772 | 114 | 434094 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.807 | 82 | 200331 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.882 | 130 | 192013 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 498339 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 205684 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 267230 | 0.000 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 0.00%# | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Propylene | 3.606 | 41 | 1604 | 0.096 | ppbv | | 91 |
| 3) Dichlorodifluoromethane | 3.679 | 85 | 4132 | 0.113 | ppbv# | | 91 |
| 4) Chloromethane | 3.833 | 50 | 1495 | 0.098 | ppbv | | 91 |
| 5) 1,2-Dichlorotetrafluor... | 3.930 | 85 | 3639 | 0.102 | ppbv | | 97 |
| 6) Vinyl Chloride | 4.027 | 62 | 1405 | 0.095 | ppbv | | 89 |
| 7) 1,3-Butadiene | 4.149 | 54 | 1330 | 0.107 | ppbv# | | 81 |
| 8) Bromomethane | 4.376 | 94 | 1559 | 0.126 | ppbv# | | 80 |
| 9) Chloroethane | 4.522 | 64 | 747 | 0.107 | ppbv | | 87 |
| 11) Ethanol | 4.660 | 45 | 807 | 0.132 | ppbv# | | 70 |
| 12) Acetone | 5.041 | 43 | 4084 | 0.128 | ppbv# | | 84 |
| 13) Trichlorofluoromethane | 5.122 | 101 | 5201 | 0.109 | ppbv | | 98 |
| 14) Isopropylalcohol | 5.220 | 45 | 3731 | 0.111 | ppbv# | | 90 |
| 15) Acrylonitrile | 5.341 | 53 | 755 | 0.091 | ppbv# | | 77 |
| 16) 1,1-Dichloroethene | 5.578 | 61 | 2953 | 0.103 | ppbv# | | 79 |
| 17) Methylene Chloride | 5.655 | 49 | 2440 | 0.114 | ppbv# | | 66 |
| 20) Carbon Disulfide | 5.864 | 76 | 3546 | 0.114 | ppbv# | | 86 |
| 21) Trichlorotrifluoroethane | 5.822 | 101 | 2850 | 0.101 | ppbv | | 92 |
| 22) Trans-1,2-Dichloroethene | 6.234 | 61 | 2395 | 0.098 | ppbv# | | 83 |
| 23) 1,1-Dichloroethane | 6.349 | 63 | 3306 | 0.110 | ppbv | | 94 |
| 24) Methyl tert-butyl ethe... | 6.401 | 73 | 3412 | 0.092 | ppbv# | | 63 |
| 25) Methyl Ethyl Ketone | 6.583 | 43 | 3986 | 0.100 | ppbv# | | 73 |
| 26) Cis-1,2-Dichloroethene | 6.786 | 61 | 2506 | 0.107 | ppbv# | | 71 |
| 27) Hexane | 6.887 | 57 | 2282 | 0.099 | ppbv# | | 73 |
| 28) Chloroform | 6.933 | 83 | 3808 | 0.115 | ppbv# | | 79 |
| 29) Ethyl acetate | 6.786 | 61 | 2506 | 0.560 | ppbv# | | 13 |
| 30) Tetrahydrofuran | 7.158 | 42 | 1377 | 0.082 | ppbv# | | 64 |
| 31) 1,2-Dichloroethane | 7.297 | 62 | 2798 | 0.099 | ppbv# | | 88 |
| 32) 1,1,1-Trichloroethane | 7.421 | 97 | 2980 | 0.092 | ppbv# | | 86 |
| 33) Benzene | 7.636 | 78 | 3188 | 0.102 | ppbv# | | 80 |
| 34) Carbon Tetrachloride | 7.704 | 117 | 2082 | 0.077 | ppbv | | 93 |
| 35) Cyclohexane | 7.763 | 41 | 1240 | 0.099 | ppbv# | | 1 |
| 37) 1,2-dichloropropane | 8.009 | 63 | 1436 | 0.103 | ppbv# | | 78 |
| 38) Bromodichloromethane | 8.094 | 83 | 2265 | 0.080 | ppbv | | 95 |
| 39) Trichloroethene | 8.111 | 130 | 1349 | 0.083 | ppbv# | | 67 |
| 41) 1,4-Dioxane | 8.119 | 88 | 476 | 0.070 | ppbv# | | 27 |
| 43) Heptane | 8.221 | 43 | 2061 | 0.094 | ppbv# | | 66 |
| 44) cis-1,3-Dichloropropene | 8.492 | 75 | 1187 | 0.067 | ppbv | | 89 |
| 45) 4-Methyl-2-pentanone(M... | 8.500 | 43 | 2457 | 0.082 | ppbv# | | 80 |
| 46) trans-1,3-Dichloropropene | 8.723 | 75 | 1299 | 0.076 | ppbv# | | 83 |
| 47) 1,1,2-Trichloroethane | 8.815 | 97 | 1259 | 0.092 | ppbv# | | 90 |
| 48) Toluene | 8.948 | 91 | 3356 | 0.094 | ppbv | | 96 |
| 49) Dibromochloromethane | 9.160 | 129 | 1669 | 0.079 | ppbv# | | 92 |
| 50) 2-Hexanone(MBK) | 9.047 | 43 | 2104 | 0.077 | ppbv# | | 77 |
| 51) 1,2-Dibromoethane(EDB) | 9.279 | 107 | 1886 | 0.081 | ppbv | | 94 |

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_07.D
Acq On : 09 Apr 2019 09:36 am
Operator : CORTEX\ms
Client ID : ICAL 0.1
Lab ID : 0.10
ALS Vial : 1 Sample Multiplier: 1

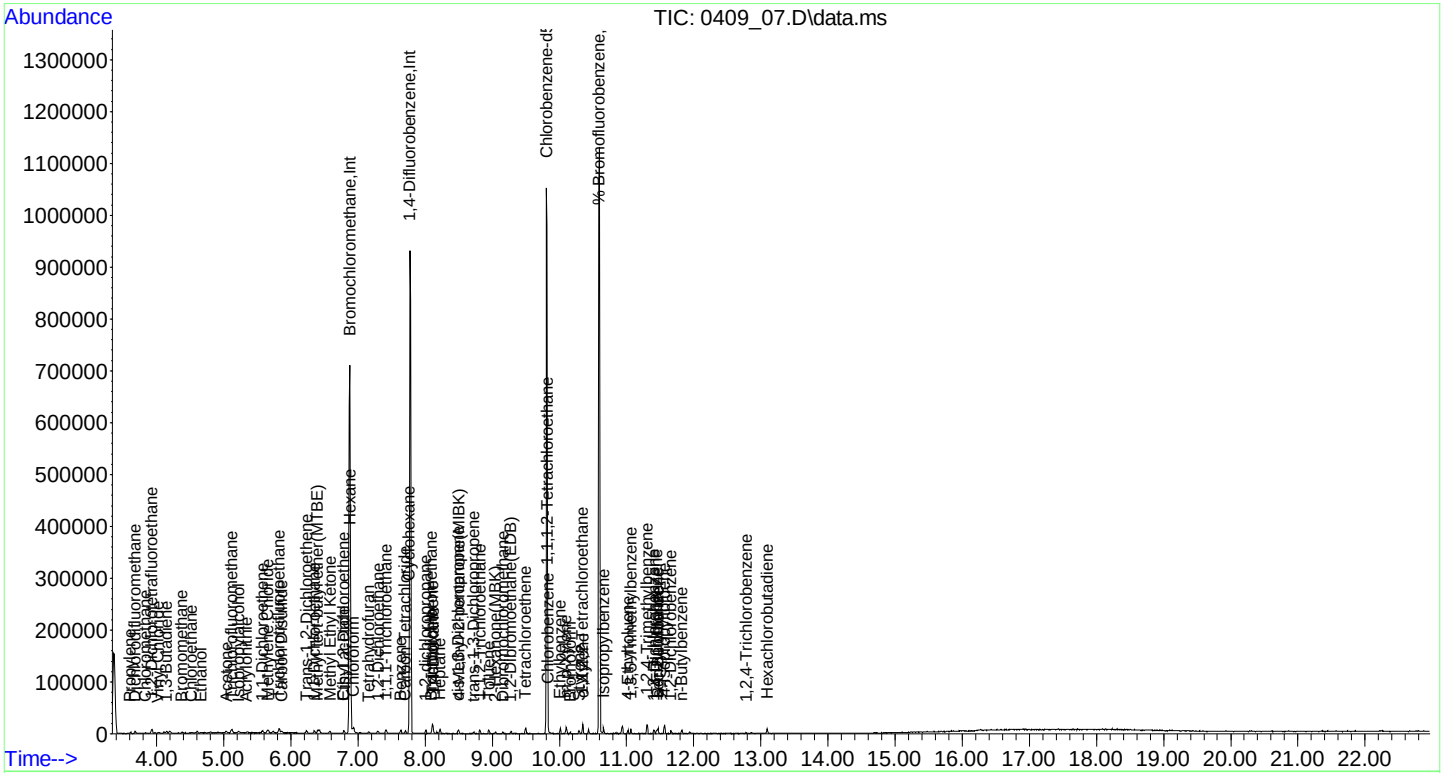
Quant Time: Apr 09 10:37:13 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Tue Apr 09 10:36:27 2019
Response via : Initial Calibration

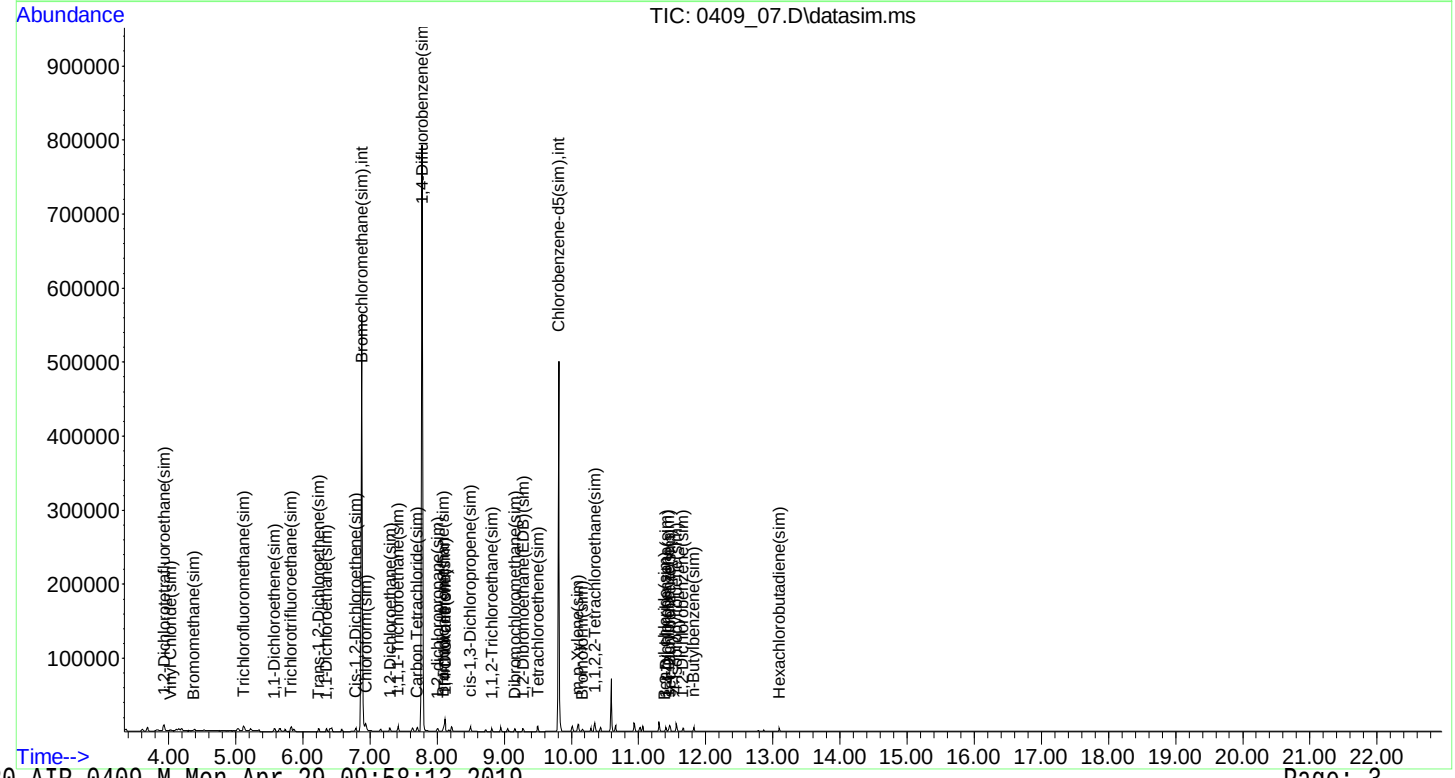
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 52) | Tetrachloroethene | 9.497 | 166 | 1583 | 0.092 | ppbv# | 84 |
| 54) | 1,1,1,2-Tetrachloroethane | 9.822 | 131 | 982 | 0.064 | ppbv | 95 |
| 55) | Chlorobenzene | 9.830 | 112 | 2976 | 0.097 | ppbv# | 1 |
| 56) | Ethylbenzene | 10.012 | 91 | 4436 | 0.093 | ppbv | 91 |
| 57) | m,p-Xylene | 10.095 | 91 | 6461 | 0.178 | ppbv | 93 |
| 58) | Bromoform | 10.164 | 173 | 791 | 0.061 | ppbv | 94 |
| 60) | 1,1,2,2-Tetrachloroethane | 10.346 | 83 | 2634 | 0.097 | ppbv | 89 |
| 61) | o-Xylene | 10.353 | 91 | 3459 | 0.091 | ppbv# | 95 |
| 64) | Isopropylbenzene | 10.656 | 105 | 4757 | 0.095 | ppbv | 93 |
| 66) | 4-Ethyltoluene | 11.021 | 105 | 3664 | 0.073 | ppbv | 99 |
| 67) | 1,3,5-Trimethylbenzene | 11.066 | 105 | 3517 | 0.081 | ppbv | 93 |
| 68) | 1,2,4-Trimethylbenzene | 11.309 | 105 | 2861 | 0.068 | ppbv# | 92 |
| 71) | 1,3-Dichlorobenzene | 11.408 | 146 | 1922 | 0.068 | ppbv | 94 |
| 72) | 1,4-Dichlorobenzene | 11.453 | 146 | 2072 | 0.075 | ppbv | 95 |
| 73) | sec-Butylbenzene | 11.469 | 105 | 4463 | 0.076 | ppbv | 95 |
| 74) | 4-Isopropyltoluene | 11.560 | 119 | 3752 | 0.073 | ppbv# | 90 |
| 75) | 1,2-Dichlorobenzene | 11.658 | 146 | 1909 | 0.071 | ppbv | 94 |
| 76) | n-Butylbenzene | 11.826 | 91 | 2888 | 0.062 | ppbv# | 83 |
| 79) | Hexachlorobutadiene | 13.094 | 225 | 950 | 0.085 | ppbv# | 82 |
| 81] | 1,2-Dichlorotetrafluor... | 3.930 | 85 | 3639 | 0.093 | ppbv | 97 |
| 82] | Vinyl Chloride(sim) | 4.030 | 62 | 1851 | 0.100 | ppbv | 96 |
| 83] | Bromomethane(sim) | 4.376 | 94 | 1559 | 0.101 | ppbv# | 80 |
| 84] | Trichlorofluoromethane... | 5.117 | 101 | 6521 | 0.102 | ppbv | 98 |
| 85] | 1,2-Dichloroethane(sim) | 7.297 | 62 | 2798 | 0.090 | ppbv# | 88 |
| 86] | 1,1,1-Trichloroethane(... | 7.417 | 97 | 3926 | 0.096 | ppbv# | 91 |
| 87] | Carbon Tetrachloride(sim) | 7.704 | 117 | 2082 | 0.083 | ppbv | 96 |
| 88] | 1,1-Dichloroethene(sim) | 5.575 | 61 | 3628 | 0.100 | ppbv# | 71 |
| 89] | Trichlorotrifluoroetha... | 5.822 | 101 | 2850 | 0.089 | ppbv | 93 |
| 90] | Trans-1,2-Dichloroethe... | 6.237 | 61 | 2958 | 0.096 | ppbv# | 81 |
| 91] | 1,1-Dichloroethane(sim) | 6.349 | 63 | 3306 | 0.098 | ppbv# | 94 |
| 92] | Cis-1,2-Dichloroethene... | 6.789 | 61 | 2788 | 0.096 | ppbv# | 77 |
| 93] | Chloroform(sim) | 6.933 | 83 | 3808 | 0.105 | ppbv# | 79 |
| 95] | 1,2-dichloropropane(sim) | 8.009 | 63 | 1436 | 0.097 | ppbv# | 78 |
| 96] | Bromodichloromethane(sim) | 8.097 | 85 | 1953 | 0.094 | ppbv | 96 |
| 97] | Trichloroethene(sim) | 8.111 | 130 | 1349 | 0.075 | ppbv# | 68 |
| 98] | 1,4-Dioxane(sim) | 8.122 | 88 | 738 | 0.092 | ppbv# | 68 |
| 99] | cis-1,3-Dichloropropen... | 8.492 | 75 | 1187 | 0.076 | ppbv# | 89 |
| 100] | 1,1,2-Trichloroethane(... | 8.818 | 97 | 1658 | 0.098 | ppbv | 93 |
| 101] | Dibromochloromethane(sim) | 9.160 | 129 | 1669 | 0.084 | ppbv | 94 |
| 102] | 1,2-Dibromoethane(EDB)... | 9.282 | 107 | 2481 | 0.095 | ppbv | 97 |
| 103] | Tetrachloroethene(sim) | 9.497 | 166 | 1583 | 0.081 | ppbv# | 84 |
| 105] | Bromoform(sim) | 10.164 | 173 | 791 | 0.064 | ppbv | 94 |
| 106] | m,p-Xylene(sim) | 10.098 | 91 | 7089 | 0.200 | ppbv | 93 |
| 107] | 1,1,2,2-Tetrachloroeth... | 10.346 | 83 | 2634 | 0.097 | ppbv# | 93 |
| 110] | Benzyl chloride(sim) | 11.396 | 91 | 845 | 0.100 | ppbv | 92 |
| 111] | 1,3-Dichlorobenzene(sim) | 11.408 | 146 | 1922 | 0.076 | ppbv | 94 |
| 112] | 1,4-Dichlorobenzene(sim) | 11.449 | 146 | 2477 | 0.085 | ppbv | 95 |
| 113] | sec-Butylbenzene(sim) | 11.469 | 105 | 4462 | 0.100 | ppbv | 95 |
| 114] | 4-Isopropyltoluene(sim) | 11.563 | 119 | 3769 | 0.100 | ppbv | 92 |
| 115] | 1,2-Dichlorobenzene(sim) | 11.658 | 146 | 1909 | 0.082 | ppbv | 94 |
| 116] | n-Butylbenzene(sim) | 11.821 | 91 | 2935 | 0.100 | ppbv | 93 |
| 119] | Hexachlorobutadiene(sim) | 13.094 | 225 | 950 | 0.080 | ppbv# | 82 |

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_07.D
Acq On : 09 Apr 2019 09:36 am
Operator : CORTEX\ms
Client ID : ICAL 0.1
Lab ID : 0.10
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 09 10:37:13 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Tue Apr 09 10:36:27 2019
Response via : Initial Calibration



Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_08.D
Acq On : 09 Apr 2019 10:16 am
Operator : CORTEX\ms
Client ID : ICAL 0.5
Lab ID : 0.50
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 09 15:42:20 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Tue Apr 09 10:37:24 2019
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.871 | 130 | 140216 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.772 | 114 | 430790 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.807 | 82 | 199872 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.874 | 130 | 189087 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 494232 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 205493 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 270657 | 0.000 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 0.00%# | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Propylene | 3.606 | 41 | 8120 | 0.492 | ppbv | | 97 |
| 3) Dichlorodifluoromethane | 3.670 | 85 | 17626 | 0.490 | ppbv# | | 93 |
| 4) Chloromethane | 3.825 | 50 | 7815 | 0.520 | ppbv | | 95 |
| 5) 1,2-Dichlorotetrafluor... | 3.914 | 85 | 18656 | 0.533 | ppbv | | 92 |
| 6) Vinyl Chloride | 4.019 | 62 | 7364 | 0.505 | ppbv | | 91 |
| 7) 1,3-Butadiene | 4.141 | 54 | 6029 | 0.490 | ppbv# | | 79 |
| 8) Bromomethane | 4.376 | 94 | 5907 | 0.484 | ppbv# | | 93 |
| 9) Chloroethane | 4.522 | 64 | 3640 | 0.532 | ppbv | | 79 |
| 11) Ethanol | 4.652 | 45 | 3108 | 0.515 | ppbv# | | 90 |
| 12) Acetone | 5.017 | 43 | 16604 | 0.530 | ppbv# | | 85 |
| 13) Trichlorofluoromethane | 5.114 | 101 | 24516 | 0.521 | ppbv | | 100 |
| 14) Isopropylalcohol | 5.212 | 45 | 17017 | 0.515 | ppbv# | | 95 |
| 15) Acrylonitrile | 5.341 | 53 | 4764 | 0.583 | ppbv | | 97 |
| 16) 1,1-Dichloroethene | 5.566 | 61 | 14438 | 0.511 | ppbv# | | 74 |
| 17) Methylene Chloride | 5.649 | 49 | 10642 | 0.506 | ppbv# | | 57 |
| 20) Carbon Disulfide | 5.858 | 76 | 16266 | 0.529 | ppbv | | 97 |
| 21) Trichlorotrifluoroethane | 5.822 | 101 | 15038 | 0.541 | ppbv# | | 87 |
| 22) Trans-1,2-Dichloroethene | 6.229 | 61 | 11497 | 0.479 | ppbv# | | 82 |
| 23) 1,1-Dichloroethane | 6.349 | 63 | 14608 | 0.492 | ppbv | | 95 |
| 24) Methyl tert-butyl ethe... | 6.390 | 73 | 16858 | 0.461 | ppbv# | | 63 |
| 25) Methyl Ethyl Ketone | 6.568 | 43 | 19485 | 0.494 | ppbv# | | 76 |
| 26) Cis-1,2-Dichloroethene | 6.786 | 61 | 11038 | 0.479 | ppbv# | | 73 |
| 27) Hexane | 6.879 | 57 | 10989 | 0.485 | ppbv# | | 72 |
| 28) Chloroform | 6.933 | 83 | 16452 | 0.505 | ppbv | | 90 |
| 29) Ethyl acetate | 6.887 | 61 | 1875m | 0.426 | ppbv | | 13 |
| 30) Tetrahydrofuran | 7.150 | 42 | 7614 | 0.459 | ppbv# | | 60 |
| 31) 1,2-Dichloroethane | 7.297 | 62 | 13567 | 0.488 | ppbv# | | 89 |
| 32) 1,1,1-Trichloroethane | 7.414 | 97 | 14960 | 0.470 | ppbv# | | 90 |
| 33) Benzene | 7.636 | 78 | 14660 | 0.477 | ppbv# | | 84 |
| 34) Carbon Tetrachloride | 7.704 | 117 | 10114 | 0.381 | ppbv | | 96 |
| 35) Cyclohexane | 7.764 | 41 | 6462 | 0.523 | ppbv# | | 1 |
| 37) 1,2-dichloropropane | 8.009 | 63 | 6678 | 0.482 | ppbv# | | 77 |
| 38) Bromodichloromethane | 8.094 | 83 | 12217 | 0.433 | ppbv | | 98 |
| 39) Trichloroethene | 8.111 | 130 | 7709 | 0.477 | ppbv | | 93 |
| 41) 1,4-Dioxane | 8.111 | 88 | 3021 | 0.449 | ppbv# | | 63 |
| 43) Heptane | 8.221 | 43 | 9715 | 0.447 | ppbv# | | 70 |
| 44) cis-1,3-Dichloropropene | 8.492 | 75 | 6984 | 0.398 | ppbv | | 94 |
| 45) 4-Methyl-2-pentanone(M... | 8.500 | 43 | 12945 | 0.435 | ppbv# | | 83 |
| 46) trans-1,3-Dichloropropene | 8.723 | 75 | 6343 | 0.374 | ppbv | | 96 |
| 47) 1,1,2-Trichloroethane | 8.815 | 97 | 6522 | 0.479 | ppbv | | 96 |
| 48) Toluene | 8.948 | 91 | 14702 | 0.416 | ppbv# | | 94 |
| 49) Dibromochloromethane | 9.160 | 129 | 8146 | 0.390 | ppbv | | 98 |
| 50) 2-Hexanone(MBK) | 9.047 | 43 | 10728 | 0.396 | ppbv# | | 86 |
| 51) 1,2-Dibromoethane(EDB) | 9.279 | 107 | 9918 | 0.432 | ppbv | | 93 |

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_08.D
Acq On : 09 Apr 2019 10:16 am
Operator : CORTEX\ms
Client ID : ICAL 0.5
Lab ID : 0.50
ALS Vial : 1 Sample Multiplier: 1

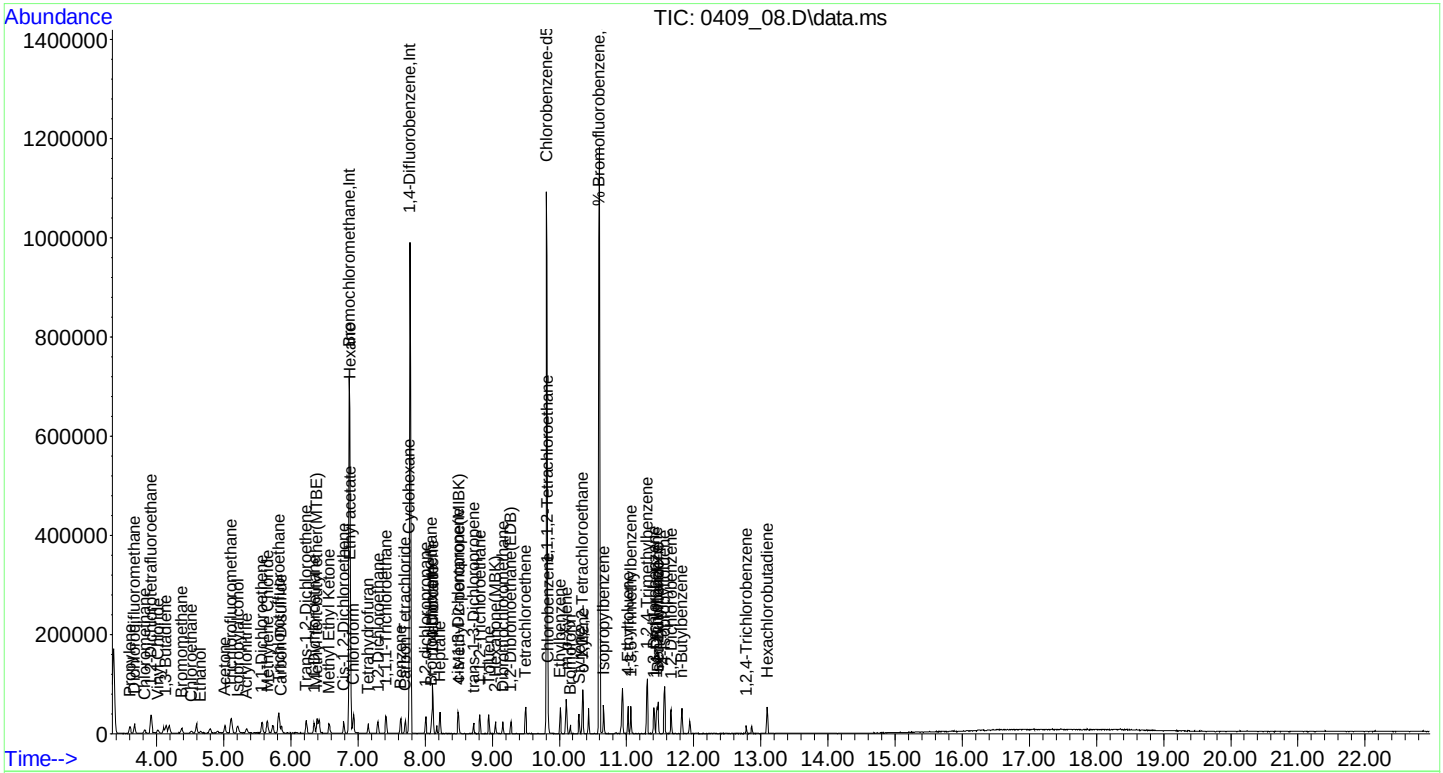
Quant Time: Apr 09 15:42:20 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Tue Apr 09 10:37:24 2019
Response via : Initial Calibration

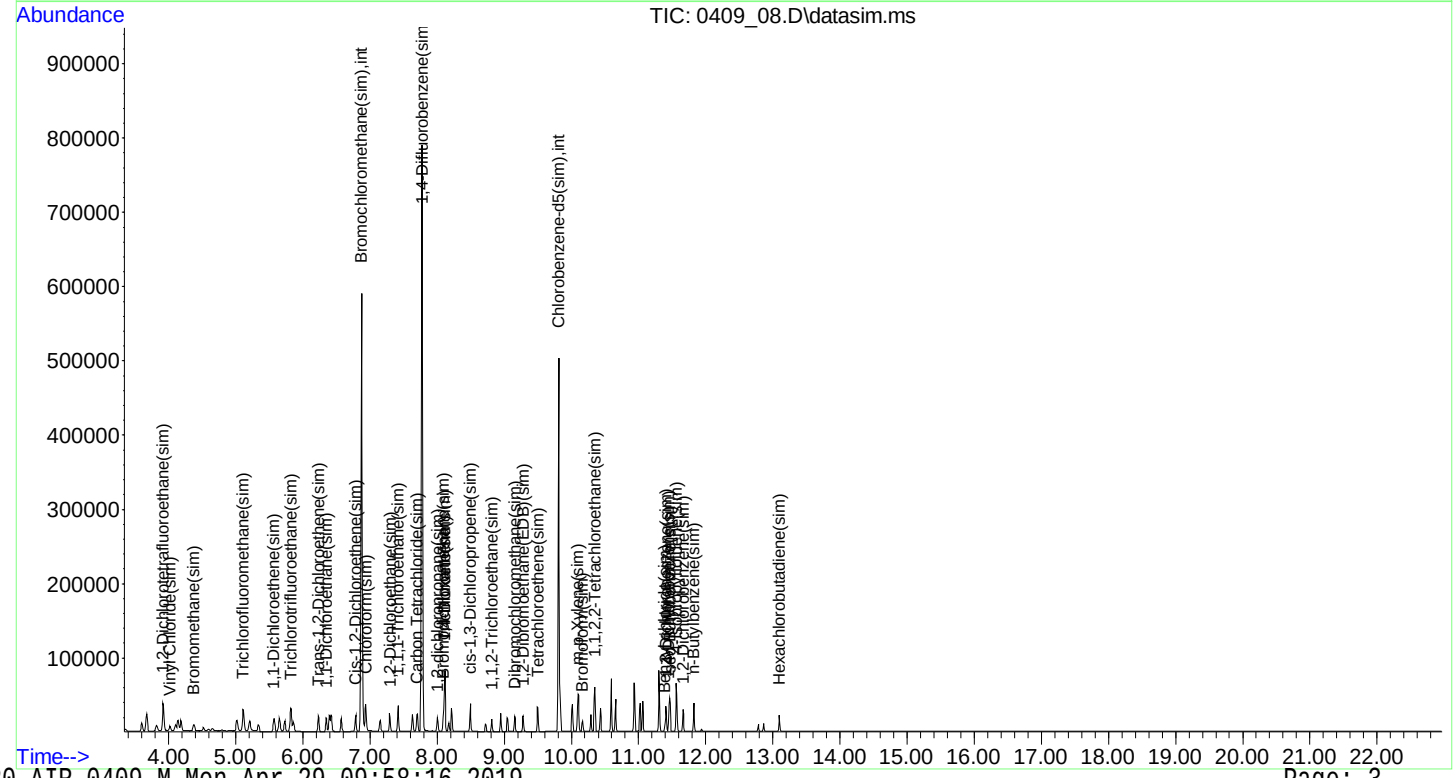
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 52) Tetrachloroethene | 9.497 | 166 | 7771 | 0.454 | ppbv# | 84 |
| 54) 1,1,1,2-Tetrachloroethane | 9.822 | 131 | 5669 | 0.369 | ppbv | 94 |
| 55) Chlorobenzene | 9.830 | 112 | 15062 | 0.493 | ppbv# | 73 |
| 56) Ethylbenzene | 10.012 | 91 | 21276 | 0.449 | ppbv | 96 |
| 57) m,p-Xylene | 10.103 | 91 | 34844 | 0.964 | ppbv | 94 |
| 58) Bromoform | 10.164 | 173 | 4876 | 0.379 | ppbv | 96 |
| 60) 1,1,2,2-Tetrachloroethane | 10.346 | 83 | 12636 | 0.466 | ppbv# | 89 |
| 61) o-Xylene | 10.353 | 91 | 18019 | 0.477 | ppbv | 91 |
| 64) Isopropylbenzene | 10.656 | 105 | 23212 | 0.467 | ppbv | 96 |
| 66) 4-Ethyltoluene | 11.021 | 105 | 21855 | 0.437 | ppbv | 98 |
| 67) 1,3,5-Trimethylbenzene | 11.066 | 105 | 19158 | 0.444 | ppbv# | 97 |
| 68) 1,2,4-Trimethylbenzene | 11.309 | 105 | 18843 | 0.447 | ppbv# | 90 |
| 71) 1,3-Dichlorobenzene | 11.408 | 146 | 12445 | 0.443 | ppbv | 94 |
| 72) 1,4-Dichlorobenzene | 11.453 | 146 | 11822 | 0.429 | ppbv | 95 |
| 73) sec-Butylbenzene | 11.469 | 105 | 26709 | 0.454 | ppbv# | 95 |
| 74) 4-Isopropyltoluene | 11.560 | 119 | 22613 | 0.441 | ppbv# | 91 |
| 75) 1,2-Dichlorobenzene | 11.666 | 146 | 11804 | 0.442 | ppbv# | 95 |
| 76) n-Butylbenzene | 11.826 | 91 | 17945 | 0.388 | ppbv# | 93 |
| 79) Hexachlorobutadiene | 13.094 | 225 | 4709 | 0.421 | ppbv | 99 |
| 81] 1,2-Dichlorotetrafluor... | 3.914 | 85 | 18656 | 0.485 | ppbv | 92 |
| 82] Vinyl Chloride(sim) | 4.022 | 62 | 8440 | 0.463 | ppbv | 96 |
| 83] Bromomethane(sim) | 4.376 | 94 | 5907 | 0.389 | ppbv# | 93 |
| 84] Trichlorofluoromethane... | 5.109 | 101 | 29705 | 0.471 | ppbv | 99 |
| 85] 1,2-Dichloroethane(sim) | 7.297 | 62 | 13567 | 0.444 | ppbv# | 89 |
| 86] 1,1,1-Trichloroethane(... | 7.417 | 97 | 19114 | 0.476 | ppbv# | 89 |
| 87] Carbon Tetrachloride(sim) | 7.704 | 117 | 10114 | 0.411 | ppbv | 96 |
| 88] 1,1-Dichloroethene(sim) | 5.569 | 61 | 16571 | 0.464 | ppbv# | 70 |
| 89] Trichlorotrifluoroetha... | 5.822 | 101 | 15038 | 0.475 | ppbv | 96 |
| 90] Trans-1,2-Dichloroethe... | 6.231 | 61 | 13822 | 0.456 | ppbv# | 79 |
| 91] 1,1-Dichloroethane(sim) | 6.349 | 63 | 14608 | 0.440 | ppbv# | 95 |
| 92] Cis-1,2-Dichloroethene... | 6.789 | 61 | 12974 | 0.454 | ppbv# | 76 |
| 93] Chloroform(sim) | 6.933 | 83 | 16452 | 0.459 | ppbv# | 90 |
| 95] 1,2-dichloropropane(sim) | 8.009 | 63 | 6678 | 0.455 | ppbv# | 77 |
| 96] Bromodichloromethane(sim) | 8.097 | 85 | 9416 | 0.459 | ppbv | 97 |
| 97] Trichloroethene(sim) | 8.111 | 130 | 7709 | 0.433 | ppbv | 94 |
| 98] 1,4-Dioxane(sim) | 8.114 | 88 | 3508 | 0.442 | ppbv# | 69 |
| 99] cis-1,3-Dichloropropen... | 8.492 | 75 | 6984 | 0.450 | ppbv | 94 |
| 100] 1,1,2-Trichloroethane(... | 8.818 | 97 | 7807 | 0.466 | ppbv | 94 |
| 101] Dibromochloromethane(sim) | 9.160 | 129 | 8146 | 0.416 | ppbv | 99 |
| 102] 1,2-Dibromoethane(EDB)... | 9.282 | 107 | 12165 | 0.469 | ppbv | 98 |
| 103] Tetrachloroethene(sim) | 9.497 | 166 | 7771 | 0.400 | ppbv# | 84 |
| 105] Bromoform(sim) | 10.164 | 173 | 4876 | 0.398 | ppbv | 96 |
| 106] m,p-Xylene(sim) | 10.098 | 91 | 37286 | 0.872 | ppbv# | 93 |
| 107] 1,1,2,2-Tetrachloroeth... | 10.346 | 83 | 12636 | 0.464 | ppbv | 99 |
| 110] Benzyl chloride(sim) | 11.396 | 91 | 5208 | 0.410 | ppbv | 92 |
| 111] 1,3-Dichlorobenzene(sim) | 11.408 | 146 | 12445 | 0.490 | ppbv | 94 |
| 112] 1,4-Dichlorobenzene(sim) | 11.449 | 146 | 14920 | 0.513 | ppbv | 95 |
| 113] sec-Butylbenzene(sim) | 11.469 | 105 | 26712 | 0.644 | ppbv | 95 |
| 114] 4-Isopropyltoluene(sim) | 11.563 | 119 | 22459 | 0.344 | ppbv# | 91 |
| 115] 1,2-Dichlorobenzene(sim) | 11.666 | 146 | 11804 | 0.508 | ppbv | 95 |
| 116] n-Butylbenzene(sim) | 11.821 | 91 | 18503 | 0.375 | ppbv | 93 |
| 119] Hexachlorobutadiene(sim) | 13.094 | 225 | 4709 | 0.396 | ppbv | 99 |

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_08.D
Acq On : 09 Apr 2019 10:16 am
Operator : CORTEX\ms
Client ID : ICAL 0.5
Lab ID : 0.50
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 09 15:42:20 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Tue Apr 09 10:37:24 2019
Response via : Initial Calibration



Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_09.D
Acq On : 09 Apr 2019 10:56 am
Operator : CORTEX\ms
Client ID : ICAL 2.5
Lab ID : 2.5
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 09 11:39:10 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Tue Apr 09 11:38:59 2019
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.879 | 130 | 139560 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.780 | 114 | 435952 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.815 | 82 | 202851 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.882 | 130 | 185571 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 495028 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 206662 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 276080 | 10.051 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 100.50% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Propylene | 3.614 | 41 | 40638 | 2.472 | ppbv | | 95 |
| 3) Dichlorodifluoromethane | 3.687 | 85 | 89744 | 2.508 | ppbv# | | 95 |
| 4) Chloromethane | 3.833 | 50 | 38025 | 2.544 | ppbv | | 97 |
| 5) 1,2-Dichlorotetrafluor... | 3.930 | 85 | 92499 | 2.657 | ppbv | | 93 |
| 6) Vinyl Chloride | 4.027 | 62 | 37805 | 2.603 | ppbv | | 92 |
| 7) 1,3-Butadiene | 4.157 | 54 | 32511 | 2.657 | ppbv | | 90 |
| 8) Bromomethane | 4.384 | 94 | 31935 | 2.627 | ppbv# | | 95 |
| 9) Chloroethane | 4.530 | 64 | 17945 | 2.633 | ppbv | | 86 |
| 11) Ethanol | 4.652 | 45 | 14960 | 2.491 | ppbv | | 96 |
| 12) Acetone | 5.017 | 43 | 79107 | 2.535 | ppbv# | | 86 |
| 13) Trichlorofluoromethane | 5.122 | 101 | 124739 | 2.665 | ppbv | | 97 |
| 14) Isopropylalcohol | 5.203 | 45 | 83492 | 2.540 | ppbv# | | 98 |
| 15) Acrylonitrile | 5.341 | 53 | 19222 | 2.364 | ppbv | | 97 |
| 16) 1,1-Dichloroethene | 5.578 | 61 | 72848 | 2.589 | ppbv# | | 74 |
| 17) Methylene Chloride | 5.661 | 49 | 52775 | 2.523 | ppbv# | | 58 |
| 20) Carbon Disulfide | 5.870 | 76 | 78446 | 2.564 | ppbv | | 98 |
| 21) Trichlorotrifluoroethane | 5.828 | 101 | 71793 | 2.594 | ppbv | | 89 |
| 22) Trans-1,2-Dichloroethene | 6.239 | 61 | 59538 | 2.495 | ppbv# | | 81 |
| 23) 1,1-Dichloroethane | 6.354 | 63 | 76634 | 2.592 | ppbv | | 96 |
| 24) Methyl tert-butyl ethe... | 6.390 | 73 | 90377 | 2.484 | ppbv# | | 66 |
| 25) Methyl Ethyl Ketone | 6.568 | 43 | 99290 | 2.529 | ppbv# | | 77 |
| 26) Cis-1,2-Dichloroethene | 6.794 | 61 | 57078 | 2.491 | ppbv# | | 74 |
| 27) Hexane | 6.887 | 57 | 56736 | 2.514 | ppbv# | | 80 |
| 28) Chloroform | 6.941 | 83 | 84332 | 2.599 | ppbv | | 91 |
| 29) Ethyl acetate | 6.887 | 61 | 11032 | 2.517 | ppbv# | | 75 |
| 30) Tetrahydrofuran | 7.150 | 42 | 40459 | 2.449 | ppbv# | | 62 |
| 31) 1,2-Dichloroethane | 7.297 | 62 | 71490 | 2.583 | ppbv# | | 91 |
| 32) 1,1,1-Trichloroethane | 7.421 | 97 | 79177 | 2.501 | ppbv# | | 92 |
| 33) Benzene | 7.636 | 78 | 80112 | 2.618 | ppbv# | | 86 |
| 34) Carbon Tetrachloride | 7.704 | 117 | 58075 | 2.200 | ppbv | | 99 |
| 35) Cyclohexane | 7.763 | 41 | 31479 | 2.559 | ppbv# | | 55 |
| 37) 1,2-dichloropropane | 8.009 | 63 | 33189 | 2.366 | ppbv# | | 82 |
| 38) Bromodichloromethane | 8.094 | 83 | 67501 | 2.364 | ppbv | | 99 |
| 39) Trichloroethene | 8.111 | 130 | 38057 | 2.325 | ppbv# | | 87 |
| 41) 1,4-Dioxane | 8.111 | 88 | 14992 | 2.204 | ppbv# | | 60 |
| 43) Heptane | 8.221 | 43 | 53763 | 2.445 | ppbv# | | 70 |
| 44) cis-1,3-Dichloropropene | 8.492 | 75 | 40873 | 2.300 | ppbv | | 97 |
| 45) 4-Methyl-2-pentanone(M... | 8.492 | 43 | 73995 | 2.457 | ppbv# | | 81 |
| 46) trans-1,3-Dichloropropene | 8.723 | 75 | 38757 | 2.259 | ppbv | | 95 |
| 47) 1,1,2-Trichloroethane | 8.815 | 97 | 32595 | 2.365 | ppbv | | 92 |
| 48) Toluene | 8.948 | 91 | 83673 | 2.341 | ppbv# | | 97 |
| 49) Dibromochloromethane | 9.160 | 129 | 51096 | 2.419 | ppbv | | 97 |
| 50) 2-Hexanone(MBK) | 9.047 | 43 | 62750 | 2.287 | ppbv# | | 86 |
| 51) 1,2-Dibromoethane(EDB) | 9.279 | 107 | 54812 | 2.358 | ppbv | | 99 |

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_09.D
Acq On : 09 Apr 2019 10:56 am
Operator : CORTEX\ms
Client ID : ICAL 2.5
Lab ID : 2.5
ALS Vial : 1 Sample Multiplier: 1

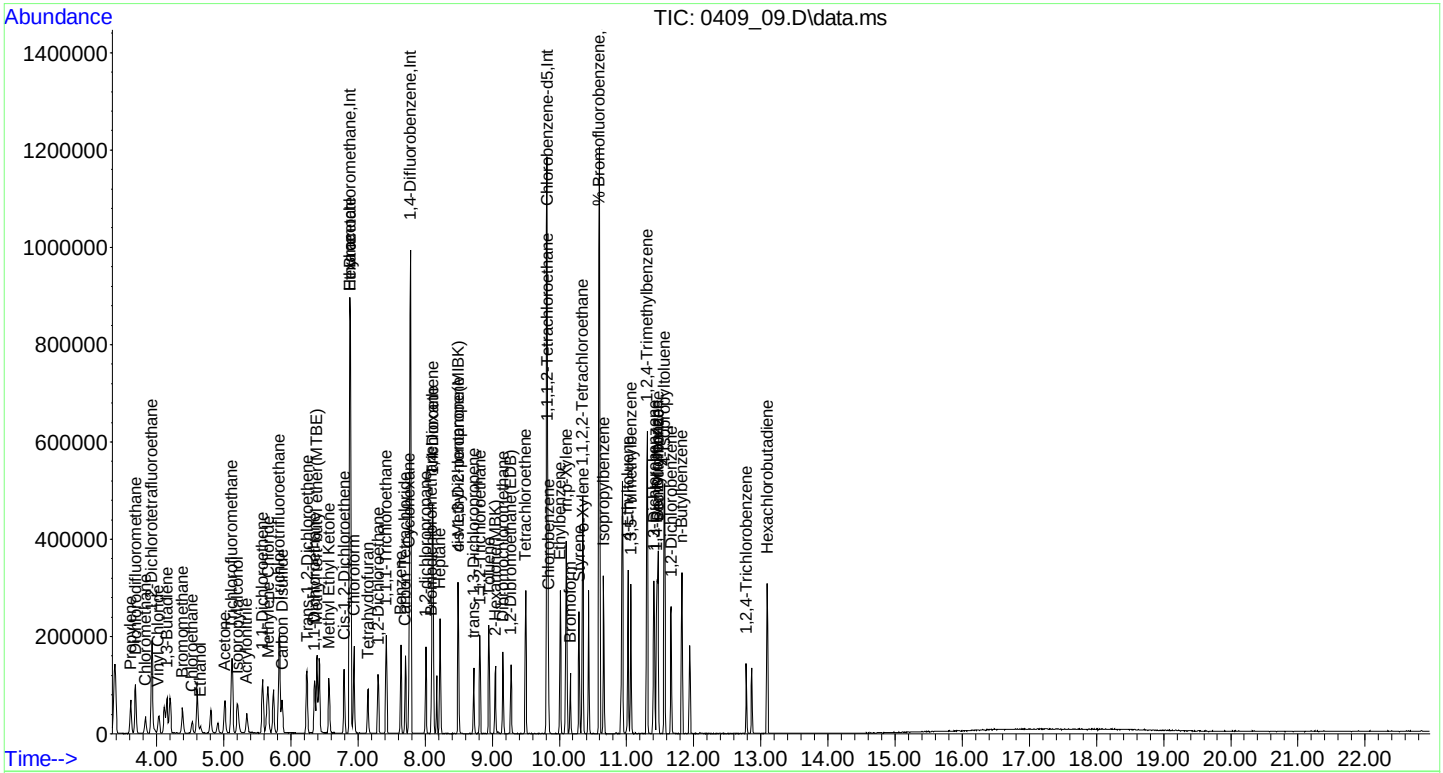
Quant Time: Apr 09 11:39:10 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Tue Apr 09 11:38:59 2019
Response via : Initial Calibration

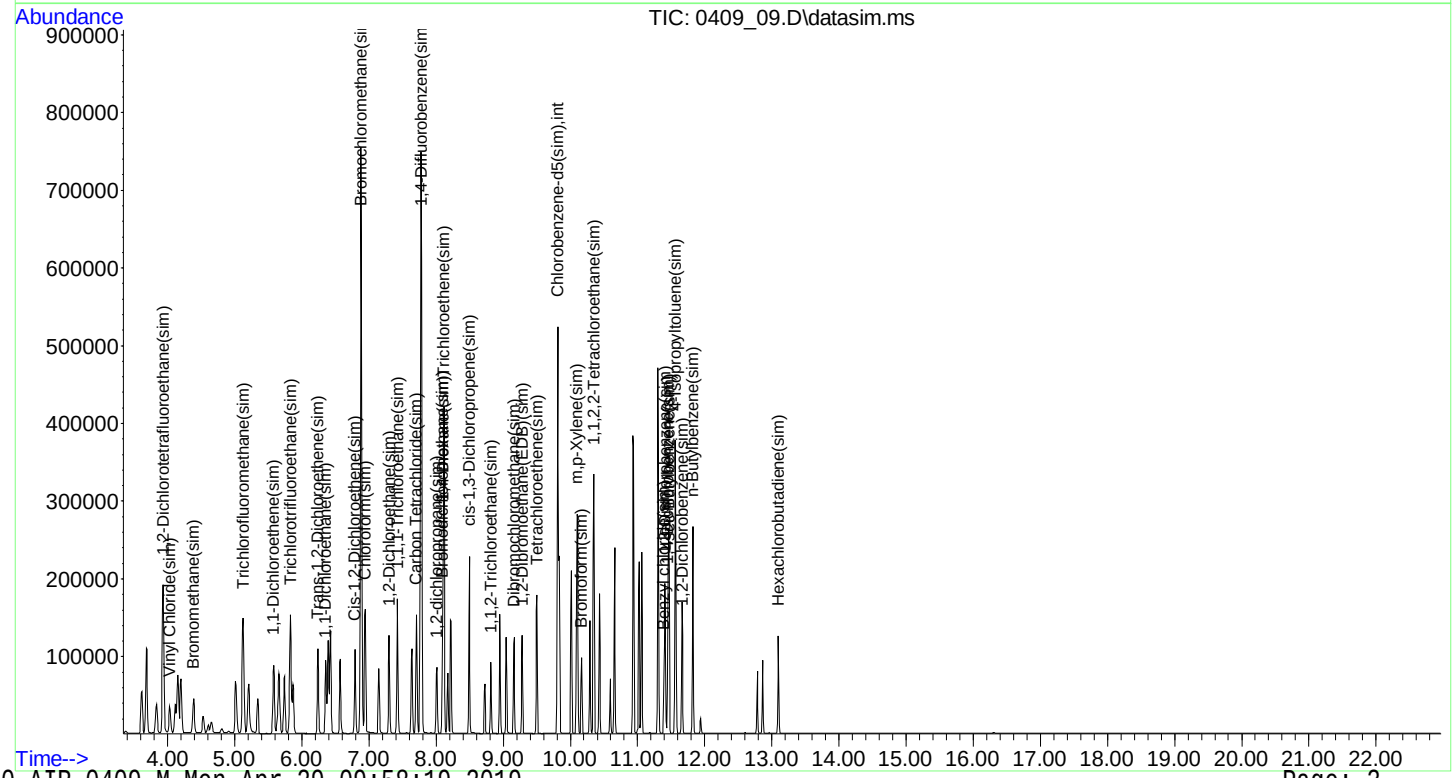
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 52) Tetrachloroethene | 9.497 | 166 | 41857 | 2.418 | ppbv# | 88 |
| 54) 1,1,1,2-Tetrachloroethane | 9.822 | 131 | 35318 | 2.264 | ppbv | 98 |
| 55) Chlorobenzene | 9.837 | 112 | 77878 | 2.510 | ppbv | 93 |
| 56) Ethylbenzene | 10.012 | 91 | 121691 | 2.532 | ppbv | 96 |
| 57) m,p-Xylene | 10.103 | 91 | 193142 | 5.266 | ppbv | 94 |
| 58) Bromoform | 10.164 | 173 | 33579 | 2.572 | ppbv | 98 |
| 60) 1,1,2,2-Tetrachloroethane | 10.345 | 83 | 70913 | 2.578 | ppbv | 91 |
| 61) o-Xylene | 10.353 | 91 | 100312 | 2.614 | ppbv | 95 |
| 64) Isopropylbenzene | 10.656 | 105 | 128645 | 2.548 | ppbv | 95 |
| 66) 4-Ethyltoluene | 11.021 | 105 | 130522 | 2.569 | ppbv | 95 |
| 67) 1,3,5-Trimethylbenzene | 11.066 | 105 | 111872 | 2.557 | ppbv | 94 |
| 68) 1,2,4-Trimethylbenzene | 11.309 | 105 | 113392 | 2.648 | ppbv | 93 |
| 71) 1,3-Dichlorobenzene | 11.408 | 146 | 71808 | 2.518 | ppbv | 96 |
| 72) 1,4-Dichlorobenzene | 11.453 | 146 | 69368 | 2.479 | ppbv | 96 |
| 73) sec-Butylbenzene | 11.469 | 105 | 153580 | 2.572 | ppbv | 97 |
| 74) 4-Isopropyltoluene | 11.560 | 119 | 133961 | 2.573 | ppbv | 94 |
| 75) 1,2-Dichlorobenzene | 11.666 | 146 | 68894 | 2.542 | ppbv | 94 |
| 76) n-Butylbenzene | 11.826 | 91 | 114466 | 2.438 | ppbv | 97 |
| 79) Hexachlorobutadiene | 13.094 | 225 | 27220 | 2.396 | ppbv | 97 |
| 81] 1,2-Dichlorotetrafluor... | 3.930 | 85 | 92510 | 2.450 | ppbv | 93 |
| 82] Vinyl Chloride(sim) | 4.030 | 62 | 42520 | 2.377 | ppbv | 95 |
| 83] Bromomethane(sim) | 4.384 | 94 | 31935 | 2.144 | ppbv# | 95 |
| 84] Trichlorofluoromethane... | 5.125 | 101 | 148538 | 2.398 | ppbv | 99 |
| 85] 1,2-Dichloroethane(sim) | 7.297 | 62 | 71490 | 2.384 | ppbv# | 91 |
| 86] 1,1,1-Trichloroethane(... | 7.424 | 97 | 96192 | 2.442 | ppbv# | 91 |
| 87] Carbon Tetrachloride(sim) | 7.704 | 117 | 58075 | 2.402 | ppbv | 99 |
| 88] 1,1-Dichloroethene(sim) | 5.581 | 61 | 83160 | 2.370 | ppbv# | 70 |
| 89] Trichlorotrifluoroetha... | 5.828 | 101 | 71793 | 2.311 | ppbv | 98 |
| 90] Trans-1,2-Dichloroethe... | 6.237 | 61 | 70296 | 2.365 | ppbv# | 79 |
| 91] 1,1-Dichloroethane(sim) | 6.354 | 63 | 76634 | 2.352 | ppbv | 96 |
| 92] Cis-1,2-Dichloroethene... | 6.789 | 61 | 67464 | 2.408 | ppbv# | 75 |
| 93] Chloroform(sim) | 6.941 | 83 | 84332 | 2.399 | ppbv# | 91 |
| 95] 1,2-dichloropropane(sim) | 8.009 | 63 | 33189 | 2.258 | ppbv# | 82 |
| 96] Bromodichloromethane(sim) | 8.097 | 85 | 51164 | 2.489 | ppbv | 97 |
| 97] Trichloroethene(sim) | 8.111 | 130 | 38057 | 2.134 | ppbv | 92 |
| 98] 1,4-Dioxane(sim) | 8.105 | 88 | 16830 | 2.119 | ppbv# | 65 |
| 99] cis-1,3-Dichloropropen... | 8.492 | 75 | 40873 | 2.628 | ppbv | 97 |
| 100] 1,1,2-Trichloroethane(... | 8.818 | 97 | 40089 | 2.391 | ppbv | 94 |
| 101] Dibromochloromethane(sim) | 9.160 | 129 | 51096 | 2.603 | ppbv | 97 |
| 102] 1,2-Dibromoethane(EDB)... | 9.282 | 107 | 67039 | 2.579 | ppbv | 98 |
| 103] Tetrachloroethene(sim) | 9.497 | 166 | 41857 | 2.153 | ppbv | 88 |
| 105] Bromoform(sim) | 10.164 | 173 | 33579 | 2.723 | ppbv | 98 |
| 106] m,p-Xylene(sim) | 10.098 | 91 | 207244 | 4.224 | ppbv# | 93 |
| 107] 1,1,2,2-Tetrachloroeth... | 10.345 | 83 | 70913 | 2.589 | ppbv | 97 |
| 110] Benzyl chloride(sim) | 11.396 | 91 | 46599 | 2.308 | ppbv | 92 |
| 111] 1,3-Dichlorobenzene(sim) | 11.408 | 146 | 71808 | 2.810 | ppbv | 96 |
| 112] 1,4-Dichlorobenzene(sim) | 11.449 | 146 | 85526 | 2.923 | ppbv | 96 |
| 113] sec-Butylbenzene(sim) | 11.469 | 105 | 153588 | 1.816 | ppbv | 97 |
| 114] 4-Isopropyltoluene(sim) | 11.563 | 119 | 132736 | 1.722 | ppbv | 92 |
| 115] 1,2-Dichlorobenzene(sim) | 11.666 | 146 | 68894 | 2.948 | ppbv | 94 |
| 116] n-Butylbenzene(sim) | 11.821 | 91 | 123563 | 1.841 | ppbv | 94 |
| 119] Hexachlorobutadiene(sim) | 13.094 | 225 | 27220 | 2.277 | ppbv | 97 |

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_09.D
Acq On : 09 Apr 2019 10:56 am
Operator : CORTEX\ms
Client ID : ICAL 2.5
Lab ID : 2.5
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 09 11:39:10 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Tue Apr 09 11:38:59 2019
Response via : Initial Calibration



Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_10.D
Acq On : 09 Apr 2019 11:33 am
Operator : CORTEX\ms
Client ID : ICAL 5
Lab ID : 5.0
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 09 12:39:49 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Tue Apr 09 11:39:41 2019
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.879 | 130 | 144117 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.781 | 114 | 429079 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.807 | 82 | 205886 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.882 | 130 | 192406 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 487305 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 209097 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 275542 | 9.858 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 98.60% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Propylene | 3.598 | 41 | 93135 | 5.485 | ppbv | | 96 |
| 3) Dichlorodifluoromethane | 3.671 | 85 | 203105 | 5.496 | ppbv# | | 95 |
| 4) Chloromethane | 3.825 | 50 | 85582 | 5.544 | ppbv | | 98 |
| 5) 1,2-Dichlorotetrafluor... | 3.922 | 85 | 199276 | 5.544 | ppbv | | 93 |
| 6) Vinyl Chloride | 4.019 | 62 | 83432 | 5.564 | ppbv | | 95 |
| 7) 1,3-Butadiene | 4.149 | 54 | 71078 | 5.626 | ppbv | | 90 |
| 8) Bromomethane | 4.376 | 94 | 69492 | 5.537 | ppbv# | | 98 |
| 9) Chloroethane | 4.522 | 64 | 39086 | 5.554 | ppbv | | 86 |
| 11) Ethanol | 4.636 | 45 | 32315 | 5.211 | ppbv | | 97 |
| 12) Acetone | 5.001 | 43 | 171465 | 5.321 | ppbv | | 90 |
| 13) Trichlorofluoromethane | 5.114 | 101 | 266848 | 5.521 | ppbv | | 99 |
| 14) Isopropylalcohol | 5.187 | 45 | 195020 | 5.744 | ppbv# | | 97 |
| 15) Acrylonitrile | 5.342 | 53 | 50590 | 6.024 | ppbv | | 95 |
| 16) 1,1-Dichloroethene | 5.572 | 61 | 160287 | 5.516 | ppbv# | | 74 |
| 17) Methylene Chloride | 5.655 | 49 | 119586 | 5.537 | ppbv# | | 58 |
| 20) Carbon Disulfide | 5.864 | 76 | 170664 | 5.401 | ppbv | | 99 |
| 21) Trichlorotrifluoroethane | 5.822 | 101 | 160871 | 5.628 | ppbv | | 87 |
| 22) Trans-1,2-Dichloroethene | 6.234 | 61 | 137120 | 5.564 | ppbv# | | 80 |
| 23) 1,1-Dichloroethane | 6.354 | 63 | 169813 | 5.561 | ppbv | | 95 |
| 24) Methyl tert-butyl ethe... | 6.380 | 73 | 210578 | 5.605 | ppbv# | | 72 |
| 25) Methyl Ethyl Ketone | 6.563 | 43 | 224192 | 5.529 | ppbv# | | 78 |
| 26) Cis-1,2-Dichloroethene | 6.794 | 61 | 129814 | 5.485 | ppbv# | | 75 |
| 27) Hexane | 6.887 | 57 | 130960 | 5.620 | ppbv# | | 81 |
| 28) Chloroform | 6.941 | 83 | 186989 | 5.581 | ppbv | | 92 |
| 29) Ethyl acetate | 6.887 | 61 | 26619 | 5.880 | ppbv# | | 73 |
| 30) Tetrahydrofuran | 7.143 | 42 | 96350 | 5.647 | ppbv# | | 62 |
| 31) 1,2-Dichloroethane | 7.298 | 62 | 158707 | 5.553 | ppbv# | | 92 |
| 32) 1,1,1-Trichloroethane | 7.422 | 97 | 180105 | 5.509 | ppbv# | | 90 |
| 33) Benzene | 7.637 | 78 | 175707 | 5.560 | ppbv# | | 87 |
| 34) Carbon Tetrachloride | 7.704 | 117 | 147182 | 5.399 | ppbv | | 99 |
| 35) Cyclohexane | 7.764 | 41 | 71727 | 5.646 | ppbv# | | 47 |
| 37) 1,2-dichloropropane | 8.009 | 63 | 75045 | 5.435 | ppbv# | | 82 |
| 38) Bromodichloromethane | 8.094 | 83 | 150528 | 5.357 | ppbv | | 99 |
| 39) Trichloroethene | 8.111 | 130 | 87377 | 5.424 | ppbv | | 92 |
| 41) 1,4-Dioxane | 8.102 | 88 | 37785 | 5.643 | ppbv# | | 67 |
| 43) Heptane | 8.221 | 43 | 118804 | 5.490 | ppbv# | | 72 |
| 44) cis-1,3-Dichloropropene | 8.492 | 75 | 99282 | 5.676 | ppbv | | 96 |
| 45) 4-Methyl-2-pentanone(M... | 8.492 | 43 | 166226 | 5.608 | ppbv# | | 82 |
| 46) trans-1,3-Dichloropropene | 8.723 | 75 | 93554 | 5.540 | ppbv | | 95 |
| 47) 1,1,2-Trichloroethane | 8.815 | 97 | 74953 | 5.525 | ppbv | | 94 |
| 48) Toluene | 8.949 | 91 | 197749 | 5.621 | ppbv# | | 99 |
| 49) Dibromochloromethane | 9.160 | 129 | 99769 | 4.798 | ppbv | | 97 |
| 50) 2-Hexanone(MBK) | 9.040 | 43 | 152565 | 5.650 | ppbv# | | 89 |
| 51) 1,2-Dibromoethane(EDB) | 9.279 | 107 | 125803 | 5.499 | ppbv | | 99 |

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_10.D
Acq On : 09 Apr 2019 11:33 am
Operator : CORTEX\ms
Client ID : ICAL 5
Lab ID : 5.0
ALS Vial : 1 Sample Multiplier: 1

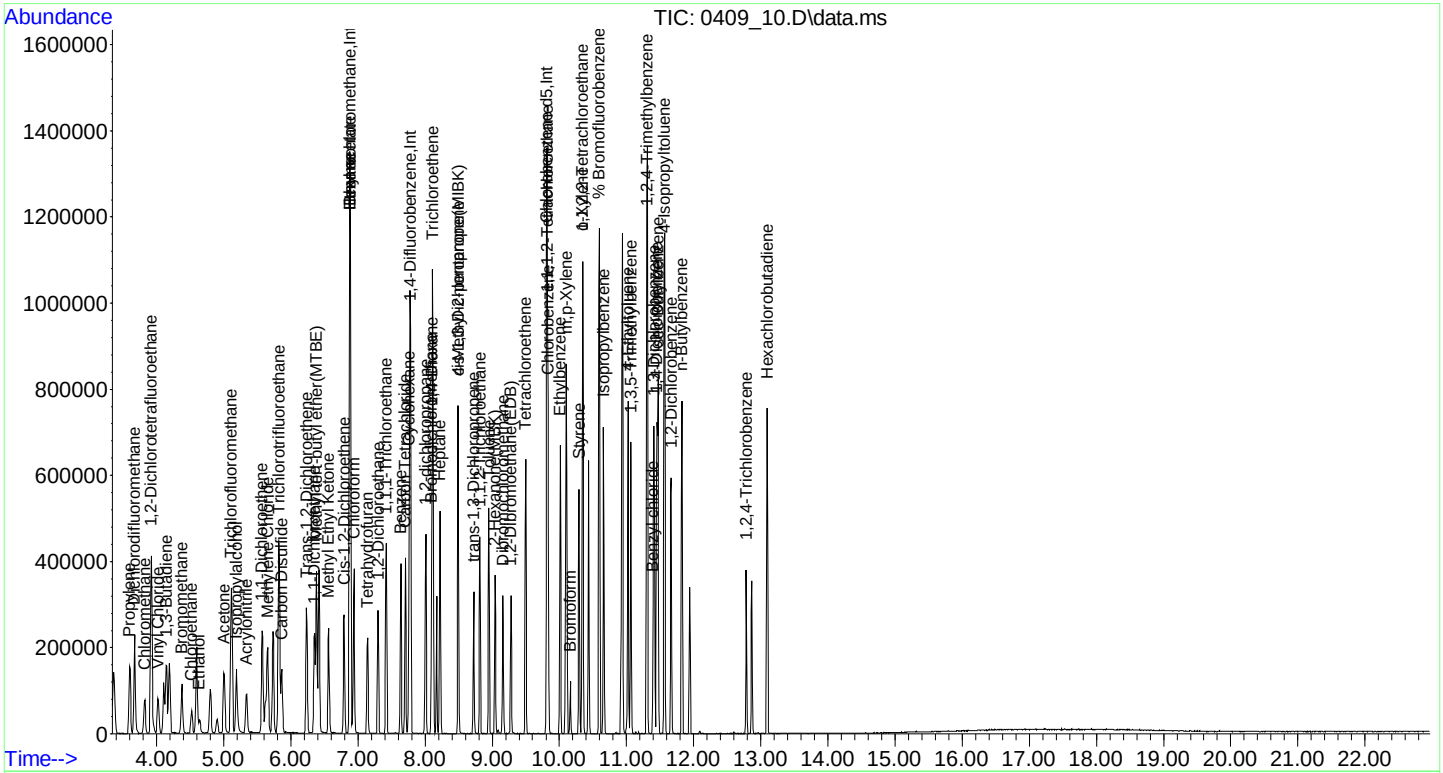
Quant Time: Apr 09 12:39:49 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Tue Apr 09 11:39:41 2019
Response via : Initial Calibration

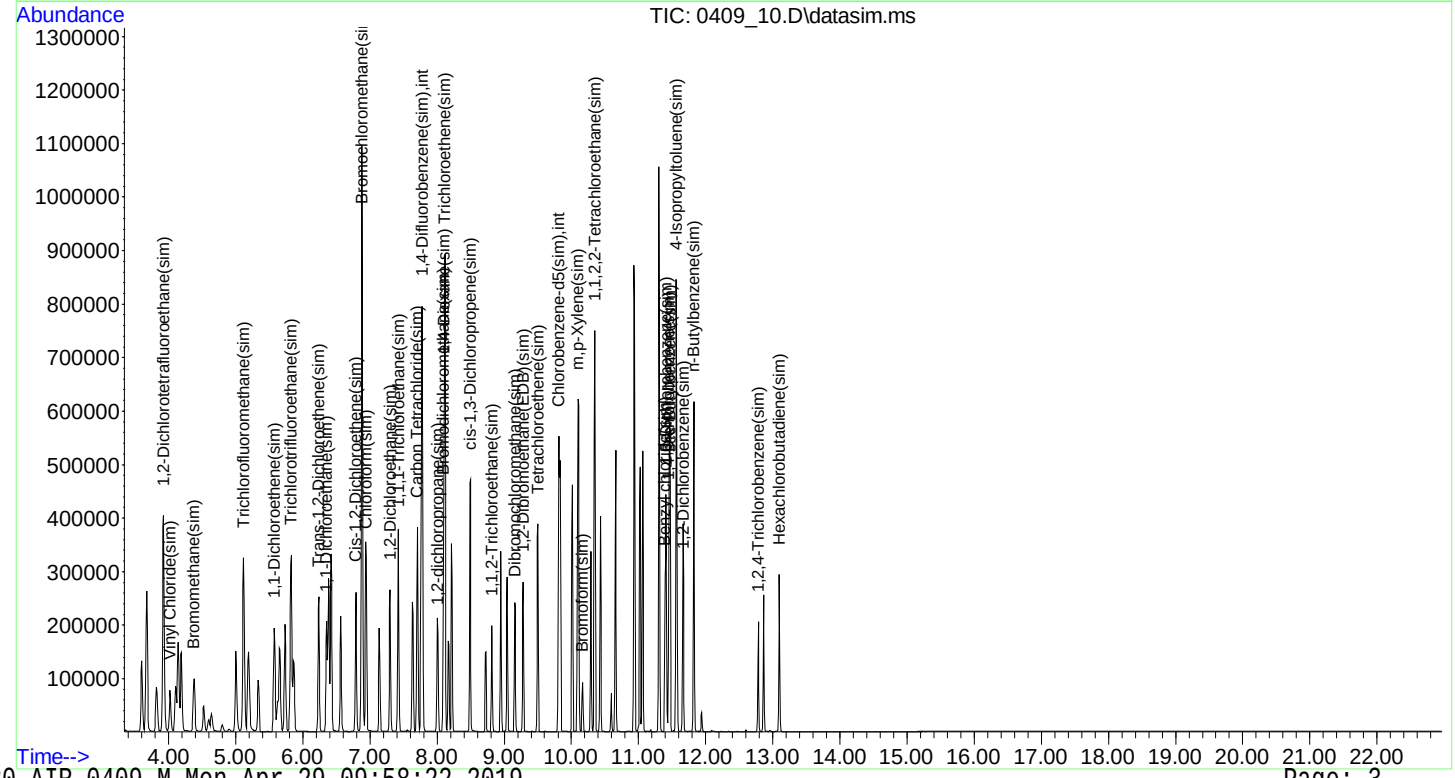
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 52) | Tetrachloroethene | 9.498 | 166 | 91498 | 5.370 | ppbv# | 86 |
| 54) | 1,1,1,2-Tetrachloroethane | 9.822 | 131 | 89594 | 5.658 | ppbv | 95 |
| 55) | Chlorobenzene | 9.830 | 112 | 169184 | 5.373 | ppbv | 94 |
| 56) | Ethylbenzene | 10.012 | 91 | 273745 | 5.613 | ppbv | 96 |
| 57) | m,p-Xylene | 10.103 | 91 | 440026 | 11.821 | ppbv | 94 |
| 58) | Bromoform | 10.164 | 173 | 30347 | 2.290 | ppbv | 98 |
| 60) | 1,1,2,2-Tetrachloroethane | 10.346 | 83 | 158003 | 5.660 | ppbv | 92 |
| 61) | o-Xylene | 10.346 | 91 | 223026 | 5.726 | ppbv | 95 |
| 64) | Isopropylbenzene | 10.657 | 105 | 286894 | 5.599 | ppbv | 95 |
| 66) | 4-Ethyltoluene | 11.021 | 105 | 299317 | 5.805 | ppbv | 95 |
| 67) | 1,3,5-Trimethylbenzene | 11.066 | 105 | 251549 | 5.666 | ppbv | 95 |
| 68) | 1,2,4-Trimethylbenzene | 11.309 | 105 | 254169 | 5.847 | ppbv | 95 |
| 71) | 1,3-Dichlorobenzene | 11.408 | 146 | 160587 | 5.549 | ppbv | 96 |
| 72) | 1,4-Dichlorobenzene | 11.454 | 146 | 159103 | 5.601 | ppbv | 95 |
| 73) | sec-Butylbenzene | 11.469 | 105 | 349541 | 5.767 | ppbv | 97 |
| 74) | 4-Isopropyltoluene | 11.560 | 119 | 307123 | 5.813 | ppbv | 95 |
| 75) | 1,2-Dichlorobenzene | 11.666 | 146 | 153090 | 5.566 | ppbv | 94 |
| 76) | n-Butylbenzene | 11.826 | 91 | 278412 | 5.843 | ppbv | 97 |
| 79) | Hexachlorobutadiene | 13.094 | 225 | 66803 | 5.793 | ppbv | 99 |
| 81] | 1,2-Dichlorotetrafluor... | 3.922 | 85 | 199269 | 5.089 | ppbv | 93 |
| 82] | Vinyl Chloride(sim) | 4.022 | 62 | 94179 | 5.078 | ppbv | 95 |
| 83] | Bromomethane(sim) | 4.376 | 94 | 69492 | 4.500 | ppbv# | 98 |
| 84] | Trichlorofluoromethane... | 5.117 | 101 | 324551 | 5.054 | ppbv | 99 |
| 85] | 1,2-Dichloroethane(sim) | 7.298 | 62 | 158707 | 5.105 | ppbv# | 92 |
| 86] | 1,1,1-Trichloroethane(... | 7.424 | 97 | 222694 | 5.454 | ppbv# | 91 |
| 87] | Carbon Tetrachloride(sim) | 7.704 | 117 | 147182 | 5.871 | ppbv | 99 |
| 88] | 1,1-Dichloroethene(sim) | 5.575 | 61 | 184354 | 5.068 | ppbv# | 70 |
| 89] | Trichlorotrifluoroetha... | 5.822 | 101 | 160871 | 4.994 | ppbv | 97 |
| 90] | Trans-1,2-Dichloroethe... | 6.237 | 61 | 160347 | 5.202 | ppbv# | 79 |
| 91] | 1,1-Dichloroethane(sim) | 6.354 | 63 | 169813 | 5.028 | ppbv | 95 |
| 92] | Cis-1,2-Dichloroethene... | 6.789 | 61 | 153204 | 5.273 | ppbv# | 75 |
| 93] | Chloroform(sim) | 6.941 | 83 | 186989 | 5.130 | ppbv# | 92 |
| 95] | 1,2-dichloropropane(sim) | 8.009 | 63 | 75045 | 5.187 | ppbv# | 82 |
| 96] | Bromodichloromethane(sim) | 8.097 | 85 | 114512 | 5.658 | ppbv | 100 |
| 97] | Trichloroethene(sim) | 8.111 | 130 | 87377 | 4.977 | ppbv | 96 |
| 98] | 1,4-Dioxane(sim) | 8.105 | 88 | 39999 | 5.117 | ppbv# | 67 |
| 99] | cis-1,3-Dichloropropen... | 8.492 | 75 | 99282 | 6.485 | ppbv | 96 |
| 100] | 1,1,2-Trichloroethane(... | 8.818 | 97 | 88997 | 5.392 | ppbv | 94 |
| 101] | Dibromochloromethane(sim) | 9.160 | 129 | 99769 | 5.163 | ppbv | 97 |
| 102] | 1,2-Dibromoethane(EDB)... | 9.282 | 107 | 152684 | 5.966 | ppbv | 98 |
| 103] | Tetrachloroethene(sim) | 9.498 | 166 | 91498 | 4.780 | ppbv# | 86 |
| 105] | Bromoform(sim) | 10.164 | 173 | 30347 | 2.432 | ppbv | 98 |
| 106] | m,p-Xylene(sim) | 10.098 | 91 | 463084 | 9.821 | ppbv# | 93 |
| 107] | 1,1,2,2-Tetrachloroeth... | 10.346 | 83 | 158003 | 5.702 | ppbv | 99 |
| 110] | Benzyl chloride(sim) | 11.396 | 91 | 145380 | 4.982 | ppbv | 93 |
| 111] | 1,3-Dichlorobenzene(sim) | 11.408 | 146 | 160587 | 6.211 | ppbv | 96 |
| 112] | 1,4-Dichlorobenzene(sim) | 11.449 | 146 | 194955 | 6.586 | ppbv | 95 |
| 113] | sec-Butylbenzene(sim) | 11.469 | 105 | 349311 | 4.836 | ppbv | 97 |
| 114] | 4-Isopropyltoluene(sim) | 11.563 | 119 | 299399 | 4.693 | ppbv | 92 |
| 115] | 1,2-Dichlorobenzene(sim) | 11.666 | 146 | 153090 | 6.474 | ppbv | 94 |
| 116] | n-Butylbenzene(sim) | 11.821 | 91 | 292491 | 4.594 | ppbv | 95 |
| 117] | 1,2,4-Trichlorobenzene... | 12.783 | 180 | 56443 | 5.800 | ppbv | 94 |
| 119] | Hexachlorobutadiene(sim) | 13.094 | 225 | 67077 | 5.546 | ppbv | 99 |

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_10.D
Acq On : 09 Apr 2019 11:33 am
Operator : CORTEX\ms
Client ID : ICAL 5
Lab ID : 5.0
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 09 12:39:49 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Tue Apr 09 11:39:41 2019
Response via : Initial Calibration



Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_11.D
Acq On : 09 Apr 2019 12:13 pm
Operator : CORTEX\ms
Client ID : ICAL 25
Lab ID : 25
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 09 12:40:11 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Tue Apr 09 12:40:02 2019
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.887 | 130 | 163778 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.780 | 114 | 416024 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.815 | 82 | 223724 | 10.000 | ng | | 0.00 |
| 80) Bromochloromethane(sim) | 6.890 | 130 | 214628 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.783 | 114 | 473343 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 228050 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 275616 | 9.118 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 91.20% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Propylene | 3.606 | 41 | 444707 | 23.047 | ppbv | | 97 |
| 3) Dichlorodifluoromethane | 3.679 | 85 | 963537 | 22.942 | ppbv# | | 95 |
| 4) Chloromethane | 3.833 | 50 | 384249 | 21.903 | ppbv | | 98 |
| 5) 1,2-Dichlorotetrafluor... | 3.930 | 85 | 886684 | 21.705 | ppbv | | 94 |
| 6) Vinyl Chloride | 4.035 | 62 | 374631 | 21.984 | ppbv | | 95 |
| 7) 1,3-Butadiene | 4.157 | 54 | 328347 | 22.869 | ppbv# | | 84 |
| 8) Bromomethane | 4.392 | 94 | 318522 | 22.331 | ppbv# | | 97 |
| 9) Chloroethane | 4.530 | 64 | 175530 | 21.948 | ppbv | | 86 |
| 11) Ethanol | 4.652 | 45 | 147612 | 20.946 | ppbv | | 95 |
| 12) Acetone | 5.009 | 43 | 778063 | 21.248 | ppbv | | 91 |
| 13) Trichlorofluoromethane | 5.122 | 101 | 1198859 | 21.828 | ppbv | | 99 |
| 14) Isopropylalcohol | 5.195 | 45 | 791139 | 20.506 | ppbv# | | 99 |
| 15) Acrylonitrile | 5.341 | 53 | 191038 | 20.016 | ppbv | | 99 |
| 16) 1,1-Dichloroethene | 5.584 | 61 | 730508 | 22.122 | ppbv# | | 74 |
| 17) Methylene Chloride | 5.667 | 49 | 523992 | 21.350 | ppbv# | | 59 |
| 20) Carbon Disulfide | 5.870 | 76 | 777387 | 21.648 | ppbv | | 99 |
| 21) Trichlorotrifluoroethane | 5.828 | 101 | 700482 | 21.563 | ppbv | | 89 |
| 22) Trans-1,2-Dichloroethene | 6.244 | 61 | 659848 | 23.559 | ppbv# | | 78 |
| 23) 1,1-Dichloroethane | 6.359 | 63 | 775765 | 22.355 | ppbv | | 96 |
| 24) Methyl tert-butyl ethe... | 6.385 | 73 | 1016086 | 23.798 | ppbv# | | 75 |
| 25) Methyl Ethyl Ketone | 6.568 | 43 | 1039204 | 22.553 | ppbv# | | 78 |
| 26) Cis-1,2-Dichloroethene | 6.801 | 61 | 630392 | 23.439 | ppbv# | | 71 |
| 27) Hexane | 6.887 | 57 | 593059 | 22.395 | ppbv# | | 85 |
| 28) Chloroform | 6.949 | 83 | 843052 | 22.141 | ppbv | | 92 |
| 29) Ethyl acetate | 6.887 | 61 | 124906 | 24.281 | ppbv# | | 72 |
| 30) Tetrahydrofuran | 7.142 | 42 | 458548 | 23.651 | ppbv# | | 62 |
| 31) 1,2-Dichloroethane | 7.305 | 62 | 735926 | 22.659 | ppbv# | | 92 |
| 32) 1,1,1-Trichloroethane | 7.421 | 97 | 854707 | 23.005 | ppbv# | | 92 |
| 33) Benzene | 7.636 | 78 | 833332 | 23.203 | ppbv# | | 88 |
| 34) Carbon Tetrachloride | 7.713 | 117 | 824243 | 26.606 | ppbv | | 99 |
| 35) Cyclohexane | 7.764 | 41 | 310260 | 21.491 | ppbv# | | 46 |
| 37) 1,2-dichloropropane | 8.009 | 63 | 345840 | 25.832 | ppbv# | | 85 |
| 38) Bromodichloromethane | 8.102 | 83 | 701511 | 25.748 | ppbv | | 99 |
| 39) Trichloroethene | 8.119 | 130 | 396815 | 25.406 | ppbv | | 93 |
| 41) 1,4-Dioxane | 8.102 | 88 | 171114 | 26.358 | ppbv# | | 72 |
| 43) Heptane | 8.221 | 43 | 526373 | 25.086 | ppbv# | | 75 |
| 44) cis-1,3-Dichloropropene | 8.492 | 75 | 467197 | 27.548 | ppbv | | 98 |
| 45) 4-Methyl-2-pentanone(M... | 8.492 | 43 | 719819 | 25.048 | ppbv# | | 86 |
| 46) trans-1,3-Dichloropropene | 8.723 | 75 | 484350 | 29.584 | ppbv | | 95 |
| 47) 1,1,2-Trichloroethane | 8.815 | 97 | 338823 | 25.759 | ppbv | | 93 |
| 48) Toluene | 8.948 | 91 | 924352 | 27.098 | ppbv# | | 97 |
| 49) Dibromochloromethane | 9.160 | 129 | 553613 | 27.460 | ppbv | | 98 |
| 50) 2-Hexanone(MBK) | 9.040 | 43 | 706342 | 26.981 | ppbv# | | 92 |
| 51) 1,2-Dibromoethane(EDB) | 9.279 | 107 | 596404 | 26.886 | ppbv | | 98 |

Data Path : H:\AIR2019\CHEM20\04APR\09\
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Acq On : 09 Apr 2019 12:13 pm
Operator : CORTEX\ms
Client ID : ICAL 25
Lab ID : 25
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 09 12:40:11 2019
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Quant Title : VOA Standards for 5 point calibration
QLast Update : Tue Apr 09 12:40:02 2019
Response via : Initial Calibration

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 52) | Tetrachloroethene | 9.497 | 166 | 426426 | 25.813 | ppbv# | 86 |
| 54) | 1,1,1,2-Tetrachloroethane | 9.822 | 131 | 469782 | 27.302 | ppbv | 97 |
| 55) | Chlorobenzene | 9.838 | 112 | 805625 | 23.544 | ppbv | 99 |
| 56) | Ethylbenzene | 10.012 | 91 | 1280903 | 24.169 | ppbv | 98 |
| 57) | m,p-Xylene | 10.103 | 91 | 1970525 | 48.715 | ppbv | 97 |
| 58) | Bromoform | 10.164 | 173 | 190011 | 13.195 | ppbv | 99 |
| 59) | Styrene | 10.292 | 104 | 758369 | 15.161 | ppbv# | 91 |
| 60) | 1,1,2,2-Tetrachloroethane | 10.346 | 83 | 701421 | 23.123 | ppbv | 93 |
| 61) | o-Xylene | 10.353 | 91 | 992963 | 23.461 | ppbv | 97 |
| 64) | Isopropylbenzene | 10.656 | 105 | 1323879 | 23.776 | ppbv | 97 |
| 66) | 4-Ethyltoluene | 11.021 | 105 | 1402763 | 25.036 | ppbv | 97 |
| 67) | 1,3,5-Trimethylbenzene | 11.066 | 105 | 1172721 | 24.308 | ppbv | 97 |
| 68) | 1,2,4-Trimethylbenzene | 11.309 | 105 | 1153046 | 24.410 | ppbv | 99 |
| 70) | Benzyl chloride | 11.400 | 91 | 901426 | 11.370 | ppbv | 95 |
| 71) | 1,3-Dichlorobenzene | 11.415 | 146 | 767158 | 24.394 | ppbv | 95 |
| 72) | 1,4-Dichlorobenzene | 11.453 | 146 | 764956 | 24.784 | ppbv | 95 |
| 73) | sec-Butylbenzene | 11.469 | 105 | 1603484 | 24.348 | ppbv | 99 |
| 74) | 4-Isopropyltoluene | 11.560 | 119 | 1451311 | 25.277 | ppbv | 98 |
| 75) | 1,2-Dichlorobenzene | 11.666 | 146 | 738820 | 24.718 | ppbv | 96 |
| 76) | n-Butylbenzene | 11.826 | 91 | 1326860 | 25.628 | ppbv | 97 |
| 77) | 1,2,4-Trichlorobenzene | 12.782 | 180 | 369758 | 16.346 | ppbv# | 94 |
| 79) | Hexachlorobutadiene | 13.094 | 225 | 317634 | 25.347 | ppbv | 99 |
| 81] | 1,2-Dichlorotetrafluor... | 3.930 | 85 | 885633 | 20.278 | ppbv | 94 |
| 82] | Vinyl Chloride(sim) | 4.030 | 62 | 428252 | 20.699 | ppbv | 95 |
| 83] | Bromomethane(sim) | 4.392 | 94 | 318522 | 18.490 | ppbv# | 97 |
| 84] | Trichlorofluoromethane... | 5.125 | 101 | 1435522 | 20.041 | ppbv | 100 |
| 85] | 1,2-Dichloroethane(sim) | 7.305 | 62 | 735926 | 21.221 | ppbv# | 92 |
| 86] | 1,1,1-Trichloroethane(... | 7.424 | 97 | 1031649 | 22.649 | ppbv# | 92 |
| 87] | Carbon Tetrachloride(sim) | 7.713 | 117 | 824243 | 29.475 | ppbv | 99 |
| 88] | 1,1-Dichloroethene(sim) | 5.587 | 61 | 833024 | 20.528 | ppbv# | 70 |
| 89] | Trichlorotrifluoroetha... | 5.828 | 101 | 700482 | 19.495 | ppbv | 99 |
| 90] | Trans-1,2-Dichloroethe... | 6.242 | 61 | 764029 | 22.222 | ppbv# | 77 |
| 91] | 1,1-Dichloroethane(sim) | 6.359 | 63 | 776201 | 20.601 | ppbv | 96 |
| 92] | Cis-1,2-Dichloroethene... | 6.797 | 61 | 720618 | 22.236 | ppbv# | 73 |
| 93] | Chloroform(sim) | 6.949 | 83 | 843052 | 20.733 | ppbv# | 92 |
| 95] | 1,2-dichloropropane(sim) | 8.009 | 63 | 345840 | 24.611 | ppbv# | 85 |
| 96] | Bromodichloromethane(sim) | 8.097 | 85 | 531755 | 27.051 | ppbv | 99 |
| 97] | Trichloroethene(sim) | 8.119 | 130 | 396815 | 23.269 | ppbv | 96 |
| 98] | 1,4-Dioxane(sim) | 8.105 | 88 | 180356 | 23.752 | ppbv# | 72 |
| 99] | cis-1,3-Dichloropropen... | 8.492 | 75 | 467183 | 31.417 | ppbv | 98 |
| 100] | 1,1,2-Trichloroethane(... | 8.818 | 97 | 413363 | 25.785 | ppbv | 95 |
| 101] | Dibromochloromethane(sim) | 9.160 | 129 | 553613 | 29.493 | ppbv | 98 |
| 102] | 1,2-Dibromoethane(EDB)... | 9.282 | 107 | 718068 | 28.886 | ppbv | 99 |
| 103] | Tetrachloroethene(sim) | 9.497 | 166 | 426426 | 22.935 | ppbv# | 86 |
| 105] | Bromoform(sim) | 10.164 | 173 | 190011 | 13.964 | ppbv | 99 |
| 106] | m,p-Xylene(sim) | 10.106 | 91 | 2020279 | 29.040 | ppbv | 95 |
| 107] | 1,1,2,2-Tetrachloroeth... | 10.346 | 83 | 701421 | 23.208 | ppbv | 98 |
| 110] | Benzyl chloride(sim) | 11.396 | 91 | 941032 | 13.497 | ppbv | 95 |
| 111] | 1,3-Dichlorobenzene(sim) | 11.415 | 146 | 767158 | 27.207 | ppbv | 95 |
| 112] | 1,4-Dichlorobenzene(sim) | 11.456 | 146 | 937701 | 29.043 | ppbv | 96 |
| 113] | sec-Butylbenzene(sim) | 11.469 | 105 | 1602926 | 14.497 | ppbv | 99 |
| 114] | 4-Isopropyltoluene(sim) | 11.563 | 119 | 1293000 | 13.851 | ppbv | 94 |
| 115] | 1,2-Dichlorobenzene(sim) | 11.666 | 146 | 738820 | 28.646 | ppbv | 96 |
| 116] | n-Butylbenzene(sim) | 11.821 | 91 | 1363263 | 13.469 | ppbv | 96 |
| 117] | 1,2,4-Trichlorobenzene... | 12.782 | 180 | 369758 | 17.348 | ppbv | 94 |
| 119] | Hexachlorobutadiene(sim) | 13.094 | 225 | 317634 | 24.080 | ppbv | 99 |

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_11.D
Acq On : 09 Apr 2019 12:13 pm
Operator : CORTEX\ms
Client ID : ICAL 25
Lab ID : 25
ALS Vial : 1 Sample Multiplier: 1

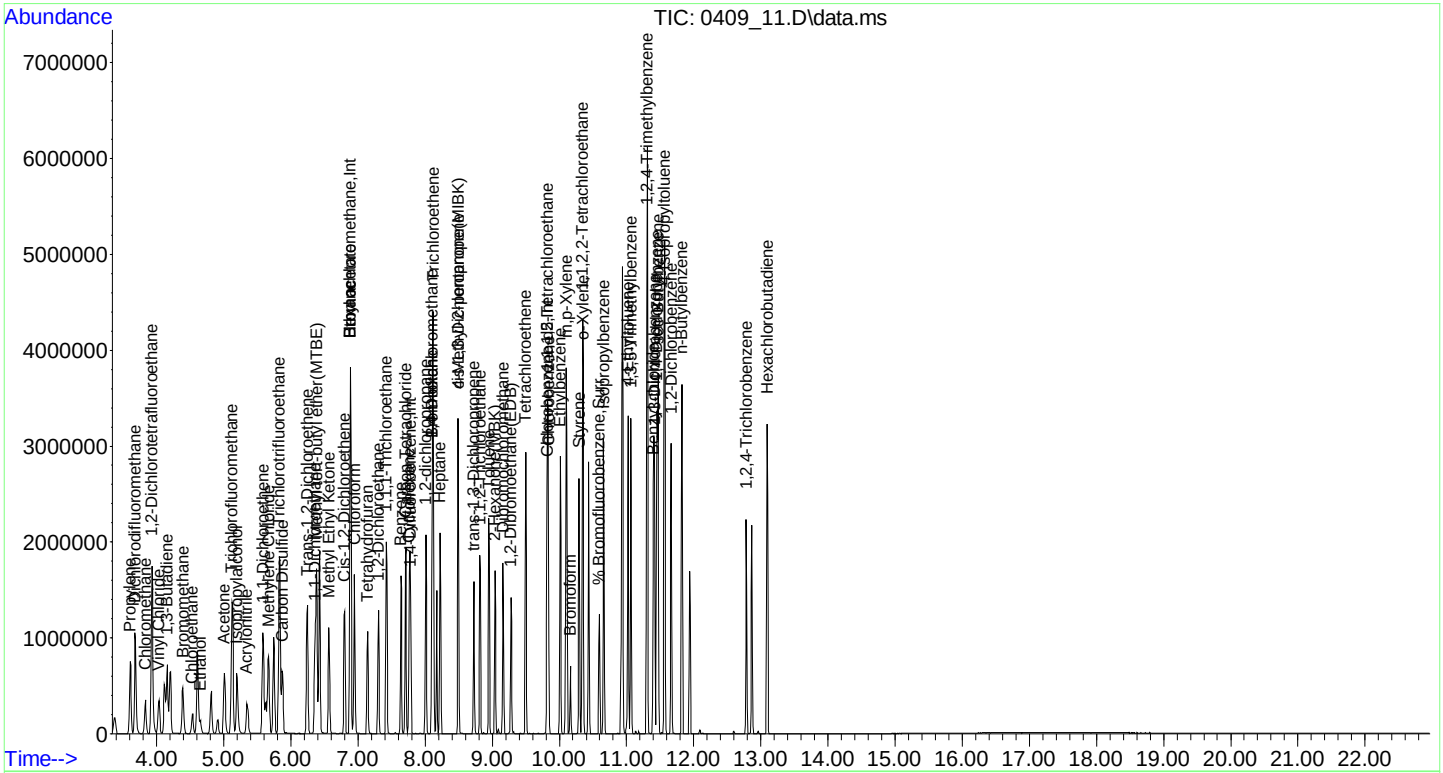
Quant Time: Apr 09 12:40:11 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Tue Apr 09 12:40:02 2019
Response via : Initial Calibration

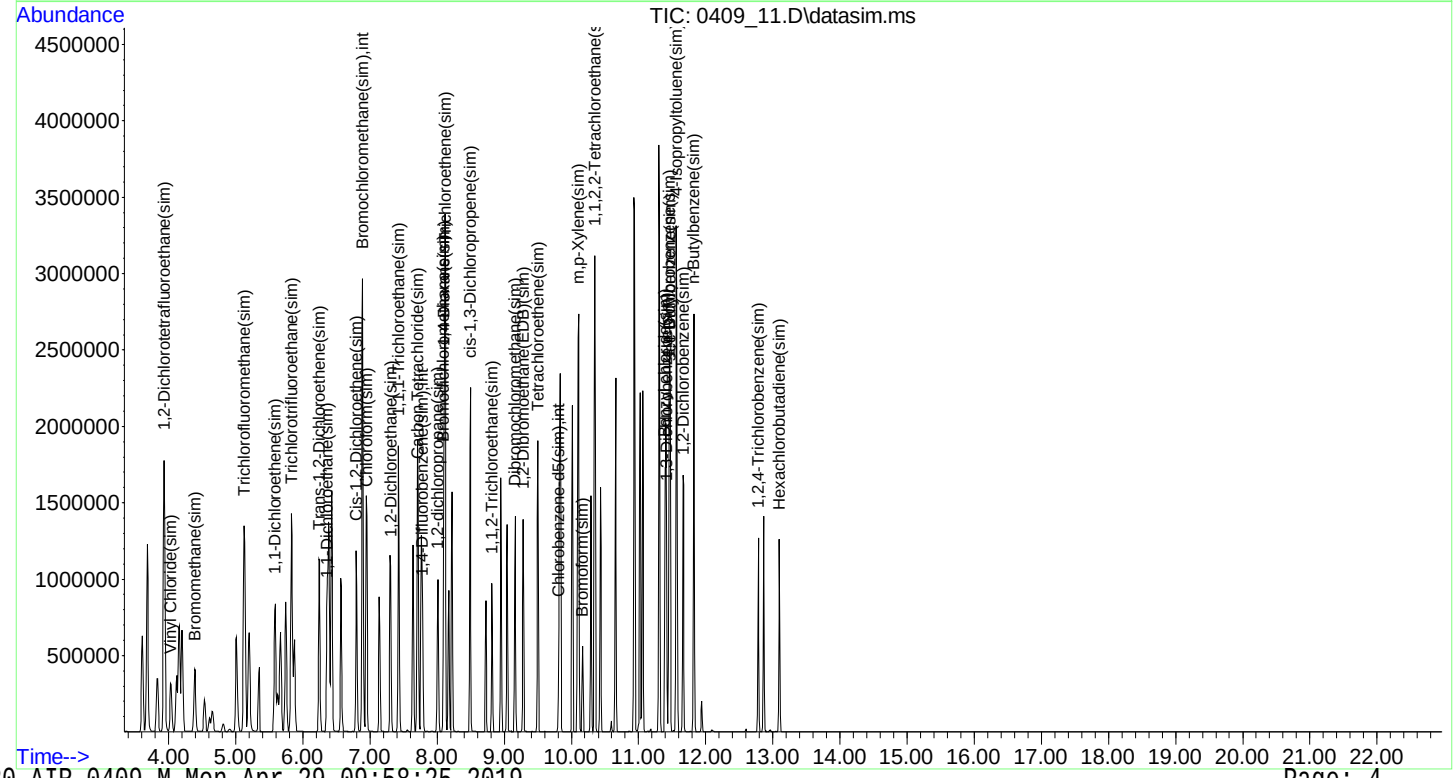
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_11.D
Acq On : 09 Apr 2019 12:13 pm
Operator : CORTEX\ms
Client ID : ICAL 25
Lab ID : 25
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 09 12:40:11 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Tue Apr 09 12:40:02 2019
Response via : Initial Calibration



Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_12.D
Acq On : 09 Apr 2019 12:55 pm
Operator : CORTEX\ms
Client ID : ICAL 40
Lab ID : 40
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 09 13:32:13 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Tue Apr 09 12:59:58 2019
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.887 | 130 | 185336 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.781 | 114 | 424848 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.815 | 82 | 231886 | 10.000 | ng | | 0.00 |
| 80) Bromochloromethane(sim) | 6.882 | 130 | 237738 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.783 | 114 | 477261 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 240535 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 277255 | 9.049 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = | 90.50% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Propylene | 3.581 | 41 | 757763 | 34.704 | ppbv | | 97 |
| 3) Dichlorodifluoromethane | 3.654 | 85 | 1739628 | 36.602 | ppbv# | | 96 |
| 4) Chloromethane | 3.808 | 50 | 623716 | 31.417 | ppbv | | 98 |
| 5) 1,2-Dichlorotetrafluor... | 3.906 | 85 | 1392885 | 30.131 | ppbv | | 95 |
| 6) Vinyl Chloride | 4.011 | 62 | 609706 | 31.616 | ppbv | | 95 |
| 7) 1,3-Butadiene | 4.133 | 54 | 531325 | 32.702 | ppbv# | | 86 |
| 8) Bromomethane | 4.368 | 94 | 508942 | 31.530 | ppbv# | | 98 |
| 9) Chloroethane | 4.514 | 64 | 286094 | 31.612 | ppbv | | 88 |
| 11) Ethanol | 4.644 | 45 | 230897 | 28.953 | ppbv | | 95 |
| 12) Acetone | 5.001 | 43 | 1226258 | 29.593 | ppbv | | 92 |
| 13) Trichlorofluoromethane | 5.114 | 101 | 1867584 | 30.048 | ppbv | | 100 |
| 14) Isopropylalcohol | 5.196 | 45 | 1254111 | 28.725 | ppbv# | | 94 |
| 15) Acrylonitrile | 5.342 | 53 | 316013 | 29.259 | ppbv | | 94 |
| 16) 1,1-Dichloroethene | 5.572 | 61 | 1142231 | 30.566 | ppbv# | | 76 |
| 17) Methylene Chloride | 5.655 | 49 | 822988 | 29.632 | ppbv# | | 59 |
| 20) Carbon Disulfide | 5.864 | 76 | 1204015 | 29.628 | ppbv | | 100 |
| 21) Trichlorotrifluoroethane | 5.822 | 101 | 1092509 | 29.719 | ppbv | | 90 |
| 22) Trans-1,2-Dichloroethene | 6.234 | 61 | 1090018 | 34.391 | ppbv# | | 76 |
| 23) 1,1-Dichloroethane | 6.354 | 63 | 1245224 | 31.709 | ppbv | | 96 |
| 24) Methyl tert-butyl ethe... | 6.380 | 73 | 1659724 | 34.351 | ppbv# | | 76 |
| 25) Methyl Ethyl Ketone | 6.563 | 43 | 1655928 | 31.757 | ppbv# | | 78 |
| 26) Cis-1,2-Dichloroethene | 6.794 | 61 | 1002096 | 32.926 | ppbv# | | 71 |
| 27) Hexane | 6.887 | 57 | 920102 | 30.704 | ppbv# | | 89 |
| 28) Chloroform | 6.941 | 83 | 1319641 | 30.626 | ppbv | | 93 |
| 29) Ethyl acetate | 6.887 | 61 | 196495 | 33.754 | ppbv# | | 73 |
| 30) Tetrahydrofuran | 7.135 | 42 | 719237 | 32.781 | ppbv# | | 62 |
| 31) 1,2-Dichloroethane | 7.305 | 62 | 1143396 | 31.110 | ppbv# | | 92 |
| 32) 1,1,1-Trichloroethane | 7.422 | 97 | 1341906 | 31.917 | ppbv# | | 92 |
| 33) Benzene | 7.637 | 78 | 1304107 | 32.088 | ppbv# | | 88 |
| 34) Carbon Tetrachloride | 7.704 | 117 | 1340335 | 38.232 | ppbv | | 99 |
| 35) Cyclohexane | 7.764 | 41 | 479624 | 29.358 | ppbv# | | 47 |
| 37) 1,2-dichloropropane | 8.009 | 63 | 540938 | 39.565 | ppbv# | | 87 |
| 38) Bromodichloromethane | 8.102 | 83 | 1064843 | 38.271 | ppbv | | 99 |
| 39) Trichloroethene | 8.119 | 130 | 632935 | 39.681 | ppbv | | 98 |
| 41) 1,4-Dioxane | 8.102 | 88 | 256541 | 38.696 | ppbv# | | 75 |
| 43) Heptane | 8.221 | 43 | 793669 | 37.040 | ppbv# | | 77 |
| 44) cis-1,3-Dichloropropene | 8.492 | 75 | 731970 | 42.264 | ppbv | | 98 |
| 45) 4-Methyl-2-pentanone(M... | 8.492 | 43 | 1118158 | 38.101 | ppbv# | | 86 |
| 46) trans-1,3-Dichloropropene | 8.723 | 75 | 764972 | 45.754 | ppbv | | 97 |
| 47) 1,1,2-Trichloroethane | 8.815 | 97 | 538960 | 40.123 | ppbv | | 94 |
| 48) Toluene | 8.949 | 91 | 1478814 | 42.451 | ppbv | | 98 |
| 49) Dibromochloromethane | 9.160 | 129 | 891593 | 43.305 | ppbv | | 97 |
| 50) 2-Hexanone(MBK) | 9.040 | 43 | 1088875 | 40.730 | ppbv# | | 94 |
| 51) 1,2-Dibromoethane(EDB) | 9.279 | 107 | 942935 | 41.624 | ppbv | | 97 |

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_12.D
Acq On : 09 Apr 2019 12:55 pm
Operator : CORTEX\ms
Client ID : ICAL 40
Lab ID : 40
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 09 13:32:13 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Tue Apr 09 12:59:58 2019
Response via : Initial Calibration

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 52) | Tetrachloroethene | 9.498 | 166 | 673653 | 39.931 | ppbv# | 87 |
| 54) | 1,1,1,2-Tetrachloroethane | 9.822 | 131 | 744516 | 41.746 | ppbv | 97 |
| 55) | Chlorobenzene | 9.838 | 112 | 1268396 | 35.764 | ppbv | 98 |
| 56) | Ethylbenzene | 10.012 | 91 | 2006355 | 36.525 | ppbv | 98 |
| 57) | m,p-Xylene | 10.103 | 91 | 2984333 | 71.181 | ppbv | 100 |
| 58) | Bromoform | 10.164 | 173 | 314442 | 21.067 | ppbv | 99 |
| 59) | Styrene | 10.293 | 104 | 1210593 | 42.232 | ppbv# | 92 |
| 60) | 1,1,2,2-Tetrachloroethane | 10.346 | 83 | 1054549 | 33.540 | ppbv | 95 |
| 61) | o-Xylene | 10.353 | 91 | 1492422 | 34.020 | ppbv | 99 |
| 64) | Isopropylbenzene | 10.657 | 105 | 2073011 | 35.919 | ppbv | 98 |
| 66) | 4-Ethyltoluene | 11.021 | 105 | 2168865 | 37.346 | ppbv | 98 |
| 67) | 1,3,5-Trimethylbenzene | 11.066 | 105 | 1819048 | 36.378 | ppbv | 99 |
| 68) | 1,2,4-Trimethylbenzene | 11.309 | 105 | 1679376 | 34.301 | ppbv | 99 |
| 70) | Benzyl chloride | 11.400 | 91 | 1478816 | 34.866 | ppbv | 97 |
| 71) | 1,3-Dichlorobenzene | 11.416 | 146 | 1206372 | 37.009 | ppbv | 96 |
| 72) | 1,4-Dichlorobenzene | 11.454 | 146 | 1204334 | 37.646 | ppbv | 96 |
| 73) | sec-Butylbenzene | 11.469 | 105 | 2465058 | 36.113 | ppbv | 99 |
| 74) | 4-Isopropyltoluene | 11.560 | 119 | 2183262 | 36.687 | ppbv | 98 |
| 75) | 1,2-Dichlorobenzene | 11.666 | 146 | 1170612 | 37.785 | ppbv | 96 |
| 76) | n-Butylbenzene | 11.826 | 91 | 2030959 | 37.847 | ppbv | 99 |
| 77) | 1,2,4-Trichlorobenzene | 12.783 | 180 | 622683 | 36.771 | ppbv# | 95 |
| 79) | Hexachlorobutadiene | 13.094 | 225 | 503382 | 38.756 | ppbv | 99 |
| 81] | 1,2-Dichlorotetrafluor... | 3.906 | 85 | 1390807 | 28.749 | ppbv | 96 |
| 82] | Vinyl Chloride(sim) | 4.014 | 62 | 692815 | 30.231 | ppbv | 95 |
| 83] | Bromomethane(sim) | 4.368 | 94 | 508942 | 26.671 | ppbv# | 98 |
| 84] | Trichlorofluoromethane... | 5.109 | 101 | 2226478 | 28.062 | ppbv | 100 |
| 85] | 1,2-Dichloroethane(sim) | 7.305 | 62 | 1143396 | 29.766 | ppbv# | 92 |
| 86] | 1,1,1-Trichloroethane(... | 7.424 | 97 | 1617292 | 32.054 | ppbv# | 92 |
| 87] | Carbon Tetrachloride(sim) | 7.704 | 117 | 1340439 | 43.274 | ppbv | 99 |
| 88] | 1,1-Dichloroethene(sim) | 5.575 | 61 | 1311174 | 29.170 | ppbv# | 71 |
| 89] | Trichlorotrifluoroetha... | 5.822 | 101 | 1092509 | 27.450 | ppbv | 100 |
| 90] | Trans-1,2-Dichloroethe... | 6.237 | 61 | 1240635 | 32.577 | ppbv# | 76 |
| 91] | 1,1-Dichloroethane(sim) | 6.354 | 63 | 1246335 | 29.864 | ppbv | 96 |
| 92] | Cis-1,2-Dichloroethene... | 6.797 | 61 | 1149574 | 32.023 | ppbv# | 72 |
| 93] | Chloroform(sim) | 6.941 | 83 | 1319871 | 29.304 | ppbv# | 93 |
| 95] | 1,2-dichloropropane(sim) | 8.009 | 63 | 540938 | 38.179 | ppbv# | 87 |
| 96] | Bromodichloromethane(sim) | 8.097 | 85 | 803001 | 40.514 | ppbv | 98 |
| 97] | Trichloroethene(sim) | 8.119 | 130 | 632935 | 36.811 | ppbv | 98 |
| 98] | 1,4-Dioxane(sim) | 8.105 | 88 | 267261 | 34.908 | ppbv# | 74 |
| 99] | cis-1,3-Dichloropropen... | 8.492 | 75 | 731970 | 48.820 | ppbv | 98 |
| 100] | 1,1,2-Trichloroethane(... | 8.818 | 97 | 657419 | 40.672 | ppbv | 96 |
| 101] | Dibromochloromethane(sim) | 9.160 | 129 | 891593 | 47.109 | ppbv | 97 |
| 102] | 1,2-Dibromoethane(EDB)... | 9.282 | 107 | 1128407 | 45.021 | ppbv | 99 |
| 103] | Tetrachloroethene(sim) | 9.498 | 166 | 673557 | 35.930 | ppbv# | 87 |
| 105] | Bromoform(sim) | 10.164 | 173 | 314442 | 21.909 | ppbv | 99 |
| 106] | m,p-Xylene(sim) | 10.106 | 91 | 2991052 | 36.715 | ppbv | 97 |
| 107] | 1,1,2,2-Tetrachloroeth... | 10.346 | 83 | 1054549 | 33.081 | ppbv | 99 |
| 110] | Benzyl chloride(sim) | 11.396 | 91 | 1506589 | 16.856 | ppbv | 97 |
| 111] | 1,3-Dichlorobenzene(sim) | 11.416 | 146 | 1206372 | 40.563 | ppbv | 96 |
| 112] | 1,4-Dichlorobenzene(sim) | 11.456 | 146 | 1449818 | 42.574 | ppbv | 97 |
| 113] | sec-Butylbenzene(sim) | 11.469 | 105 | 2464173 | 18.625 | ppbv | 99 |
| 114] | 4-Isopropyltoluene(sim) | 11.563 | 119 | 1856593 | 17.033 | ppbv | 95 |
| 115] | 1,2-Dichlorobenzene(sim) | 11.666 | 146 | 1170612 | 43.033 | ppbv | 96 |
| 116] | n-Butylbenzene(sim) | 11.821 | 91 | 2029164 | 16.686 | ppbv | 96 |
| 117] | 1,2,4-Trichlorobenzene... | 12.783 | 180 | 622683 | 23.032 | ppbv | 95 |
| 119] | Hexachlorobutadiene(sim) | 13.094 | 225 | 503254 | 36.172 | ppbv | 99 |

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_12.D
Acq On : 09 Apr 2019 12:55 pm
Operator : CORTEX\ms
Client ID : ICAL 40
Lab ID : 40
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 09 13:32:13 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Tue Apr 09 12:59:58 2019
Response via : Initial Calibration

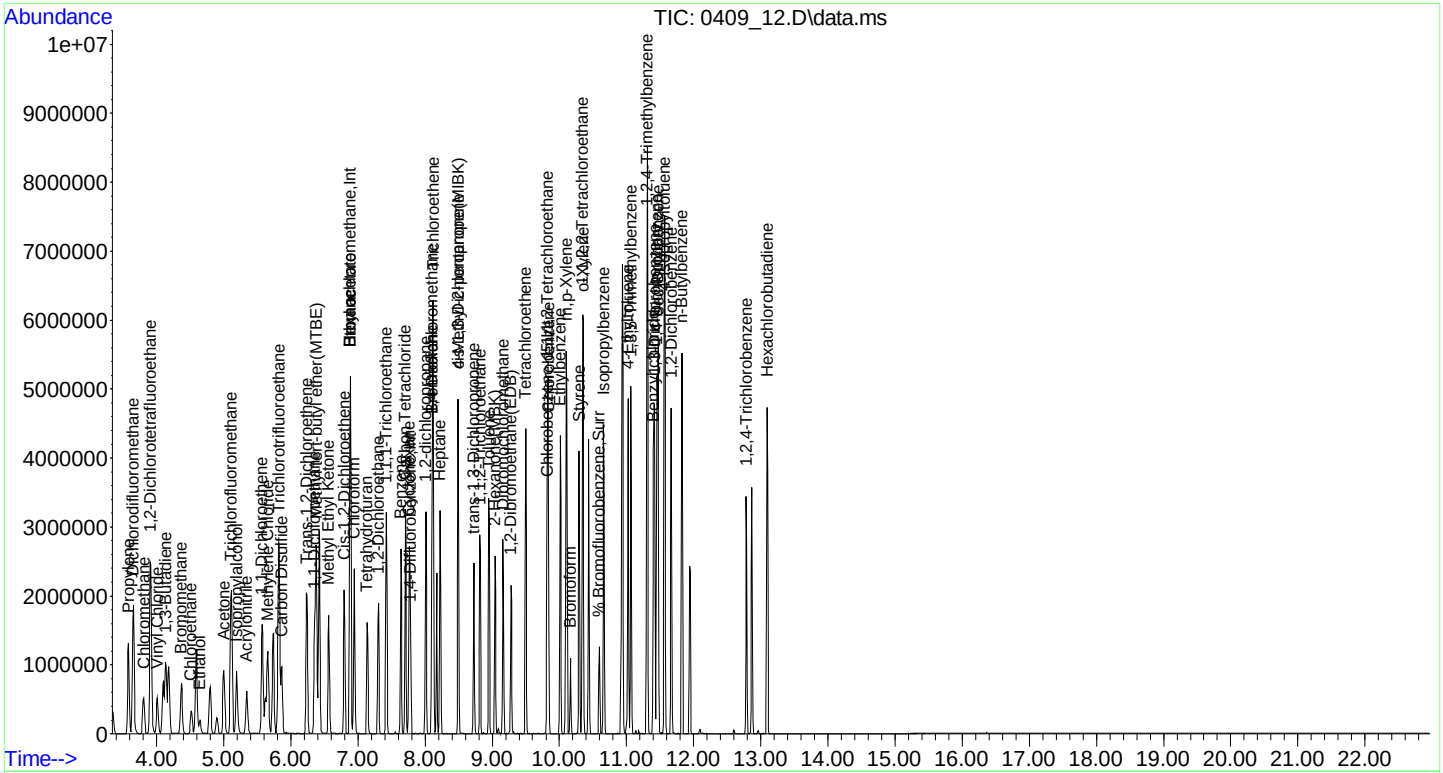
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|

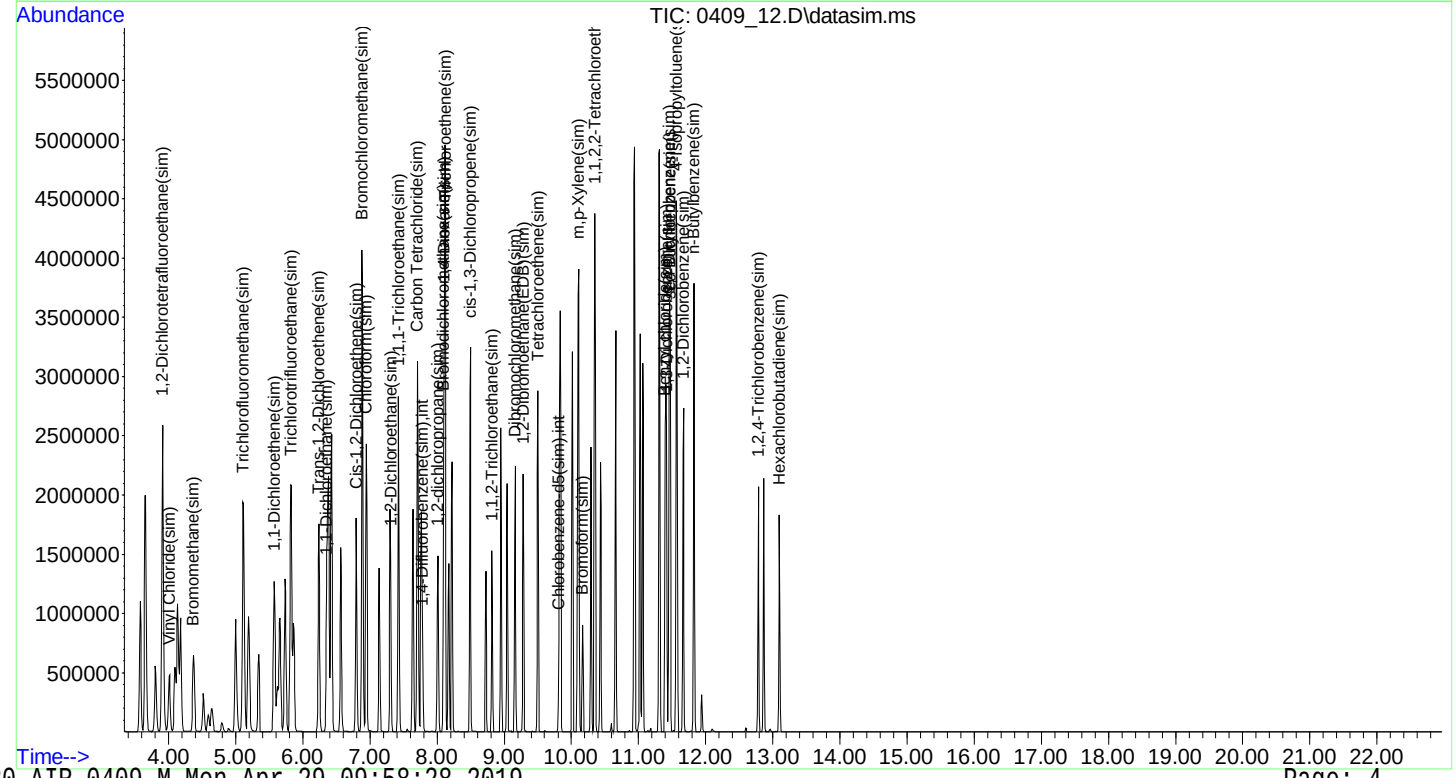
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_12.D
Acq On : 09 Apr 2019 12:55 pm
Operator : CORTEX\ms
Client ID : ICAL 40
Lab ID : 40
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 09 13:32:13 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Tue Apr 09 12:59:58 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_14.D
Acq On : 09 Apr 2019 02:09 pm
Operator : CORTEX\ms
Client ID : BFB TUNE
Lab ID : 1ppb cc
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 09:42:49 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:42:38 2019
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.879 | 130 | 140317 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.780 | 114 | 445159 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.807 | 82 | 209039 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.882 | 130 | 191401 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 508826 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 209433 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 276688 | 10.096 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 101.00% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Propylene | 3.622 | 41 | 16137 | 0.976 | ppbv | | 98 |
| 3) Dichlorodifluoromethane | 3.687 | 85 | 35867 | 0.997 | ppbv# | | 93 |
| 4) Chloromethane | 3.841 | 50 | 16207 | 1.078 | ppbv | | 98 |
| 5) 1,2-Dichlorotetrafluor... | 3.930 | 85 | 37735 | 1.078 | ppbv | | 92 |
| 6) Vinyl Chloride | 4.035 | 62 | 16280 | 1.115 | ppbv | | 92 |
| 7) 1,3-Butadiene | 4.157 | 54 | 12575 | 1.022 | ppbv# | | 78 |
| 8) Bromomethane | 4.392 | 94 | 13441 | 1.100 | ppbv | | 94 |
| 9) Chloroethane | 4.530 | 64 | 7366 | 1.075 | ppbv | | 88 |
| 11) Ethanol | 4.660 | 45 | 6770 | 1.121 | ppbv | | 96 |
| 12) Acetone | 5.025 | 43 | 33061 | 1.054 | ppbv# | | 88 |
| 13) Trichlorofluoromethane | 5.122 | 101 | 50628 | 1.076 | ppbv | | 99 |
| 14) Isopropylalcohol | 5.212 | 45 | 36347 | 1.100 | ppbv# | | 98 |
| 15) Acrylonitrile | 5.341 | 53 | 7861 | 0.961 | ppbv | | 92 |
| 16) 1,1-Dichloroethene | 5.578 | 61 | 29857 | 1.055 | ppbv# | | 76 |
| 17) Methylene Chloride | 5.661 | 49 | 21807 | 1.037 | ppbv# | | 58 |
| 20) Carbon Disulfide | 5.870 | 76 | 33410 | 1.086 | ppbv# | | 93 |
| 21) Trichlorotrifluoroethane | 5.828 | 101 | 30156 | 1.084 | ppbv | | 90 |
| 22) Trans-1,2-Dichloroethene | 6.239 | 61 | 25499 | 1.063 | ppbv# | | 79 |
| 23) 1,1-Dichloroethane | 6.354 | 63 | 32643 | 1.098 | ppbv | | 94 |
| 24) Methyl tert-butyl ethe... | 6.395 | 73 | 39394 | 1.077 | ppbv# | | 68 |
| 25) Methyl Ethyl Ketone | 6.573 | 43 | 42948 | 1.088 | ppbv# | | 77 |
| 26) Cis-1,2-Dichloroethene | 6.794 | 61 | 24736 | 1.074 | ppbv# | | 73 |
| 27) Hexane | 6.887 | 57 | 24695 | 1.088 | ppbv# | | 83 |
| 28) Chloroform | 6.941 | 83 | 35703 | 1.094 | ppbv | | 91 |
| 29) Ethyl acetate | 6.894 | 61 | 4806 | 1.090 | ppbv# | | 76 |
| 30) Tetrahydrofuran | 7.150 | 42 | 17888 | 1.077 | ppbv# | | 61 |
| 31) 1,2-Dichloroethane | 7.297 | 62 | 29587 | 1.063 | ppbv# | | 89 |
| 32) 1,1,1-Trichloroethane | 7.421 | 97 | 35222 | 1.107 | ppbv# | | 92 |
| 33) Benzene | 7.636 | 78 | 34039 | 1.106 | ppbv# | | 88 |
| 34) Carbon Tetrachloride | 7.704 | 117 | 29525 | 1.112 | ppbv | | 97 |
| 35) Cyclohexane | 7.763 | 41 | 13060 | 1.056 | ppbv# | | 33 |
| 37) 1,2-dichloropropane | 8.009 | 63 | 14570 | 1.017 | ppbv# | | 79 |
| 38) Bromodichloromethane | 8.094 | 83 | 30194 | 1.036 | ppbv | | 98 |
| 39) Trichloroethene | 8.111 | 130 | 16950 | 1.014 | ppbv | | 91 |
| 41) 1,4-Dioxane | 8.111 | 88 | 7055 | 1.016 | ppbv# | | 67 |
| 43) Heptane | 8.221 | 43 | 23041 | 1.026 | ppbv# | | 70 |
| 44) cis-1,3-Dichloropropene | 8.492 | 75 | 18186 | 1.002 | ppbv | | 97 |
| 45) 4-Methyl-2-pentanone(M... | 8.500 | 43 | 30217 | 0.983 | ppbv# | | 83 |
| 46) trans-1,3-Dichloropropene | 8.723 | 75 | 16248 | 0.927 | ppbv | | 96 |
| 47) 1,1,2-Trichloroethane | 8.815 | 97 | 13443 | 0.955 | ppbv | | 92 |
| 48) Toluene | 8.948 | 91 | 35674 | 0.977 | ppbv# | | 98 |
| 49) Dibromochloromethane | 9.159 | 129 | 23391 | 1.084 | ppbv | | 97 |
| 50) 2-Hexanone(MBK) | 9.047 | 43 | 26347 | 0.941 | ppbv# | | 88 |
| 51) 1,2-Dibromoethane(EDB) | 9.279 | 107 | 23518 | 0.991 | ppbv | | 97 |

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_14.D
Acq On : 09 Apr 2019 02:09 pm
Operator : CORTEX\ms
Client ID : BFB TUNE
Lab ID : 1ppb cc
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 09:42:49 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:42:38 2019
Response via : Initial Calibration

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 52) | Tetrachloroethene | 9.497 | 166 | 17465 | 0.988 | ppbv# | 89 |
| 54) | 1,1,1,2-Tetrachloroethane | 9.822 | 131 | 16140 | 1.004 | ppbv | 96 |
| 55) | Chlorobenzene | 9.837 | 112 | 31745 | 0.993 | ppbv | 86 |
| 56) | Ethylbenzene | 10.012 | 91 | 50220 | 1.014 | ppbv | 94 |
| 57) | m,p-Xylene | 10.103 | 91 | 79260 | 2.097 | ppbv | 93 |
| 58) | Bromoform | 10.163 | 173 | 15305 | 1.138 | ppbv | 96 |
| 59) | Styrene | 10.292 | 104 | 26116 | 0.951 | ppbv# | 86 |
| 60) | 1,1,2,2-Tetrachloroethane | 10.345 | 83 | 29485 | 1.040 | ppbv | 91 |
| 61) | o-Xylene | 10.353 | 91 | 40792 | 1.031 | ppbv | 94 |
| 64) | Isopropylbenzene | 10.656 | 105 | 50733 | 0.975 | ppbv | 95 |
| 66) | 4-Ethyltoluene | 11.020 | 105 | 51373 | 0.981 | ppbv | 95 |
| 67) | 1,3,5-Trimethylbenzene | 11.066 | 105 | 45650 | 1.013 | ppbv | 91 |
| 68) | 1,2,4-Trimethylbenzene | 11.309 | 105 | 45425 | 1.029 | ppbv | 93 |
| 70) | Benzyl chloride | 11.469 | 91 | 11639 | 0.914 | ppbv# | 61 |
| 71) | 1,3-Dichlorobenzene | 11.408 | 146 | 29404 | 1.001 | ppbv | 96 |
| 72) | 1,4-Dichlorobenzene | 11.453 | 146 | 28468 | 0.987 | ppbv | 95 |
| 73) | sec-Butylbenzene | 11.469 | 105 | 61854 | 1.005 | ppbv | 96 |
| 74) | 4-Isopropyltoluene | 11.560 | 119 | 54176 | 1.010 | ppbv | 95 |
| 75) | 1,2-Dichlorobenzene | 11.666 | 146 | 28382 | 1.016 | ppbv | 95 |
| 76) | n-Butylbenzene | 11.825 | 91 | 45966 | 0.950 | ppbv# | 92 |
| 77) | 1,2,4-Trichlorobenzene | 12.782 | 180 | 8988 | 0.818 | ppbv# | 95 |
| 79) | Hexachlorobutadiene | 13.094 | 225 | 11505 | 0.983 | ppbv | 97 |
| 81] | 1,2-Dichlorotetrafluor... | 3.930 | 85 | 37735 | 0.969 | ppbv | 92 |
| 82] | Vinyl Chloride(sim) | 4.038 | 62 | 17789 | 0.964 | ppbv | 95 |
| 83] | Bromomethane(sim) | 4.392 | 94 | 13441 | 0.875 | ppbv | 94 |
| 84] | Trichlorofluoromethane... | 5.125 | 101 | 61125 | 0.957 | ppbv | 99 |
| 85] | 1,2-Dichloroethane(sim) | 7.297 | 62 | 29587 | 0.957 | ppbv# | 89 |
| 86] | 1,1,1-Trichloroethane(... | 7.424 | 97 | 42940 | 1.057 | ppbv# | 90 |
| 87] | Carbon Tetrachloride(sim) | 7.704 | 117 | 29525 | 1.184 | ppbv | 97 |
| 88] | 1,1-Dichloroethene(sim) | 5.581 | 61 | 35030 | 0.968 | ppbv# | 70 |
| 89] | Trichlorotrifluoroetha... | 5.828 | 101 | 30156 | 0.941 | ppbv | 100 |
| 90] | Trans-1,2-Dichloroethe... | 6.237 | 61 | 30065 | 0.981 | ppbv# | 78 |
| 91] | 1,1-Dichloroethane(sim) | 6.354 | 63 | 32643 | 0.972 | ppbv# | 94 |
| 92] | Cis-1,2-Dichloroethene... | 6.789 | 61 | 28516 | 0.987 | ppbv# | 76 |
| 93] | Chloroform(sim) | 6.941 | 83 | 35703 | 0.985 | ppbv# | 91 |
| 95] | 1,2-dichloropropane(sim) | 8.009 | 63 | 14570 | 0.965 | ppbv# | 79 |
| 96] | Bromodichloromethane(sim) | 8.097 | 85 | 22525 | 1.066 | ppbv | 98 |
| 97] | Trichloroethene(sim) | 8.111 | 130 | 16950 | 0.925 | ppbv | 95 |
| 98] | 1,4-Dioxane(sim) | 8.114 | 88 | 7551 | 0.925 | ppbv# | 67 |
| 99] | cis-1,3-Dichloropropen... | 8.492 | 75 | 18186 | 1.138 | ppbv | 97 |
| 100] | 1,1,2-Trichloroethane(... | 8.818 | 97 | 16655 | 0.966 | ppbv | 94 |
| 101] | Dibromochloromethane(sim) | 9.159 | 129 | 23391 | 1.159 | ppbv | 97 |
| 102] | 1,2-Dibromoethane(EDB)... | 9.282 | 107 | 28146 | 1.053 | ppbv | 98 |
| 103] | Tetrachloroethene(sim) | 9.497 | 166 | 17465 | 0.874 | ppbv | 89 |
| 105] | Bromoform(sim) | 10.163 | 173 | 15305 | 1.225 | ppbv | 96 |
| 106] | m,p-Xylene(sim) | 10.106 | 91 | 84263 | 2.092 | ppbv# | 93 |
| 107] | 1,1,2,2-Tetrachloroeth... | 10.345 | 83 | 29485 | 1.062 | ppbv# | 99 |
| 110] | Benzyl chloride(sim) | 11.396 | 91 | 19119 | 1.191 | ppbv | 92 |
| 111] | 1,3-Dichlorobenzene(sim) | 11.408 | 146 | 29404 | 1.135 | ppbv | 96 |
| 112] | 1,4-Dichlorobenzene(sim) | 11.449 | 146 | 35562 | 1.199 | ppbv | 96 |
| 113] | sec-Butylbenzene(sim) | 11.469 | 105 | 61860 | 1.051 | ppbv | 96 |
| 114] | 4-Isopropyltoluene(sim) | 11.563 | 119 | 52230 | 1.046 | ppbv# | 91 |
| 115] | 1,2-Dichlorobenzene(sim) | 11.666 | 146 | 28382 | 1.198 | ppbv | 95 |
| 116] | n-Butylbenzene(sim) | 11.821 | 91 | 46691 | 1.056 | ppbv | 94 |
| 117] | 1,2,4-Trichlorobenzene... | 12.782 | 180 | 8988 | 1.055 | ppbv | 95 |
| 119] | Hexachlorobutadiene(sim) | 13.094 | 225 | 11505 | 0.950 | ppbv | 97 |

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_14.D
Acq On : 09 Apr 2019 02:09 pm
Operator : CORTEX\ms
Client ID : BFB TUNE
Lab ID : 1ppb cc
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 09:42:49 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:42:38 2019
Response via : Initial Calibration

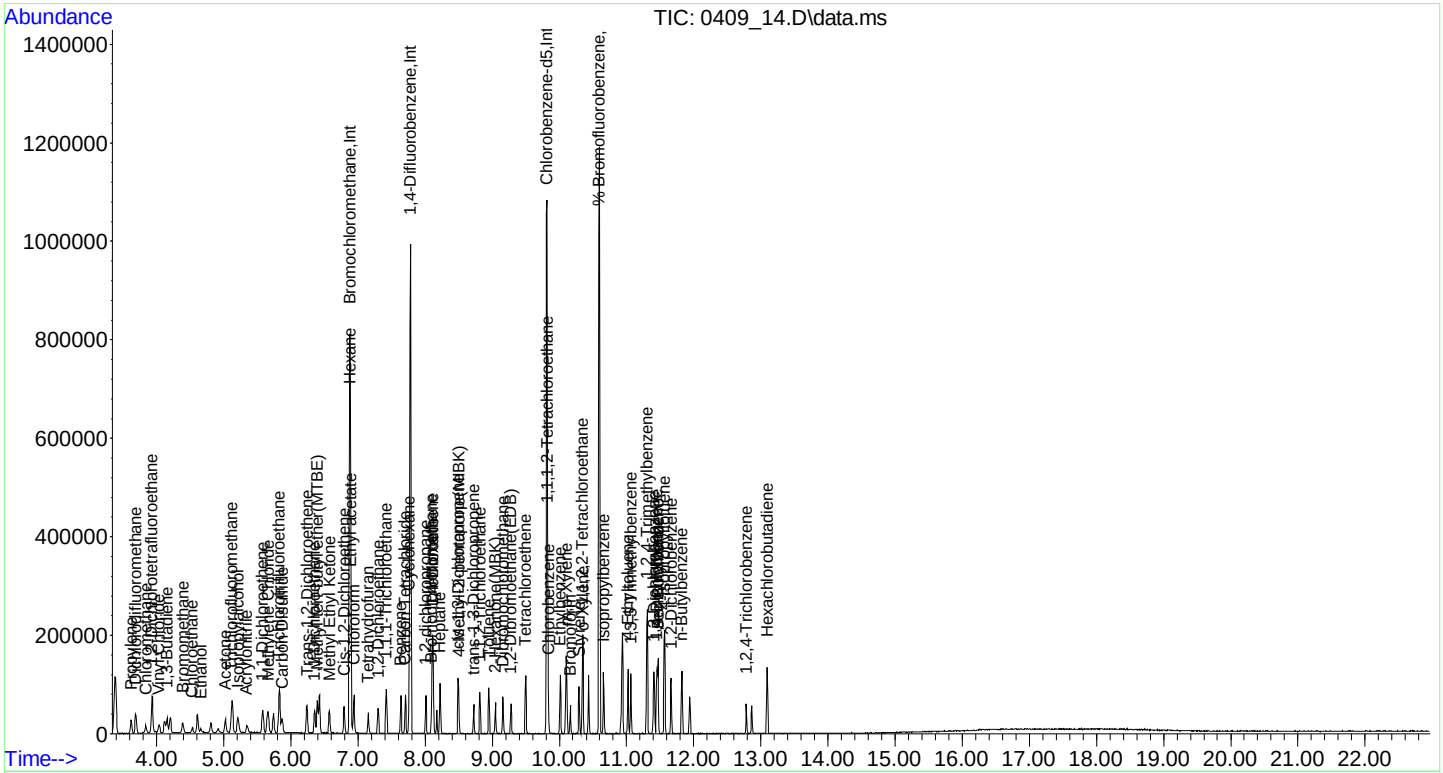
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|

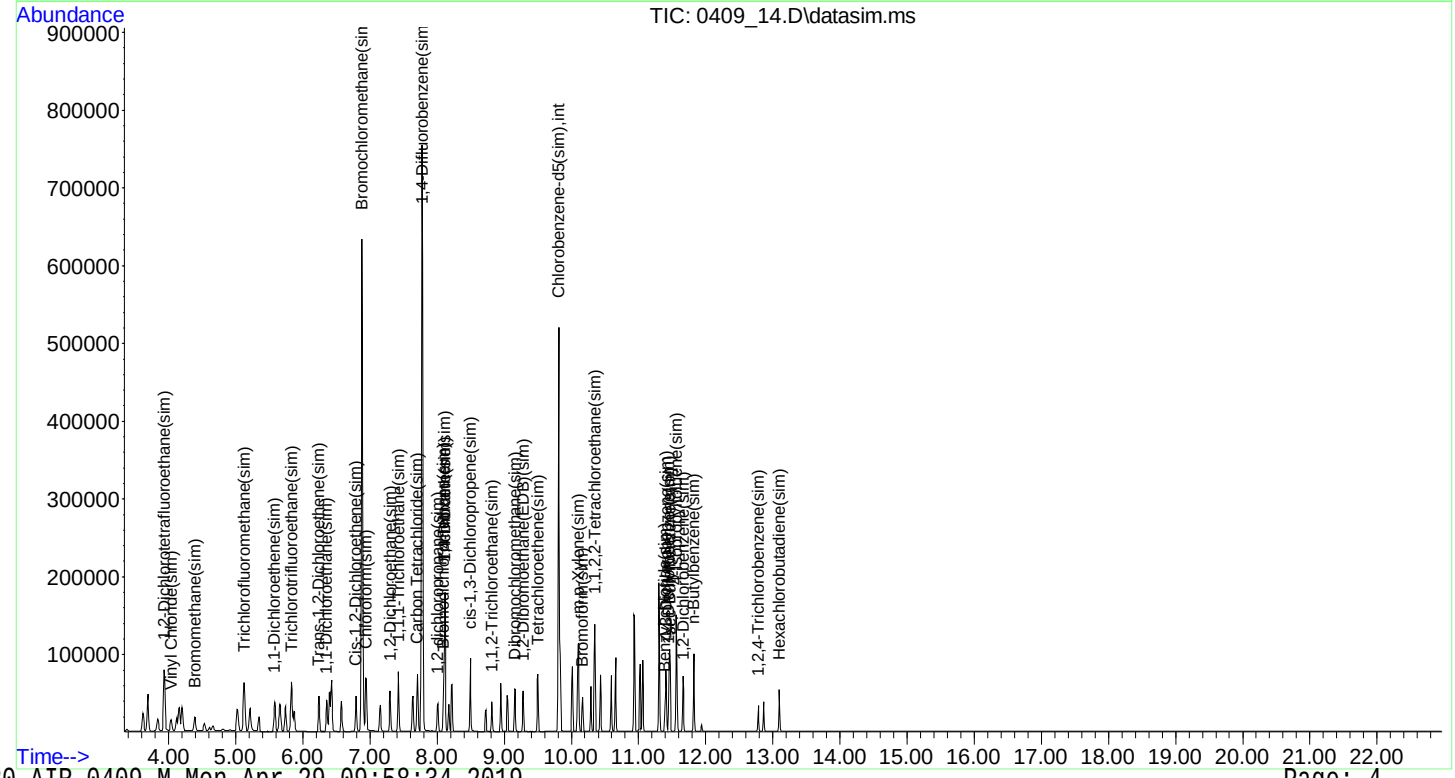
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_14.D
Acq On : 09 Apr 2019 02:09 pm
Operator : CORTEX\ms
Client ID : BFB TUNE
Lab ID : 1ppb cc
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 09:42:49 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:42:38 2019
Response via : Initial Calibration



Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_15.D
Acq On : 09 Apr 2019 02:47 pm
Operator : CORTEX\ms
Client ID : ICAL 0.2
Lab ID : 0.2ppb
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 09:07:26 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.871 | 130 | 140705 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.772 | 114 | 434962 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.807 | 82 | 200316 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.874 | 130 | 188865 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 495973 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 203542 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 266637 | 10.153 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 101.50% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Propylene | 3.606 | 41 | 3801 | 0.229 | ppbv | | 88 |
| 3) Dichlorodifluoromethane | 3.679 | 85 | 7761 | 0.215 | ppbv | # | 92 |
| 4) Chloromethane | 3.833 | 50 | 3187 | 0.211 | ppbv | | 87 |
| 5) 1,2-Dichlorotetrafluor... | 3.922 | 85 | 7204 | 0.205 | ppbv | | 96 |
| 6) Vinyl Chloride | 4.027 | 62 | 2975 | 0.203 | ppbv | | 92 |
| 7) 1,3-Butadiene | 4.149 | 54 | 2445 | 0.198 | ppbv | # | 70 |
| 8) Bromomethane | 4.384 | 94 | 2564 | 0.209 | ppbv | # | 91 |
| 9) Chloroethane | 4.522 | 64 | 1379 | 0.201 | ppbv | | 92 |
| 11) Ethanol | 4.660 | 45 | 1513 | 0.250 | ppbv | # | 84 |
| 12) Acetone | 5.025 | 43 | 7511 | 0.239 | ppbv | # | 82 |
| 13) Trichlorofluoromethane | 5.114 | 101 | 9815 | 0.208 | ppbv | | 95 |
| 14) Isopropylalcohol | 5.212 | 45 | 7730 | 0.233 | ppbv | # | 89 |
| 15) Acrylonitrile | 5.341 | 53 | 1694 | 0.207 | ppbv | | 91 |
| 16) 1,1-Dichloroethene | 5.566 | 61 | 6190 | 0.218 | ppbv | # | 77 |
| 17) Methylene Chloride | 5.655 | 49 | 5043 | 0.239 | ppbv | # | 54 |
| 20) Carbon Disulfide | 5.864 | 76 | 6969 | 0.226 | ppbv | | 96 |
| 21) Trichlorotrifluoroethane | 5.822 | 101 | 5789 | 0.207 | ppbv | # | 89 |
| 22) Trans-1,2-Dichloroethene | 6.234 | 61 | 4803 | 0.200 | ppbv | # | 80 |
| 23) 1,1-Dichloroethane | 6.349 | 63 | 6226 | 0.209 | ppbv | | 93 |
| 24) Methyl tert-butyl ethe... | 6.396 | 73 | 7376 | 0.201 | ppbv | # | 66 |
| 25) Methyl Ethyl Ketone | 6.573 | 43 | 8205 | 0.207 | ppbv | # | 77 |
| 26) Cis-1,2-Dichloroethene | 6.786 | 61 | 4848 | 0.210 | ppbv | # | 72 |
| 27) Hexane | 6.887 | 57 | 4923 | 0.216 | ppbv | # | 82 |
| 28) Chloroform | 6.933 | 83 | 6827 | 0.209 | ppbv | | 89 |
| 29) Ethyl acetate | 6.894 | 61 | 817 | 0.185 | ppbv | # | 65 |
| 30) Tetrahydrofuran | 7.158 | 42 | 3386 | 0.203 | ppbv | # | 59 |
| 31) 1,2-Dichloroethane | 7.297 | 62 | 5983 | 0.214 | ppbv | # | 89 |
| 32) 1,1,1-Trichloroethane | 7.414 | 97 | 6763 | 0.212 | ppbv | # | 90 |
| 33) Benzene | 7.636 | 78 | 6087 | 0.197 | ppbv | # | 83 |
| 34) Carbon Tetrachloride | 7.704 | 117 | 5195 | 0.195 | ppbv | | 95 |
| 35) Cyclohexane | 7.763 | 41 | 2697 | 0.217 | ppbv | # | 1 |
| 37) 1,2-dichloropropane | 8.009 | 63 | 2533 | 0.181 | ppbv | # | 79 |
| 38) Bromodichloromethane | 8.094 | 83 | 5863 | 0.206 | ppbv | | 92 |
| 39) Trichloroethene | 8.111 | 130 | 3273 | 0.200 | ppbv | | 95 |
| 41) 1,4-Dioxane | 8.111 | 88 | 1357 | 0.200 | ppbv | # | 61 |
| 43) Heptane | 8.221 | 43 | 4342 | 0.198 | ppbv | # | 67 |
| 44) cis-1,3-Dichloropropene | 8.492 | 75 | 3046 | 0.172 | ppbv | | 98 |
| 45) 4-Methyl-2-pentanone(M... | 8.500 | 43 | 5911 | 0.197 | ppbv | # | 80 |
| 46) trans-1,3-Dichloropropene | 8.723 | 75 | 2843 | 0.166 | ppbv | | 95 |
| 47) 1,1,2-Trichloroethane | 8.815 | 97 | 2660 | 0.193 | ppbv | | 93 |
| 48) Toluene | 8.948 | 91 | 6268 | 0.176 | ppbv | # | 96 |
| 49) Dibromochloromethane | 9.160 | 129 | 4182 | 0.198 | ppbv | | 96 |
| 50) 2-Hexanone(MBK) | 9.047 | 43 | 4613 | 0.169 | ppbv | # | 89 |
| 51) 1,2-Dibromoethane(EDB) | 9.279 | 107 | 4242 | 0.183 | ppbv | | 99 |

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_15.D
Acq On : 09 Apr 2019 02:47 pm
Operator : CORTEX\ms
Client ID : ICAL 0.2
Lab ID : 0.2ppb
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 09:07:26 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 52) Tetrachloroethene | 9.497 | 166 | 3392 | 0.196 | ppbv | 92 |
| 54) 1,1,1,2-Tetrachloroethane | 9.822 | 131 | 2763 | 0.179 | ppbv | 97 |
| 55) Chlorobenzene | 9.830 | 112 | 6621 | 0.216 | ppbv# | 41 |
| 56) Ethylbenzene | 10.012 | 91 | 9216 | 0.194 | ppbv | 94 |
| 57) m,p-Xylene | 10.103 | 91 | 14007 | 0.387 | ppbv | 94 |
| 58) Bromoform | 10.164 | 173 | 2774 | 0.215 | ppbv | 95 |
| 59) Styrene | 10.292 | 104 | 4662 | 0.177 | ppbv# | 92 |
| 60) 1,1,2,2-Tetrachloroethane | 10.346 | 83 | 5490 | 0.202 | ppbv | 89 |
| 61) o-Xylene | 10.353 | 91 | 7149 | 0.189 | ppbv | 99 |
| 64) Isopropylbenzene | 10.656 | 105 | 10173 | 0.204 | ppbv# | 91 |
| 66) 4-Ethyltoluene | 11.021 | 105 | 8988 | 0.179 | ppbv# | 89 |
| 67) 1,3,5-Trimethylbenzene | 11.066 | 105 | 8327 | 0.193 | ppbv | 97 |
| 68) 1,2,4-Trimethylbenzene | 11.309 | 105 | 7465 | 0.177 | ppbv | 92 |
| 70) Benzyl chloride | 11.469 | 91 | 1975 | 0.616 | ppbv# | 65 |
| 71) 1,3-Dichlorobenzene | 11.408 | 146 | 5653 | 0.201 | ppbv# | 90 |
| 72) 1,4-Dichlorobenzene | 11.453 | 146 | 5675 | 0.205 | ppbv | 97 |
| 73) sec-Butylbenzene | 11.469 | 105 | 10923 | 0.185 | ppbv | 96 |
| 74) 4-Isopropyltoluene | 11.560 | 119 | 8866 | 0.172 | ppbv# | 91 |
| 75) 1,2-Dichlorobenzene | 11.666 | 146 | 5107 | 0.191 | ppbv# | 92 |
| 76) n-Butylbenzene | 11.826 | 91 | 6633 | 0.143 | ppbv | 95 |
| 77) 1,2,4-Trichlorobenzene | 12.782 | 180 | 2126 | 0.202 | ppbv# | 87 |
| 79) Hexachlorobutadiene | 13.094 | 225 | 2129 | 0.190 | ppbv | 90 |
| 81] 1,2-Dichlorotetrafluor... | 3.922 | 85 | 7204 | 0.187 | ppbv | 96 |
| 82] Vinyl Chloride(sim) | 4.022 | 62 | 3480 | 0.191 | ppbv | 96 |
| 83] Bromomethane(sim) | 4.384 | 94 | 2564 | 0.169 | ppbv# | 91 |
| 84] Trichlorofluoromethane... | 5.117 | 101 | 12026 | 0.191 | ppbv | 99 |
| 85] 1,2-Dichloroethane(sim) | 7.297 | 62 | 5983 | 0.196 | ppbv# | 89 |
| 86] 1,1,1-Trichloroethane(... | 7.417 | 97 | 8324 | 0.208 | ppbv# | 90 |
| 87] Carbon Tetrachloride(sim) | 7.704 | 117 | 5195 | 0.211 | ppbv | 95 |
| 88] 1,1-Dichloroethene(sim) | 5.575 | 61 | 6842 | 0.192 | ppbv# | 71 |
| 89] Trichlorotrifluoroetha... | 5.822 | 101 | 5789 | 0.183 | ppbv | 96 |
| 90] Trans-1,2-Dichloroethe... | 6.231 | 61 | 5766 | 0.191 | ppbv# | 79 |
| 91] 1,1-Dichloroethane(sim) | 6.349 | 63 | 6226 | 0.188 | ppbv# | 93 |
| 92] Cis-1,2-Dichloroethene... | 6.789 | 61 | 5529 | 0.194 | ppbv# | 76 |
| 93] Chloroform(sim) | 6.933 | 83 | 6827 | 0.191 | ppbv# | 89 |
| 95] 1,2-dichloropropane(sim) | 8.009 | 63 | 2533 | 0.172 | ppbv# | 79 |
| 96] Bromodichloromethane(sim) | 8.097 | 85 | 4398 | 0.214 | ppbv | 99 |
| 97] Trichloroethene(sim) | 8.111 | 130 | 3273 | 0.183 | ppbv | 96 |
| 98] 1,4-Dioxane(sim) | 8.114 | 88 | 1570 | 0.197 | ppbv# | 70 |
| 99] cis-1,3-Dichloropropen... | 8.492 | 75 | 3046 | 0.195 | ppbv | 98 |
| 100] 1,1,2-Trichloroethane(... | 8.818 | 97 | 3243 | 0.193 | ppbv | 94 |
| 101] Dibromochloromethane(sim) | 9.160 | 129 | 4182 | 0.213 | ppbv | 97 |
| 102] 1,2-Dibromoethane(EDB)... | 9.282 | 107 | 5333 | 0.205 | ppbv | 99 |
| 103] Tetrachloroethene(sim) | 9.497 | 166 | 3392 | 0.174 | ppbv | 92 |
| 105] Bromoform(sim) | 10.164 | 173 | 2774 | 0.228 | ppbv | 95 |
| 106] m,p-Xylene(sim) | 10.098 | 91 | 14943 | 0.397 | ppbv | 94 |
| 107] 1,1,2,2-Tetrachloroeth... | 10.346 | 83 | 5490 | 0.204 | ppbv | 93 |
| 110] Benzyl chloride(sim) | 11.396 | 91 | 3080 | 0.252 | ppbv | 92 |
| 111] 1,3-Dichlorobenzene(sim) | 11.408 | 146 | 5653 | 0.225 | ppbv# | 90 |
| 112] 1,4-Dichlorobenzene(sim) | 11.449 | 146 | 6859 | 0.238 | ppbv | 95 |
| 113] sec-Butylbenzene(sim) | 11.469 | 105 | 10924 | 0.204 | ppbv | 96 |
| 114] 4-Isopropyltoluene(sim) | 11.563 | 119 | 8827 | 0.195 | ppbv# | 90 |
| 115] 1,2-Dichlorobenzene(sim) | 11.666 | 146 | 5107 | 0.222 | ppbv | 92 |
| 116] n-Butylbenzene(sim) | 11.821 | 91 | 7372 | 0.193 | ppbv | 93 |
| 117] 1,2,4-Trichlorobenzene... | 12.782 | 180 | 2126 | 0.271 | ppbv | 87 |
| 119] Hexachlorobutadiene(sim) | 13.094 | 225 | 2129 | 0.181 | ppbv | 90 |

Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_15.D
Acq On : 09 Apr 2019 02:47 pm
Operator : CORTEX\ms
Client ID : ICAL 0.2
Lab ID : 0.2ppb
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 09:07:26 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration

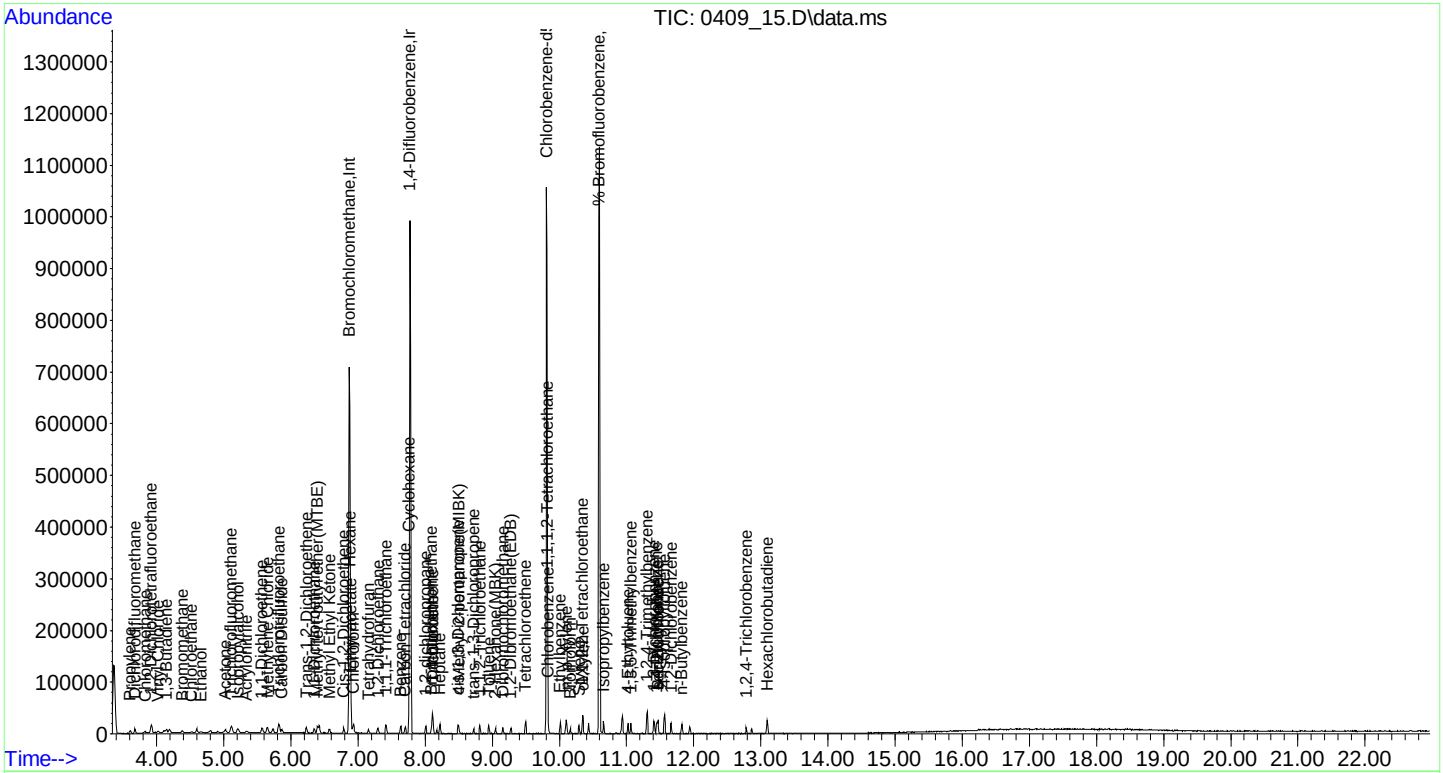
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|

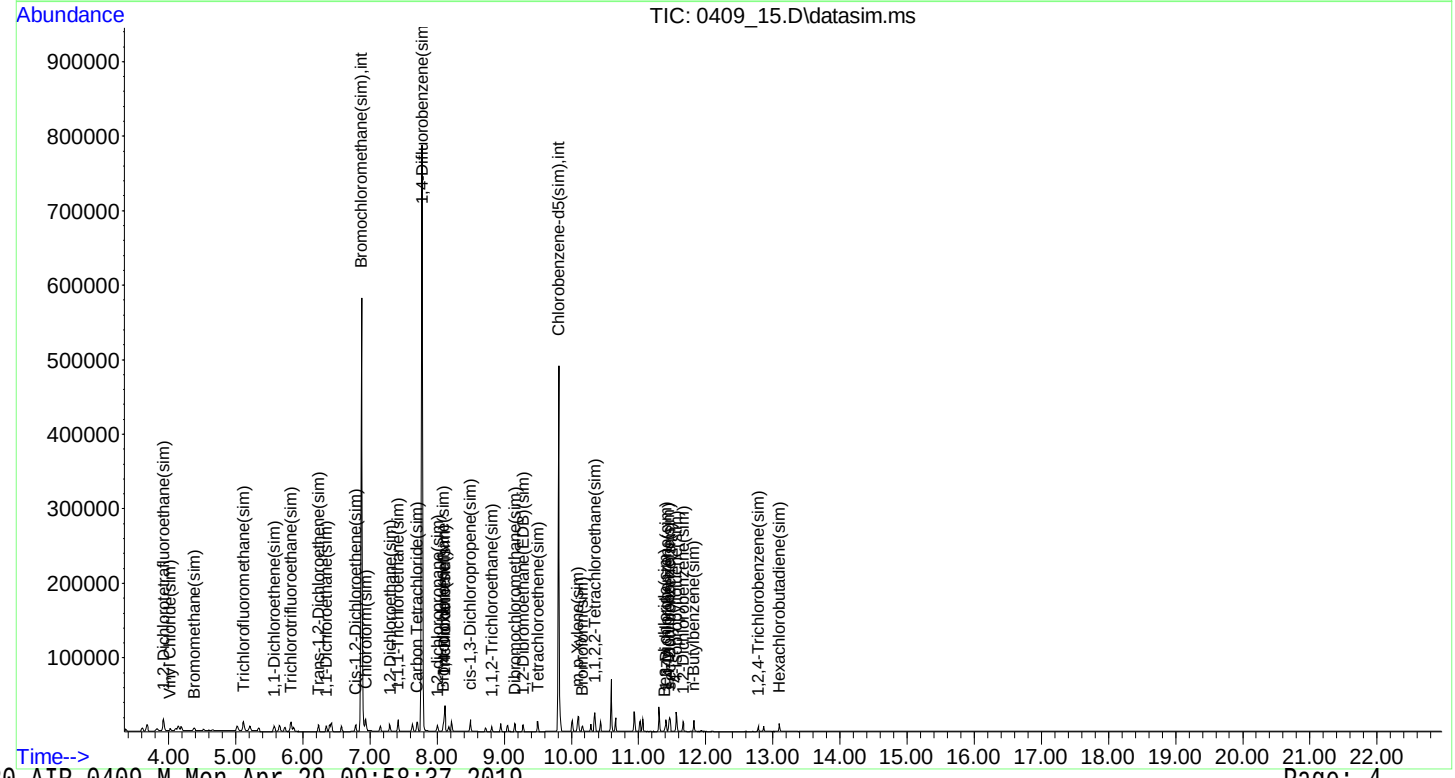
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_15.D
Acq On : 09 Apr 2019 02:47 pm
Operator : CORTEX\ms
Client ID : ICAL 0.2
Lab ID : 0.2ppb
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 09:07:26 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration



Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_16.D
Acq On : 09 Apr 2019 03:24 pm
Operator : CORTEX\ms
Client ID : ICAL 10
Lab ID : 10ppb cc
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 09:08:04 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.879 | 130 | 143775 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.780 | 114 | 421079 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.815 | 82 | 202928 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.882 | 130 | 192284 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 473322 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 212132 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 274370 | 10.313 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 103.10% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Propylene | 3.597 | 41 | 172629 | 10.191 | ppbv | | 97 |
| 3) Dichlorodifluoromethane | 3.670 | 85 | 373294 | 10.125 | ppbv | # | 96 |
| 4) Chloromethane | 3.816 | 50 | 159552 | 10.360 | ppbv | | 98 |
| 5) 1,2-Dichlorotetrafluor... | 3.922 | 85 | 371361 | 10.355 | ppbv | | 92 |
| 6) Vinyl Chloride | 4.019 | 62 | 154920 | 10.356 | ppbv | | 94 |
| 7) 1,3-Butadiene | 4.141 | 54 | 136778 | 10.852 | ppbv | | 89 |
| 8) Bromomethane | 4.376 | 94 | 131081 | 10.468 | ppbv | # | 97 |
| 9) Chloroethane | 4.522 | 64 | 72025 | 10.259 | ppbv | | 86 |
| 11) Ethanol | 4.636 | 45 | 61778 | 9.986 | ppbv | | 97 |
| 12) Acetone | 5.001 | 43 | 329486 | 10.250 | ppbv | | 90 |
| 13) Trichlorofluoromethane | 5.114 | 101 | 504650 | 10.467 | ppbv | | 99 |
| 14) Isopropylalcohol | 5.187 | 45 | 339007 | 10.009 | ppbv | # | 97 |
| 15) Acrylonitrile | 5.341 | 53 | 96964 | 11.573 | ppbv | | 97 |
| 16) 1,1-Dichloroethene | 5.572 | 61 | 302816 | 10.446 | ppbv | # | 74 |
| 17) Methylene Chloride | 5.655 | 49 | 224864 | 10.437 | ppbv | # | 57 |
| 20) Carbon Disulfide | 5.864 | 76 | 320354 | 10.162 | ppbv | | 99 |
| 21) Trichlorotrifluoroethane | 5.822 | 101 | 293581 | 10.295 | ppbv | | 89 |
| 22) Trans-1,2-Dichloroethene | 6.234 | 61 | 262531 | 10.677 | ppbv | # | 78 |
| 23) 1,1-Dichloroethane | 6.354 | 63 | 316479 | 10.389 | ppbv | | 95 |
| 24) Methyl tert-butyl ethe... | 6.380 | 73 | 401061 | 10.700 | ppbv | # | 72 |
| 25) Methyl Ethyl Ketone | 6.562 | 43 | 434704 | 10.746 | ppbv | # | 77 |
| 26) Cis-1,2-Dichloroethene | 6.794 | 61 | 251371 | 10.647 | ppbv | # | 72 |
| 27) Hexane | 6.887 | 57 | 248049 | 10.670 | ppbv | # | 82 |
| 28) Chloroform | 6.941 | 83 | 349523 | 10.456 | ppbv | | 92 |
| 29) Ethyl acetate | 6.887 | 61 | 51298 | 11.359 | ppbv | # | 74 |
| 30) Tetrahydrofuran | 7.135 | 42 | 189727 | 11.147 | ppbv | # | 61 |
| 31) 1,2-Dichloroethane | 7.297 | 62 | 302411 | 10.607 | ppbv | # | 91 |
| 32) 1,1,1-Trichloroethane | 7.421 | 97 | 350018 | 10.732 | ppbv | # | 92 |
| 33) Benzene | 7.636 | 78 | 335586 | 10.644 | ppbv | # | 87 |
| 34) Carbon Tetrachloride | 7.704 | 117 | 317996 | 11.693 | ppbv | | 98 |
| 35) Cyclohexane | 7.763 | 41 | 134971 | 10.650 | ppbv | # | 45 |
| 37) 1,2-dichloropropane | 8.009 | 63 | 143515 | 10.591 | ppbv | # | 83 |
| 38) Bromodichloromethane | 8.094 | 83 | 293810 | 10.654 | ppbv | | 98 |
| 39) Trichloroethene | 8.111 | 130 | 159245 | 10.073 | ppbv | | 90 |
| 41) 1,4-Dioxane | 8.102 | 88 | 69269 | 10.542 | ppbv | # | 67 |
| 43) Heptane | 8.221 | 43 | 230294 | 10.844 | ppbv | # | 71 |
| 44) cis-1,3-Dichloropropene | 8.492 | 75 | 193934 | 11.298 | ppbv | | 97 |
| 45) 4-Methyl-2-pentanone(M... | 8.492 | 43 | 321343 | 11.048 | ppbv | # | 83 |
| 46) trans-1,3-Dichloropropene | 8.723 | 75 | 191358 | 11.548 | ppbv | | 95 |
| 47) 1,1,2-Trichloroethane | 8.815 | 97 | 137906 | 10.358 | ppbv | | 91 |
| 48) Toluene | 8.948 | 91 | 381801 | 11.058 | ppbv | | 98 |
| 49) Dibromochloromethane | 9.160 | 129 | 211265 | 10.353 | ppbv | | 97 |
| 50) 2-Hexanone(MBK) | 9.040 | 43 | 298193 | 11.254 | ppbv | # | 89 |
| 51) 1,2-Dibromoethane(EDB) | 9.279 | 107 | 240739 | 10.722 | ppbv | | 99 |

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_16.D
Acq On : 09 Apr 2019 03:24 pm
Operator : CORTEX\ms
Client ID : ICAL 10
Lab ID : 10ppb cc
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 09:08:04 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 52) | Tetrachloroethene | 9.497 | 166 | 175496 | 10.496 | ppbv# | 88 |
| 54) | 1,1,1,2-Tetrachloroethane | 9.822 | 131 | 185560 | 11.889 | ppbv | 98 |
| 55) | Chlorobenzene | 9.837 | 112 | 318611 | 10.266 | ppbv | 95 |
| 56) | Ethylbenzene | 10.012 | 91 | 529052 | 11.006 | ppbv | 96 |
| 57) | m,p-Xylene | 10.103 | 91 | 829719 | 22.614 | ppbv | 94 |
| 58) | Bromoform | 10.164 | 173 | 67101 | 5.137 | ppbv | 99 |
| 59) | Styrene | 10.292 | 104 | 298467 | 11.199 | ppbv# | 86 |
| 60) | 1,1,2,2-Tetrachloroethane | 10.345 | 83 | 299889 | 10.899 | ppbv | 91 |
| 61) | o-Xylene | 10.353 | 91 | 419421 | 10.925 | ppbv | 95 |
| 64) | Isopropylbenzene | 10.656 | 105 | 547216 | 10.835 | ppbv | 95 |
| 66) | 4-Ethyltoluene | 11.021 | 105 | 572245 | 11.260 | ppbv | 96 |
| 67) | 1,3,5-Trimethylbenzene | 11.066 | 105 | 479815 | 10.965 | ppbv | 95 |
| 68) | 1,2,4-Trimethylbenzene | 11.309 | 105 | 485436 | 11.330 | ppbv | 95 |
| 70) | Benzyl chloride | 11.400 | 91 | 327588 | 10.873 | ppbv | 93 |
| 71) | 1,3-Dichlorobenzene | 11.408 | 146 | 311408 | 10.917 | ppbv | 94 |
| 72) | 1,4-Dichlorobenzene | 11.453 | 146 | 303581 | 10.844 | ppbv | 96 |
| 73) | sec-Butylbenzene | 11.469 | 105 | 658073 | 11.016 | ppbv | 97 |
| 74) | 4-Isopropyltoluene | 11.560 | 119 | 586440 | 11.261 | ppbv | 95 |
| 75) | 1,2-Dichlorobenzene | 11.666 | 146 | 293411 | 10.822 | ppbv | 96 |
| 76) | n-Butylbenzene | 11.826 | 91 | 544073 | 11.586 | ppbv | 97 |
| 77) | 1,2,4-Trichlorobenzene | 12.782 | 180 | 132953 | 12.469 | ppbv# | 94 |
| 79) | Hexachlorobutadiene | 13.094 | 225 | 128204 | 11.279 | ppbv | 98 |
| 81] | 1,2-Dichlorotetrafluor... | 3.922 | 85 | 371165 | 9.486 | ppbv | 92 |
| 82] | Vinyl Chloride(sim) | 4.022 | 62 | 175867 | 9.488 | ppbv | 95 |
| 83] | Bromomethane(sim) | 4.376 | 94 | 131081 | 8.493 | ppbv# | 97 |
| 84] | Trichlorofluoromethane... | 5.117 | 101 | 602464 | 9.388 | ppbv | 99 |
| 85] | 1,2-Dichloroethane(sim) | 7.297 | 62 | 302411 | 9.734 | ppbv# | 91 |
| 86] | 1,1,1-Trichloroethane(... | 7.424 | 97 | 428854 | 10.509 | ppbv# | 91 |
| 87] | Carbon Tetrachloride(sim) | 7.704 | 117 | 317996 | 12.693 | ppbv | 98 |
| 88] | 1,1-Dichloroethene(sim) | 5.575 | 61 | 347619 | 9.562 | ppbv# | 70 |
| 89] | Trichlorotrifluoroetha... | 5.822 | 101 | 293581 | 9.120 | ppbv | 100 |
| 90] | Trans-1,2-Dichloroethe... | 6.237 | 61 | 304613 | 9.889 | ppbv# | 78 |
| 91] | 1,1-Dichloroethane(sim) | 6.354 | 63 | 316479 | 9.376 | ppbv | 95 |
| 92] | Cis-1,2-Dichloroethene... | 6.789 | 61 | 292463 | 10.073 | ppbv# | 74 |
| 93] | Chloroform(sim) | 6.941 | 83 | 349523 | 9.594 | ppbv# | 92 |
| 95] | 1,2-dichloropropane(sim) | 8.009 | 63 | 143515 | 10.214 | ppbv# | 83 |
| 96] | Bromodichloromethane(sim) | 8.097 | 85 | 223909 | 11.391 | ppbv | 98 |
| 97] | Trichloroethene(sim) | 8.111 | 130 | 159245 | 9.339 | ppbv | 93 |
| 98] | 1,4-Dioxane(sim) | 8.105 | 88 | 75193 | 9.903 | ppbv# | 68 |
| 99] | cis-1,3-Dichloropropen... | 8.492 | 75 | 193934 | 13.042 | ppbv | 97 |
| 100] | 1,1,2-Trichloroethane(... | 8.818 | 97 | 168754 | 10.527 | ppbv | 95 |
| 101] | Dibromochloromethane(sim) | 9.160 | 129 | 211265 | 11.255 | ppbv | 97 |
| 102] | 1,2-Dibromoethane(EDB)... | 9.282 | 107 | 292155 | 11.753 | ppbv | 98 |
| 103] | Tetrachloroethene(sim) | 9.497 | 166 | 175496 | 9.440 | ppbv | 88 |
| 105] | Bromoform(sim) | 10.164 | 173 | 67101 | 5.301 | ppbv | 99 |
| 106] | m,p-Xylene(sim) | 10.098 | 91 | 870309 | 16.714 | ppbv | 94 |
| 107] | 1,1,2,2-Tetrachloroeth... | 10.345 | 83 | 299889 | 10.667 | ppbv | 97 |
| 110] | Benzyl chloride(sim) | 11.396 | 91 | 345877 | 8.453 | ppbv | 93 |
| 111] | 1,3-Dichlorobenzene(sim) | 11.408 | 146 | 311408 | 11.873 | ppbv | 94 |
| 112] | 1,4-Dichlorobenzene(sim) | 11.449 | 146 | 376780 | 12.546 | ppbv | 96 |
| 113] | sec-Butylbenzene(sim) | 11.469 | 105 | 657764 | 8.246 | ppbv | 97 |
| 114] | 4-Isopropyltoluene(sim) | 11.563 | 119 | 569511 | 8.241 | ppbv | 93 |
| 115] | 1,2-Dichlorobenzene(sim) | 11.666 | 146 | 293411 | 12.230 | ppbv | 96 |
| 116] | n-Butylbenzene(sim) | 11.821 | 91 | 572374 | 8.084 | ppbv | 95 |
| 117] | 1,2,4-Trichlorobenzene... | 12.782 | 180 | 132953 | 9.281 | ppbv | 94 |
| 119] | Hexachlorobutadiene(sim) | 13.094 | 225 | 128204 | 10.449 | ppbv | 98 |

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_16.D
Acq On : 09 Apr 2019 03:24 pm
Operator : CORTEX\ms
Client ID : ICAL 10
Lab ID : 10ppb cc
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 09:08:04 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration

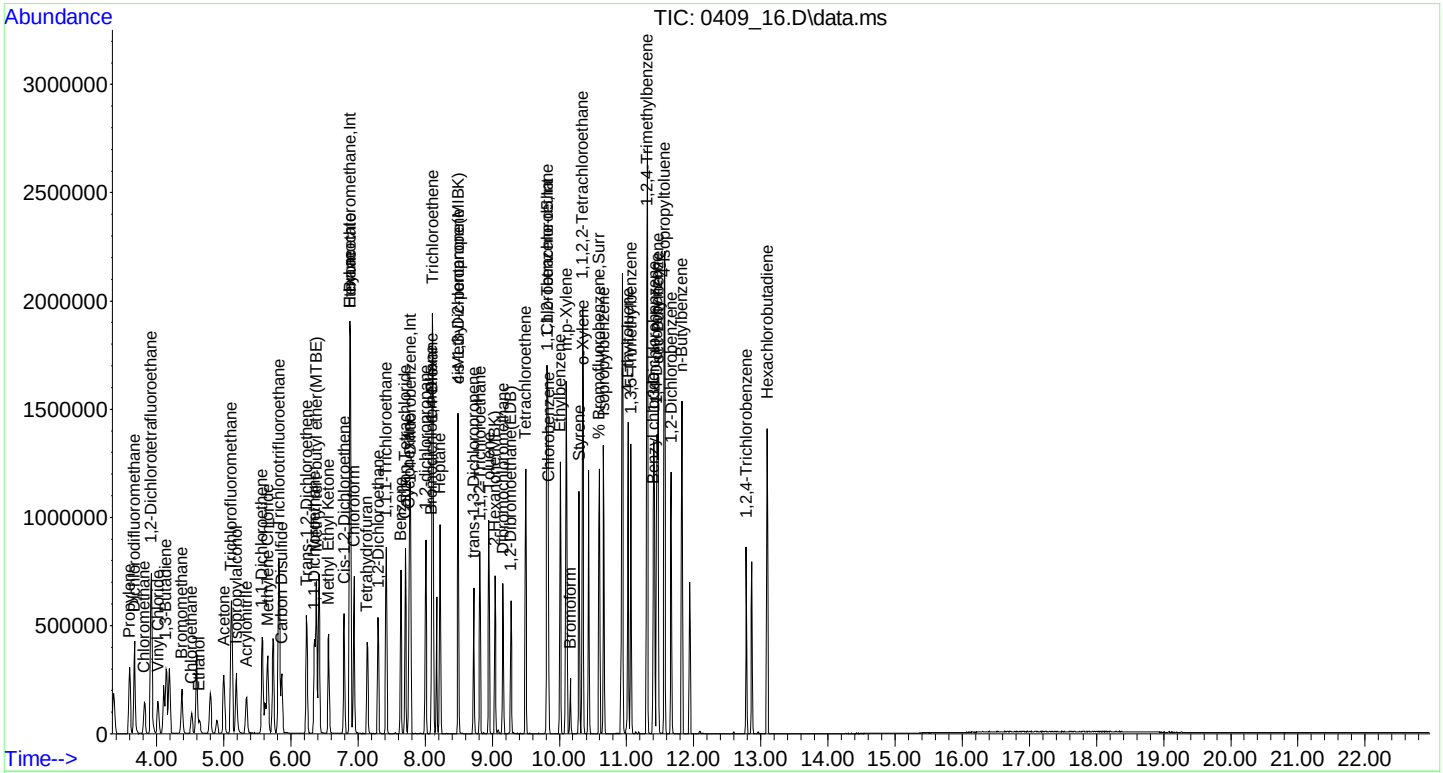
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|

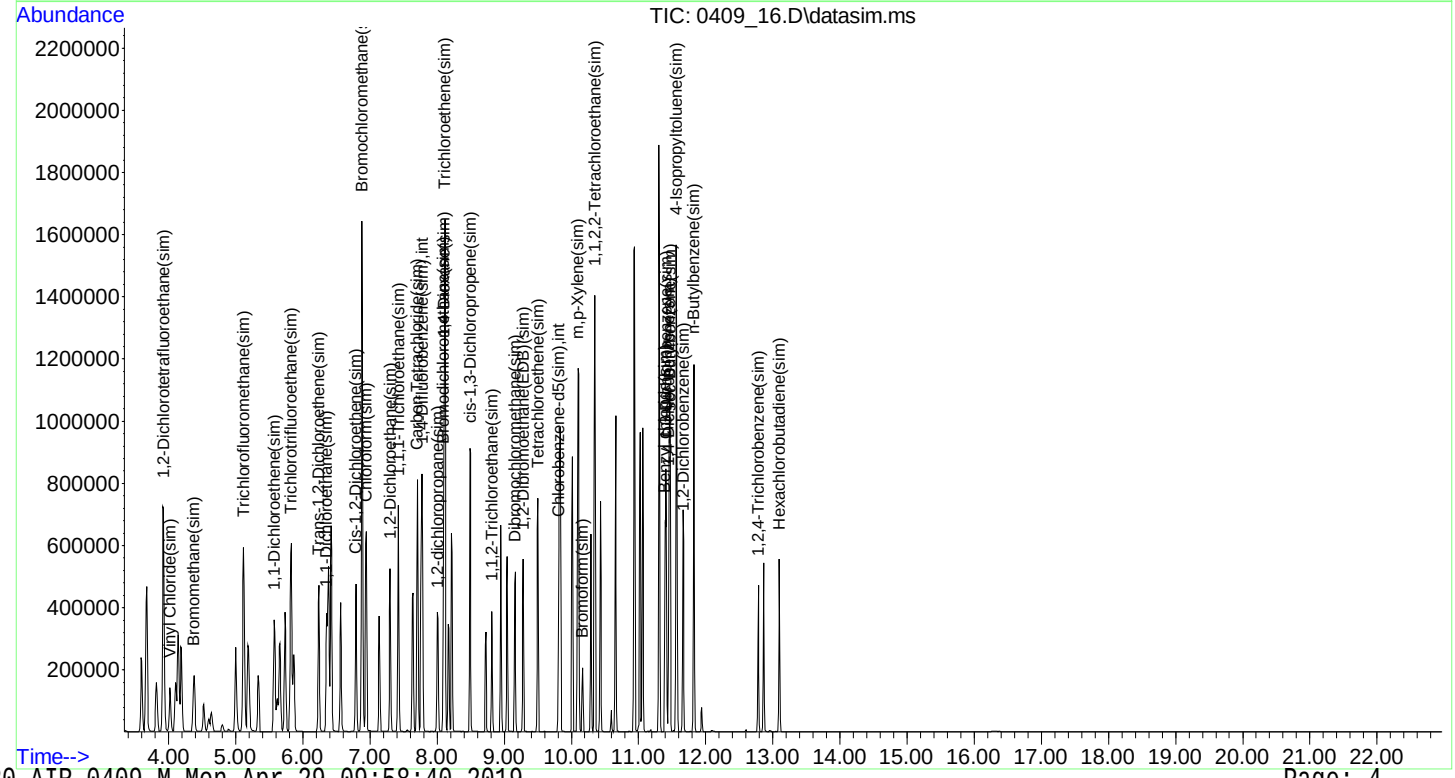
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_16.D
Acq On : 09 Apr 2019 03:24 pm
Operator : CORTEX\ms
Client ID : ICAL 10
Lab ID : 10ppb cc
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 09:08:04 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration



7A
AIR CONTINUING CALIBRATION CHECK

Lab Name: Phoenix Environmental Labs Client: WALDENE

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCC90508

Instrument: CHEM20 Calibration Date: 04/09/19 Time: 14:09

Lab File Id: 0409_14.D Init. Calib. Date(s): 04/09/19 04/09/19

Heated Purge (Y/N): Y Init. Calib. Times: 07:45 15:24

GC Column: RTX-1 60M Method File: 20_AIR_0409.M

| COMPOUND | RRF | RRF50 | RRF MIN | %D | % D LIMITS |
|---|---|---|---|---|---|
| Propylene | 1.178 | 1.150 | | 2.4 | 30 |
| Dichlorodifluoromethane | 2.564 | 2.556 | | 0.3 | 30 |
| Chloromethane | 1.071 | 1.155 | | -7.8 | 30 |
| 1,2-Dichlorotetrafluoroethane | 2.494 | 2.689 | | -7.8 | 30 |
| Vinyl Chloride | 1.041 | 1.160 | | -11.4 | 30 |
| 1,3-Butadiene | 0.877 | 0.896 | | -2.2 | 30 |
| Bromomethane | 0.871 | 0.958 | | -10.0 | 30 |
| Chloroethane | 0.488 | 0.525 | | -7.6 | 30 |
| Ethanol | 0.430 | 0.482 | | -12.1 | 30 |
| Acetone | 2.236 | 2.356 | | -5.4 | 30 |
| Trichlorofluoromethane | 3.354 | 3.608 | | -7.6 | 30 |
| Isopropylalcohol | 2.356 | 2.590 | | -9.9 | 30 |
| Acrylonitrile | 0.583 | 0.560 | | 3.9 | 30 |
| 1,1-Dichloroethene | 2.016 | 2.128 | | -5.6 | 30 |
| Methylene Chloride | 1.499 | 1.554 | | -3.7 | 30 |
| Carbon Disulfide | 2.193 | 2.381 | | -8.6 | 30 |
| Trichlorotrifluoroethane | 1.983 | 2.149 | | -8.4 | 30 |
| Trans-1,2-Dichloroethene | 1.710 | 1.817 | | -6.3 | 30 |
| 1,1-Dichloroethane | 2.119 | 2.326 | | -9.8 | 30 |
| Methyl tert-butyl ether(MTBE) | 2.607 | 2.808 | | -7.7 | 30 |
| Methyl Ethyl Ketone | 2.814 | 3.061 | | -8.8 | 30 |
| Cis-1,2-Dichloroethene | 1.642 | 1.763 | | -7.4 | 30 |
| Hexane | 1.617 | 1.760 | | -8.8 | 30 |
| Chloroform | 2.325 | 2.544 | | -9.4 | 30 |
| Ethyl acetate | 0.314 | 0.343 | | -9.2 | 30 |
| Tetrahydrofuran | 1.184 | 1.275 | | -7.7 | 30 |
| 1,2-Dichloroethane | 1.983 | 2.109 | | -6.4 | 30 |
| 1,1,1-Trichloroethane | 2.269 | 2.510 | | -10.6 | 30 |
| Benzene | 2.193 | 2.426 | | -10.6 | 30 |
| Carbon Tetrachloride | 1.892 | 2.104 | | -11.2 | 30 |
| Cyclohexane | 0.881 | 0.931 | | -5.7 | 30 |
| 1,2-dichloropropane | 0.322 | 0.327 | | -1.6 | 30 |
| Bromodichloromethane | 0.655 | 0.678 | | -3.5 | 30 |
| Trichloroethene | 0.375 | 0.381 | | -1.6 | 30 |
| 1,4-Dioxane | 0.156 | 0.158 | | -1.3 | 30 |
| Heptane | 0.504 | 0.518 | | -2.8 | 30 |

(#) Maximum %D not met.

7B
AIR CONTINUING CALIBRATION CHECK

Lab Name: Phoenix Environmental Labs Client: WALDENE

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCC90508

Instrument: CHEM20 Calibration Date: 04/09/19 Time: 14:09

Lab File Id: 0409_14.D Init. Calib. Date(s): 04/09/19 04/09/19

Heated Purge (Y/N): Y Init. Calib. Times: 07:45 15:24

GC Column: RTX-1 60M Method File: 20_AIR_0409.M

| COMPOUND | RRF | RRF50 | RRF MIN | %D | % D LIMITS |
|---|---|---|---|---|---|
| cis-1,3-Dichloropropene | 0.408 | 0.409 | | -0.2 | 30 |
| 4-Methyl-2-pentanone(MIBK) | 0.691 | 0.679 | | 1.7 | 30 |
| trans-1,3-Dichloropropene | 0.394 | 0.365 | | 7.4 | 30 |
| 1,1,2-Trichloroethane | 0.316 | 0.302 | | 4.4 | 30 |
| Toluene | 0.820 | 0.801 | | 2.3 | 30 |
| Dibromochloromethane | 0.485 | 0.525 | | -8.2 | 30 |
| 2-Hexanone(MBK) | 0.629 | 0.592 | | 5.9 | 30 |
| 1,2-Dibromoethane(EDB) | 0.533 | 0.528 | | 0.9 | 30 |
| Tetrachloroethene | 0.397 | 0.392 | | 1.3 | 30 |
| 1,1,1,2-Tetrachloroethane | 0.769 | 0.772 | | -0.4 | 30 |
| Chlorobenzene | 1.529 | 1.519 | | 0.7 | 30 |
| Ethylbenzene | 2.369 | 2.402 | | -1.4 | 30 |
| m,p-Xylene | 1.808 | 1.517 | | 16.1 | 30 |
| Bromoform | 0.644 | 0.732 | | -13.7 | 30 |
| Styrene | 1.313 | 1.249 | | 4.9 | 30 |
| 1,1,2,2-Tetrachloroethane | 1.356 | 1.411 | | -4.1 | 30 |
| o-Xylene | 1.892 | 1.951 | | -3.1 | 30 |
| Isopropylbenzene | 2.489 | 2.427 | | 2.5 | 30 |
| 4-Ethyltoluene | 2.504 | 2.458 | | 1.8 | 30 |
| 1,3,5-Trimethylbenzene | 2.156 | 2.184 | | -1.3 | 30 |
| 1,2,4-Trimethylbenzene | 2.111 | 2.173 | | -2.9 | 30 |
| Benzyl chloride | 0.000 | 1.203 | | | 30 |
| 1,3-Dichlorobenzene | 1.406 | 1.407 | | -0.1 | 30 |
| 1,4-Dichlorobenzene | 1.380 | 1.362 | | 1.3 | 30 |
| sec-Butylbenzene | 2.944 | 2.959 | | -0.5 | 30 |
| 4-Isopropyltoluene | 2.566 | 2.592 | | -1.0 | 30 |
| 1,2-Dichlorobenzene | 1.336 | 1.358 | | -1.6 | 30 |
| n-Butylbenzene | 2.314 | 2.199 | | 5.0 | 30 |
| 1,2,4-Trichlorobenzene | 0.525 | 0.430 | | 18.1 | 30 |
| Hexachlorobutadiene | 0.560 | 0.550 | | 1.8 | 30 |
| 1,2-Dichlorotetrafluoroethane(sim) | 2.035 | 1.972 | | 3.1 | 30 |
| Vinyl Chloride(sim) | 0.964 | 0.929 | | 3.6 | 30 |
| Bromomethane(sim) | 0.803 | 0.702 | | 12.6 | 30 |
| Trichlorofluoromethane(sim) | 3.337 | 3.194 | | 4.3 | 30 |
| 1,2-Dichloroethane(sim) | 1.616 | 1.546 | | 4.3 | 30 |
| 1,1,1-Trichloroethane(sim) | 2.122 | 2.243 | | -5.7 | 30 |

(#) Maximum %D not met.

7B
AIR CONTINUING CALIBRATION CHECK

Lab Name: Phoenix Environmental Labs Client: WALDENE

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCC90508

Instrument: CHEM20 Calibration Date: 04/09/19 Time: 14:09

Lab File Id: 0409_14.D Init. Calib. Date(s): 04/09/19 04/09/19

Heated Purge (Y/N): Y Init. Calib. Times: 07:45 15:24

GC Column: RTX-1 60M Method File: 20_AIR_0409.M

| COMPOUND | RRF | RRF50 | RRF MIN | %D | % D LIMITS |
|---|---|---|---|---|---|
| Carbon Tetrachloride(sim) | 1.303 | 1.543 | | -18.4 | 30 |
| 1,1-Dichloroethene(sim) | 1.891 | 1.830 | | 3.2 | 30 |
| Trichlorotrifluoroethane(sim) | 1.674 | 1.576 | | 5.9 | 30 |
| Trans-1,2-Dichloroethene(sim) | 1.602 | 1.571 | | 1.9 | 30 |
| 1,1-Dichloroethane(sim) | 1.755 | 1.705 | | 2.8 | 30 |
| Cis-1,2-Dichloroethene(sim) | 1.510 | 1.490 | | 1.3 | 30 |
| Chloroform(sim) | 1.895 | 1.865 | | 1.6 | 30 |
| 1,2-dichloropropane(sim) | 0.297 | 0.286 | | 3.7 | 30 |
| Bromodichloromethane(sim) | 0.415 | 0.443 | | -6.7 | 30 |
| Trichloroethene(sim) | 0.360 | 0.333 | | 7.5 | 30 |
| 1,4-Dioxane(sim) | 0.160 | 0.148 | | 7.5 | 30 |
| cis-1,3-Dichloropropene(sim) | 0.314 | 0.357 | | -13.7 | 30 |
| 1,1,2-Trichloroethane(sim) | 0.339 | 0.327 | | 3.5 | 30 |
| Dibromochloromethane(sim) | 0.397 | 0.460 | | -15.9 | 30 |
| 1,2-Dibromoethane(EDB)(sim) | 0.525 | 0.553 | | -5.3 | 30 |
| Tetrachloroethene(sim) | 0.393 | 0.343 | | 12.7 | 30 |
| Bromoform(sim) | 0.597 | 0.731 | | -22.4 | 30 |
| m,p-Xylene(sim) | 0.000 | 2.099 | | | 30 |
| 1,1,2,2-Tetrachloroethane(sim) | 1.325 | 1.408 | | -6.3 | 30 |
| Benzyl chloride(sim) | 0.000 | 2.413 | | | 30 |
| 1,3-Dichlorobenzene(sim) | 1.236 | 1.404 | | -13.6 | 30 |
| 1,4-Dichlorobenzene(sim) | 1.416 | 1.698 | | -19.9 | 30 |
| sec-Butylbenzene(sim) | 0.000 | 1.053 | | | 30 |
| 4-Isopropyltoluene(sim) | 0.000 | 1.036 | | | 30 |
| 1,2-Dichlorobenzene(sim) | 1.131 | 1.355 | | -19.8 | 30 |
| n-Butylbenzene(sim) | 0.000 | 1.039 | | | 30 |
| 1,2,4-Trichlorobenzene(sim) | 0.000 | 1.100 | | | 30 |
| Hexachlorobutadiene(sim) | 0.578 | 0.549 | | 5.0 | 30 |
| % Bromofluorobenzene | 1.311 | 1.324 | | -1.0 | 30 |
| | | | | | |
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| | | | | | |
| | | | | | |

(#) Maximum %D not met.

Evaluate Continuing Calibration Report

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_14.D
Acq On : 09 Apr 2019 02:09 pm
Operator : CORTEX\ms
Client ID : BFB TUNE
Lab ID : 1ppb cc
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 09:42:49 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:42:38 2019
Response via : Initial Calibration

Note: Curves (l,lf,q,qf) display calculated concentration.
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.20min
Max. RRF Dev : 30% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% |
|---|---|---|---|---|---|---|
| 1 | Int | Bromochloromethane | 1.000 | 1.000 | 0.0 | 100 |
| 2 | | Propylene | 1.178 | 1.150 | 2.4 | |
| 3 | | Dichlorodifluoromethane | 2.564 | 2.556 | 0.3 | |
| 4 | | Chloromethane | 1.071 | 1.155 | -7.8 | |
| 5 | | 1,2-Dichlorotetrafluoroetha | 2.494 | 2.689 | -7.8 | |
| 6 | | Vinyl Chloride | 1.041 | 1.160 | -11.4 | |
| 7 | | 1,3-Butadiene | 0.877 | 0.896 | -2.2 | |
| 8 | | Bromomethane | 0.871 | 0.958 | -10.0 | |
| 9 | | Chloroethane | 0.488 | 0.525 | -7.6 | |
| 11 | | Ethanol | 0.430 | 0.482 | -12.1 | |
| 12 | | Acetone | 2.236 | 2.356 | -5.4 | |
| 13 | | Trichlorofluoromethane | 3.354 | 3.608 | -7.6 | |
| 14 | | Isopropylalcohol | 2.356 | 2.590 | -9.9 | |
| 15 | | Acrylonitrile | 0.583 | 0.560 | 3.9 | |
| 16 | | 1,1-Dichloroethene | 2.016 | 2.128 | -5.6 | |
| 17 | | Methylene Chloride | 1.499 | 1.554 | -3.7 | |
| 20 | | Carbon Disulfide | 2.193 | 2.381 | -8.6 | |
| 21 | | Trichlorotrifluoroethane | 1.983 | 2.149 | -8.4 | |
| 22 | | Trans-1,2-Dichloroethene | 1.710 | 1.817 | -6.3 | |
| 23 | | 1,1-Dichloroethane | 2.119 | 2.326 | -9.8 | |
| 24 | | Methyl tert-butyl ether(MTB | 2.607 | 2.808 | -7.7 | |
| 25 | | Methyl Ethyl Ketone | 2.814 | 3.061 | -8.8 | |
| 26 | | Cis-1,2-Dichloroethene | 1.642 | 1.763 | -7.4 | |
| 27 | | Hexane | 1.617 | 1.760 | -8.8 | |
| 28 | | Chloroform | 2.325 | 2.544 | -9.4 | |
| 29 | | Ethyl acetate | 0.314 | 0.343 | -9.2 | |
| 30 | | Tetrahydrofuran | 1.184 | 1.275 | -7.7 | |
| 31 | | 1,2-Dichloroethane | 1.983 | 2.109 | -6.4 | |
| 32 | | 1,1,1-Trichloroethane | 2.269 | 2.510 | -10.6 | |
| 33 | | Benzene | 2.193 | 2.426 | -10.6 | |
| 34 | | Carbon Tetrachloride | 1.892 | 2.104 | -11.2 | |
| 35 | | Cyclohexane | 0.881 | 0.931 | -5.7 | |
| 36 | Int | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 100 |
| 37 | | 1,2-dichloropropane | 0.322 | 0.327 | -1.6 | |
| 38 | | Bromodichloromethane | 0.655 | 0.678 | -3.5 | |
| 39 | | Trichloroethene | 0.375 | 0.381 | -1.6 | |
| 41 | | 1,4-Dioxane | 0.156 | 0.158 | -1.3 | |
| 43 | | Heptane | 0.504 | 0.518 | -2.8 | |
| 44 | | cis-1,3-Dichloropropene | 0.408 | 0.409 | -0.2 | |
| 45 | | 4-Methyl-2-pentanone(MIBK) | 0.691 | 0.679 | 1.7 | |
| 46 | | trans-1,3-Dichloropropene | 0.394 | 0.365 | 7.4 | |
| 47 | | 1,1,2-Trichloroethane | 0.316 | 0.302 | 4.4 | |
| 48 | | Toluene | 0.820 | 0.801 | 2.3 | |
| 49 | | Dibromochloromethane | 0.485 | 0.525 | -8.2 | |
| 50 | | 2-Hexanone(MBK) | 0.629 | 0.592 | 5.9 | |
| 51 | | 1,2-Dibromoethane(EDB) | 0.533 | 0.528 | 0.9 | |
| 52 | | Tetrachloroethene | 0.397 | 0.392 | 1.3 | |
| 53 | Int | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 100 |
| 54 | | 1,1,1,2-Tetrachloroethane | 0.769 | 0.772 | -0.4 | |
| 55 | | Chlorobenzene | 1.529 | 1.519 | 0.7 | |
| 56 | | Ethylbenzene | 2.369 | 2.402 | -1.4 | |

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_14.D
Acq On : 09 Apr 2019 02:09 pm
Operator : CORTEX\ms
Client ID : BFB TUNE
Lab ID : 1ppb cc
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 09:42:49 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:42:38 2019
Response via : Initial Calibration

Note: Curves (l,lf,q,qf) display calculated concentration.
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.20min
Max. RRF Dev : 30% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | |
|---|---|---|---|---|---|---|---|
| 57 | | m,p-Xylene | 1.808 | 1.517 | 16.1 | | |
| 58 | | Bromoform | 0.644 | 0.732 | -13.7 | | |
| 59 | | Styrene | 1.313 | 1.249 | 4.9 | | |
| 60 | | 1,1,2,2-Tetrachloroethane | 1.356 | 1.411 | -4.1 | | |
| 61 | | o-Xylene | 1.892 | 1.951 | -3.1 | | |
| 62 | Surr | % Bromofluorobenzene | 1.311 | 1.324 | -1.0 | | |
| 64 | | Isopropylbenzene | 2.489 | 2.427 | 2.5 | | |
| 66 | | 4-Ethyltoluene | 2.504 | 2.458 | 1.8 | | |
| 67 | | 1,3,5-Trimethylbenzene | 2.156 | 2.184 | -1.3 | | |
| 68 | | 1,2,4-Trimethylbenzene | 2.111 | 2.173 | -2.9 | | |
| 70 | q | Benzyl chloride | 1.000 | 0.914 | 8.6# | | |
| 71 | | 1,3-Dichlorobenzene | 1.406 | 1.407 | -0.1 | | |
| 72 | | 1,4-Dichlorobenzene | 1.380 | 1.362 | 1.3 | | |
| 73 | | sec-Butylbenzene | 2.944 | 2.959 | -0.5 | | |
| 74 | | 4-Isopropyltoluene | 2.566 | 2.592 | -1.0 | | |
| 75 | | 1,2-Dichlorobenzene | 1.336 | 1.358 | -1.6 | | |
| 76 | | n-Butylbenzene | 2.314 | 2.199 | 5.0 | | |
| 77 | | 1,2,4-Trichlorobenzene | 0.525 | 0.430 | 18.1 | | |
| 79 | | Hexachlorobutadiene | 0.560 | 0.550 | 1.8 | | |
| 80 | int | Bromochloromethane(sim) | 1.000 | 1.000 | 0.0 | 100 | |
| 81 | | 1,2-Dichlorotetrafluoroetha | 2.035 | 1.972 | 3.1 | | |
| 82 | | Vinyl Chloride(sim) | 0.964 | 0.929 | 3.6 | | |
| 83 | | Bromomethane(sim) | 0.803 | 0.702 | 12.6 | | |
| 84 | | Trichlorofluoromethane(sim) | 3.337 | 3.194 | 4.3 | | |
| 85 | | 1,2-Dichloroethane(sim) | 1.616 | 1.546 | 4.3 | | |
| 86 | | 1,1,1-Trichloroethane(sim) | 2.122 | 2.243 | -5.7 | | |
| 87 | | Carbon Tetrachloride(sim) | 1.303 | 1.543 | -18.4 | | |
| 88 | | 1,1-Dichloroethene(sim) | 1.891 | 1.830 | 3.2 | | |
| 89 | | Trichlorotrifluoroethane(si | 1.674 | 1.576 | 5.9 | | |
| 90 | | Trans-1,2-Dichloroethene(si | 1.602 | 1.571 | 1.9 | | |
| 91 | | 1,1-Dichloroethane(sim) | 1.755 | 1.705 | 2.8 | | |
| 92 | | Cis-1,2-Dichloroethene(sim) | 1.510 | 1.490 | 1.3 | | |
| 93 | | Chloroform(sim) | 1.895 | 1.865 | 1.6 | | |
| 94 | int | 1,4-Difluorobenzene(sim) | 1.000 | 1.000 | 0.0 | 100 | |
| 95 | | 1,2-dichloropropane(sim) | 0.297 | 0.286 | 3.7 | | |
| 96 | | Bromodichloromethane(sim) | 0.415 | 0.443 | -6.7 | | |
| 97 | | Trichloroethene(sim) | 0.360 | 0.333 | 7.5 | | |
| 98 | | 1,4-Dioxane(sim) | 0.160 | 0.148 | 7.5 | | |
| 99 | | cis-1,3-Dichloropropene(sim | 0.314 | 0.357 | -13.7 | | |
| 100 | | 1,1,2-Trichloroethane(sim) | 0.339 | 0.327 | 3.5 | | |
| 101 | | Dibromochloromethane(sim) | 0.397 | 0.460 | -15.9 | | |
| 102 | | 1,2-Dibromoethane(EDB)(sim) | 0.525 | 0.553 | -5.3 | | |
| 103 | | Tetrachloroethene(sim) | 0.393 | 0.343 | 12.7 | | |
| 104 | int | Chlorobenzene-d5(sim) | 1.000 | 1.000 | 0.0 | 100 | |
| 105 | | Bromoform(sim) | 0.597 | 0.731 | -22.4 | | |
| 106 | q | m,p-Xylene(sim) | 2.000 | 2.092 | -4.6 | | |
| 107 | | 1,1,2,2-Tetrachloroethane(s | 1.325 | 1.408 | -6.3 | | |
| 110 | q | Benzyl chloride(sim) | 1.000 | 1.191 | -19.1# | | |
| 111 | | 1,3-Dichlorobenzene(sim) | 1.236 | 1.404 | -13.6 | | |
| 112 | | 1,4-Dichlorobenzene(sim) | 1.416 | 1.698 | -19.9 | | |

Evaluate Continuing Calibration Report

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_14.D
Acq On : 09 Apr 2019 02:09 pm
Operator : CORTEX\ms
Client ID : BFB TUNE
Lab ID : 1ppb cc
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 09:42:49 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:42:38 2019
Response via : Initial Calibration

Note: Curves (l,lf,q,qf) display calculated concentration.
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.20min
Max. RRF Dev : 30% Max. Rel. Area : 200%

| | Compound | AvgRF | CCRF | %Dev | Area% |
|---|---|---|---|---|---|
| 113 q | sec-Butylbenzene(sim) | 1.000 | 1.051 | -5.1 | |
| 114 q | 4-Isopropyltoluene(sim) | 1.000 | 1.046 | -4.6 | |
| 115 | 1,2-Dichlorobenzene(sim) | 1.131 | 1.355 | -19.8 | |
| 116 q | n-Butylbenzene(sim) | 1.000 | 1.056 | -5.6 | |
| 117 q | 1,2,4-Trichlorobenzene(sim) | 1.000 | 1.055 | -5.5 | |
| 119 | Hexachlorobutadiene(sim) | 0.578 | 0.549 | 5.0 | |

(#)=Out of Range l=linear, lf=liner(0,0), q=quadratic, qf=quadratic(0,0)
Laboratory Warning Limits Out = 0

7A
AIR CONTINUING CALIBRATION CHECK
Initial Cal as Continuing Cal

Lab Name: Phoenix Environmental Labs Client: WALDENE

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCC90508

Instrument: CHEM20 Calibration Date: 04/10/19 Time: 07:47

Lab File Id: 0409_41.D Init. Calib. Date(s): 04/09/19 04/09/19

Heated Purge (Y/N): Y Init. Calib. Times: 07:45 15:24

GC Column: RTX-1 60M Method File: 20_AIR_0409.M

| COMPOUND | RRF | RRF1 | RRF MIN | %D | % D LIMITS |
|---|---|---|---|---|---|
| Propylene | 1.178 | 1.187 | | -0.8 | 30 |
| Dichlorodifluoromethane | 2.564 | 2.749 | | -7.2 | 30 |
| Chloromethane | 1.071 | 1.317 | | -23.0 | 30 |
| 1,2-Dichlorotetrafluoroethane | 2.494 | 3.015 | | -20.9 | 30 |
| Vinyl Chloride | 1.041 | 1.269 | | -21.9 | 30 |
| 1,3-Butadiene | 0.877 | 1.133 | | -29.2 | 30 |
| Bromomethane | 0.871 | 0.999 | | -14.7 | 30 |
| Chloroethane | 0.488 | 0.574 | | -17.6 | 30 |
| Ethanol | 0.430 | 0.584 | | -35.8 # | 30 |
| Acetone | 2.236 | 2.821 | | -26.2 | 30 |
| Trichlorofluoromethane | 3.354 | 3.936 | | -17.4 | 30 |
| Isopropylalcohol | 2.356 | 3.121 | | -32.5 # | 30 |
| Acrylonitrile | 0.583 | 1.045 | | -79.2 # | 30 |
| 1,1-Dichloroethene | 2.016 | 2.501 | | -24.1 | 30 |
| Methylene Chloride | 1.499 | 1.908 | | -27.3 | 30 |
| Carbon Disulfide | 2.193 | 2.705 | | -23.3 | 30 |
| Trichlorotrifluoroethane | 1.983 | 2.419 | | -22.0 | 30 |
| Trans-1,2-Dichloroethene | 1.710 | 1.800 | | -5.3 | 30 |
| 1,1-Dichloroethane | 2.119 | 2.303 | | -8.7 | 30 |
| Methyl tert-butyl ether(MTBE) | 2.607 | 2.626 | | -0.7 | 30 |
| Methyl Ethyl Ketone | 2.814 | 3.219 | | -14.4 | 30 |
| Cis-1,2-Dichloroethene | 1.642 | 1.729 | | -5.3 | 30 |
| Hexane | 1.617 | 1.811 | | -12.0 | 30 |
| Chloroform | 2.325 | 2.485 | | -6.9 | 30 |
| Ethyl acetate | 0.314 | 0.347 | | -10.5 | 30 |
| Tetrahydrofuran | 1.184 | 1.307 | | -10.4 | 30 |
| 1,2-Dichloroethane | 1.983 | 2.285 | | -15.2 | 30 |
| 1,1,1-Trichloroethane | 2.269 | 2.652 | | -16.9 | 30 |
| Benzene | 2.193 | 2.392 | | -9.1 | 30 |
| Carbon Tetrachloride | 1.892 | 2.233 | | -18.0 | 30 |
| Cyclohexane | 0.881 | 1.086 | | -23.3 | 30 |
| 1,2-dichloropropane | 0.322 | 0.317 | | 1.6 | 30 |
| Bromodichloromethane | 0.655 | 0.684 | | -4.4 | 30 |
| Trichloroethene | 0.375 | 0.356 | | 5.1 | 30 |
| 1,4-Dioxane | 0.156 | 0.157 | | -0.6 | 30 |
| Heptane | 0.504 | 0.516 | | -2.4 | 30 |

(#) Maximum %D not met.

7B
AIR CONTINUING CALIBRATION CHECK
Initial Cal as Continuing Cal

Lab Name: Phoenix Environmental Labs Client: WALDENE

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCC90508

Instrument: CHEM20 Calibration Date: 04/10/19 Time: 07:47

Lab File Id: 0409_41.D Init. Calib. Date(s): 04/09/19 04/09/19

Heated Purge (Y/N): Y Init. Calib. Times: 07:45 15:24

GC Column: RTX-1 60M Method File: 20_AIR_0409.M

| COMPOUND | RRF | RRF1 | RRF MIN | %D | % D LIMITS |
|---|---|---|---|---|---|
| cis-1,3-Dichloropropene | 0.408 | 0.399 | | 2.2 | 30 |
| 4-Methyl-2-pentanone(MIBK) | 0.691 | 0.702 | | -1.6 | 30 |
| trans-1,3-Dichloropropene | 0.394 | 0.363 | | 7.9 | 30 |
| 1,1,2-Trichloroethane | 0.316 | 0.306 | | 3.2 | 30 |
| Toluene | 0.820 | 0.767 | | 6.5 | 30 |
| Dibromochloromethane | 0.485 | 0.535 | | -10.3 | 30 |
| 2-Hexanone(MBK) | 0.629 | 0.580 | | 7.8 | 30 |
| 1,2-Dibromoethane(EDB) | 0.533 | 0.521 | | 2.3 | 30 |
| Tetrachloroethene | 0.397 | 0.392 | | 1.3 | 30 |
| 1,1,1,2-Tetrachloroethane | 0.769 | 0.735 | | 4.4 | 30 |
| Chlorobenzene | 1.529 | 1.450 | | 5.2 | 30 |
| Ethylbenzene | 2.369 | 2.221 | | 6.2 | 30 |
| m,p-Xylene | 1.808 | 1.442 | | 20.2 | 30 |
| Bromoform | 0.644 | 0.703 | | -9.2 | 30 |
| Styrene | 1.313 | 1.152 | | 12.3 | 30 |
| 1,1,2,2-Tetrachloroethane | 1.356 | 1.415 | | -4.4 | 30 |
| o-Xylene | 1.892 | 1.875 | | 0.9 | 30 |
| Isopropylbenzene | 2.489 | 2.338 | | 6.1 | 30 |
| 4-Ethyltoluene | 2.504 | 2.383 | | 4.8 | 30 |
| 1,3,5-Trimethylbenzene | 2.156 | 2.064 | | 4.3 | 30 |
| 1,2,4-Trimethylbenzene | 2.111 | 2.010 | | 4.8 | 30 |
| Benzyl chloride | 0.000 | 0.521 | | | 30 |
| 1,3-Dichlorobenzene | 1.406 | 1.297 | | 7.8 | 30 |
| 1,4-Dichlorobenzene | 1.380 | 1.255 | | 9.1 | 30 |
| sec-Butylbenzene | 2.944 | 2.840 | | 3.5 | 30 |
| 4-Isopropyltoluene | 2.566 | 2.319 | | 9.6 | 30 |
| 1,2-Dichlorobenzene | 1.336 | 1.213 | | 9.2 | 30 |
| n-Butylbenzene | 2.314 | 1.925 | | 16.8 | 30 |
| 1,2,4-Trichlorobenzene | 0.525 | 0.281 | | 46.5 # | 30 |
| Hexachlorobutadiene | 0.560 | 0.462 | | 17.5 | 30 |
| 1,2-Dichlorotetrafluoroethane(sim) | 2.035 | 2.191 | | -7.7 | 30 |
| Vinyl Chloride(sim) | 0.964 | 1.039 | | -7.8 | 30 |
| Bromomethane(sim) | 0.803 | 0.726 | | 9.6 | 30 |
| Trichlorofluoromethane(sim) | 3.337 | 3.546 | | -6.3 | 30 |
| 1,2-Dichloroethane(sim) | 1.616 | 1.661 | | -2.8 | 30 |
| 1,1,1-Trichloroethane(sim) | 2.122 | 2.343 | | -10.4 | 30 |

(#) Maximum %D not met.

7B
AIR CONTINUING CALIBRATION CHECK
Initial Cal as Continuing Cal

Lab Name: Phoenix Environmental Labs Client: WALDENE

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCC90508

Instrument: CHEM20 Calibration Date: 04/10/19 Time: 07:47

Lab File Id: 0409_41.D Init. Calib. Date(s): 04/09/19 04/09/19

Heated Purge (Y/N): Y Init. Calib. Times: 07:45 15:24

GC Column: RTX-1 60M Method File: 20_AIR_0409.M

| COMPOUND | RRF | RRF1 | RRF MIN | %D | % D LIMITS |
|---|---|---|---|---|---|
| Carbon Tetrachloride(sim) | 1.303 | 1.623 | | -24.6 | 30 |
| 1,1-Dichloroethene(sim) | 1.891 | 2.092 | | -10.6 | 30 |
| Trichlorotrifluoroethane(sim) | 1.674 | 1.758 | | -5.0 | 30 |
| Trans-1,2-Dichloroethene(sim) | 1.602 | 1.516 | | 5.4 | 30 |
| 1,1-Dichloroethane(sim) | 1.755 | 1.674 | | 4.6 | 30 |
| Cis-1,2-Dichloroethene(sim) | 1.510 | 1.486 | | 1.6 | 30 |
| Chloroform(sim) | 1.895 | 1.806 | | 4.7 | 30 |
| 1,2-dichloropropane(sim) | 0.297 | 0.280 | | 5.7 | 30 |
| Bromodichloromethane(sim) | 0.415 | 0.461 | | -11.1 | 30 |
| Trichloroethene(sim) | 0.360 | 0.315 | | 12.5 | 30 |
| 1,4-Dioxane(sim) | 0.160 | 0.144 | | 10.0 | 30 |
| cis-1,3-Dichloropropene(sim) | 0.314 | 0.353 | | -12.4 | 30 |
| 1,1,2-Trichloroethane(sim) | 0.339 | 0.334 | | 1.5 | 30 |
| Dibromochloromethane(sim) | 0.397 | 0.472 | | -18.9 | 30 |
| 1,2-Dibromoethane(EDB)(sim) | 0.525 | 0.556 | | -5.9 | 30 |
| Tetrachloroethene(sim) | 0.393 | 0.346 | | 12.0 | 30 |
| Bromoform(sim) | 0.597 | 0.715 | | -19.8 | 30 |
| m,p-Xylene(sim) | 0.000 | 1.934 | | | 30 |
| 1,1,2,2-Tetrachloroethane(sim) | 1.325 | 1.427 | | -7.7 | 30 |
| Benzyl chloride(sim) | 0.000 | 0.792 | | | 30 |
| 1,3-Dichlorobenzene(sim) | 1.236 | 1.308 | | -5.8 | 30 |
| 1,4-Dichlorobenzene(sim) | 1.416 | 1.544 | | -9.0 | 30 |
| sec-Butylbenzene(sim) | 0.000 | 2.862 | | | 30 |
| 4-Isopropyltoluene(sim) | 0.000 | 2.323 | | | 30 |
| 1,2-Dichlorobenzene(sim) | 1.131 | 1.223 | | -8.1 | 30 |
| n-Butylbenzene(sim) | 0.000 | 2.029 | | | 30 |
| 1,2,4-Trichlorobenzene(sim) | 0.000 | 0.283 | | | 30 |
| Hexachlorobutadiene(sim) | 0.578 | 0.466 | | 19.4 | 30 |
| % Bromofluorobenzene | 1.311 | 1.334 | | -1.8 | 30 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

(#) Maximum %D not met.

# Evaluate Continuing Calibration Report

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_41.D
Acq On : 10 Apr 2019 07:47 am
Operator : CORTEX\ms
Client ID : BFB TUNE - CCAL 1
Lab ID : 1ppb cc - 1ppb cc
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 11:14:18 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration

Note: Curves (l,lf,q,qf) display calculated concentration.
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.20min
Max. RRF Dev : 30% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% |
|---|---|---|---|---|---|---|
| 1 | Int | Bromochloromethane | 1.000 | 1.000 | 0.0 | 82 |
| 2 | | Propylene | 1.178 | 1.187 | -0.8 | |
| 3 | | Dichlorodifluoromethane | 2.564 | 2.749 | -7.2 | |
| 4 | | Chloromethane | 1.071 | 1.317 | -23.0 | |
| 5 | | 1,2-Dichlorotetrafluoroetha | 2.494 | 3.015 | -20.9 | |
| 6 | | Vinyl Chloride | 1.041 | 1.269 | -21.9 | |
| 7 | | 1,3-Butadiene | 0.877 | 1.133 | -29.2 | |
| 8 | | Bromomethane | 0.871 | 0.999 | -14.7 | |
| 9 | | Chloroethane | 0.488 | 0.574 | -17.6 | |
| 11 | | Ethanol | 0.430 | 0.584 | -35.8# | |
| 12 | | Acetone | 2.236 | 2.821 | -26.2 | |
| 13 | | Trichlorofluoromethane | 3.354 | 3.936 | -17.4 | |
| 14 | | Isopropylalcohol | 2.356 | 3.121 | -32.5# | |
| 15 | | Acrylonitrile | 0.583 | 1.045 | -79.2# | |
| 16 | | 1,1-Dichloroethene | 2.016 | 2.501 | -24.1 | |
| 17 | | Methylene Chloride | 1.499 | 1.908 | -27.3 | |
| 20 | | Carbon Disulfide | 2.193 | 2.705 | -23.3 | |
| 21 | | Trichlorotrifluoroethane | 1.983 | 2.419 | -22.0 | |
| 22 | | Trans-1,2-Dichloroethene | 1.710 | 1.800 | -5.3 | |
| 23 | | 1,1-Dichloroethane | 2.119 | 2.303 | -8.7 | |
| 24 | | Methyl tert-butyl ether(MTB | 2.607 | 2.626 | -0.7 | |
| 25 | | Methyl Ethyl Ketone | 2.814 | 3.219 | -14.4 | |
| 26 | | Cis-1,2-Dichloroethene | 1.642 | 1.729 | -5.3 | |
| 27 | | Hexane | 1.617 | 1.811 | -12.0 | |
| 28 | | Chloroform | 2.325 | 2.485 | -6.9 | |
| 29 | | Ethyl acetate | 0.314 | 0.347 | -10.5 | |
| 30 | | Tetrahydrofuran | 1.184 | 1.307 | -10.4 | |
| 31 | | 1,2-Dichloroethane | 1.983 | 2.285 | -15.2 | |
| 32 | | 1,1,1-Trichloroethane | 2.269 | 2.652 | -16.9 | |
| 33 | | Benzene | 2.193 | 2.392 | -9.1 | |
| 34 | | Carbon Tetrachloride | 1.892 | 2.233 | -18.0 | |
| 35 | | Cyclohexane | 0.881 | 1.086 | -23.3 | |
| 36 | Int | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 87 |
| 37 | | 1,2-dichloropropane | 0.322 | 0.317 | 1.6 | |
| 38 | | Bromodichloromethane | 0.655 | 0.684 | -4.4 | |
| 39 | | Trichloroethene | 0.375 | 0.356 | 5.1 | |
| 41 | | 1,4-Dioxane | 0.156 | 0.157 | -0.6 | |
| 43 | | Heptane | 0.504 | 0.516 | -2.4 | |
| 44 | | cis-1,3-Dichloropropene | 0.408 | 0.399 | 2.2 | |
| 45 | | 4-Methyl-2-pentanone(MIBK) | 0.691 | 0.702 | -1.6 | |
| 46 | | trans-1,3-Dichloropropene | 0.394 | 0.363 | 7.9 | |
| 47 | | 1,1,2-Trichloroethane | 0.316 | 0.306 | 3.2 | |
| 48 | | Toluene | 0.820 | 0.767 | 6.5 | |
| 49 | | Dibromochloromethane | 0.485 | 0.535 | -10.3 | |
| 50 | | 2-Hexanone(MBK) | 0.629 | 0.580 | 7.8 | |
| 51 | | 1,2-Dibromoethane(EDB) | 0.533 | 0.521 | 2.3 | |
| 52 | | Tetrachloroethene | 0.397 | 0.392 | 1.3 | |
| 53 | Int | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 90 |
| 54 | | 1,1,1,2-Tetrachloroethane | 0.769 | 0.735 | 4.4 | |
| 55 | | Chlorobenzene | 1.529 | 1.450 | 5.2 | |
| 56 | | Ethylbenzene | 2.369 | 2.221 | 6.2 | |

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_41.D
Acq On : 10 Apr 2019 07:47 am
Operator : CORTEX\ms
Client ID : BFB TUNE - CCAL 1
Lab ID : 1ppb cc - 1ppb cc
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 11:14:18 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration

Note: Curves (l,lf,q,qf) display calculated concentration.
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.20min
Max. RRF Dev : 30% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | |
|---|---|---|---|---|---|---|---|
| 57 | | m,p-Xylene | 1.808 | 1.442 | 20.2 | | |
| 58 | | Bromoform | 0.644 | 0.703 | -9.2 | | |
| 59 | | Styrene | 1.313 | 1.152 | 12.3 | | |
| 60 | | 1,1,2,2-Tetrachloroethane | 1.356 | 1.415 | -4.4 | | |
| 61 | | o-Xylene | 1.892 | 1.875 | 0.9 | | |
| 62 | Surr | % Bromofluorobenzene | 1.311 | 1.334 | -1.8 | | |
| 64 | | Isopropylbenzene | 2.489 | 2.338 | 6.1 | | |
| 66 | | 4-Ethyltoluene | 2.504 | 2.383 | 4.8 | | |
| 67 | | 1,3,5-Trimethylbenzene | 2.156 | 2.064 | 4.3 | | |
| 68 | | 1,2,4-Trimethylbenzene | 2.111 | 2.010 | 4.8 | | |
| 70 | q | Benzyl chloride | 1.000 | 0.890 | 11.0# | | |
| 71 | | 1,3-Dichlorobenzene | 1.406 | 1.297 | 7.8 | | |
| 72 | | 1,4-Dichlorobenzene | 1.380 | 1.255 | 9.1 | | |
| 73 | | sec-Butylbenzene | 2.944 | 2.840 | 3.5 | | |
| 74 | | 4-Isopropyltoluene | 2.566 | 2.319 | 9.6 | | |
| 75 | | 1,2-Dichlorobenzene | 1.336 | 1.213 | 9.2 | | |
| 76 | | n-Butylbenzene | 2.314 | 1.925 | 16.8 | | |
| 77 | | 1,2,4-Trichlorobenzene | 0.525 | 0.281 | 46.5# | | |
| 79 | | Hexachlorobutadiene | 0.560 | 0.462 | 17.5 | | |
| 80 | int | Bromochloromethane(sim) | 1.000 | 1.000 | 0.0 | | 82 |
| 81 | | 1,2-Dichlorotetrafluoroetha | 2.035 | 2.191 | -7.7 | | |
| 82 | | Vinyl Chloride(sim) | 0.964 | 1.039 | -7.8 | | |
| 83 | | Bromomethane(sim) | 0.803 | 0.726 | 9.6 | | |
| 84 | | Trichlorofluoromethane(sim) | 3.337 | 3.546 | -6.3 | | |
| 85 | | 1,2-Dichloroethane(sim) | 1.616 | 1.661 | -2.8 | | |
| 86 | | 1,1,1-Trichloroethane(sim) | 2.122 | 2.343 | -10.4 | | |
| 87 | | Carbon Tetrachloride(sim) | 1.303 | 1.623 | -24.6 | | |
| 88 | | 1,1-Dichloroethene(sim) | 1.891 | 2.092 | -10.6 | | |
| 89 | | Trichlorotrifluoroethane(si | 1.674 | 1.758 | -5.0 | | |
| 90 | | Trans-1,2-Dichloroethene(si | 1.602 | 1.516 | 5.4 | | |
| 91 | | 1,1-Dichloroethane(sim) | 1.755 | 1.674 | 4.6 | | |
| 92 | | Cis-1,2-Dichloroethene(sim) | 1.510 | 1.486 | 1.6 | | |
| 93 | | Chloroform(sim) | 1.895 | 1.806 | 4.7 | | |
| 94 | int | 1,4-Difluorobenzene(sim) | 1.000 | 1.000 | 0.0 | | 86 |
| 95 | | 1,2-dichloropropane(sim) | 0.297 | 0.280 | 5.7 | | |
| 96 | | Bromodichloromethane(sim) | 0.415 | 0.461 | -11.1 | | |
| 97 | | Trichloroethene(sim) | 0.360 | 0.315 | 12.5 | | |
| 98 | | 1,4-Dioxane(sim) | 0.160 | 0.144 | 10.0 | | |
| 99 | | cis-1,3-Dichloropropene(sim | 0.314 | 0.353 | -12.4 | | |
| 100 | | 1,1,2-Trichloroethane(sim) | 0.339 | 0.334 | 1.5 | | |
| 101 | | Dibromochloromethane(sim) | 0.397 | 0.472 | -18.9 | | |
| 102 | | 1,2-Dibromoethane(EDB)(sim) | 0.525 | 0.556 | -5.9 | | |
| 103 | | Tetrachloroethene(sim) | 0.393 | 0.346 | 12.0 | | |
| 104 | int | Chlorobenzene-d5(sim) | 1.000 | 1.000 | 0.0 | | 89 |
| 105 | | Bromoform(sim) | 0.597 | 0.715 | -19.8 | | |
| 106 | q | m,p-Xylene(sim) | 2.000 | 2.014 | -0.7 | | |
| 107 | | 1,1,2,2-Tetrachloroethane(s | 1.325 | 1.427 | -7.7 | | |
| 110 | q | Benzyl chloride(sim) | 1.000 | 1.063 | -6.3 | | |
| 111 | | 1,3-Dichlorobenzene(sim) | 1.236 | 1.308 | -5.8 | | |
| 112 | | 1,4-Dichlorobenzene(sim) | 1.416 | 1.544 | -9.0 | | |

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_41.D
Acq On : 10 Apr 2019 07:47 am
Operator : CORTEX\ms
Client ID : BFB TUNE - CCAL 1
Lab ID : 1ppb cc - 1ppb cc
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 11:14:18 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration

Note: Curves (l,lf,q,qf) display calculated concentration.
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.20min
Max. RRF Dev : 30% Max. Rel. Area : 200%

| | Compound | AvgRF | CCRF | %Dev Area% |
|---|---|---|---|---|
| 113 q | sec-Butylbenzene(sim) | 1.000 | 1.020 | -2.0 |
| 114 q | 4-Isopropyltoluene(sim) | 1.000 | 0.978 | 2.2 |
| 115 | 1,2-Dichlorobenzene(sim) | 1.131 | 1.223 | -8.1 |
| 116 q | n-Butylbenzene(sim) | 1.000 | 0.969 | 3.1 |
| 117 q | 1,2,4-Trichlorobenzene(sim) | 1.000 | 0.715 | 28.5# |
| 119 | Hexachlorobutadiene(sim) | 0.578 | 0.466 | 19.4 |

(#)=Out of Range l=linear, lf=liner(0,0), q=quadratic, qf=quadratic(0,0)
Laboratory Warning Limits Out = 0

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_41.D
Acq On : 10 Apr 2019 07:47 am
Operator : CORTEX\ms
Client ID : BFB TUNE - CCAL 1
Lab ID : 1ppb cc - 1ppb cc
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 11:14:18 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.871 | 130 | 114610 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.772 | 114 | 388380 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.807 | 82 | 188017 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.874 | 130 | 157682 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 439722 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 186542 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 250763 | 10.174 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 101.70% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Propylene | 3.573 | 41 | 13599 | 1.007 | ppbv | | 98 |
| 3) Dichlorodifluoromethane | 3.646 | 85 | 31504 | 1.072 | ppbv# | | 95 |
| 4) Chloromethane | 3.800 | 50 | 15095 | 1.230 | ppbv | | 96 |
| 5) 1,2-Dichlorotetrafluor... | 3.898 | 85 | 34552 | 1.209 | ppbv | | 88 |
| 6) Vinyl Chloride | 3.995 | 62 | 14541 | 1.219 | ppbv | | 91 |
| 7) 1,3-Butadiene | 4.117 | 54 | 12980 | 1.292 | ppbv# | | 85 |
| 8) Bromomethane | 4.352 | 94 | 11444 | 1.146 | ppbv# | | 96 |
| 9) Chloroethane | 4.498 | 64 | 6577 | 1.175 | ppbv | | 78 |
| 11) Ethanol | 4.644 | 45 | 6697 | 1.358 | ppbv | | 99 |
| 12) Acetone | 5.001 | 43 | 32327m | 1.262 | ppbv | | 82 |
| 13) Trichlorofluoromethane | 5.098 | 101 | 45110 | 1.174 | ppbv | | 98 |
| 14) Isopropylalcohol | 5.195 | 45 | 35775 | 1.325 | ppbv# | | 99 |
| 15) Acrylonitrile | 5.325 | 53 | 11979 | 1.794 | ppbv | | 96 |
| 16) 1,1-Dichloroethene | 5.554 | 61 | 28666 | 1.240 | ppbv# | | 71 |
| 17) Methylene Chloride | 5.638 | 49 | 21864 | 1.273 | ppbv# | | 53 |
| 20) Carbon Disulfide | 5.846 | 76 | 30998 | 1.234 | ppbv# | | 92 |
| 21) Trichlorotrifluoroethane | 5.810 | 101 | 27723 | 1.220 | ppbv | | 88 |
| 22) Trans-1,2-Dichloroethene | 6.223 | 61 | 20627 | 1.052 | ppbv# | | 78 |
| 23) 1,1-Dichloroethane | 6.338 | 63 | 26397 | 1.087 | ppbv | | 95 |
| 24) Methyl tert-butyl ethe... | 6.385 | 73 | 30101 | 1.007 | ppbv# | | 64 |
| 25) Methyl Ethyl Ketone | 6.562 | 43 | 36892 | 1.144 | ppbv# | | 75 |
| 26) Cis-1,2-Dichloroethene | 6.778 | 61 | 19811 | 1.053 | ppbv# | | 73 |
| 27) Hexane | 6.879 | 57 | 20754 | 1.120 | ppbv# | | 74 |
| 28) Chloroform | 6.933 | 83 | 28482 | 1.069 | ppbv | | 89 |
| 29) Ethyl acetate | 6.887 | 61 | 3973 | 1.104 | ppbv# | | 73 |
| 30) Tetrahydrofuran | 7.150 | 42 | 14976 | 1.104 | ppbv# | | 60 |
| 31) 1,2-Dichloroethane | 7.290 | 62 | 26193 | 1.152 | ppbv# | | 90 |
| 32) 1,1,1-Trichloroethane | 7.414 | 97 | 30395 | 1.169 | ppbv# | | 90 |
| 33) Benzene | 7.628 | 78 | 27409 | 1.091 | ppbv# | | 84 |
| 34) Carbon Tetrachloride | 7.696 | 117 | 25598 | 1.181 | ppbv | | 99 |
| 35) Cyclohexane | 7.755 | 41 | 12450 | 1.232 | ppbv# | | 31 |
| 37) 1,2-dichloropropane | 8.009 | 63 | 12315 | 0.985 | ppbv# | | 77 |
| 38) Bromodichloromethane | 8.094 | 83 | 26559 | 1.044 | ppbv | | 98 |
| 39) Trichloroethene | 8.111 | 130 | 13836 | 0.949 | ppbv | | 92 |
| 41) 1,4-Dioxane | 8.111 | 88 | 6081 | 1.003 | ppbv# | | 63 |
| 43) Heptane | 8.221 | 43 | 20051 | 1.024 | ppbv# | | 71 |
| 44) cis-1,3-Dichloropropene | 8.492 | 75 | 15509 | 0.980 | ppbv | | 92 |
| 45) 4-Methyl-2-pentanone(M... | 8.500 | 43 | 27259 | 1.016 | ppbv# | | 79 |
| 46) trans-1,3-Dichloropropene | 8.723 | 75 | 14079 | 0.921 | ppbv | | 95 |
| 47) 1,1,2-Trichloroethane | 8.815 | 97 | 11895 | 0.969 | ppbv | | 88 |
| 48) Toluene | 8.948 | 91 | 29799 | 0.936 | ppbv# | | 97 |
| 49) Dibromochloromethane | 9.153 | 129 | 20775 | 1.104 | ppbv | | 99 |
| 50) 2-Hexanone(MBK) | 9.047 | 43 | 22531 | 0.922 | ppbv# | | 85 |
| 51) 1,2-Dibromoethane(EDB) | 9.279 | 107 | 20224 | 0.977 | ppbv | | 98 |

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_41.D
Acq On : 10 Apr 2019 07:47 am
Operator : CORTEX\ms
Client ID : BFB TUNE - CCAL 1
Lab ID : 1ppb cc - 1ppb cc
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 11:14:18 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 52) | Tetrachloroethene | 9.497 | 166 | 15212 | 0.986 | ppbv# | 87 |
| 54) | 1,1,1,2-Tetrachloroethane | 9.822 | 131 | 13827 | 0.956 | ppbv | 97 |
| 55) | Chlorobenzene | 9.830 | 112 | 27265 | 0.948 | ppbv# | 81 |
| 56) | Ethylbenzene | 10.012 | 91 | 41751 | 0.937 | ppbv | 94 |
| 57) | m,p-Xylene | 10.103 | 91 | 67758 | 1.993 | ppbv | 94 |
| 58) | Bromoform | 10.164 | 173 | 13220 | 1.092 | ppbv | 99 |
| 59) | Styrene | 10.293 | 104 | 21668 | 0.878 | ppbv# | 84 |
| 60) | 1,1,2,2-Tetrachloroethane | 10.346 | 83 | 26612 | 1.044 | ppbv# | 86 |
| 61) | o-Xylene | 10.346 | 91 | 35250 | 0.991 | ppbv | 94 |
| 64) | Isopropylbenzene | 10.656 | 105 | 43956 | 0.939 | ppbv | 95 |
| 66) | 4-Ethyltoluene | 11.021 | 105 | 44805 | 0.952 | ppbv | 94 |
| 67) | 1,3,5-Trimethylbenzene | 11.066 | 105 | 38808 | 0.957 | ppbv# | 91 |
| 68) | 1,2,4-Trimethylbenzene | 11.309 | 105 | 37795 | 0.952 | ppbv# | 91 |
| 70) | Benzyl chloride | 11.469 | 91 | 9795 | 0.890 | ppbv# | 61 |
| 71) | 1,3-Dichlorobenzene | 11.408 | 146 | 24395 | 0.923 | ppbv# | 92 |
| 72) | 1,4-Dichlorobenzene | 11.453 | 146 | 23594 | 0.910 | ppbv | 95 |
| 73) | sec-Butylbenzene | 11.469 | 105 | 53406 | 0.965 | ppbv | 96 |
| 74) | 4-Isopropyltoluene | 11.560 | 119 | 43609 | 0.904 | ppbv# | 92 |
| 75) | 1,2-Dichlorobenzene | 11.666 | 146 | 22807 | 0.908 | ppbv | 94 |
| 76) | n-Butylbenzene | 11.826 | 91 | 36184 | 0.832 | ppbv# | 95 |
| 77) | 1,2,4-Trichlorobenzene | 12.783 | 180 | 5288 | 0.535 | ppbv# | 93 |
| 79) | Hexachlorobutadiene | 13.094 | 225 | 8684 | 0.825 | ppbv | 95 |
| 81] | 1,2-Dichlorotetrafluor... | 3.898 | 85 | 34552 | 1.077 | ppbv | 88 |
| 82] | Vinyl Chloride(sim) | 3.998 | 62 | 16389 | 1.078 | ppbv | 95 |
| 83] | Bromomethane(sim) | 4.352 | 94 | 11444 | 0.904 | ppbv# | 96 |
| 84] | Trichlorofluoromethane... | 5.093 | 101 | 55917 | 1.063 | ppbv | 99 |
| 85] | 1,2-Dichloroethane(sim) | 7.290 | 62 | 26193 | 1.028 | ppbv# | 90 |
| 86] | 1,1,1-Trichloroethane(... | 7.417 | 97 | 36940 | 1.104 | ppbv# | 90 |
| 87] | Carbon Tetrachloride(sim) | 7.696 | 117 | 25598 | 1.246 | ppbv | 99 |
| 88] | 1,1-Dichloroethene(sim) | 5.557 | 61 | 32985 | 1.106 | ppbv# | 68 |
| 89] | Trichlorotrifluoroetha... | 5.810 | 101 | 27723 | 1.050 | ppbv | 98 |
| 90] | Trans-1,2-Dichloroethe... | 6.221 | 61 | 23903 | 0.946 | ppbv# | 78 |
| 91] | 1,1-Dichloroethane(sim) | 6.338 | 63 | 26397 | 0.954 | ppbv# | 95 |
| 92] | Cis-1,2-Dichloroethene... | 6.781 | 61 | 23438 | 0.984 | ppbv# | 73 |
| 93] | Chloroform(sim) | 6.933 | 83 | 28482 | 0.953 | ppbv# | 89 |
| 95] | 1,2-dichloropropane(sim) | 8.009 | 63 | 12315 | 0.943 | ppbv# | 77 |
| 96] | Bromodichloromethane(sim) | 8.088 | 85 | 20268 | 1.110 | ppbv | 96 |
| 97] | Trichloroethene(sim) | 8.111 | 130 | 13836 | 0.873 | ppbv | 93 |
| 98] | 1,4-Dioxane(sim) | 8.114 | 88 | 6349 | 0.900 | ppbv# | 63 |
| 99] | cis-1,3-Dichloropropen... | 8.492 | 75 | 15509 | 1.123 | ppbv | 92 |
| 100] | 1,1,2-Trichloroethane(... | 8.811 | 97 | 14668 | 0.985 | ppbv | 94 |
| 101] | Dibromochloromethane(sim) | 9.153 | 129 | 20775 | 1.191 | ppbv | 99 |
| 102] | 1,2-Dibromoethane(EDB)... | 9.275 | 107 | 24442 | 1.058 | ppbv | 98 |
| 103] | Tetrachloroethene(sim) | 9.497 | 166 | 15212 | 0.881 | ppbv# | 87 |
| 105] | Bromoform(sim) | 10.164 | 173 | 13329 | 1.198 | ppbv | 99 |
| 106] | m,p-Xylene(sim) | 10.098 | 91 | 72152 | 2.014 | ppbv# | 92 |
| 107] | 1,1,2,2-Tetrachloroeth... | 10.346 | 83 | 26612 | 1.076 | ppbv | 94 |
| 110] | Benzyl chloride(sim) | 11.396 | 91 | 14780 | 1.063 | ppbv | 92 |
| 111] | 1,3-Dichlorobenzene(sim) | 11.408 | 146 | 24395 | 1.058 | ppbv# | 92 |
| 112] | 1,4-Dichlorobenzene(sim) | 11.449 | 146 | 28798 | 1.090 | ppbv | 95 |
| 113] | sec-Butylbenzene(sim) | 11.469 | 105 | 53397 | 1.020 | ppbv | 96 |
| 114] | 4-Isopropyltoluene(sim) | 11.563 | 119 | 43325 | 0.978 | ppbv# | 89 |
| 115] | 1,2-Dichlorobenzene(sim) | 11.666 | 146 | 22807 | 1.081 | ppbv | 94 |
| 116] | n-Butylbenzene(sim) | 11.821 | 91 | 37845 | 0.969 | ppbv | 93 |
| 117] | 1,2,4-Trichlorobenzene... | 12.783 | 180 | 5288 | 0.715 | ppbv | 93 |
| 119] | Hexachlorobutadiene(sim) | 13.094 | 225 | 8684 | 0.805 | ppbv | 95 |

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_41.D
Acq On : 10 Apr 2019 07:47 am
Operator : CORTEX\ms
Client ID : BFB TUNE - CCAL 1
Lab ID : 1ppb cc - 1ppb cc
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 11:14:18 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration

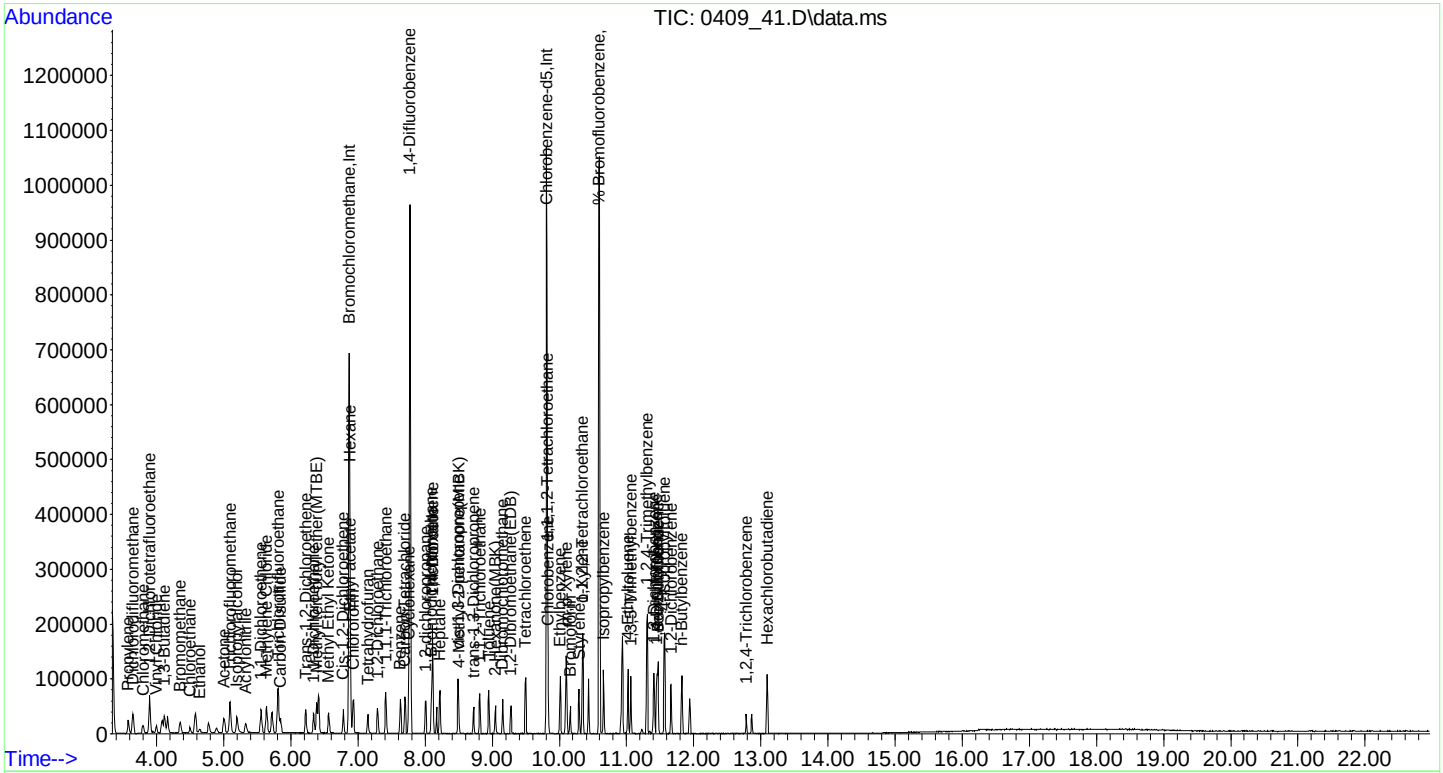
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|

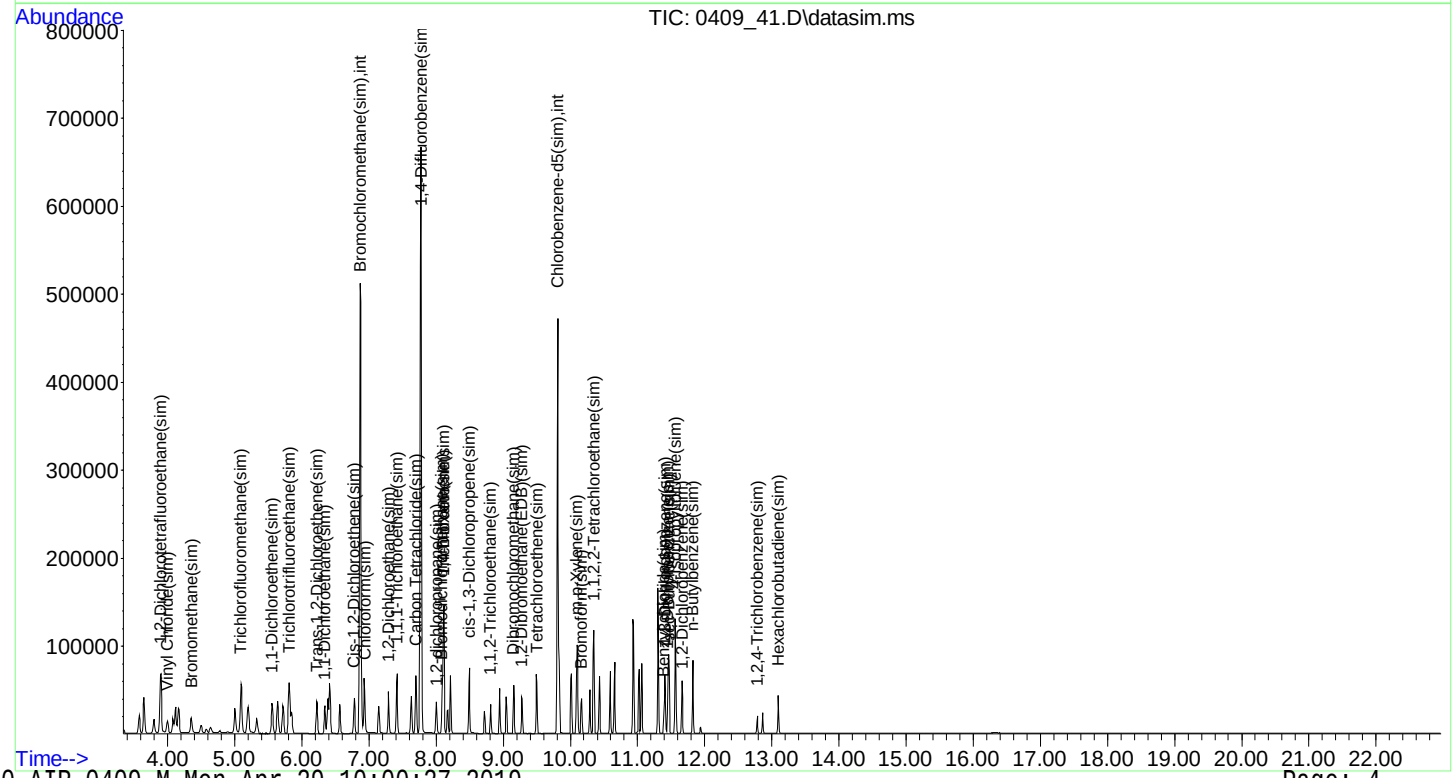
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_41.D
Acq On : 10 Apr 2019 07:47 am
Operator : CORTEX\ms
Client ID : BFB TUNE - CCAL 1
Lab ID : 1ppb cc - 1ppb cc
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 11:14:18 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration



1

AIR ANALYSIS DATA SHEET

CLIENT ID: CC90508 LCS

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90508 LCS

Canister: LCS Lab File ID: 0409_17.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/09/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 115-07-1 | Propylene | 11.3 | | 0.581 | 0.581 | r |
| 75-71-8 | Dichlorodifluoromethane | 11.4 | | 0.202 | 0.202 | r |
| 74-87-3 | Chloromethane | 11.2 | | 0.485 | 0.485 | r |
| 76-14-2 | 1,2-Dichlorotetrafluoroethane | 11.2 | | 0.143 | 0.143 | r |
| 75-01-4 | Vinyl Chloride | 11.1 | | 0.078 | 0.078 | r |
| 106-99-0 | 1,3-Butadiene | 11.2 | | 0.452 | 0.452 | r |
| 74-83-9 | Bromomethane | 10.9 | | 0.258 | 0.258 | r |
| 75-00-3 | Chloroethane | 11.0 | | 0.379 | 0.379 | r |
| 64-17-5 | Ethanol | 11.6 | | 0.531 | 0.531 | r |
| 67-64-1 | Acetone | 10.8 | | 0.421 | 0.421 | r |
| 75-69-4 | Trichlorofluoromethane | 11.1 | | 0.178 | 0.178 | r |
| 67-63-0 | Isopropylalcohol | 10.7 | | 0.407 | 0.407 | r |
| 107-13-1 | Acrylonitrile | 10.8 | | 0.461 | 0.461 | r |
| 75-35-4 | 1,1-Dichloroethene | 11.0 | | 0.051 | 0.051 | r |
| 75-09-2 | Methylene Chloride | 10.8 | | 0.864 | 0.864 | r |
| 75-15-0 | Carbon Disulfide | 10.8 | | 0.321 | 0.321 | r |
| 76-13-1 | Trichlorotrifluoroethane | 11.1 | | 0.131 | 0.131 | r |
| 75-34-3 | 1,1-Dichloroethane | 11.1 | | 0.247 | 0.247 | r |
| 1634-04-4 | Methyl tert-butyl ether(MTBE) | 11.5 | | 0.278 | 0.278 | r |
| 78-93-3 | Methyl Ethyl Ketone | 11.3 | | 0.339 | 0.339 | r |
| 156-59-2 | Cis-1,2-Dichloroethene | 11.4 | | 0.051 | 0.051 | r |
| 110-54-3 | Hexane | 11.4 | | 0.284 | 0.284 | r |
| 67-66-3 | Chloroform | 11.1 | | 0.205 | 0.205 | r |
| 141-78-6 | Ethyl acetate | 11.9 | | 0.278 | 0.278 | r |
| 109-99-9 | Tetrahydrofuran | 12.0 | | 0.339 | 0.339 | r |
| 107-06-2 | 1,2-Dichloroethane | 11.2 | | 0.247 | 0.247 | r |
| 71-55-6 | 1,1,1-Trichloroethane | 11.7 | | 0.183 | 0.183 | r |
| 71-43-2 | Benzene | 11.5 | | 0.313 | 0.313 | r |
| 56-23-5 | Carbon Tetrachloride | 12.9 | | 0.032 | 0.032 | r |
| 110-82-7 | Cyclohexane | 11.5 | | 0.291 | 0.291 | r |
| 78-87-5 | 1,2-dichloropropane | 10.7 | | 0.217 | 0.217 | r |
| 75-27-4 | Bromodichloromethane | 11.4 | | 0.149 | 0.149 | r |
| 79-01-6 | Trichloroethene | 10.4 | | 0.037 | 0.037 | r |
| 123-91-1 | 1,4-Dioxane | 11.0 | | 0.278 | 0.278 | r |
| 142-82-5 | Heptane | 10.9 | | 0.244 | 0.244 | r |
| 10061-01-5 | cis-1,3-Dichloropropene | 11.5 | | 0.220 | 0.220 | r |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

1

AIR ANALYSIS DATA SHEET

CLIENT ID: CC90508 LCS

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90508 LCS

Canister: LCS Lab File ID: 0409_17.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/09/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | 12.1 | | 0.244 | 0.244 | r |
| 10061-02-6 | trans-1,3-Dichloropropene | 11.8 | | 0.220 | 0.220 | r |
| 79-00-5 | 1,1,2-Trichloroethane | 10.5 | | 0.183 | 0.183 | r |
| 108-88-3 | Toluene | 10.9 | | 0.266 | 0.266 | r |
| 124-48-1 | Dibromochloromethane | 13.9 | | 0.117 | 0.117 | r |
| 591-78-6 | 2-Hexanone(MBK) | 11.5 | | 0.244 | 0.244 | r |
| 106-93-4 | 1,2-Dibromoethane(EDB) | 11.1 | | 0.130 | 0.130 | r |
| 127-18-4 | Tetrachloroethene | 10.7 | | 0.037 | 0.037 | r |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 11.6 | | 0.146 | 0.146 | r |
| 108-90-7 | Chlorobenzene | 10.2 | | 0.217 | 0.217 | r |
| 100-41-4 | Ethylbenzene | 10.7 | | 0.230 | 0.230 | r |
| 179601-23-1 | m,p-Xylene | 22.1 | | 0.230 | 0.230 | r |
| 75-25-2 | Bromoform | 15.8 | | 0.097 | 0.097 | r |
| 100-42-5 | Styrene | 11.2 | | 0.235 | 0.235 | r |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10.9 | | 0.146 | 0.146 | r |
| 95-47-6 | o-Xylene | 10.7 | | 0.230 | 0.230 | r |
| 98-82-8 | Isopropylbenzene | 10.4 | | 0.204 | 0.204 | r |
| 622-96-8 | 4-Ethyltoluene | 11.1 | | 0.204 | 0.204 | r |
| 108-67-8 | 1,3,5-Trimethylbenzene | 11.0 | | 0.204 | 0.204 | r |
| 95-63-6 | 1,2,4-Trimethylbenzene | 11.3 | | 0.204 | 0.204 | r |
| 100-44-7 | Benzyl chloride | 11.3 | | 0.193 | 0.193 | r |
| 541-73-1 | 1,3-Dichlorobenzene | 11.1 | | 0.166 | 0.166 | r |
| 106-46-7 | 1,4-Dichlorobenzene | 11.0 | | 0.166 | 0.166 | r |
| 135-98-8 | sec-Butylbenzene | 10.7 | | 0.182 | 0.182 | r |
| 99-87-6 | 4-Isopropyltoluene | 11.2 | | 0.182 | 0.182 | r |
| 95-50-1 | 1,2-Dichlorobenzene | 11.2 | | 0.166 | 0.166 | r |
| 104-51-8 | n-Butylbenzene | 11.4 | | 0.182 | 0.182 | r |
| 120-82-1 | 1,2,4-Trichlorobenzene | 15.4 | | 0.135 | 0.135 | r |
| 87-68-3 | Hexachlorobutadiene | 13.3 | | 0.094 | 0.094 | r |
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FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_17.D
Acq On : 09 Apr 2019 04:04 pm
Operator : CORTEX\ms
Client ID : CC90508 LCS
Lab ID : CC90508 LCS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 09:27:38 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.879 | 130 | 134010 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.781 | 114 | 417487 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.815 | 82 | 207223 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.882 | 130 | 175430 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.783 | 114 | 484012 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 216049 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 275058 | 10.125 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 101.20% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Propylene | 3.606 | 41 | 178251 | 11.290 | ppbv | | 95 |
| 3) Dichlorodifluoromethane | 3.679 | 85 | 391509 | 11.392 | ppbv# | | 96 |
| 4) Chloromethane | 3.825 | 50 | 160044 | 11.149 | ppbv | | 97 |
| 5) 1,2-Dichlorotetrafluor... | 3.930 | 85 | 373544 | 11.175 | ppbv | | 93 |
| 6) Vinyl Chloride | 4.027 | 62 | 154486 | 11.079 | ppbv | | 96 |
| 7) 1,3-Butadiene | 4.149 | 54 | 131913 | 11.229 | ppbv# | | 82 |
| 8) Bromomethane | 4.384 | 94 | 126672 | 10.853 | ppbv# | | 97 |
| 9) Chloroethane | 4.530 | 64 | 71984 | 11.000 | ppbv | | 85 |
| 11) Ethanol | 4.644 | 45 | 67091 | 11.635 | ppbv | | 96 |
| 12) Acetone | 5.009 | 43 | 323180 | 10.786 | ppbv# | | 87 |
| 13) Trichlorofluoromethane | 5.122 | 101 | 498302 | 11.088 | ppbv | | 99 |
| 14) Isopropylalcohol | 5.195 | 45 | 336844 | 10.670 | ppbv# | | 97 |
| 15) Acrylonitrile | 5.341 | 53 | 84206 | 10.783 | ppbv | | 98 |
| 16) 1,1-Dichloroethene | 5.578 | 61 | 296729 | 10.982 | ppbv# | | 75 |
| 17) Methylene Chloride | 5.661 | 49 | 217075 | 10.809 | ppbv# | | 56 |
| 20) Carbon Disulfide | 5.870 | 76 | 318498 | 10.839 | ppbv | | 100 |
| 21) Trichlorotrifluoroethane | 5.828 | 101 | 294435 | 11.077 | ppbv | | 89 |
| 22) Trans-1,2-Dichloroethene | 6.239 | 61 | 260623 | 11.372 | ppbv# | | 78 |
| 23) 1,1-Dichloroethane | 6.359 | 63 | 314990 | 11.093 | ppbv | | 95 |
| 24) Methyl tert-butyl ethe... | 6.385 | 73 | 401136 | 11.482 | ppbv# | | 72 |
| 25) Methyl Ethyl Ketone | 6.563 | 43 | 426123 | 11.302 | ppbv# | | 78 |
| 26) Cis-1,2-Dichloroethene | 6.794 | 61 | 251087 | 11.410 | ppbv# | | 73 |
| 27) Hexane | 6.887 | 57 | 247079 | 11.403 | ppbv# | | 82 |
| 28) Chloroform | 6.941 | 83 | 345766 | 11.098 | ppbv | | 91 |
| 29) Ethyl acetate | 6.887 | 61 | 49918 | 11.859 | ppbv# | | 73 |
| 30) Tetrahydrofuran | 7.143 | 42 | 189907 | 11.971 | ppbv# | | 61 |
| 31) 1,2-Dichloroethane | 7.305 | 62 | 298522 | 11.233 | ppbv# | | 92 |
| 32) 1,1,1-Trichloroethane | 7.422 | 97 | 355154 | 11.683 | ppbv# | | 92 |
| 33) Benzene | 7.637 | 78 | 337813 | 11.495 | ppbv# | | 88 |
| 34) Carbon Tetrachloride | 7.704 | 117 | 326422 | 12.877 | ppbv | | 99 |
| 35) Cyclohexane | 7.764 | 41 | 135422 | 11.464 | ppbv# | | 44 |
| 37) 1,2-dichloropropane | 8.009 | 63 | 143851 | 10.707 | ppbv# | | 82 |
| 38) Bromodichloromethane | 8.102 | 83 | 312720 | 11.438 | ppbv | | 99 |
| 39) Trichloroethene | 8.111 | 130 | 163685 | 10.443 | ppbv | | 93 |
| 41) 1,4-Dioxane | 8.102 | 88 | 71719 | 11.009 | ppbv# | | 67 |
| 43) Heptane | 8.221 | 43 | 230080 | 10.927 | ppbv# | | 71 |
| 44) cis-1,3-Dichloropropene | 8.492 | 75 | 195658 | 11.497 | ppbv | | 96 |
| 45) 4-Methyl-2-pentanone(M... | 8.492 | 43 | 347658 | 12.055 | ppbv# | | 80 |
| 46) trans-1,3-Dichloropropene | 8.723 | 75 | 194197 | 11.820 | ppbv | | 96 |
| 47) 1,1,2-Trichloroethane | 8.815 | 97 | 139154 | 10.542 | ppbv | | 91 |
| 48) Toluene | 8.948 | 91 | 374079 | 10.928 | ppbv# | | 98 |
| 49) Dibromochloromethane | 9.160 | 129 | 280744 | 13.876 | ppbv | | 98 |
| 50) 2-Hexanone(MBK) | 9.040 | 43 | 301527 | 11.478 | ppbv# | | 89 |
| 51) 1,2-Dibromoethane(EDB) | 9.279 | 107 | 246943 | 11.093 | ppbv | | 97 |

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_17.D
Acq On : 09 Apr 2019 04:04 pm
Operator : CORTEX\ms
Client ID : CC90508 LCS
Lab ID : CC90508 LCS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 09:27:38 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 52) | Tetrachloroethene | 9.497 | 166 | 177157 | 10.686 | ppbv# | 89 |
| 54) | 1,1,1,2-Tetrachloroethane | 9.822 | 131 | 184170 | 11.556 | ppbv | 99 |
| 55) | Chlorobenzene | 9.838 | 112 | 322363 | 10.171 | ppbv | 97 |
| 56) | Ethylbenzene | 10.012 | 91 | 526765 | 10.731 | ppbv | 97 |
| 57) | m,p-Xylene | 10.103 | 91 | 828896 | 22.124 | ppbv | 94 |
| 58) | Bromoform | 10.164 | 173 | 211049m | 15.823 | ppbv | 99 |
| 59) | Styrene | 10.293 | 104 | 304814 | 11.201 | ppbv# | 86 |
| 60) | 1,1,2,2-Tetrachloroethane | 10.346 | 83 | 306157 | 10.896 | ppbv | 90 |
| 61) | o-Xylene | 10.353 | 91 | 420975 | 10.738 | ppbv | 95 |
| 64) | Isopropylbenzene | 10.656 | 105 | 537336 | 10.418 | ppbv | 95 |
| 66) | 4-Ethyltoluene | 11.021 | 105 | 576708 | 11.112 | ppbv | 96 |
| 67) | 1,3,5-Trimethylbenzene | 11.066 | 105 | 492586 | 11.023 | ppbv | 95 |
| 68) | 1,2,4-Trimethylbenzene | 11.309 | 105 | 496134 | 11.339 | ppbv | 96 |
| 70) | Benzyl chloride | 11.400 | 91 | 348672 | 11.302 | ppbv | 94 |
| 71) | 1,3-Dichlorobenzene | 11.416 | 146 | 323035 | 11.090 | ppbv | 96 |
| 72) | 1,4-Dichlorobenzene | 11.454 | 146 | 314005 | 10.984 | ppbv | 95 |
| 73) | sec-Butylbenzene | 11.469 | 105 | 654518 | 10.730 | ppbv | 97 |
| 74) | 4-Isopropyltoluene | 11.560 | 119 | 597945 | 11.244 | ppbv | 96 |
| 75) | 1,2-Dichlorobenzene | 11.666 | 146 | 311229 | 11.242 | ppbv | 96 |
| 76) | n-Butylbenzene | 11.826 | 91 | 546110 | 11.388 | ppbv | 97 |
| 77) | 1,2,4-Trichlorobenzene | 12.783 | 180 | 167804 | 15.412 | ppbv# | 93 |
| 79) | Hexachlorobutadiene | 13.094 | 225 | 154561 | 13.316 | ppbv | 98 |
| 81] | 1,2-Dichlorotetrafluor... | 3.930 | 85 | 373140 | 10.452 | ppbv | 93 |
| 82] | Vinyl Chloride(sim) | 4.030 | 62 | 178004 | 10.526 | ppbv | 95 |
| 83] | Bromomethane(sim) | 4.384 | 94 | 126672 | 8.996 | ppbv# | 97 |
| 84] | Trichlorofluoromethane... | 5.125 | 101 | 597049 | 10.198 | ppbv | 99 |
| 85] | 1,2-Dichloroethane(sim) | 7.305 | 62 | 298522 | 10.532 | ppbv# | 92 |
| 86] | 1,1,1-Trichloroethane(... | 7.424 | 97 | 432639 | 11.620 | ppbv# | 91 |
| 87] | Carbon Tetrachloride(sim) | 7.704 | 117 | 326422 | 14.281 | ppbv | 99 |
| 88] | 1,1-Dichloroethene(sim) | 5.581 | 61 | 344505 | 10.387 | ppbv# | 70 |
| 89] | Trichlorotrifluoroetha... | 5.828 | 101 | 294435 | 10.026 | ppbv | 99 |
| 90] | Trans-1,2-Dichloroethe... | 6.164 | 61 | 9 | 0.000 | ppbv | 94 |
| 91] | 1,1-Dichloroethane(sim) | 6.359 | 63 | 314990 | 10.228 | ppbv | 95 |
| 92] | Cis-1,2-Dichloroethene... | 6.797 | 61 | 292298 | 11.034 | ppbv# | 74 |
| 93] | Chloroform(sim) | 6.941 | 83 | 345766 | 10.403 | ppbv# | 91 |
| 95] | 1,2-dichloropropane(sim) | 8.009 | 63 | 143851 | 10.011 | ppbv# | 82 |
| 96] | Bromodichloromethane(sim) | 8.097 | 85 | 236926 | 11.787 | ppbv | 96 |
| 97] | Trichloroethene(sim) | 8.111 | 130 | 163685 | 9.387 | ppbv | 96 |
| 98] | 1,4-Dioxane(sim) | 8.105 | 88 | 76073 | 9.797 | ppbv# | 68 |
| 99] | cis-1,3-Dichloropropen... | 8.492 | 75 | 195658 | 12.868 | ppbv | 96 |
| 100] | 1,1,2-Trichloroethane(... | 8.818 | 97 | 169436 | 10.336 | ppbv | 94 |
| 101] | Dibromochloromethane(sim) | 9.160 | 129 | 280744 | 14.627 | ppbv | 98 |
| 102] | 1,2-Dibromoethane(EDB)... | 9.282 | 107 | 293656 | 11.553 | ppbv | 98 |
| 103] | Tetrachloroethene(sim) | 9.497 | 166 | 177157 | 9.318 | ppbv | 89 |
| 105] | Bromoform(sim) | 10.164 | 173 | 211344 | 16.395 | ppbv | 99 |
| 106] | m,p-Xylene(sim) | 10.106 | 91 | 876932 | 16.570 | ppbv | 94 |
| 107] | 1,1,2,2-Tetrachloroeth... | 10.346 | 83 | 306157 | 10.693 | ppbv | 97 |
| 110] | Benzyl chloride(sim) | 11.396 | 91 | 372282 | 8.732 | ppbv | 93 |
| 111] | 1,3-Dichlorobenzene(sim) | 11.416 | 146 | 323035 | 12.093 | ppbv | 96 |
| 112] | 1,4-Dichlorobenzene(sim) | 11.449 | 146 | 393494 | 12.864 | ppbv | 96 |
| 113] | sec-Butylbenzene(sim) | 11.469 | 105 | 654272 | 8.096 | ppbv | 97 |
| 114] | 4-Isopropyltoluene(sim) | 11.563 | 119 | 576273 | 8.200 | ppbv | 93 |
| 115] | 1,2-Dichlorobenzene(sim) | 11.666 | 146 | 311229 | 12.738 | ppbv | 96 |
| 116] | n-Butylbenzene(sim) | 11.821 | 91 | 578087 | 8.036 | ppbv | 95 |
| 117] | 1,2,4-Trichlorobenzene... | 12.783 | 180 | 167804 | 10.740 | ppbv | 93 |
| 119] | Hexachlorobutadiene(sim) | 13.094 | 225 | 154561 | 12.368 | ppbv | 98 |

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_17.D
Acq On : 09 Apr 2019 04:04 pm
Operator : CORTEX\ms
Client ID : CC90508 LCS
Lab ID : CC90508 LCS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 09:27:38 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration

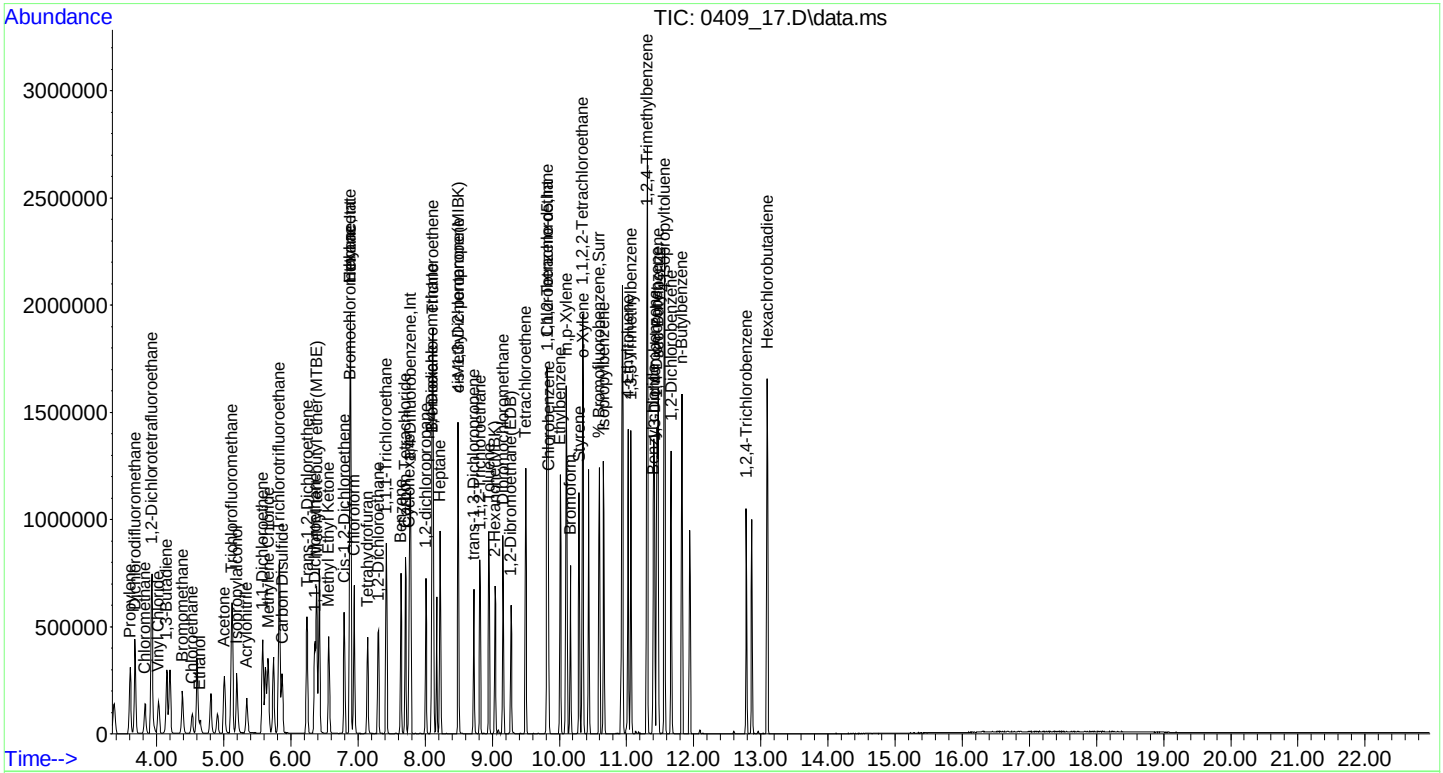
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|

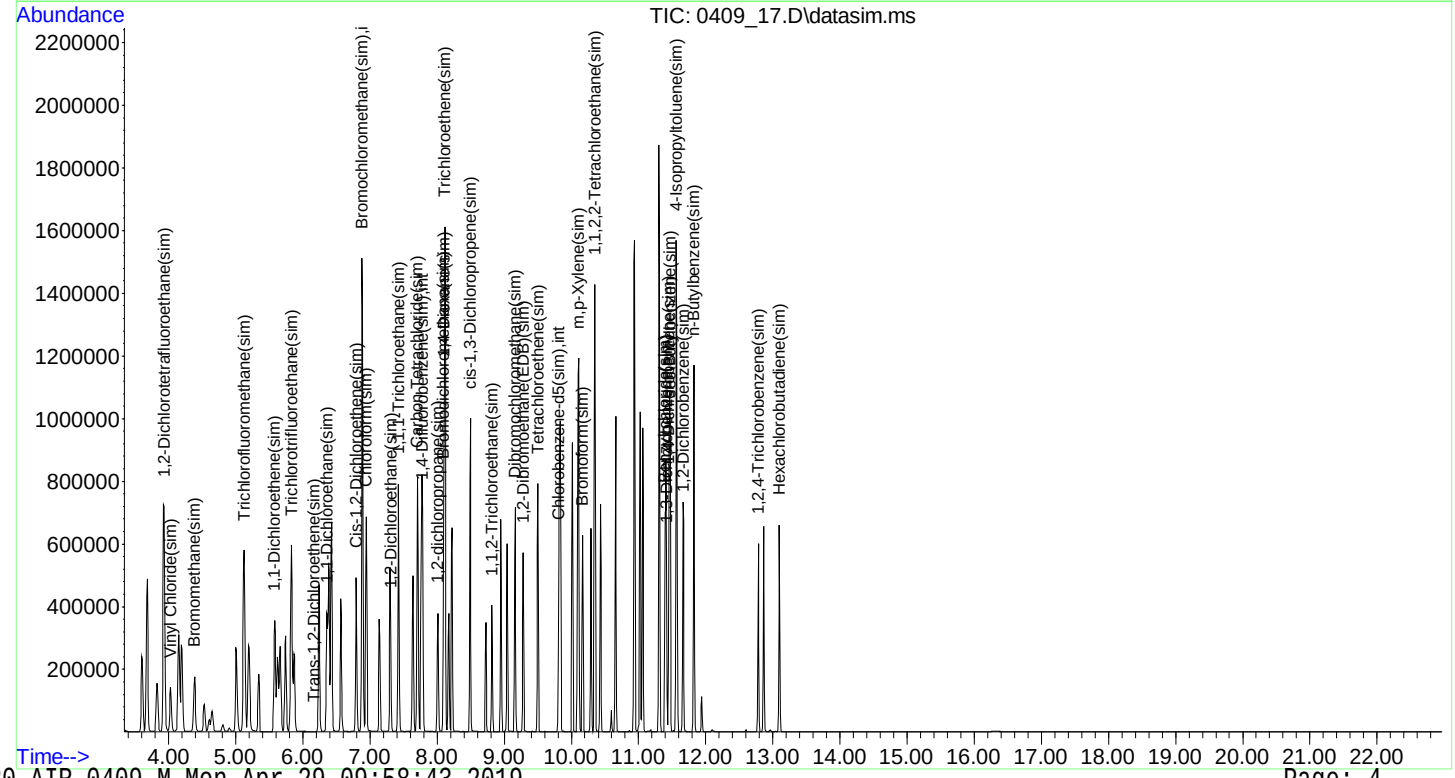
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_17.D
Acq On : 09 Apr 2019 04:04 pm
Operator : CORTEX\ms
Client ID : CC90508 LCS
Lab ID : CC90508 LCS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 09:27:38 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration



AIR ANALYSIS DATA SHEET

CLIENT ID: CC90508 BLANK

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90508 BL

Canister: BL Lab File ID: 0409_19.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/09/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 115-07-1 | Propylene | 0.580 | U | 0.580 | 0.580 | r |
| 75-71-8 | Dichlorodifluoromethane | 0.200 | U | 0.200 | 0.200 | r |
| 74-87-3 | Chloromethane | 0.480 | U | 0.480 | 0.480 | r |
| 106-99-0 | 1,3-Butadiene | 0.450 | U | 0.450 | 0.450 | r |
| 75-00-3 | Chloroethane | 0.380 | U | 0.380 | 0.380 | r |
| 64-17-5 | Ethanol | 0.530 | U | 0.530 | 0.530 | r |
| 67-64-1 | Acetone | 0.420 | U | 0.420 | 0.420 | r |
| 67-63-0 | Isopropylalcohol | 0.410 | U | 0.410 | 0.410 | r |
| 107-13-1 | Acrylonitrile | 0.460 | U | 0.460 | 0.460 | r |
| 75-09-2 | Methylene Chloride | 0.860 | U | 0.860 | 0.860 | r |
| 75-15-0 | Carbon Disulfide | 0.320 | U | 0.320 | 0.320 | r |
| 1634-04-4 | Methyl tert-butyl ether(MTBE) | 0.280 | U | 0.280 | 0.280 | r |
| 78-93-3 | Methyl Ethyl Ketone | 0.340 | U | 0.340 | 0.340 | r |
| 110-54-3 | Hexane | 0.280 | U | 0.280 | 0.280 | r |
| 141-78-6 | Ethyl acetate | 0.280 | U | 0.280 | 0.280 | r |
| 109-99-9 | Tetrahydrofuran | 0.340 | U | 0.340 | 0.340 | r |
| 71-43-2 | Benzene | 0.310 | U | 0.310 | 0.310 | r |
| 110-82-7 | Cyclohexane | 0.290 | U | 0.290 | 0.290 | r |
| 142-82-5 | Heptane | 0.240 | U | 0.240 | 0.240 | r |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | 0.240 | U | 0.240 | 0.240 | r |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.220 | U | 0.220 | 0.220 | r |
| 108-88-3 | Toluene | 0.270 | U | 0.270 | 0.270 | r |
| 591-78-6 | 2-Hexanone(MBK) | 0.240 | U | 0.240 | 0.240 | r |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.150 | U | 0.150 | 0.150 | r |
| 108-90-7 | Chlorobenzene | 0.220 | U | 0.220 | 0.220 | r |
| 100-41-4 | Ethylbenzene | 0.230 | U | 0.230 | 0.230 | r |
| 100-42-5 | Styrene | 0.230 | U | 0.230 | 0.230 | r |
| 95-47-6 | o-Xylene | 0.230 | U | 0.230 | 0.230 | r |
| 98-82-8 | Isopropylbenzene | 0.200 | U | 0.200 | 0.200 | r |
| 622-96-8 | 4-Ethyltoluene | 0.200 | U | 0.200 | 0.200 | r |
| 108-67-8 | 1,3,5-Trimethylbenzene | 0.200 | U | 0.200 | 0.200 | r |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.200 | U | 0.200 | 0.200 | r |
| 76-14-2 | 1,2-Dichlorotetrafluoroethane(sim) | 0.140 | U | 0.140 | 0.140 | r |
| 75-01-4 | Vinyl Chloride(sim) | 0.078 | U | 0.078 | 0.078 | r |
| 74-83-9 | Bromomethane(sim) | 0.260 | U | 0.260 | 0.260 | r |
| 75-69-4 | Trichlorofluoromethane(sim) | 0.180 | U | 0.180 | 0.180 | r |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

1

AIR ANALYSIS DATA SHEET

CLIENT ID: CC90508 BLANK

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90508 BL

Canister: BL Lab File ID: 0409_19.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/09/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 107-06-2 | 1,2-Dichloroethane(sim) | 0.250 | U | 0.250 | 0.250 | r |
| 71-55-6 | 1,1,1-Trichloroethane(sim) | 0.180 | U | 0.180 | 0.180 | r |
| 56-23-5 | Carbon Tetrachloride(sim) | 0.032 | U | 0.032 | 0.032 | r |
| 75-35-4 | 1,1-Dichloroethene(sim) | 0.050 | U | 0.050 | 0.050 | r |
| 76-13-1 | Trichlorotrifluoroethane(sim) | 0.130 | U | 0.130 | 0.130 | r |
| 156-60-5 | Trans-1,2-Dichloroethene(sim) | 0.250 | U | 0.250 | 0.250 | r |
| 75-34-3 | 1,1-Dichloroethane(sim) | 0.250 | U | 0.250 | 0.250 | r |
| 156-59-2 | Cis-1,2-Dichloroethene(sim) | 0.256 | U | 0.256 | 0.256 | r |
| 67-66-3 | Chloroform(sim) | 0.200 | U | 0.200 | 0.200 | r |
| 78-87-5 | 1,2-dichloropropane(sim) | 0.220 | U | 0.220 | 0.220 | r |
| 75-27-4 | Bromodichloromethane(sim) | 0.150 | U | 0.150 | 0.150 | r |
| 79-01-6 | Trichloroethene(sim) | 0.037 | U | 0.037 | 0.037 | r |
| 123-91-1 | 1,4-Dioxane(sim) | 0.280 | U | 0.280 | 0.280 | r |
| 10061-01-5 | cis-1,3-Dichloropropene(sim) | 0.220 | U | 0.220 | 0.220 | r |
| 79-00-5 | 1,1,2-Trichloroethane(sim) | 0.180 | U | 0.180 | 0.180 | r |
| 124-48-1 | Dibromochloromethane(sim) | 0.120 | U | 0.120 | 0.120 | r |
| 106-93-4 | 1,2-Dibromoethane(EDB)(sim) | 0.130 | U | 0.130 | 0.130 | r |
| 127-18-4 | Tetrachloroethene(sim) | 0.037 | U | 0.037 | 0.037 | r |
| 75-25-2 | Bromoform(sim) | 0.097 | U | 0.097 | 0.097 | r |
| 179601-23-1 | m,p-Xylene(sim) | 0.230 | U | 0.230 | 0.230 | r |
| 79-34-5 | 1,1,2,2-Tetrachloroethane(sim) | 0.150 | U | 0.150 | 0.150 | r |
| 100-44-7 | Benzyl chloride(sim) | 0.190 | U | 0.190 | 0.190 | r |
| 541-73-1 | 1,3-Dichlorobenzene(sim) | 0.170 | U | 0.170 | 0.170 | r |
| 106-46-7 | 1,4-Dichlorobenzene(sim) | 0.170 | U | 0.170 | 0.170 | r |
| 135-98-8 | sec-Butylbenzene(sim) | 0.180 | U | 0.180 | 0.180 | r |
| 99-87-6 | 4-Isopropyltoluene(sim) | 0.180 | U | 0.180 | 0.180 | r |
| 95-50-1 | 1,2-Dichlorobenzene(sim) | 0.170 | U | 0.170 | 0.170 | r |
| 104-51-8 | n-Butylbenzene(sim) | 0.180 | U | 0.180 | 0.180 | r |
| 120-82-1 | 1,2,4-Trichlorobenzene(sim) | 0.130 | U | 0.130 | 0.130 | r |
| 87-68-3 | Hexachlorobutadiene(sim) | 0.094 | U | 0.094 | 0.094 | r |
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FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_19.D
Acq On : 09 Apr 2019 05:15 pm
Operator : CORTEX\ms
Client ID : CC90508 BLANK
Lab ID : CC90508 BLANK
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 10:23:56 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration

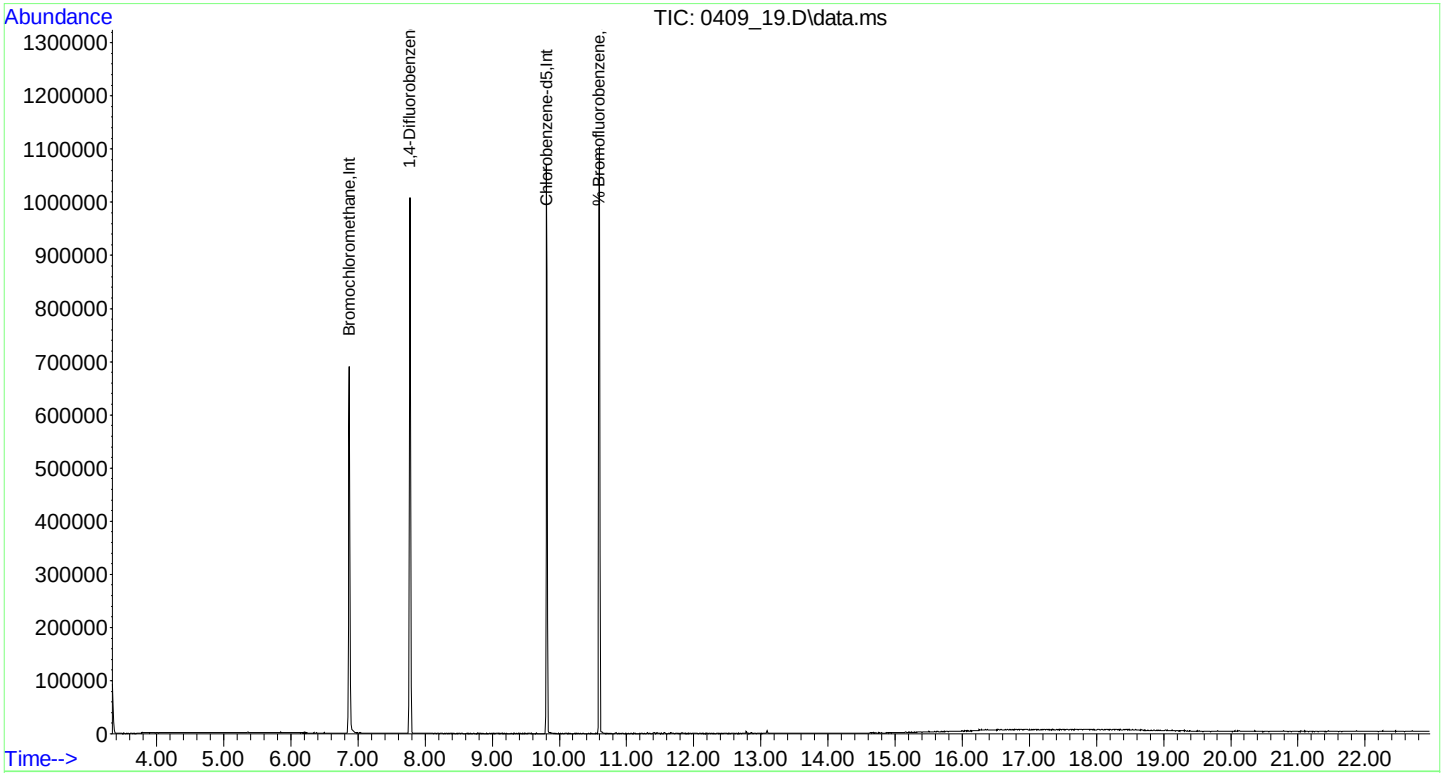
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.871 | 130 | 137728 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.772 | 114 | 422184 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.807 | 82 | 195526 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.874 | 130 | 182807 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 482208 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 198523 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 257510 | 10.046 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 100.50% | | | | |
| Target Compounds | | | | | | | Qvalue |

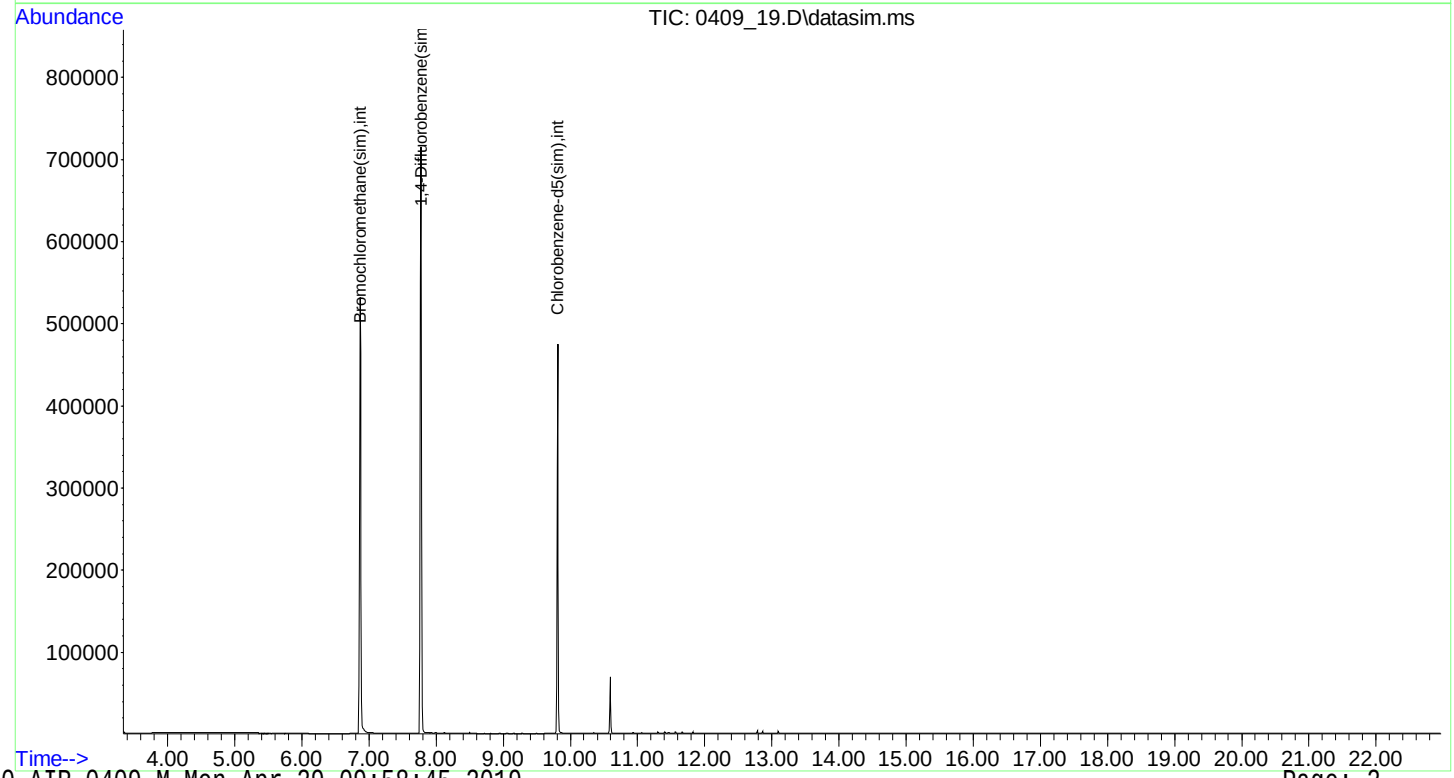
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_19.D
Acq On : 09 Apr 2019 05:15 pm
Operator : CORTEX\ms
Client ID : CC90508 BLANK
Lab ID : CC90508 BLANK
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 10:23:56 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration



1

AIR ANALYSIS DATA SHEET

CLIENT ID: IA-4 DUP

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90508 DUP

Canister: 492 Lab File ID: 0409_21.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/09/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 115-07-1 | Propylene | 0.581 | U | 0.581 | 0.581 | r |
| 75-71-8 | Dichlorodifluoromethane | 0.468 | | 0.202 | 0.202 | r |
| 74-87-3 | Chloromethane | 0.614 | | 0.485 | 0.485 | r |
| 106-99-0 | 1,3-Butadiene | 0.452 | U | 0.452 | 0.452 | r |
| 75-00-3 | Chloroethane | 0.379 | U | 0.379 | 0.379 | r |
| 64-17-5 | Ethanol | 14.1 | S | 0.531 | 0.531 | r |
| 67-64-1 | Acetone | 7.35 | S | 0.421 | 0.421 | r |
| 75-69-4 | Trichlorofluoromethane | 0.244 | | 0.178 | 0.178 | r |
| 67-63-0 | Isopropylalcohol | 0.713 | S | 0.407 | 0.407 | r |
| 107-13-1 | Acrylonitrile | 0.461 | U | 0.461 | 0.461 | r |
| 75-09-2 | Methylene Chloride | 0.864 | U | 0.864 | 0.864 | r |
| 75-15-0 | Carbon Disulfide | 0.321 | U | 0.321 | 0.321 | r |
| 1634-04-4 | Methyl tert-butyl ether(MTBE) | 0.278 | U | 0.278 | 0.278 | r |
| 78-93-3 | Methyl Ethyl Ketone | 0.969 | | 0.339 | 0.339 | r |
| 110-54-3 | Hexane | 1.89 | S | 0.284 | 0.284 | r |
| 141-78-6 | Ethyl acetate | 0.278 | U | 0.278 | 0.278 | r |
| 109-99-9 | Tetrahydrofuran | 1.71 | | 0.339 | 0.339 | r |
| 71-43-2 | Benzene | 0.492 | | 0.313 | 0.313 | r |
| 110-82-7 | Cyclohexane | 0.658 | | 0.291 | 0.291 | r |
| 142-82-5 | Heptane | 0.856 | | 0.244 | 0.244 | r |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | 0.244 | U | 0.244 | 0.244 | r |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.220 | U | 0.220 | 0.220 | r |
| 108-88-3 | Toluene | 2.39 | | 0.266 | 0.266 | r |
| 591-78-6 | 2-Hexanone(MBK) | 0.244 | U | 0.244 | 0.244 | r |
| 127-18-4 | Tetrachloroethene | 2.45 | | 0.037 | 0.037 | r |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.146 | U | 0.146 | 0.146 | r |
| 108-90-7 | Chlorobenzene | 0.217 | U | 0.217 | 0.217 | r |
| 100-41-4 | Ethylbenzene | 0.515 | | 0.230 | 0.230 | r |
| 179601-23-1 | m,p-Xylene | 2.00 | | 0.230 | 0.230 | r |
| 100-42-5 | Styrene | 0.235 | U | 0.235 | 0.235 | r |
| 95-47-6 | o-Xylene | 0.873 | | 0.230 | 0.230 | r |
| 98-82-8 | Isopropylbenzene | 0.224 | | 0.204 | 0.204 | r |
| 622-96-8 | 4-Ethyltoluene | 0.953 | | 0.204 | 0.204 | r |
| 108-67-8 | 1,3,5-Trimethylbenzene | 1.07 | | 0.204 | 0.204 | r |
| 95-63-6 | 1,2,4-Trimethylbenzene | 3.73 | | 0.204 | 0.204 | r |
| 76-14-2 | 1,2-Dichlorotetrafluoroethane(sim) | 0.143 | U | 0.143 | 0.143 | r |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

1

AIR ANALYSIS DATA SHEET

CLIENT ID: IA-4 DUP

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90508 DUP

Canister: 492 Lab File ID: 0409_21.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/09/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 75-01-4 | Vinyl Chloride(sim) | 0.078 | U | 0.078 | 0.078 | r |
| 74-83-9 | Bromomethane(sim) | 0.258 | U | 0.258 | 0.258 | r |
| 107-06-2 | 1,2-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 71-55-6 | 1,1,1-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 56-23-5 | Carbon Tetrachloride(sim) | 0.087 | | 0.032 | 0.032 | r |
| 75-35-4 | 1,1-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 76-13-1 | Trichlorotrifluoroethane(sim) | 0.131 | U | 0.131 | 0.131 | r |
| 156-60-5 | Trans-1,2-Dichloroethene(sim) | 0.252 | U | 0.252 | 0.252 | r |
| 75-34-3 | 1,1-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 156-59-2 | Cis-1,2-Dichloroethene(sim) | 0.053 | | 0.051 | 0.051 | r |
| 67-66-3 | Chloroform(sim) | 0.205 | U | 0.205 | 0.205 | r |
| 78-87-5 | 1,2-dichloropropane(sim) | 0.217 | U | 0.217 | 0.217 | r |
| 75-27-4 | Bromodichloromethane(sim) | 0.149 | U | 0.149 | 0.149 | r |
| 79-01-6 | Trichloroethene(sim) | 0.050 | | 0.037 | 0.037 | r |
| 123-91-1 | 1,4-Dioxane(sim) | 0.278 | U | 0.278 | 0.278 | r |
| 10061-01-5 | cis-1,3-Dichloropropene(sim) | 0.220 | U | 0.220 | 0.220 | r |
| 79-00-5 | 1,1,2-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 124-48-1 | Dibromochloromethane(sim) | 0.117 | U | 0.117 | 0.117 | r |
| 106-93-4 | 1,2-Dibromoethane(EDB)(sim) | 0.130 | U | 0.130 | 0.130 | r |
| 75-25-2 | Bromoform(sim) | 0.097 | U | 0.097 | 0.097 | r |
| 79-34-5 | 1,1,2,2-Tetrachloroethane(sim) | 0.146 | U | 0.146 | 0.146 | r |
| 100-44-7 | Benzyl chloride(sim) | 0.193 | U | 0.193 | 0.193 | r |
| 541-73-1 | 1,3-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 106-46-7 | 1,4-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 135-98-8 | sec-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 99-87-6 | 4-Isopropyltoluene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 95-50-1 | 1,2-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 104-51-8 | n-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 120-82-1 | 1,2,4-Trichlorobenzene(sim) | 0.135 | U | 0.135 | 0.135 | r |
| 87-68-3 | Hexachlorobutadiene(sim) | 0.094 | U | 0.094 | 0.094 | r |
| | | | | | | |
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FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_21.D
Acq On : 09 Apr 2019 06:37 pm
Operator : CORTEX\ms
Client ID : IA-4 DUP
Lab ID : CC90508 DUP
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 10:24:41 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:07:16 2019
Response via : Initial Calibration

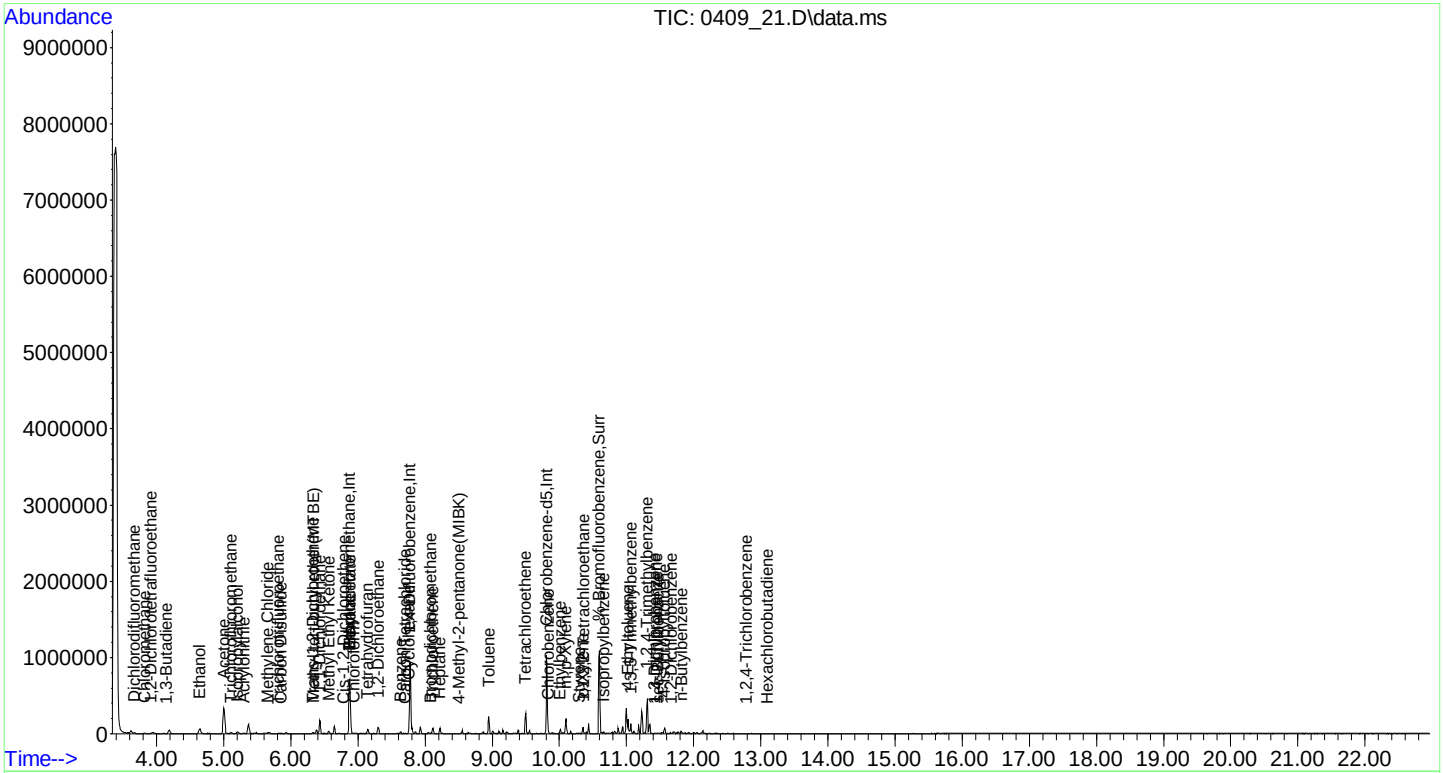
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.871 | 130 | 127622 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.772 | 114 | 404760 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.807 | 82 | 197692 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.874 | 130 | 172030 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 459992 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 195993 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 254123 | 9.805 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 98.10% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 3.671 | 85 | 15299 | 0.467 | ppbv | # | 94 |
| 4) Chloromethane | 3.825 | 50 | 8393 | 0.614 | ppbv | | 95 |
| 11) Ethanol | 4.644 | 45 | 77624 | 14.135 | ppbv | | 94 |
| 12) Acetone | 5.001 | 43 | 209756 | 7.351 | ppbv | # | 72 |
| 13) Trichlorofluoromethane | 5.114 | 101 | 10433 | 0.244 | ppbv | | 98 |
| 14) Isopropylalcohol | 5.204 | 45 | 21423 | 0.713 | ppbv | # | 91 |
| 25) Methyl Ethyl Ketone | 6.568 | 43 | 34785 | 0.969 | ppbv | # | 77 |
| 27) Hexane | 6.879 | 57 | 39065 | 1.893 | ppbv | # | 76 |
| 30) Tetrahydrofuran | 7.143 | 42 | 25783 | 1.707 | ppbv | # | 59 |
| 33) Benzene | 7.637 | 78 | 13756 | 0.492 | ppbv | # | 85 |
| 34) Carbon Tetrachloride | 7.704 | 117 | 1944 | 0.081 | ppbv | | 88 |
| 35) Cyclohexane | 7.764 | 41 | 7402 | 0.658 | ppbv | # | 1 |
| 39) Trichloroethene | 8.111 | 130 | 826 | 0.054 | ppbv | | 92 |
| 43) Heptane | 8.221 | 43 | 17467 | 0.856 | ppbv | # | 66 |
| 48) Toluene | 8.949 | 91 | 79224 | 2.387 | ppbv | # | 96 |
| 52) Tetrachloroethene | 9.498 | 166 | 39418 | 2.452 | ppbv | # | 90 |
| 56) Ethylbenzene | 10.012 | 91 | 24126 | 0.515 | ppbv | | 95 |
| 57) m,p-Xylene | 10.095 | 91 | 71409 | 1.998 | ppbv | | 94 |
| 61) o-Xylene | 10.353 | 91 | 32638 | 0.873 | ppbv | | 94 |
| 64) Isopropylbenzene | 10.657 | 105 | 10996 | 0.223 | ppbv | | 95 |
| 66) 4-Ethyltoluene | 11.021 | 105 | 47187m | 0.953 | ppbv | | 95 |
| 67) 1,3,5-Trimethylbenzene | 11.066 | 105 | 45645 | 1.071 | ppbv | # | 93 |
| 68) 1,2,4-Trimethylbenzene | 11.309 | 105 | 155724 | 3.731 | ppbv | # | 83 |
| 84) Trichlorofluoromethane... | 5.109 | 101 | 12713 | 0.221 | ppbv | | 99 |
| 87) Carbon Tetrachloride(sim) | 7.704 | 117 | 1944 | 0.087 | ppbv | | 88 |
| 97) Trichloroethene(sim) | 8.111 | 130 | 826 | 0.050 | ppbv | # | 82 |
| 103) Tetrachloroethene(sim) | 9.498 | 166 | 39418 | 2.182 | ppbv | | 90 |
| 106) m,p-Xylene(sim) | 10.098 | 91 | 77048 | 2.046 | ppbv | # | 92 |

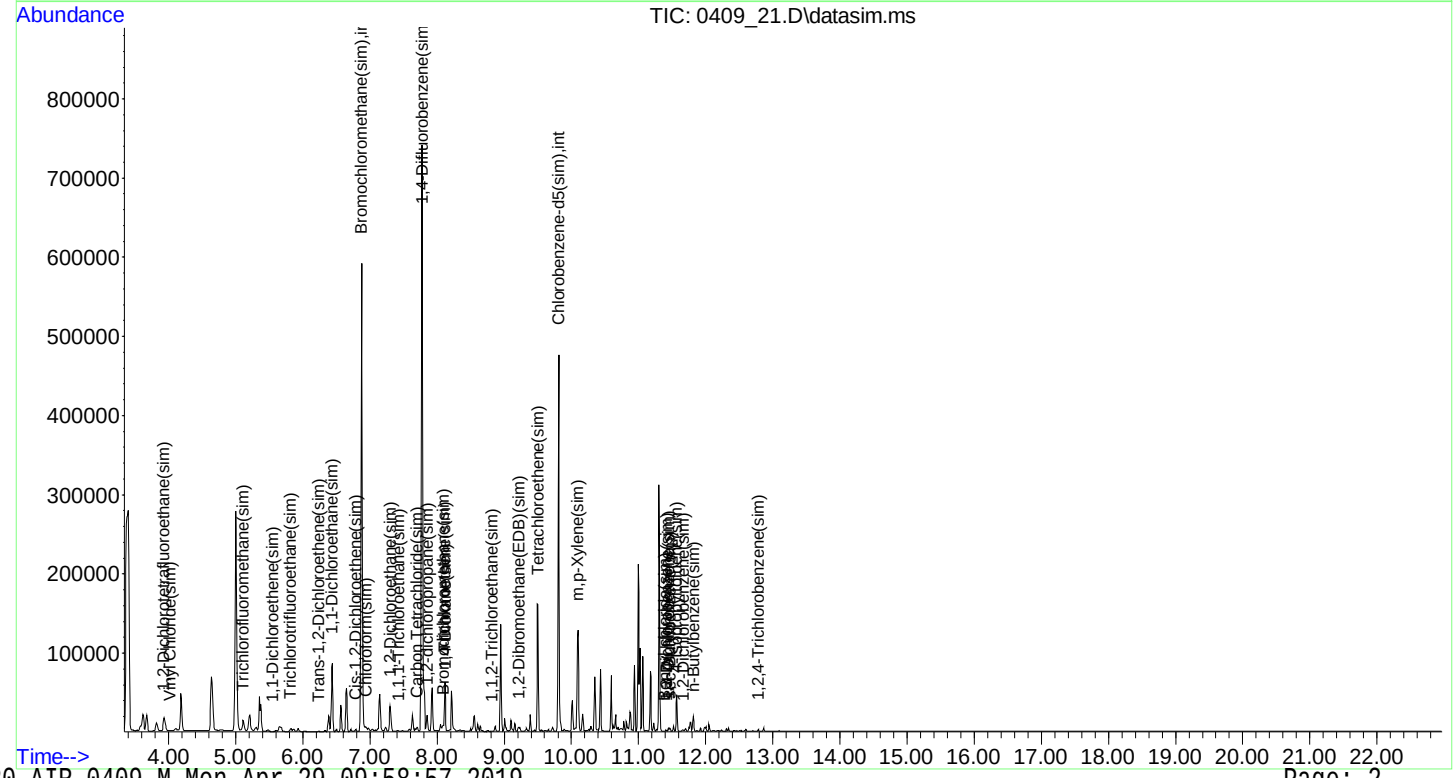
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

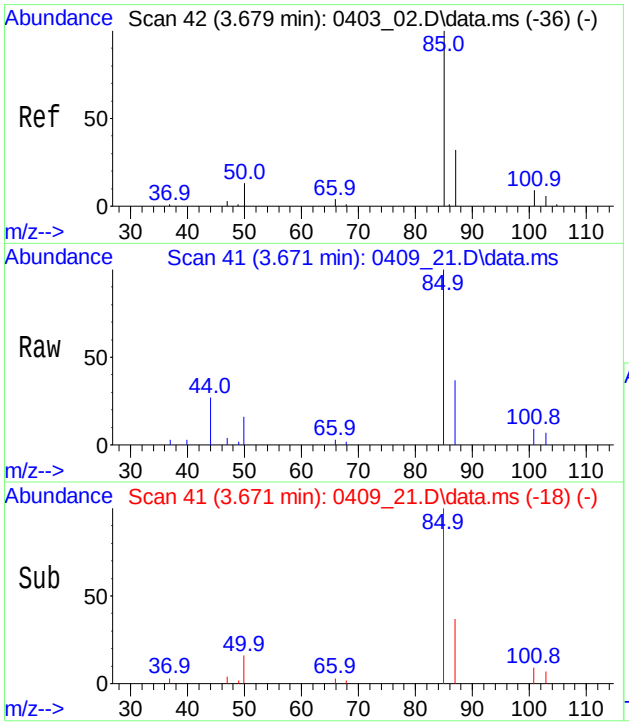
Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_21.D
Acq On : 09 Apr 2019 06:37 pm
Operator : CORTEX\ms
Client ID : IA-4 DUP
Lab ID : CC90508 DUP
ALS Vial : 1 Sample Multiplier: 1

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Quant Title : VOA Standards for 5 point calibration
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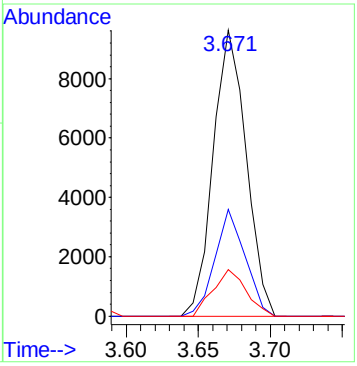



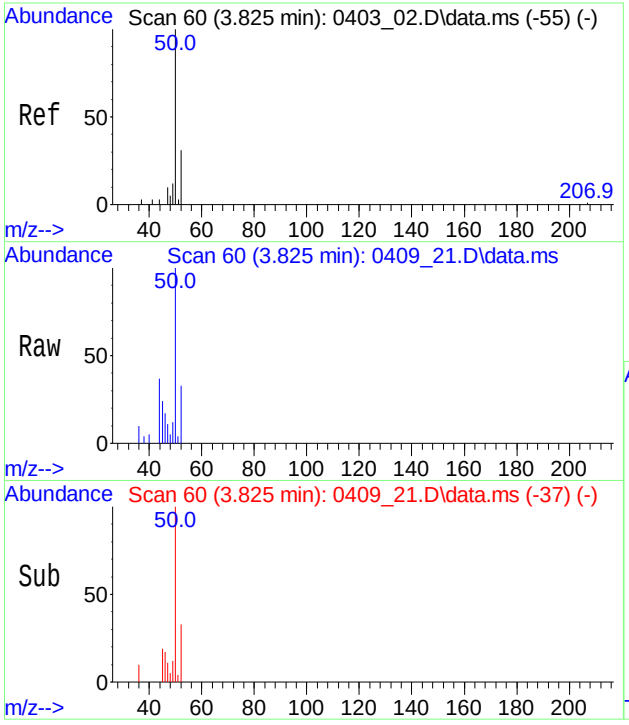



#3
Dichlorodifluoromethane
Conc: 8$ 0.467 ppbv
RT: 3.671 min Scan# 41
Delta R.T. -0.016 min
Lab File: 0409_21.D
Acq: 09 Apr 2019 06:37 pm

Tgt Ion: 85 Resp: 15299

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 34.2 | 25.6 | 38.4 |
| 50 | 16.5 | 9.4 | 14.2# |

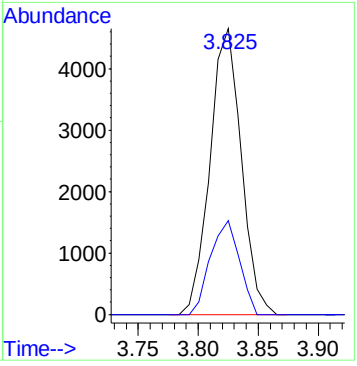


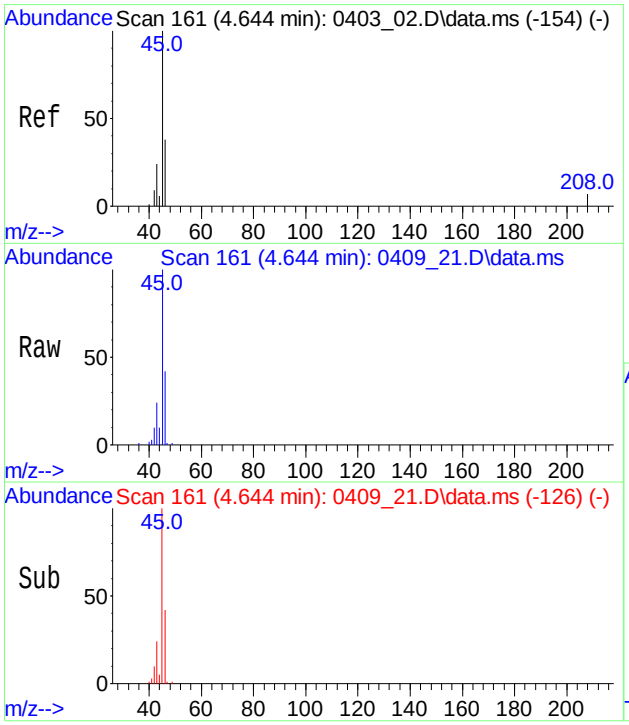




#4
Chloromethane
Conc: 8$ 0.614 ppbv
RT: 3.825 min Scan# 60
Delta R.T. -0.016 min
Lab File: 0409_21.D
Acq: 09 Apr 2019 06:37 pm

Tgt Ion: 50 Resp: 8393

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 30.5 | 13.6 | 53.6 |

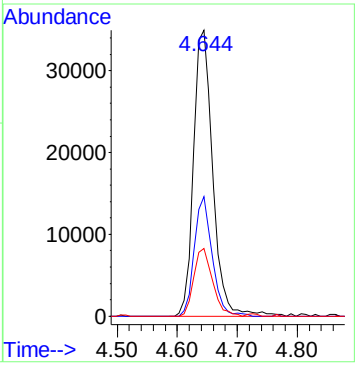


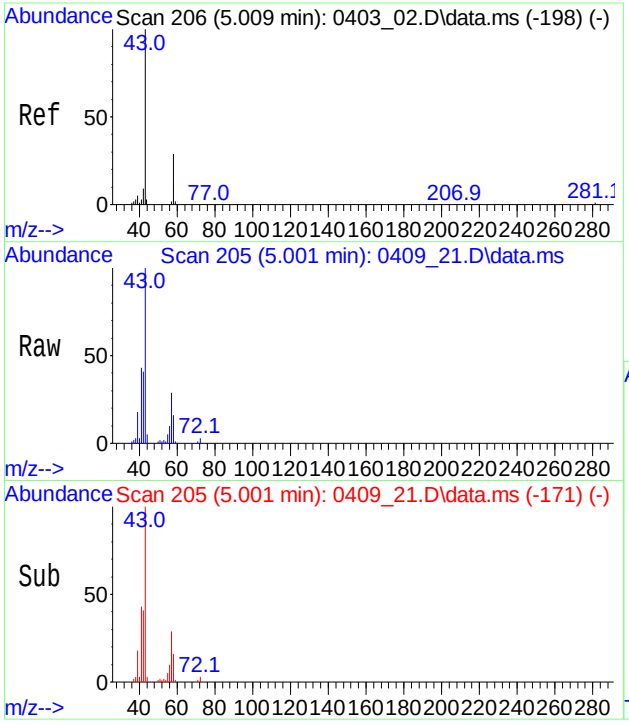



#11
Ethanol
Conc: 8$  14.135 ppbv
RT:  4.644 min  Scan# 161
Delta R.T.  -0.016 min
Lab File:  0409_21.D
Acq: 09 Apr 2019  06:37 pm

Tgt Ion: 45 Resp:  77624

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 46 | 38.7 | 29.9 | 44.9 |
| 43 | 23.2 | 22.7 | 34.1 |

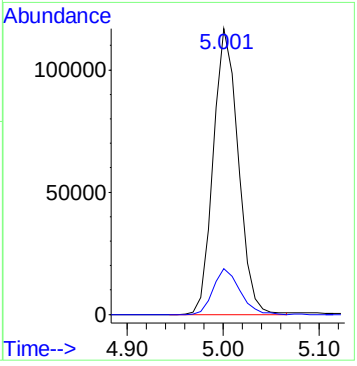


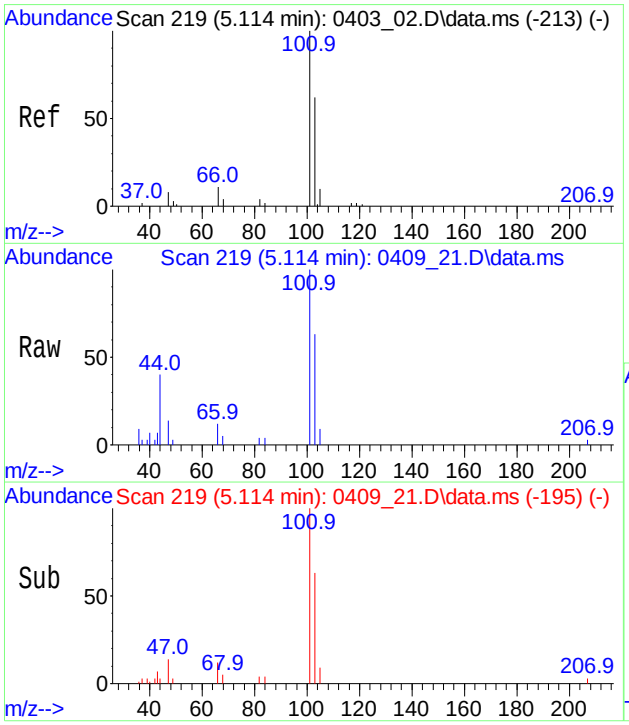




#12
Acetone
Conc: 8$  7.351 ppbv
RT:  5.001 min  Scan# 205
Delta R.T.  -0.024 min
Lab File:  0409_21.D
Acq: 09 Apr 2019  06:37 pm

Tgt Ion: 43 Resp:  209756

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 17.0 | 25.9 | 38.9# |

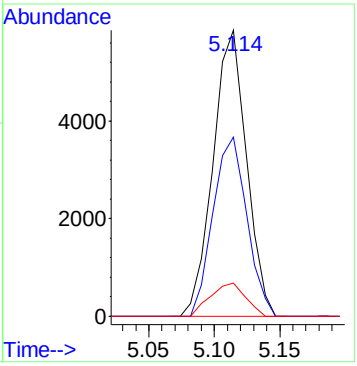


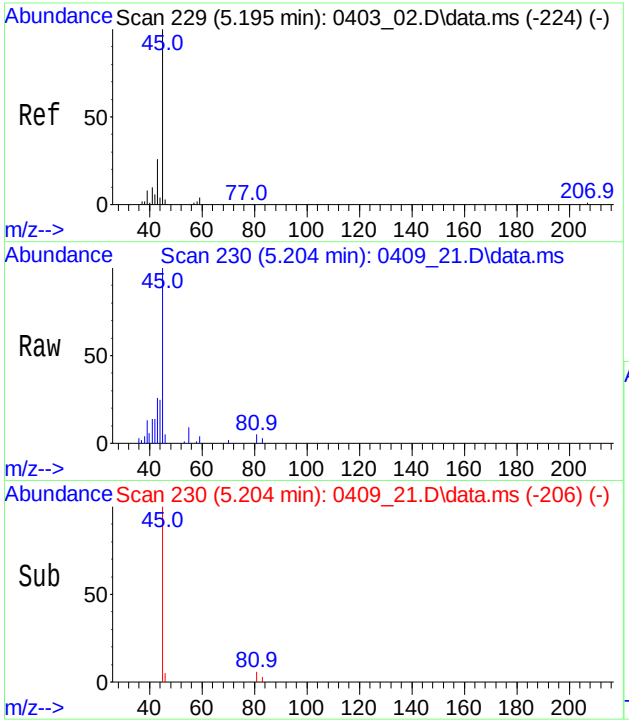



#13
Trichlorofluoromethane
Conc: 8$ 0.244 ppbv
RT: 5.114 min Scan# 219
Delta R.T. -0.008 min
Lab File: 0409_21.D
Acq: 09 Apr 2019 06:37 pm

Tgt Ion:101 Resp: 10433

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 63.1 | 51.6 | 77.4 |
| 66 | 12.1 | 9.4 | 14.0 |

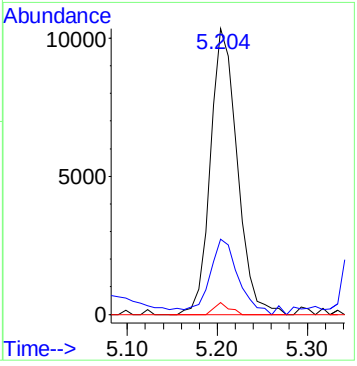


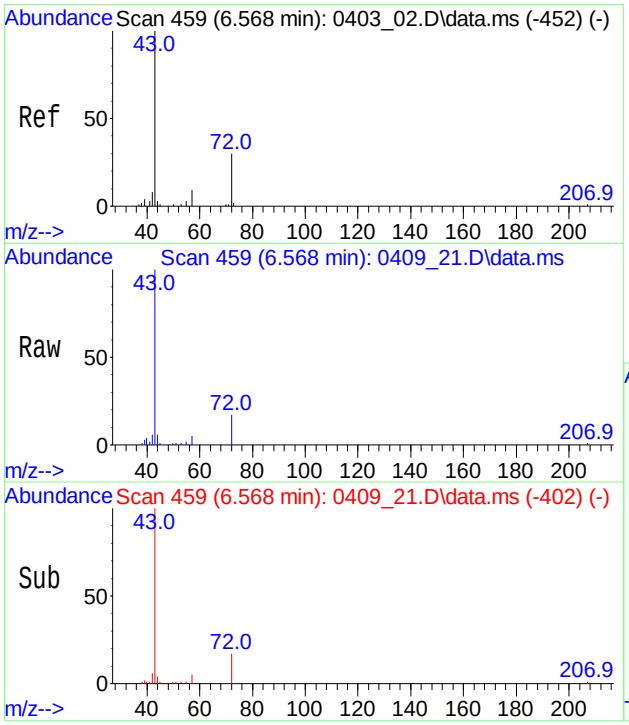




#14
Isopropylalcohol
Conc: 8$ 0.713 ppbv
RT: 5.204 min Scan# 230
Delta R.T. -0.008 min
Lab File: 0409_21.D
Acq: 09 Apr 2019 06:37 pm

Tgt Ion: 45 Resp: 21423

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 43 | 27.9 | 18.6 | 27.8# |
| 59 | 2.3 | 3.7 | 5.5# |

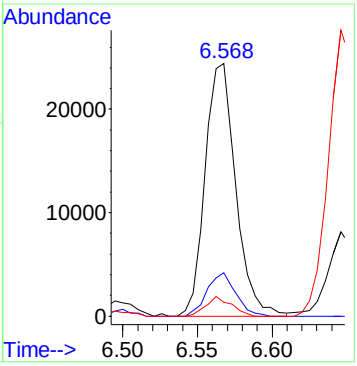


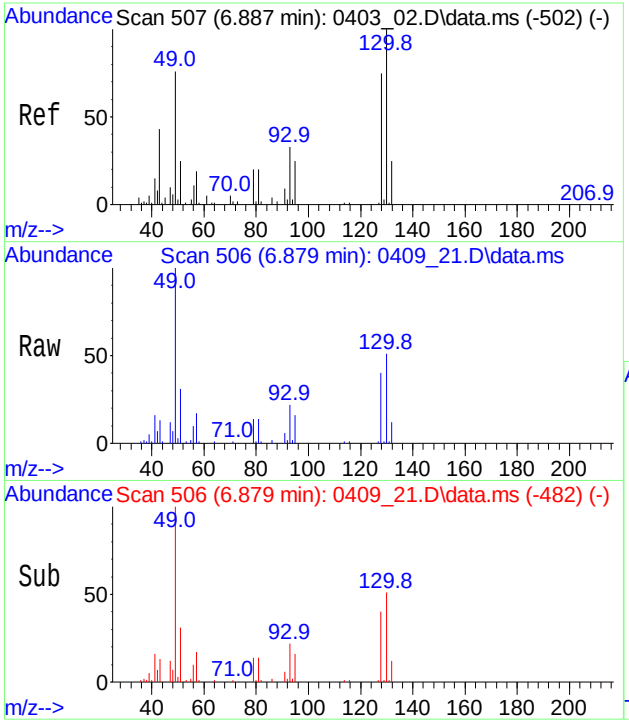



#25
Methyl Ethyl Ketone
Conc: 8$  0.969 ppbv
RT:  6.568 min  Scan# 459
Delta R.T.  -0.005 min
Lab File:  0409_21.D
Acq: 09 Apr 2019  06:37 pm

Tgt Ion: 43 Resp:  34785

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 72 | 16.0 | 24.6 | 37.0# |
| 57 | 6.4 | 7.4 | 11.2# |

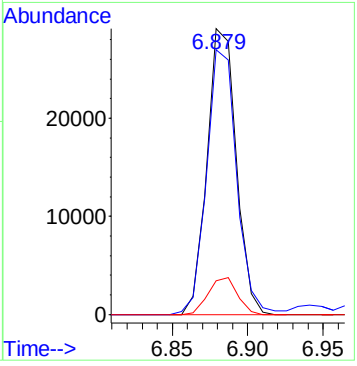


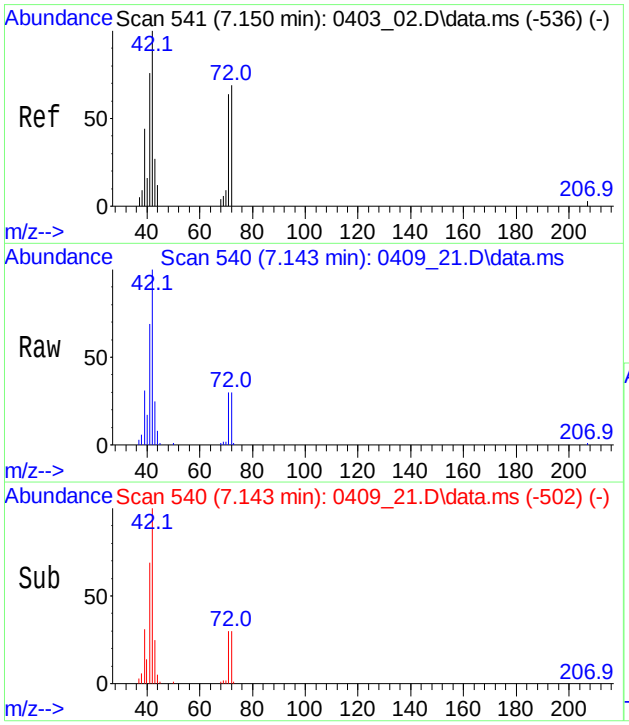




#27
Hexane
Conc: 8$  1.893 ppbv
RT:  6.879 min  Scan# 506
Delta R.T.  -0.008 min
Lab File:  0409_21.D
Acq: 09 Apr 2019  06:37 pm

Tgt Ion: 57 Resp:  39065

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 57 | 100 | | |
| 41 | 95.8 | 58.9 | 88.3# |
| 86 | 12.8 | 16.4 | 24.6# |

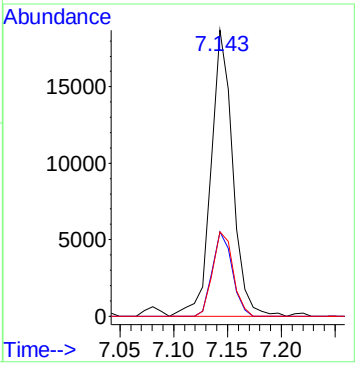


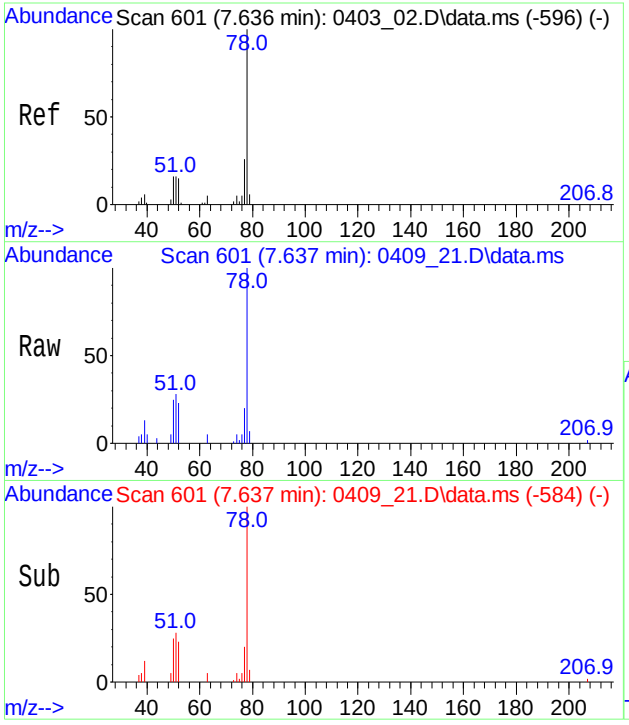



#30
Tetrahydrofuran
Conc: 8$ 1.707 ppbv
RT: 7.143 min Scan# 540
Delta R.T. -0.007 min
Lab File: 0409_21.D
Acq: 09 Apr 2019 06:37 pm

Tgt Ion: 42 Resp: 25783

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 42 | 100 | | |
| 71 | 26.9 | 45.8 | 68.6# |
| 72 | 27.7 | 46.5 | 69.7# |

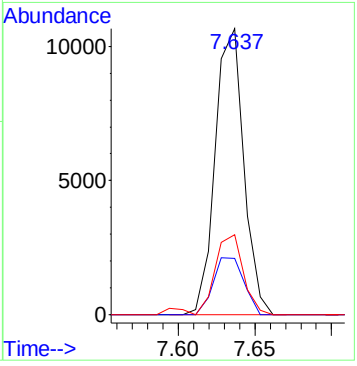


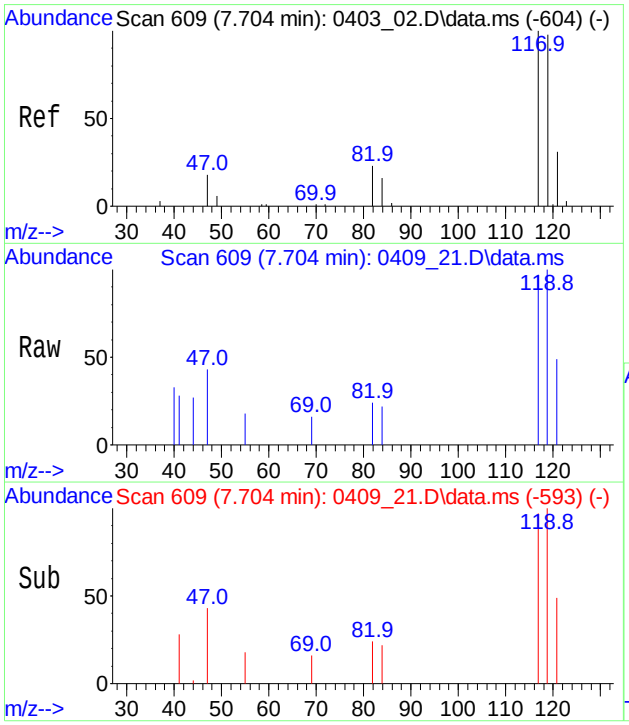




#33
Benzene
Conc: 8$ 0.492 ppbv
RT: 7.637 min Scan# 601
Delta R.T. 0.001 min
Lab File: 0409_21.D
Acq: 09 Apr 2019 06:37 pm

Tgt Ion: 78 Resp: 13756

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 21.2 | 18.6 | 27.8 |
| 51 | 28.8 | 12.9 | 19.3# |

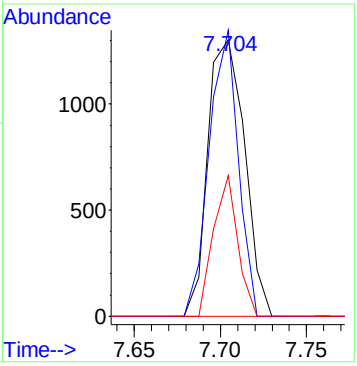


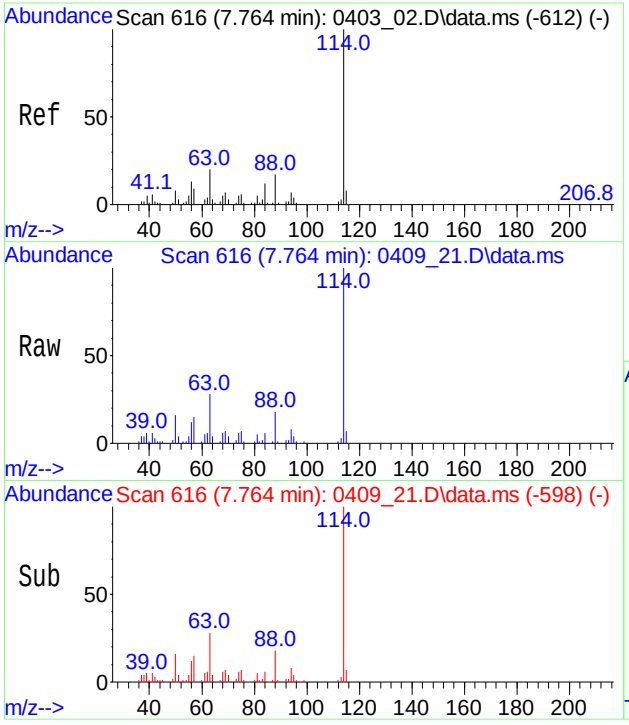



#34
Carbon Tetrachloride
Conc: 8$  Below Cal
RT:  7.704 min  Scan# 609
Delta R.T.  0.000 min
Lab File:  0409_21.D
Acq: 09 Apr 2019  06:37 pm

Tgt Ion:117 Resp:  1944

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 81.8 | 75.8 | 115.8 |
| 121 | 33.4 | 10.7 | 50.7 |

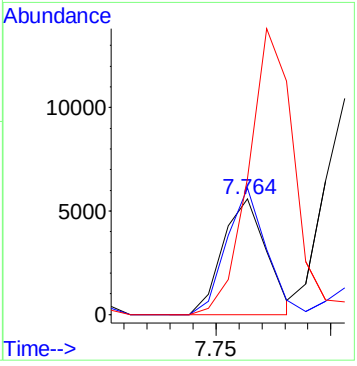


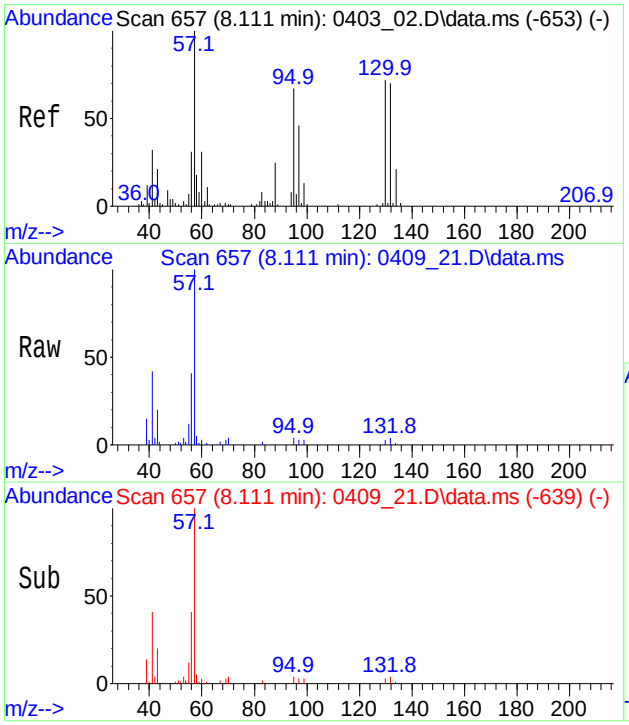




#35
Cyclohexane
Conc: 8$  0.658 ppbv
RT:  7.764 min  Scan# 616
Delta R.T.  0.001 min
Lab File:  0409_21.D
Acq: 09 Apr 2019  06:37 pm

Tgt Ion: 41 Resp:  7402

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 84 | 100.2 | 158.4 | 237.6# |
| 69 | 260.6 | 69.1 | 103.7# |

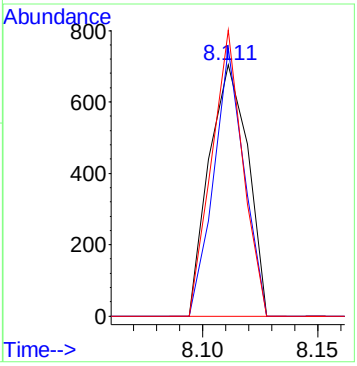


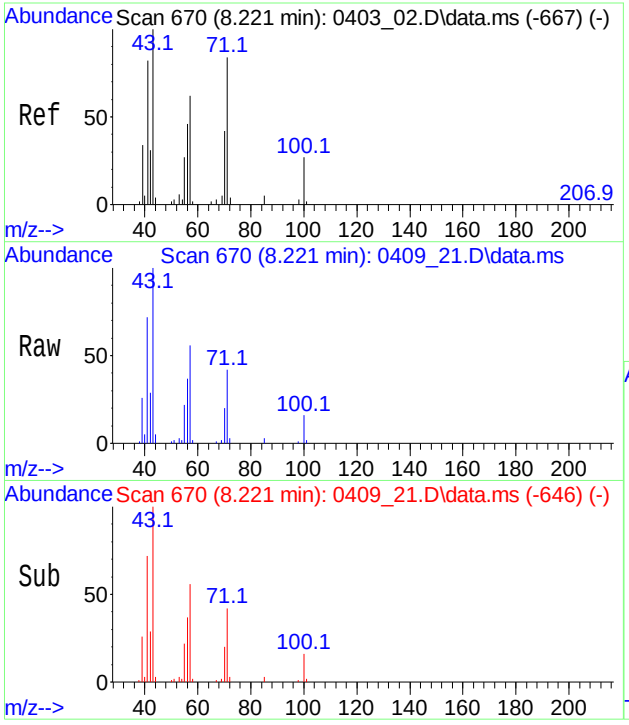



#39
Trichloroethene
Conc: 8$  Below Cal
RT:  8.111 min  Scan# 657
Delta R.T.  -0.000 min
Lab File:  0409_21.D
Acq: 09 Apr 2019  06:37 pm

Tgt Ion:130 Resp:  826

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 83.3 | 78.0 | 117.0 |
| 95 | 91.5 | 73.0 | 109.4 |

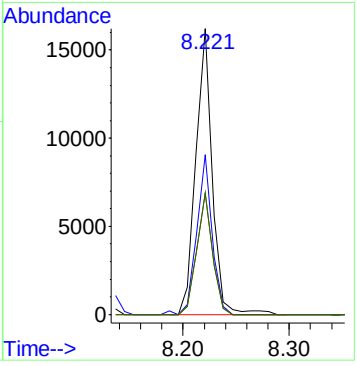


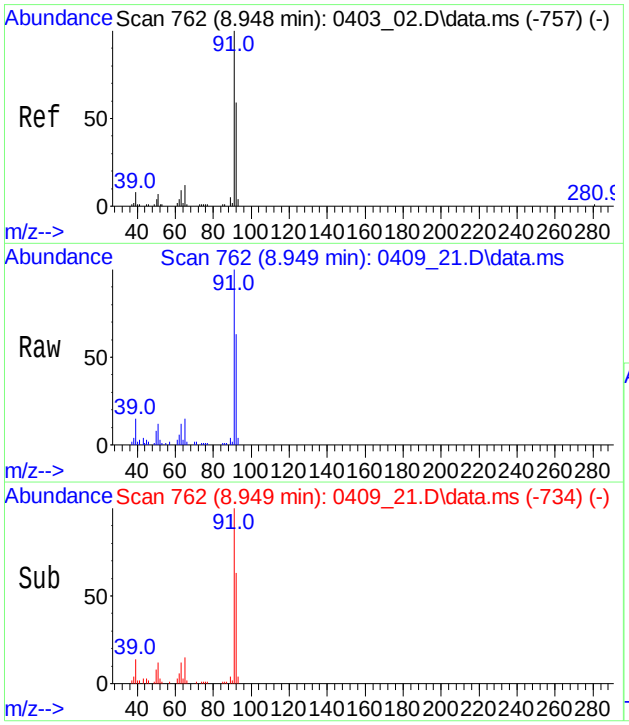




#43
Heptane
Conc: 8$  0.856 ppbv
RT:  8.221 min  Scan# 670
Delta R.T.  0.000 min
Lab File:  0409_21.D
Acq: 09 Apr 2019  06:37 pm

Tgt Ion: 43 Resp:  17467

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 57 | 52.4 | 49.7 | 74.5 |
| 71 | 40.6 | 62.2 | 93.2# |
| 71 | 40.6 | 62.2 | 93.2# |

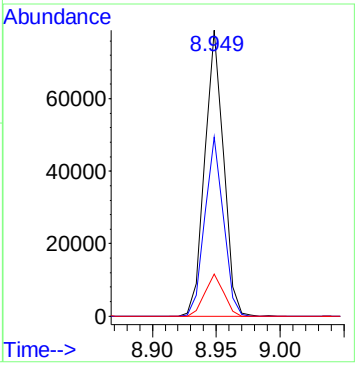


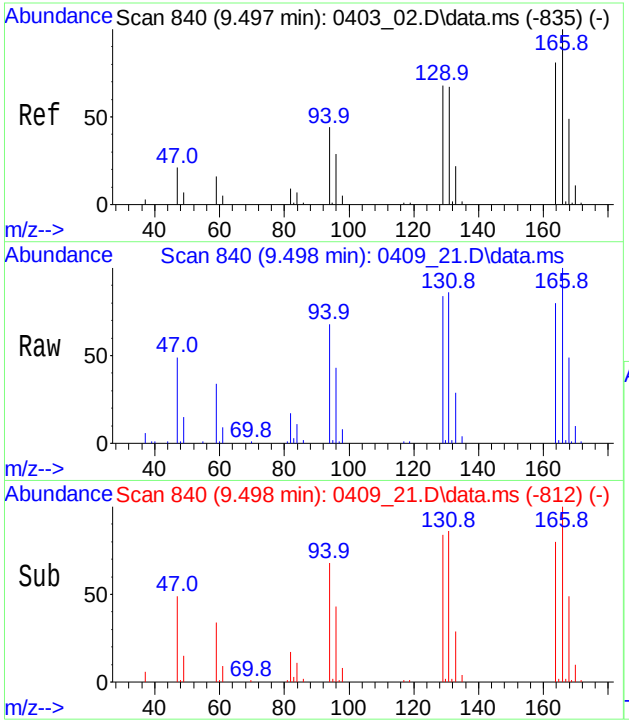



#48
Toluene
Conc: 8$ 2.387 ppbv
RT: 8.949 min Scan# 762
Delta R.T. 0.000 min
Lab File: 0409_21.D
Acq: 09 Apr 2019 06:37 pm

Tgt Ion: 91 Resp: 79224

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 61.9 | 47.7 | 71.5 |
| 65 | 14.6 | 9.3 | 13.9# |

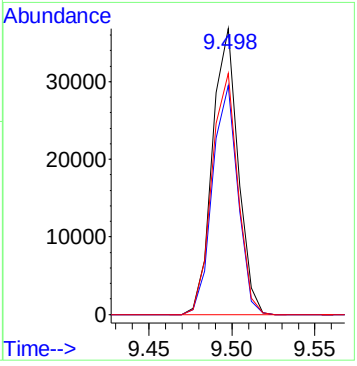


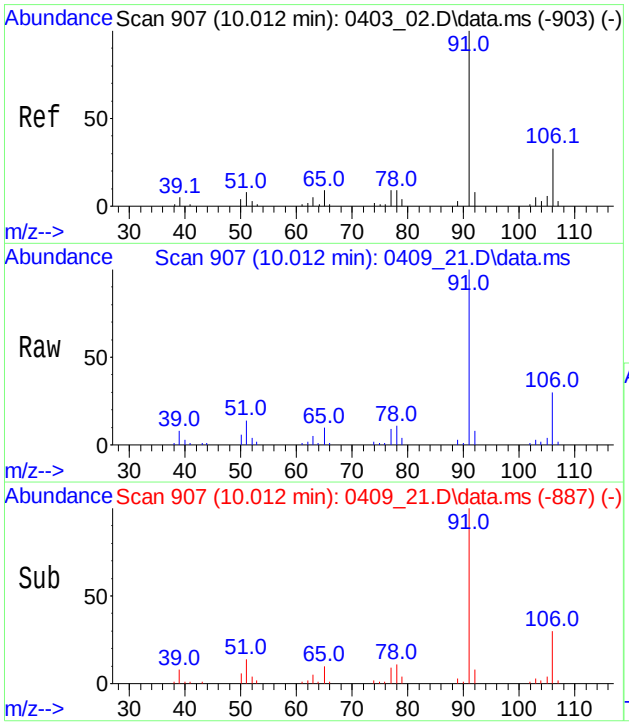




#52
Tetrachloroethene
Conc: 8$ 2.452 ppbv
RT: 9.498 min Scan# 840
Delta R.T. 0.000 min
Lab File: 0409_21.D
Acq: 09 Apr 2019 06:37 pm

Tgt Ion:166 Resp: 39418

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 79.0 | 62.2 | 93.2 |
| 129 | 85.1 | 54.9 | 82.3# |

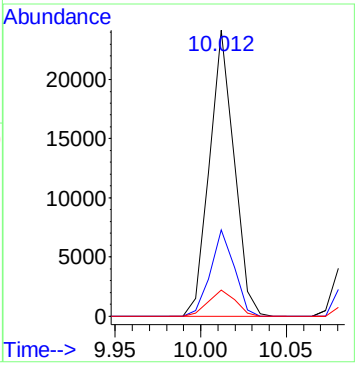


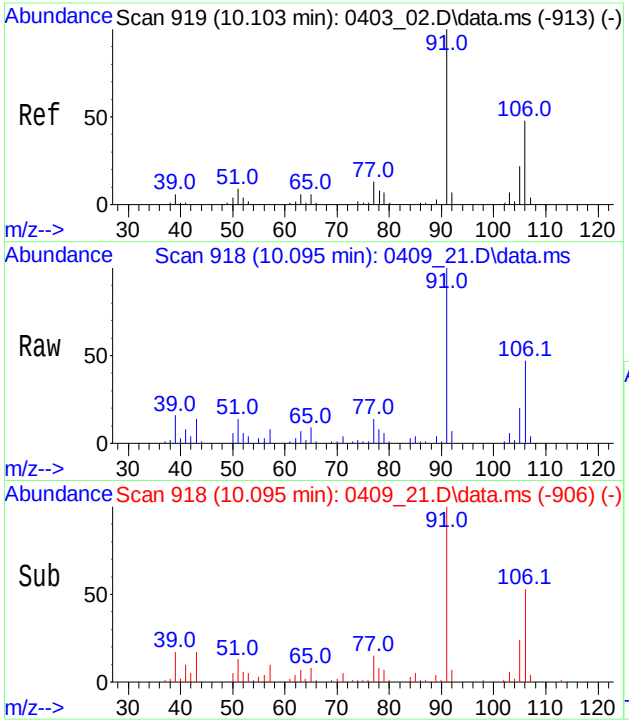



#56
Ethylbenzene
Conc: 8$ 0.515 ppbv
RT: 10.012 min Scan# 907
Delta R.T. 0.000 min
Lab File: 0409_21.D
Acq: 09 Apr 2019 06:37 pm

Tgt Ion: 91 Resp: 24126

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 29.2 | 12.6 | 52.6 |
| 77 | 9.9 | 0.0 | 29.1 |

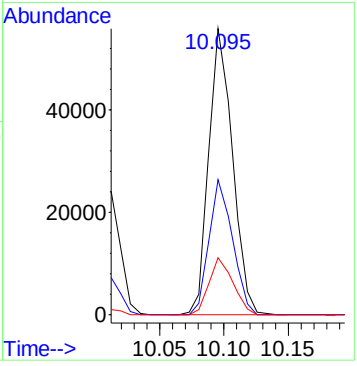


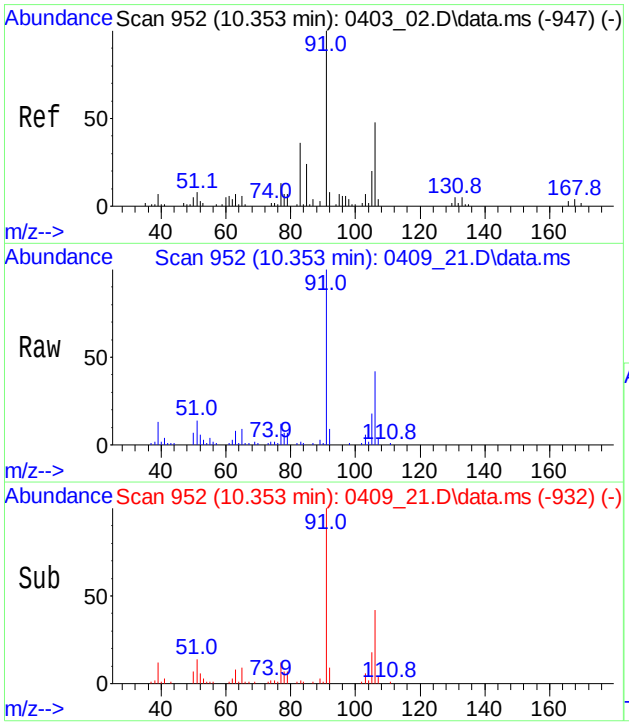




#57
m,p-Xylene
Conc: 8$ 1.998 ppbv
RT: 10.095 min Scan# 918
Delta R.T. -0.007 min
Lab File: 0409_21.D
Acq: 09 Apr 2019 06:37 pm

Tgt Ion: 91 Resp: 71409

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 46.6 | 40.9 | 61.3 |
| 105 | 20.0 | 17.8 | 26.8 |

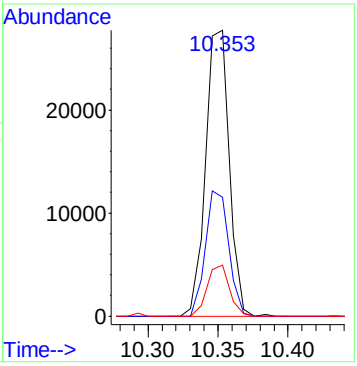


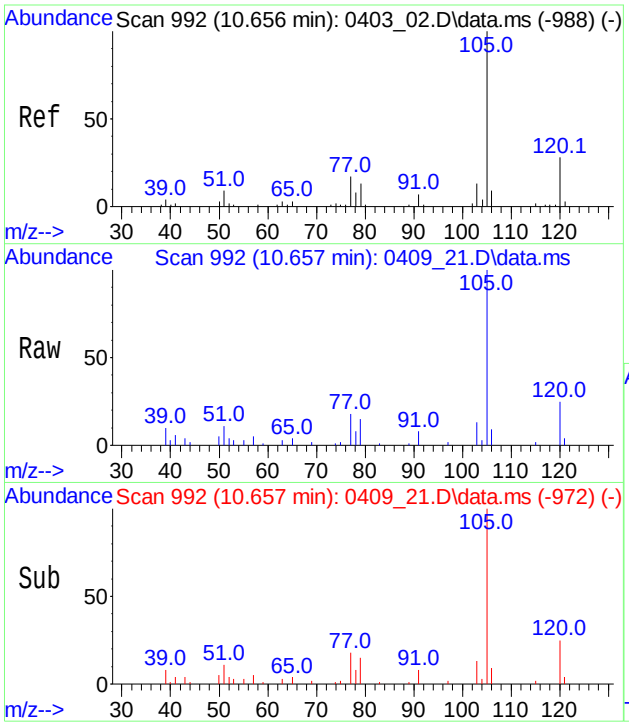



#61
o-Xylene
Conc: 8$ 0.873 ppbv
RT: 10.353 min Scan# 952
Delta R.T. 0.000 min
Lab File: 0409_21.D
Acq: 09 Apr 2019 06:37 pm

Tgt Ion: 91 Resp: 32638

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 43.2 | 38.3 | 57.5 |
| 105 | 16.9 | 15.2 | 22.8 |

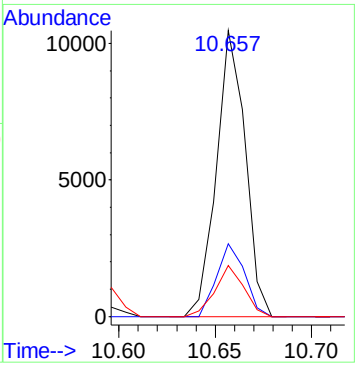


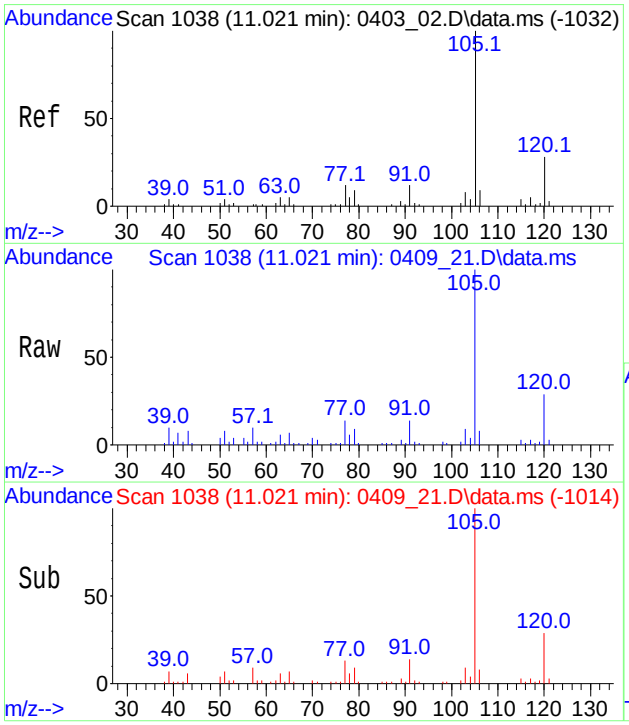




#64
Isopropylbenzene
Conc: 8$ 0.223 ppbv
RT: 10.657 min Scan# 992
Delta R.T. 0.000 min
Lab File: 0409_21.D
Acq: 09 Apr 2019 06:37 pm

Tgt Ion:105 Resp: 10996

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 24.7 | 22.0 | 33.0 |
| 77 | 17.9 | 12.7 | 19.1 |

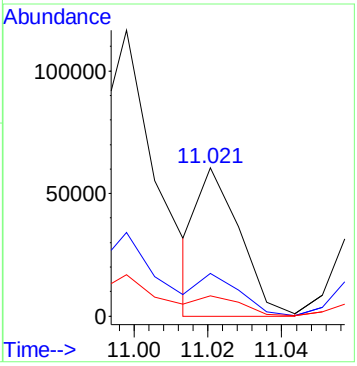


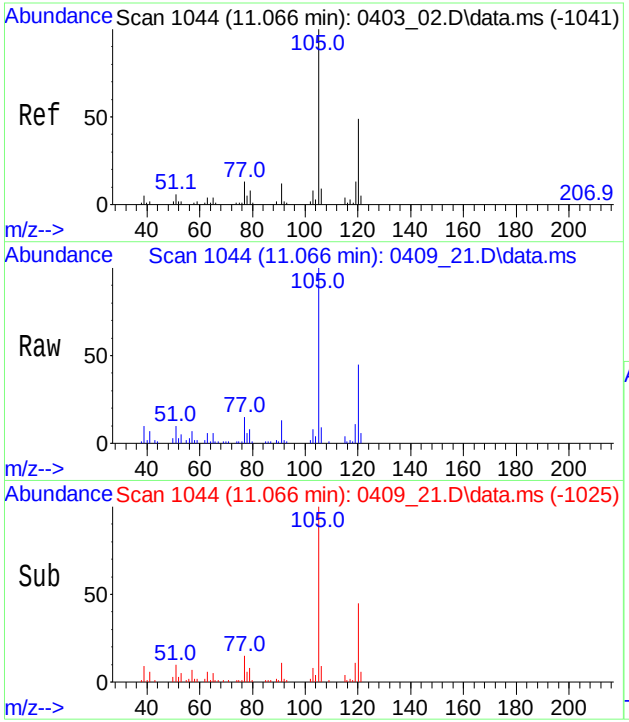



#66
4-Ethyltoluene
Conc: 8$ 0.953 ppbv
RT: 11.021 min Scan# 1038
Delta R.T. 0.000 min
Lab File: 0409_21.D
Acq: 09 Apr 2019 06:37 pm

Tgt Ion:105 Resp: 47187

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 109.5 | 25.0 | 37.4# |
| 77 | 54.3 | 9.4 | 14.0# |

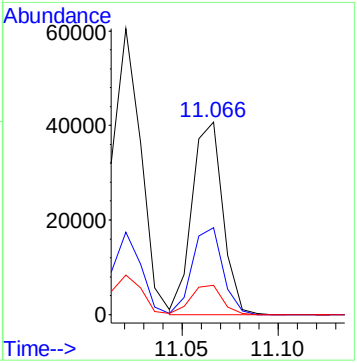


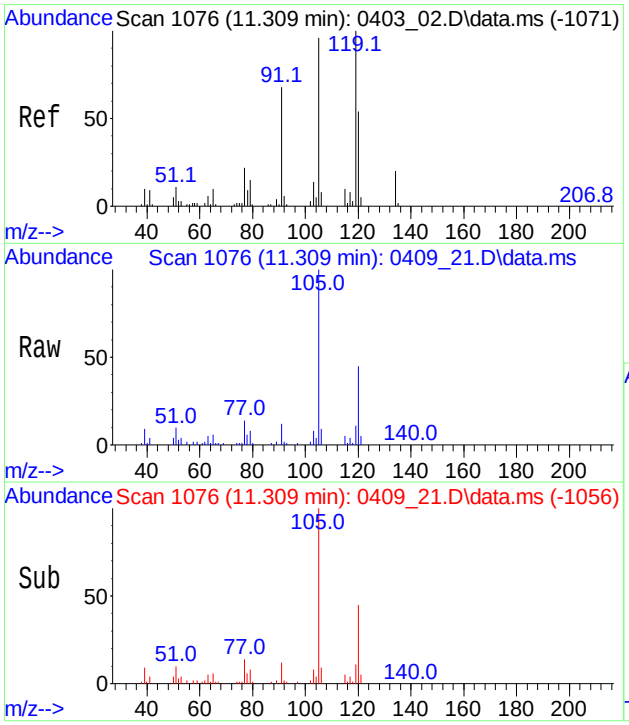




#67
1,3,5-Trimethylbenzene
Conc: 8$ 1.071 ppbv
RT: 11.066 min Scan# 1044
Delta R.T. 0.000 min
Lab File: 0409_21.D
Acq: 09 Apr 2019 06:37 pm

Tgt Ion:105 Resp: 45645

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 44.6 | 39.7 | 59.5 |
| 77 | 15.4 | 10.2 | 15.4# |

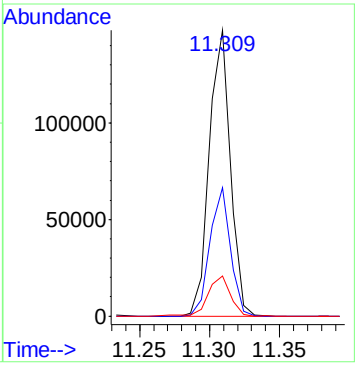


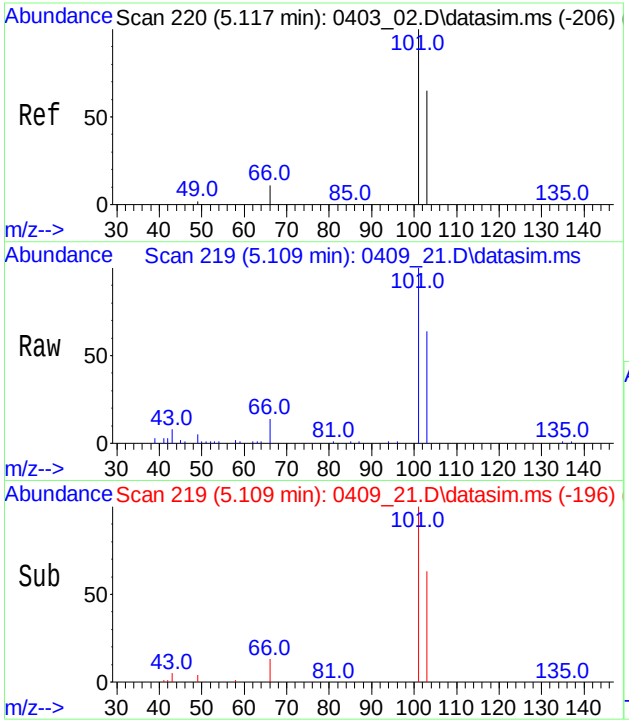



#68
1,2,4-Trimethylbenzene
Conc: 8$ 3.731 ppbv
RT: 11.309 min Scan# 1076
Delta R.T. 0.000 min
Lab File: 0409_21.D
Acq: 09 Apr 2019 06:37 pm

Tgt Ion:105 Resp: 155724

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 43.5 | 44.5 | 66.7# |
| 77 | 15.1 | 19.7 | 29.5# |

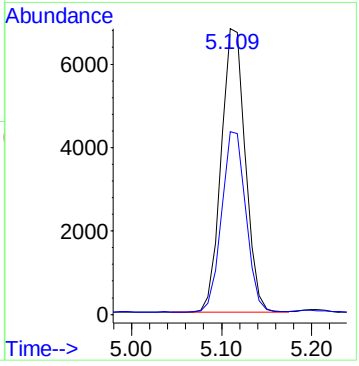


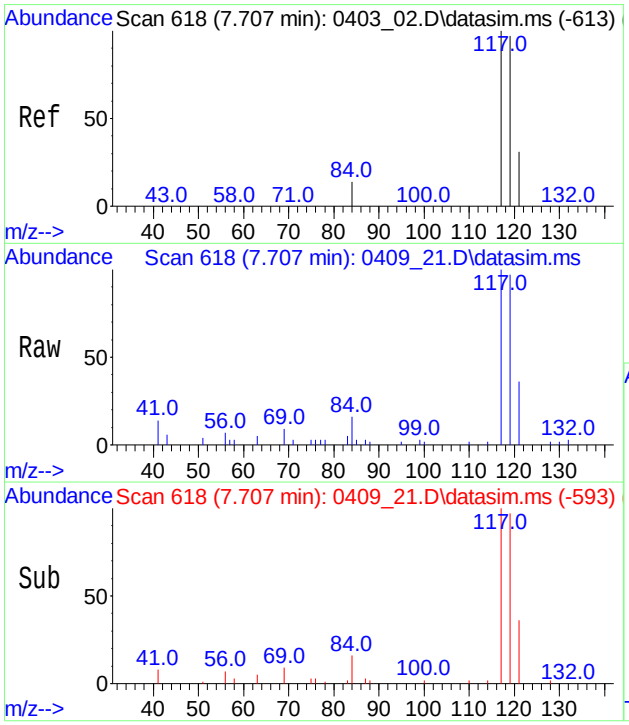




#84
Trichlorofluoromethane(sim)
Conc: 8$ 0.221 ppbv
RT: 5.109 min Scan# 219
Delta R.T. -0.016 min
Lab File: 0409_21.D
Acq: 09 Apr 2019 06:37 pm

Tgt Ion:101 Resp: 12713

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 63.8 | 51.9 | 77.9 |

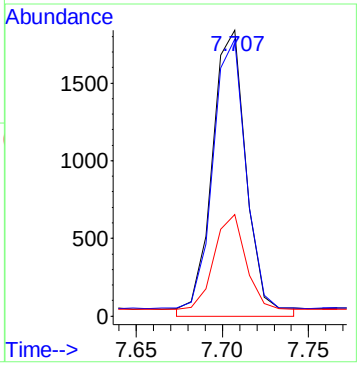


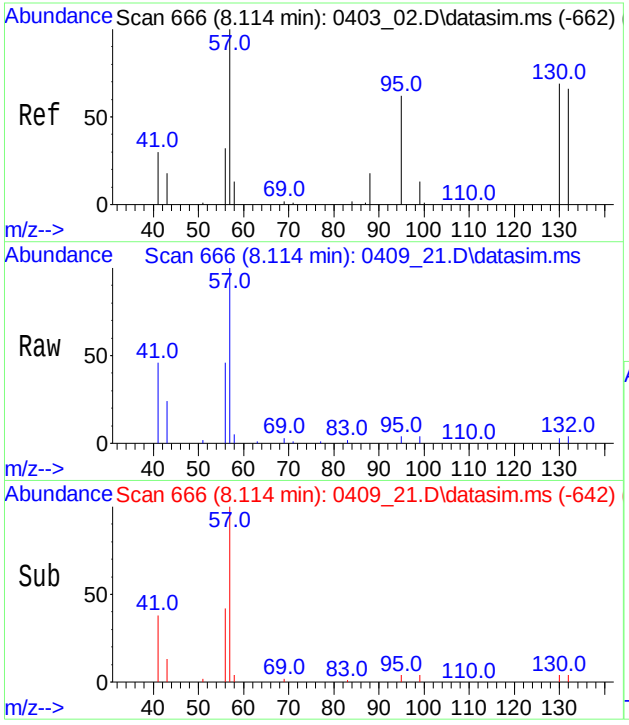



#87
Carbon Tetrachloride(sim)
Conc: 8$ 0.087 ppbv
RT: 7.704 min Scan# 618
Delta R.T. 0.000 min
Lab File: 0409_21.D
Acq: 09 Apr 2019 06:37 pm

Tgt Ion:117 Resp: 1944

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 81.8 | 76.6 | 115.0 |
| 121 | 33.4 | 24.6 | 36.8 |

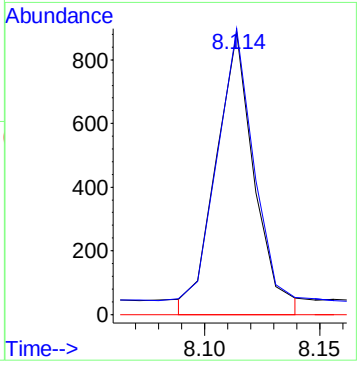


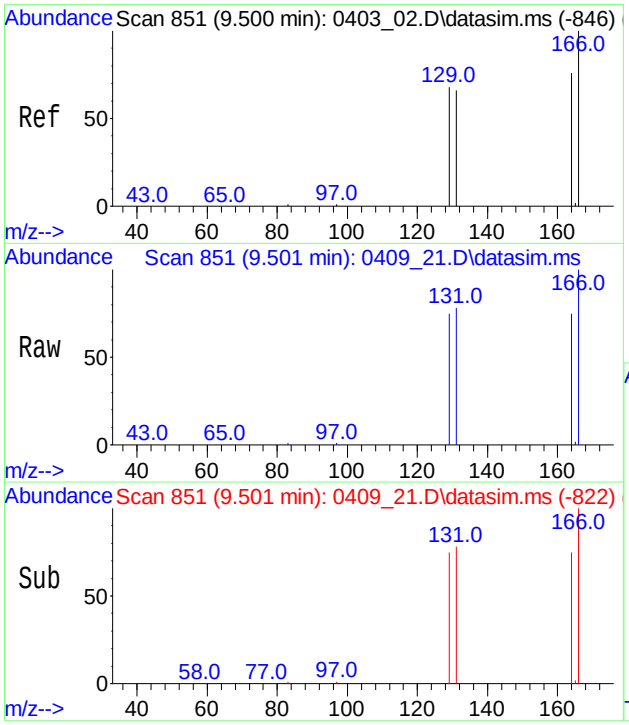




#97
Trichloroethene(sim)
Conc: 8$ 0.050 ppbv
RT: 8.111 min Scan# 666
Delta R.T. 0.000 min
Lab File: 0409_21.D
Acq: 09 Apr 2019 06:37 pm

Tgt Ion:130 Resp: 826

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 83.3 | 78.0 | 117.0 |
| 97 | 76.2 | 47.2 | 70.8# |

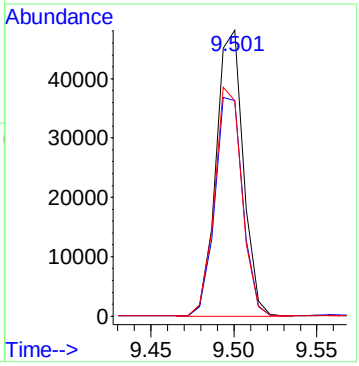


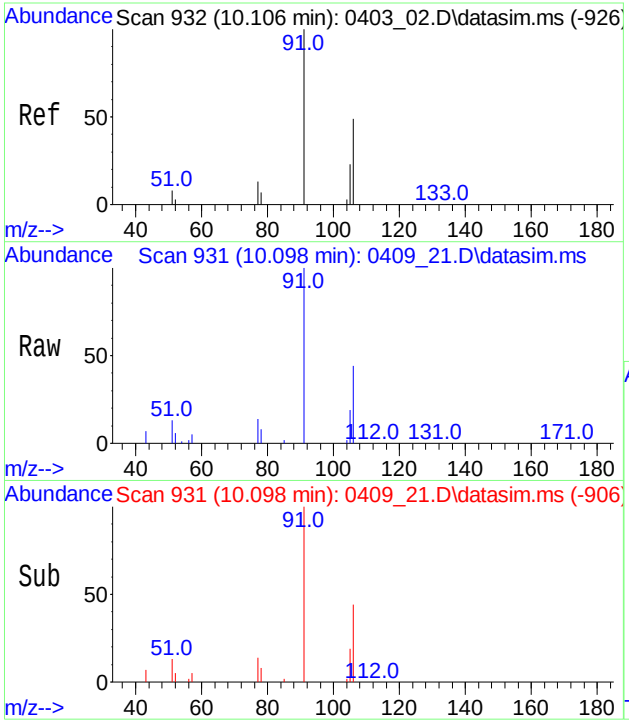



#103
Tetrachloroethene(sim)
Conc: 8$ 2.182 ppbv
RT: 9.498 min Scan# 851
Delta R.T. 0.000 min
Lab File: 0409_21.D
Acq: 09 Apr 2019 06:37 pm

Tgt Ion:166 Resp: 39418

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 79.0 | 57.7 | 97.7 |
| 129 | 85.1 | 48.6 | 88.6 |

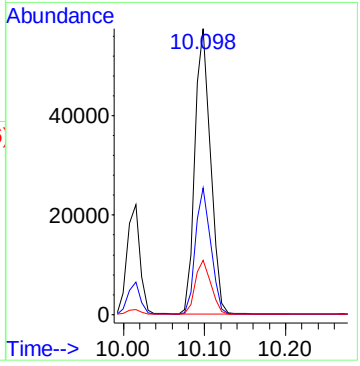



#106
m,p-Xylene(sim)
Conc: 8$ 2.046 ppbv
RT: 10.098 min Scan# 931
Delta R.T. -0.007 min
Lab File: 0409_21.D
Acq: 09 Apr 2019 06:37 pm

Tgt Ion: 91 Resp: 77048

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 43.4 | 44.3 | 54.1# |
| 105 | 18.9 | 17.7 | 26.5 |



1

AIR ANALYSIS DATA SHEET

CLIENT ID: CC90523 LCS

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90523 LCS

Canister: LCS Lab File ID: 0409_43.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/10/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 115-07-1 | Propylene | 11.9 | | 0.581 | 0.581 | r |
| 75-71-8 | Dichlorodifluoromethane | 11.4 | | 0.202 | 0.202 | r |
| 74-87-3 | Chloromethane | 13.2 | | 0.485 | 0.485 | r |
| 76-14-2 | 1,2-Dichlorotetrafluoroethane | 12.7 | | 0.143 | 0.143 | r |
| 75-01-4 | Vinyl Chloride | 12.8 | | 0.078 | 0.078 | r |
| 106-99-0 | 1,3-Butadiene | 13.3 | | 0.452 | 0.452 | r |
| 74-83-9 | Bromomethane | 12.1 | | 0.258 | 0.258 | r |
| 75-00-3 | Chloroethane | 12.7 | | 0.379 | 0.379 | r |
| 64-17-5 | Ethanol | 12.9 | | 0.531 | 0.531 | r |
| 67-64-1 | Acetone | 13.2 | | 0.421 | 0.421 | r |
| 75-69-4 | Trichlorofluoromethane | 12.5 | | 0.178 | 0.178 | r |
| 67-63-0 | Isopropylalcohol | 13.1 | | 0.407 | 0.407 | r |
| 107-13-1 | Acrylonitrile | 14.2 | | 0.461 | 0.461 | r |
| 75-35-4 | 1,1-Dichloroethene | 13.0 | | 0.051 | 0.051 | r |
| 75-09-2 | Methylene Chloride | 13.4 | | 0.864 | 0.864 | r |
| 75-15-0 | Carbon Disulfide | 12.6 | | 0.321 | 0.321 | r |
| 76-13-1 | Trichlorotrifluoroethane | 12.8 | | 0.131 | 0.131 | r |
| 156-60-5 | Trans-1,2-Dichloroethene | 11.7 | | 0.252 | 0.252 | r |
| 75-34-3 | 1,1-Dichloroethane | 11.1 | | 0.247 | 0.247 | r |
| 1634-04-4 | Methyl tert-butyl ether(MTBE) | 11.3 | | 0.278 | 0.278 | r |
| 78-93-3 | Methyl Ethyl Ketone | 12.3 | | 0.339 | 0.339 | r |
| 156-59-2 | Cis-1,2-Dichloroethene | 12.0 | | 0.051 | 0.051 | r |
| 110-54-3 | Hexane | 12.5 | | 0.284 | 0.284 | r |
| 67-66-3 | Chloroform | 11.7 | | 0.205 | 0.205 | r |
| 141-78-6 | Ethyl acetate | 12.8 | | 0.278 | 0.278 | r |
| 109-99-9 | Tetrahydrofuran | 13.4 | | 0.339 | 0.339 | r |
| 107-06-2 | 1,2-Dichloroethane | 12.8 | | 0.247 | 0.247 | r |
| 71-55-6 | 1,1,1-Trichloroethane | 12.9 | | 0.183 | 0.183 | r |
| 71-43-2 | Benzene | 12.2 | | 0.313 | 0.313 | r |
| 56-23-5 | Carbon Tetrachloride | 15.1 | | 0.032 | 0.032 | r |
| 110-82-7 | Cyclohexane | 13.5 | | 0.291 | 0.291 | r |
| 78-87-5 | 1,2-dichloropropane | 10.7 | | 0.217 | 0.217 | r |
| 75-27-4 | Bromodichloromethane | 12.0 | | 0.149 | 0.149 | r |
| 79-01-6 | Trichloroethene | 10.5 | | 0.037 | 0.037 | r |
| 123-91-1 | 1,4-Dioxane | 10.5 | | 0.278 | 0.278 | r |
| 142-82-5 | Heptane | 12.1 | | 0.244 | 0.244 | r |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

1

AIR ANALYSIS DATA SHEET

CLIENT ID: CC90523 LCS

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90523 LCS

Canister: LCS Lab File ID: 0409_43.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/10/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 10061-01-5 | cis-1,3-Dichloropropene | 12.0 | | 0.220 | 0.220 | r |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | 13.2 | | 0.244 | 0.244 | r |
| 10061-02-6 | trans-1,3-Dichloropropene | 12.3 | | 0.220 | 0.220 | r |
| 79-00-5 | 1,1,2-Trichloroethane | 10.7 | | 0.183 | 0.183 | r |
| 108-88-3 | Toluene | 11.1 | | 0.266 | 0.266 | r |
| 124-48-1 | Dibromochloromethane | 14.5 | | 0.117 | 0.117 | r |
| 591-78-6 | 2-Hexanone(MBK) | 12.6 | | 0.244 | 0.244 | r |
| 106-93-4 | 1,2-Dibromoethane(EDB) | 11.1 | | 0.130 | 0.130 | r |
| 127-18-4 | Tetrachloroethene | 10.7 | | 0.037 | 0.037 | r |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 11.7 | | 0.146 | 0.146 | r |
| 108-90-7 | Chlorobenzene | 9.92 | | 0.217 | 0.217 | r |
| 100-41-4 | Ethylbenzene | 10.4 | | 0.230 | 0.230 | r |
| 179601-23-1 | m,p-Xylene | 22.1 | | 0.230 | 0.230 | r |
| 75-25-2 | Bromoform | 16.0 | | 0.097 | 0.097 | r |
| 100-42-5 | Styrene | 10.9 | | 0.235 | 0.235 | r |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10.8 | | 0.146 | 0.146 | r |
| 95-47-6 | o-Xylene | 10.6 | | 0.230 | 0.230 | r |
| 98-82-8 | Isopropylbenzene | 10.3 | | 0.204 | 0.204 | r |
| 622-96-8 | 4-Ethyltoluene | 10.8 | | 0.204 | 0.204 | r |
| 108-67-8 | 1,3,5-Trimethylbenzene | 10.7 | | 0.204 | 0.204 | r |
| 95-63-6 | 1,2,4-Trimethylbenzene | 11.2 | | 0.204 | 0.204 | r |
| 100-44-7 | Benzyl chloride | 4.34 | | 0.193 | 0.193 | r |
| 541-73-1 | 1,3-Dichlorobenzene | 10.6 | | 0.166 | 0.166 | r |
| 106-46-7 | 1,4-Dichlorobenzene | 10.8 | | 0.166 | 0.166 | r |
| 135-98-8 | sec-Butylbenzene | 10.5 | | 0.182 | 0.182 | r |
| 99-87-6 | 4-Isopropyltoluene | 10.9 | | 0.182 | 0.182 | r |
| 95-50-1 | 1,2-Dichlorobenzene | 10.9 | | 0.166 | 0.166 | r |
| 104-51-8 | n-Butylbenzene | 11.4 | | 0.182 | 0.182 | r |
| 120-82-1 | 1,2,4-Trichlorobenzene | 14.6 | | 0.135 | 0.135 | r |
| 87-68-3 | Hexachlorobutadiene | 12.9 | | 0.094 | 0.094 | r |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_43.D
Acq On : 10 Apr 2019 09:05 am
Operator : CORTEX\ms
Client ID : CC90523 LCS
Lab ID : CC90523 LCS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 10:46:03 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:42:38 2019
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.879 | 130 | 109338 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.780 | 114 | 372985 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.815 | 82 | 193517 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.882 | 130 | 148993 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.783 | 114 | 424054 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 195889 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 256341 | 10.104 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 101.00% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Propylene | 3.597 | 41 | 153307 | 11.901 | ppbv | | 96 |
| 3) Dichlorodifluoromethane | 3.670 | 85 | 320458 | 11.429 | ppbv | # | 95 |
| 4) Chloromethane | 3.824 | 50 | 154964 | 13.231 | ppbv | | 97 |
| 5) 1,2-Dichlorotetrafluor... | 3.922 | 85 | 345200 | 12.658 | ppbv | | 92 |
| 6) Vinyl Chloride | 4.019 | 62 | 145633 | 12.801 | ppbv | | 95 |
| 7) 1,3-Butadiene | 4.149 | 54 | 127213 | 13.272 | ppbv | # | 82 |
| 8) Bromomethane | 4.376 | 94 | 115554 | 12.135 | ppbv | # | 96 |
| 9) Chloroethane | 4.522 | 64 | 67638 | 12.668 | ppbv | | 84 |
| 11) Ethanol | 4.644 | 45 | 60654 | 12.892 | ppbv | | 97 |
| 12) Acetone | 5.001 | 43 | 322866 | 13.207 | ppbv | # | 85 |
| 13) Trichlorofluoromethane | 5.114 | 101 | 458486 | 12.504 | ppbv | | 99 |
| 14) Isopropylalcohol | 5.187 | 45 | 337047 | 13.086 | ppbv | # | 95 |
| 15) Acrylonitrile | 5.341 | 53 | 90474 | 14.199 | ppbv | | 94 |
| 16) 1,1-Dichloroethene | 5.572 | 61 | 286983 | 13.018 | ppbv | # | 72 |
| 17) Methylene Chloride | 5.655 | 49 | 218712 | 13.348 | ppbv | # | 53 |
| 20) Carbon Disulfide | 5.864 | 76 | 300901 | 12.551 | ppbv | | 99 |
| 21) Trichlorotrifluoroethane | 5.822 | 101 | 277715 | 12.806 | ppbv | # | 88 |
| 22) Trans-1,2-Dichloroethene | 6.234 | 61 | 219327 | 11.730 | ppbv | # | 76 |
| 23) 1,1-Dichloroethane | 6.354 | 63 | 256751 | 11.082 | ppbv | | 95 |
| 24) Methyl tert-butyl ethe... | 6.380 | 73 | 321642 | 11.284 | ppbv | # | 67 |
| 25) Methyl Ethyl Ketone | 6.562 | 43 | 377012 | 12.256 | ppbv | # | 75 |
| 26) Cis-1,2-Dichloroethene | 6.794 | 61 | 216008 | 12.031 | ppbv | # | 69 |
| 27) Hexane | 6.887 | 57 | 220300 | 12.461 | ppbv | # | 77 |
| 28) Chloroform | 6.941 | 83 | 298446 | 11.741 | ppbv | | 89 |
| 29) Ethyl acetate | 6.887 | 61 | 43774 | 12.746 | ppbv | # | 71 |
| 30) Tetrahydrofuran | 7.135 | 42 | 173780 | 13.426 | ppbv | # | 58 |
| 31) 1,2-Dichloroethane | 7.297 | 62 | 277582 | 12.802 | ppbv | # | 91 |
| 32) 1,1,1-Trichloroethane | 7.421 | 97 | 319736 | 12.891 | ppbv | # | 89 |
| 33) Benzene | 7.636 | 78 | 293134 | 12.226 | ppbv | # | 85 |
| 34) Carbon Tetrachloride | 7.704 | 117 | 312783 | 15.123 | ppbv | | 99 |
| 35) Cyclohexane | 7.763 | 41 | 129677 | 13.455 | ppbv | # | 39 |
| 37) 1,2-dichloropropane | 8.009 | 63 | 128820 | 10.732 | ppbv | # | 78 |
| 38) Bromodichloromethane | 8.094 | 83 | 293632 | 12.021 | ppbv | | 99 |
| 39) Trichloroethene | 8.111 | 130 | 146599 | 10.469 | ppbv | | 90 |
| 41) 1,4-Dioxane | 8.102 | 88 | 60955 | 10.473 | ppbv | # | 58 |
| 43) Heptane | 8.221 | 43 | 226782 | 12.055 | ppbv | # | 68 |
| 44) cis-1,3-Dichloropropene | 8.492 | 75 | 182616 | 12.010 | ppbv | | 96 |
| 45) 4-Methyl-2-pentanone(M... | 8.492 | 43 | 340415 | 13.212 | ppbv | # | 78 |
| 46) trans-1,3-Dichloropropene | 8.723 | 75 | 180175 | 12.275 | ppbv | | 95 |
| 47) 1,1,2-Trichloroethane | 8.815 | 97 | 126116 | 10.694 | ppbv | | 92 |
| 48) Toluene | 8.948 | 91 | 339717 | 11.108 | ppbv | # | 97 |
| 49) Dibromochloromethane | 9.160 | 129 | 262756 | 14.537 | ppbv | | 98 |
| 50) 2-Hexanone(MBK) | 9.040 | 43 | 295887 | 12.607 | ppbv | # | 86 |
| 51) 1,2-Dibromoethane(EDB) | 9.279 | 107 | 219990 | 11.061 | ppbv | | 100 |

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_43.D
Acq On : 10 Apr 2019 09:05 am
Operator : CORTEX\ms
Client ID : CC90523 LCS
Lab ID : CC90523 LCS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 10:46:03 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:42:38 2019
Response via : Initial Calibration

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 52) | Tetrachloroethene | 9.497 | 166 | 158943 | 10.731 | ppbv# | 87 |
| 54) | 1,1,1,2-Tetrachloroethane | 9.822 | 131 | 174307 | 11.711 | ppbv | 97 |
| 55) | Chlorobenzene | 9.837 | 112 | 293449 | 9.915 | ppbv | 95 |
| 56) | Ethylbenzene | 10.012 | 91 | 474838 | 10.358 | ppbv | 97 |
| 57) | m,p-Xylene | 10.103 | 91 | 771606 | 22.053 | ppbv | 93 |
| 58) | Bromoform | 10.164 | 173 | 199138 | 15.988 | ppbv | 99 |
| 59) | Styrene | 10.292 | 104 | 276588 | 10.883 | ppbv# | 85 |
| 60) | 1,1,2,2-Tetrachloroethane | 10.345 | 83 | 282732 | 10.775 | ppbv | 91 |
| 61) | o-Xylene | 10.353 | 91 | 389333 | 10.635 | ppbv | 96 |
| 64) | Isopropylbenzene | 10.656 | 105 | 495587 | 10.290 | ppbv | 94 |
| 66) | 4-Ethyltoluene | 11.021 | 105 | 523803 | 10.808 | ppbv | 95 |
| 67) | 1,3,5-Trimethylbenzene | 11.066 | 105 | 447730 | 10.729 | ppbv | 95 |
| 68) | 1,2,4-Trimethylbenzene | 11.309 | 105 | 457499 | 11.197 | ppbv | 95 |
| 70) | Benzyl chloride | 11.469 | 91 | 113342 | 4.338 | ppbv# | 62 |
| 71) | 1,3-Dichlorobenzene | 11.408 | 146 | 288299 | 10.598 | ppbv | 95 |
| 72) | 1,4-Dichlorobenzene | 11.453 | 146 | 288050 | 10.789 | ppbv | 94 |
| 73) | sec-Butylbenzene | 11.469 | 105 | 596608 | 10.473 | ppbv | 96 |
| 74) | 4-Isopropyltoluene | 11.560 | 119 | 541974 | 10.913 | ppbv | 94 |
| 75) | 1,2-Dichlorobenzene | 11.666 | 146 | 280550 | 10.851 | ppbv | 95 |
| 76) | n-Butylbenzene | 11.826 | 91 | 508224 | 11.348 | ppbv | 95 |
| 77) | 1,2,4-Trichlorobenzene | 12.782 | 180 | 148710 | 14.626 | ppbv# | 94 |
| 79) | Hexachlorobutadiene | 13.094 | 225 | 140298 | 12.943 | ppbv | 99 |
| 81] | 1,2-Dichlorotetrafluor... | 3.922 | 85 | 344847 | 11.374 | ppbv | 92 |
| 82] | Vinyl Chloride(sim) | 4.022 | 62 | 165415 | 11.517 | ppbv | 95 |
| 83] | Bromomethane(sim) | 4.376 | 94 | 115554 | 9.663 | ppbv# | 96 |
| 84] | Trichlorofluoromethane... | 5.117 | 101 | 559618 | 11.254 | ppbv | 99 |
| 85] | 1,2-Dichloroethane(sim) | 7.297 | 62 | 277582 | 11.530 | ppbv# | 91 |
| 86] | 1,1,1-Trichloroethane(... | 7.424 | 97 | 393255 | 12.437 | ppbv# | 90 |
| 87] | Carbon Tetrachloride(sim) | 7.704 | 117 | 312783 | 16.112 | ppbv | 99 |
| 88] | 1,1-Dichloroethene(sim) | 5.575 | 61 | 330517 | 11.733 | ppbv# | 68 |
| 89] | Trichlorotrifluoroetha... | 5.822 | 101 | 277715 | 11.134 | ppbv | 99 |
| 90] | Trans-1,2-Dichloroethe... | 6.237 | 61 | 251738 | 10.547 | ppbv# | 77 |
| 91] | 1,1-Dichloroethane(sim) | 6.354 | 63 | 256751 | 9.816 | ppbv | 95 |
| 92] | Cis-1,2-Dichloroethene... | 6.789 | 61 | 249350 | 11.083 | ppbv# | 72 |
| 93] | Chloroform(sim) | 6.941 | 83 | 298446 | 10.573 | ppbv# | 89 |
| 95] | 1,2-dichloropropane(sim) | 8.009 | 63 | 128820 | 10.233 | ppbv# | 78 |
| 96] | Bromodichloromethane(sim) | 8.097 | 85 | 223118 | 12.669 | ppbv | 93 |
| 97] | Trichloroethene(sim) | 8.111 | 130 | 146599 | 9.596 | ppbv | 92 |
| 98] | 1,4-Dioxane(sim) | 8.105 | 88 | 64812 | 9.527 | ppbv# | 60 |
| 99] | cis-1,3-Dichloropropen... | 8.492 | 75 | 182616 | 13.708 | ppbv | 96 |
| 100] | 1,1,2-Trichloroethane(... | 8.818 | 97 | 154375 | 10.749 | ppbv | 93 |
| 101] | Dibromochloromethane(sim) | 9.160 | 129 | 262756 | 15.625 | ppbv | 98 |
| 102] | 1,2-Dibromoethane(EDB)... | 9.282 | 107 | 269189 | 12.088 | ppbv | 98 |
| 103] | Tetrachloroethene(sim) | 9.497 | 166 | 158943 | 9.542 | ppbv | 87 |
| 105] | Bromoform(sim) | 10.164 | 173 | 199138 | 17.038 | ppbv | 99 |
| 106] | m,p-Xylene(sim) | 10.098 | 91 | 794269 | 16.556 | ppbv# | 93 |
| 107] | 1,1,2,2-Tetrachloroeth... | 10.345 | 83 | 282732 | 10.891 | ppbv | 98 |
| 110] | Benzyl chloride(sim) | 11.396 | 91 | 346195 | 8.863 | ppbv | 93 |
| 111] | 1,3-Dichlorobenzene(sim) | 11.408 | 146 | 288299 | 11.903 | ppbv | 95 |
| 112] | 1,4-Dichlorobenzene(sim) | 11.449 | 146 | 356242 | 12.845 | ppbv | 96 |
| 113] | sec-Butylbenzene(sim) | 11.469 | 105 | 596279 | 8.128 | ppbv | 96 |
| 114] | 4-Isopropyltoluene(sim) | 11.563 | 119 | 511351 | 8.065 | ppbv# | 91 |
| 115] | 1,2-Dichlorobenzene(sim) | 11.666 | 146 | 280550 | 12.664 | ppbv | 95 |
| 116] | n-Butylbenzene(sim) | 11.821 | 91 | 524503 | 8.040 | ppbv | 94 |
| 117] | 1,2,4-Trichlorobenzene... | 12.782 | 180 | 148710 | 10.576 | ppbv | 94 |
| 119] | Hexachlorobutadiene(sim) | 13.094 | 225 | 140221 | 12.376 | ppbv | 99 |

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_43.D
Acq On : 10 Apr 2019 09:05 am
Operator : CORTEX\ms
Client ID : CC90523 LCS
Lab ID : CC90523 LCS
ALS Vial : 1 Sample Multiplier: 1

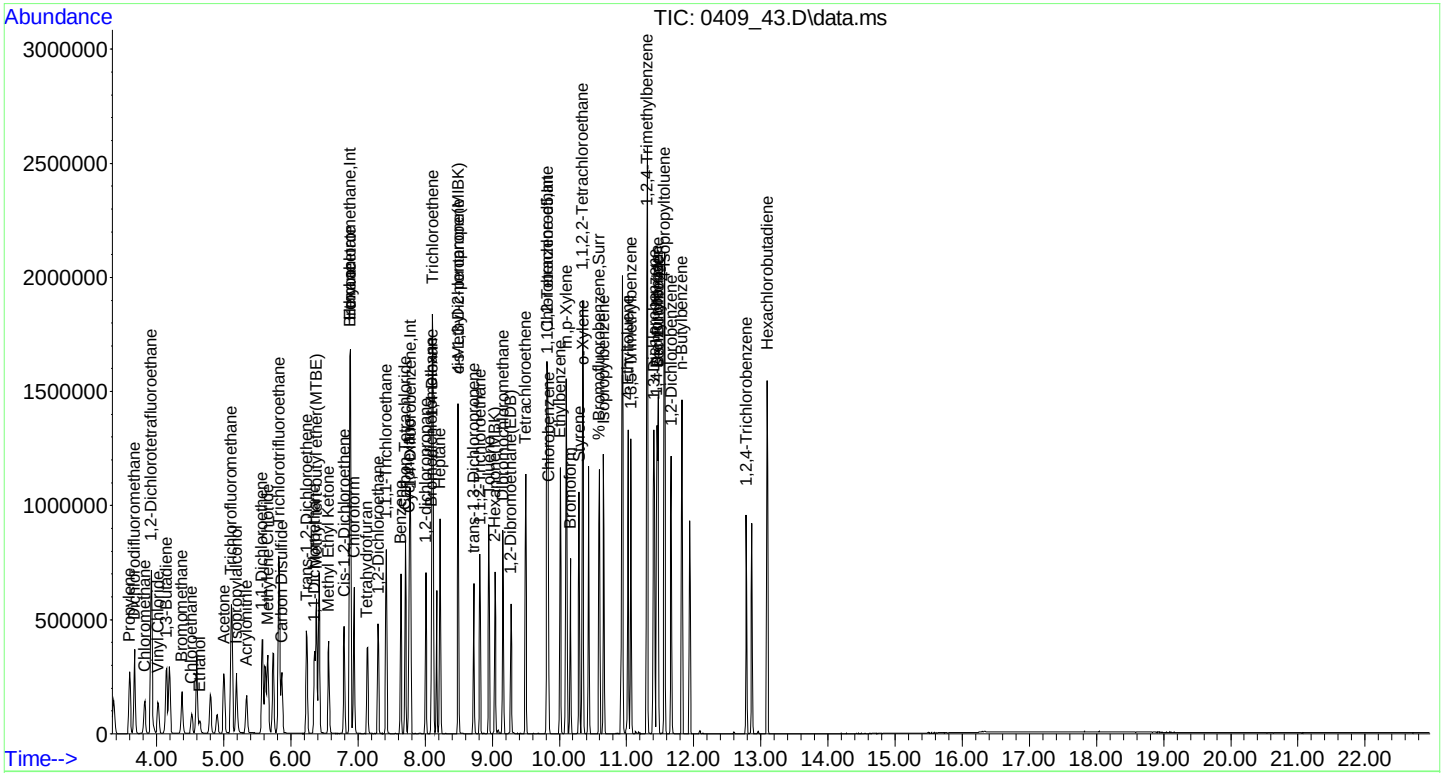
Quant Time: Apr 10 10:46:03 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:42:38 2019
Response via : Initial Calibration

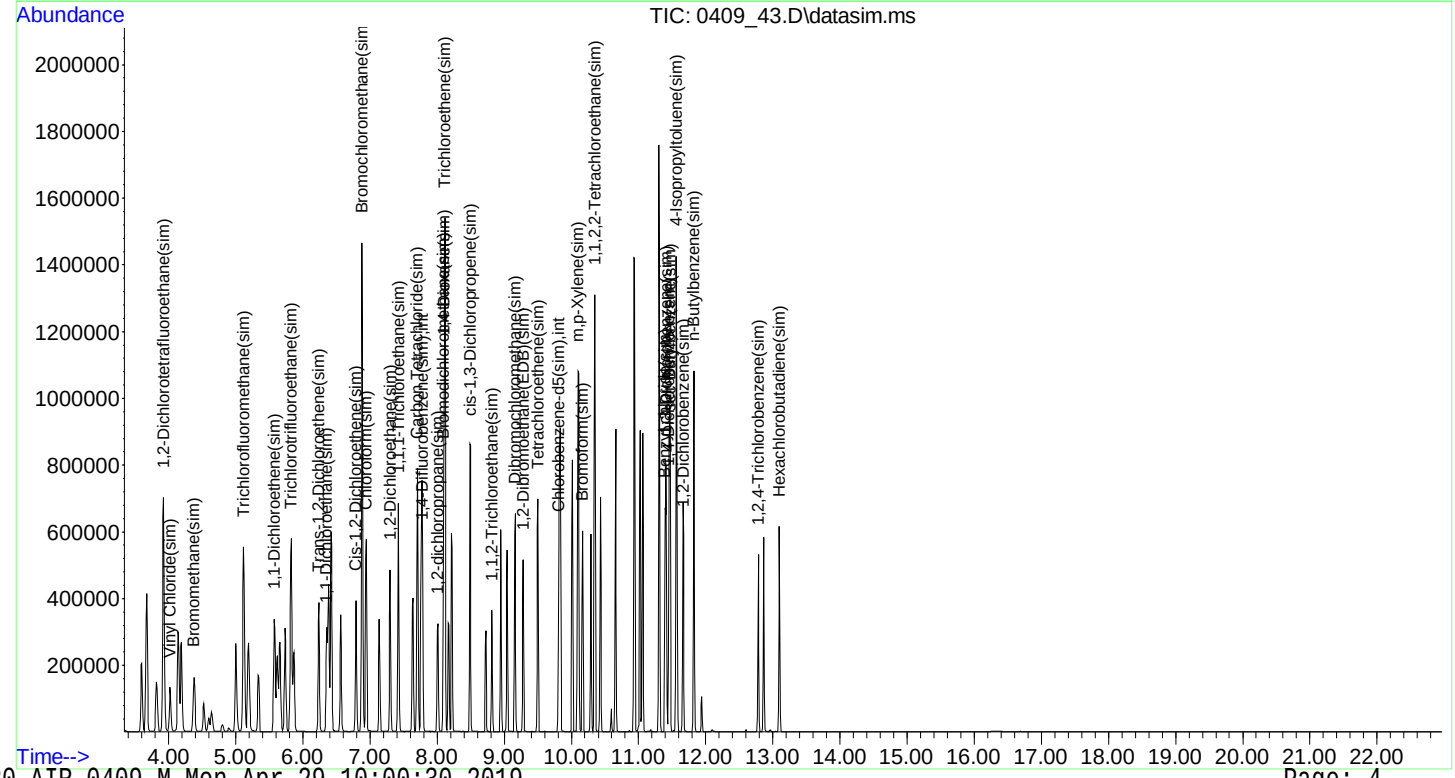
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_43.D
Acq On : 10 Apr 2019 09:05 am
Operator : CORTEX\ms
Client ID : CC90523 LCS
Lab ID : CC90523 LCS
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 10:46:03 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:42:38 2019
Response via : Initial Calibration



AIR ANALYSIS DATA SHEET

CLIENT ID: CC90523 BLANK

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90523 BL

Canister: BL Lab File ID: 0409_46.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/10/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 115-07-1 | Propylene | 0.581 | U | 0.581 | 0.581 | r |
| 75-71-8 | Dichlorodifluoromethane | 0.202 | U | 0.202 | 0.202 | r |
| 74-87-3 | Chloromethane | 0.485 | U | 0.485 | 0.485 | r |
| 106-99-0 | 1,3-Butadiene | 0.452 | U | 0.452 | 0.452 | r |
| 75-00-3 | Chloroethane | 0.379 | U | 0.379 | 0.379 | r |
| 64-17-5 | Ethanol | 0.531 | U | 0.531 | 0.531 | r |
| 67-64-1 | Acetone | 0.421 | U | 0.421 | 0.421 | r |
| 67-63-0 | Isopropylalcohol | 0.407 | U | 0.407 | 0.407 | r |
| 107-13-1 | Acrylonitrile | 0.461 | U | 0.461 | 0.461 | r |
| 75-09-2 | Methylene Chloride | 0.864 | U | 0.864 | 0.864 | r |
| 75-15-0 | Carbon Disulfide | 0.321 | U | 0.321 | 0.321 | r |
| 1634-04-4 | Methyl tert-butyl ether(MTBE) | 0.278 | U | 0.278 | 0.278 | r |
| 78-93-3 | Methyl Ethyl Ketone | 0.339 | U | 0.339 | 0.339 | r |
| 110-54-3 | Hexane | 0.284 | U | 0.284 | 0.284 | r |
| 141-78-6 | Ethyl acetate | 0.278 | U | 0.278 | 0.278 | r |
| 109-99-9 | Tetrahydrofuran | 0.339 | U | 0.339 | 0.339 | r |
| 71-43-2 | Benzene | 0.313 | U | 0.313 | 0.313 | r |
| 110-82-7 | Cyclohexane | 0.291 | U | 0.291 | 0.291 | r |
| 142-82-5 | Heptane | 0.244 | U | 0.244 | 0.244 | r |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | 0.244 | U | 0.244 | 0.244 | r |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.220 | U | 0.220 | 0.220 | r |
| 108-88-3 | Toluene | 0.266 | U | 0.266 | 0.266 | r |
| 591-78-6 | 2-Hexanone(MBK) | 0.244 | U | 0.244 | 0.244 | r |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.146 | U | 0.146 | 0.146 | r |
| 108-90-7 | Chlorobenzene | 0.217 | U | 0.217 | 0.217 | r |
| 100-41-4 | Ethylbenzene | 0.230 | U | 0.230 | 0.230 | r |
| 100-42-5 | Styrene | 0.235 | U | 0.235 | 0.235 | r |
| 95-47-6 | o-Xylene | 0.230 | U | 0.230 | 0.230 | r |
| 98-82-8 | Isopropylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 622-96-8 | 4-Ethyltoluene | 0.204 | U | 0.204 | 0.204 | r |
| 108-67-8 | 1,3,5-Trimethylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 76-14-2 | 1,2-Dichlorotetrafluoroethane(sim) | 0.143 | U | 0.143 | 0.143 | r |
| 75-01-4 | Vinyl Chloride(sim) | 0.078 | U | 0.078 | 0.078 | r |
| 74-83-9 | Bromomethane(sim) | 0.258 | U | 0.258 | 0.258 | r |
| 75-69-4 | Trichlorofluoromethane(sim) | 0.178 | U | 0.178 | 0.178 | r |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

1

AIR ANALYSIS DATA SHEET

CLIENT ID: CC90523 BLANK

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90523 BL

Canister: BL Lab File ID: 0409_46.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/10/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 107-06-2 | 1,2-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 71-55-6 | 1,1,1-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 56-23-5 | Carbon Tetrachloride(sim) | 0.032 | U | 0.032 | 0.032 | r |
| 75-35-4 | 1,1-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 76-13-1 | Trichlorotrifluoroethane(sim) | 0.131 | U | 0.131 | 0.131 | r |
| 156-60-5 | Trans-1,2-Dichloroethene(sim) | 0.252 | U | 0.252 | 0.252 | r |
| 75-34-3 | 1,1-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 156-59-2 | Cis-1,2-Dichloroethene(sim) | 0.256 | U | 0.256 | 0.256 | r |
| 67-66-3 | Chloroform(sim) | 0.205 | U | 0.205 | 0.205 | r |
| 78-87-5 | 1,2-dichloropropane(sim) | 0.217 | U | 0.217 | 0.217 | r |
| 75-27-4 | Bromodichloromethane(sim) | 0.149 | U | 0.149 | 0.149 | r |
| 79-01-6 | Trichloroethene(sim) | 2.77 | U | 2.77 | 2.77 | r |
| 123-91-1 | 1,4-Dioxane(sim) | 0.278 | U | 0.278 | 0.278 | r |
| 10061-01-5 | cis-1,3-Dichloropropene(sim) | 0.220 | U | 0.220 | 0.220 | r |
| 79-00-5 | 1,1,2-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 124-48-1 | Dibromochloromethane(sim) | 0.117 | U | 0.117 | 0.117 | r |
| 106-93-4 | 1,2-Dibromoethane(EDB)(sim) | 0.130 | U | 0.130 | 0.130 | r |
| 127-18-4 | Tetrachloroethene(sim) | 2.77 | U | 2.77 | 2.77 | r |
| 75-25-2 | Bromoform(sim) | 0.097 | U | 0.097 | 0.097 | r |
| 179601-23-1 | m,p-Xylene(sim) | 0.230 | U | 0.230 | 0.230 | r |
| 79-34-5 | 1,1,2,2-Tetrachloroethane(sim) | 0.146 | U | 0.146 | 0.146 | r |
| 100-44-7 | Benzyl chloride(sim) | 0.193 | U | 0.193 | 0.193 | r |
| 541-73-1 | 1,3-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 106-46-7 | 1,4-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 135-98-8 | sec-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 99-87-6 | 4-Isopropyltoluene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 95-50-1 | 1,2-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 104-51-8 | n-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 120-82-1 | 1,2,4-Trichlorobenzene(sim) | 0.135 | U | 0.135 | 0.135 | r |
| 87-68-3 | Hexachlorobutadiene(sim) | 0.094 | U | 0.094 | 0.094 | r |
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FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_46.D
Acq On : 10 Apr 2019 10:54 am
Operator : CORTEX\ms
Client ID : CC90523 BLANK
Lab ID : CC90523 BLANK
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 16:00:17 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:42:38 2019
Response via : Initial Calibration

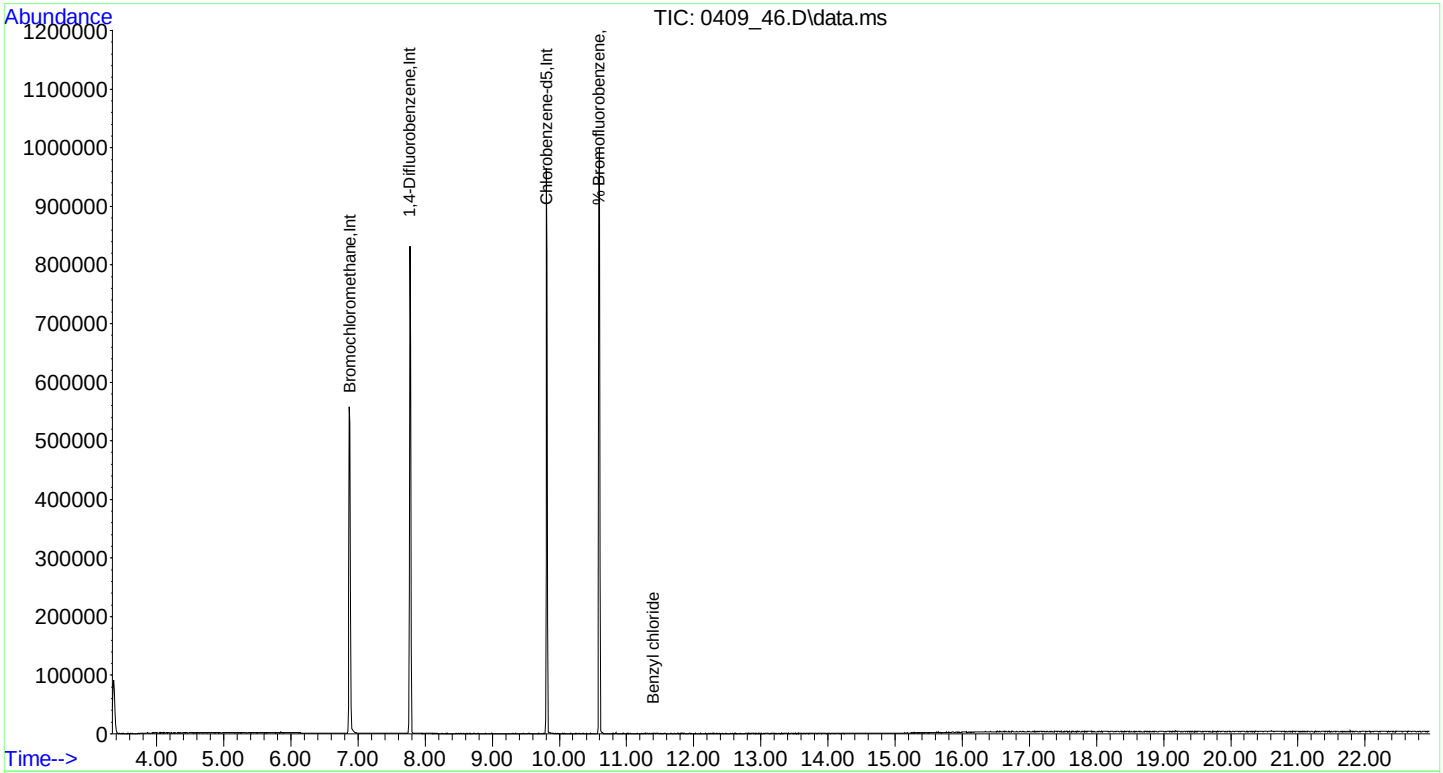
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.879 | 130 | 106351 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.772 | 114 | 352841 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.807 | 82 | 175545 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.874 | 130 | 146799 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 404965 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 173605 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 224221 | 9.743 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 97.40% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 70) Benzyl chloride | 11.400 | 91 | 81 | 0.555 | ppbv | # | 59 |

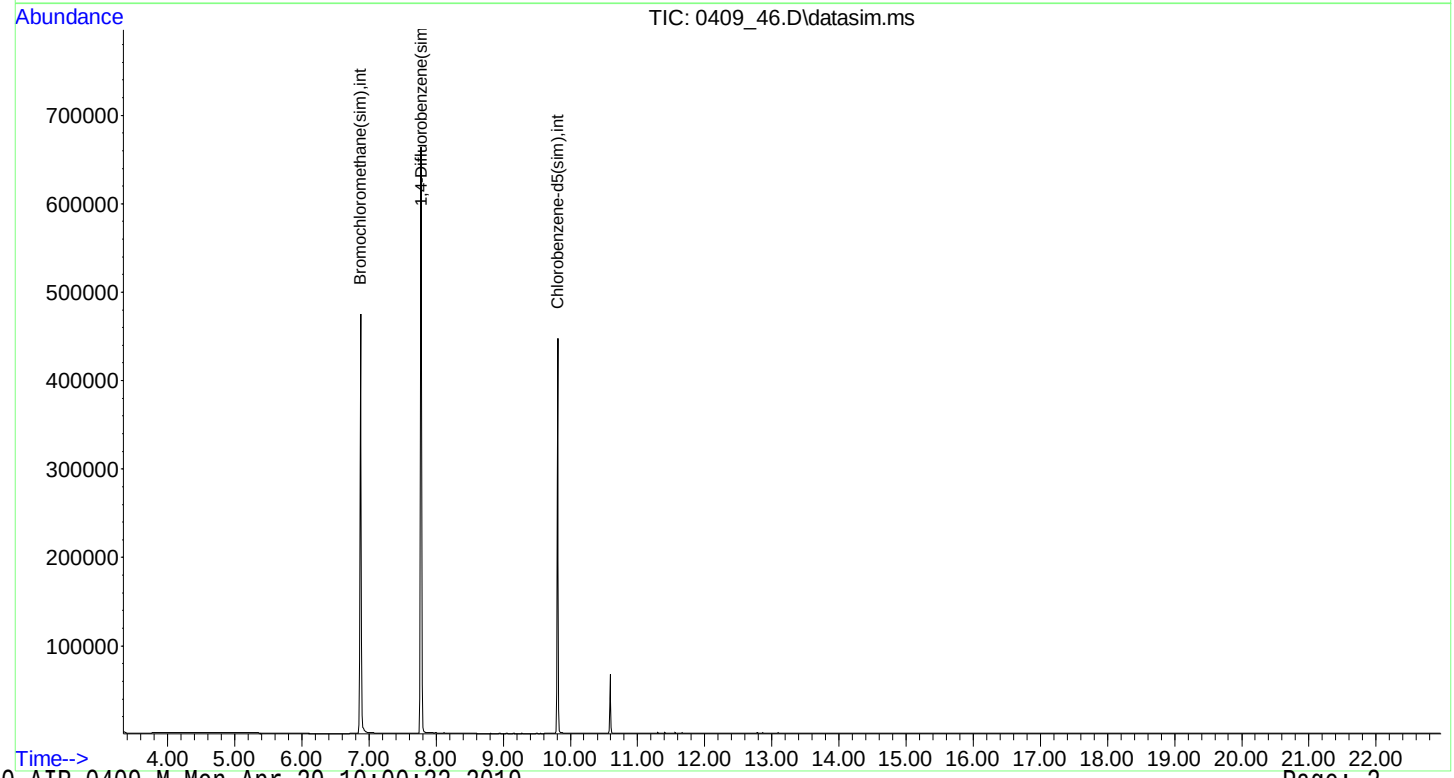
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

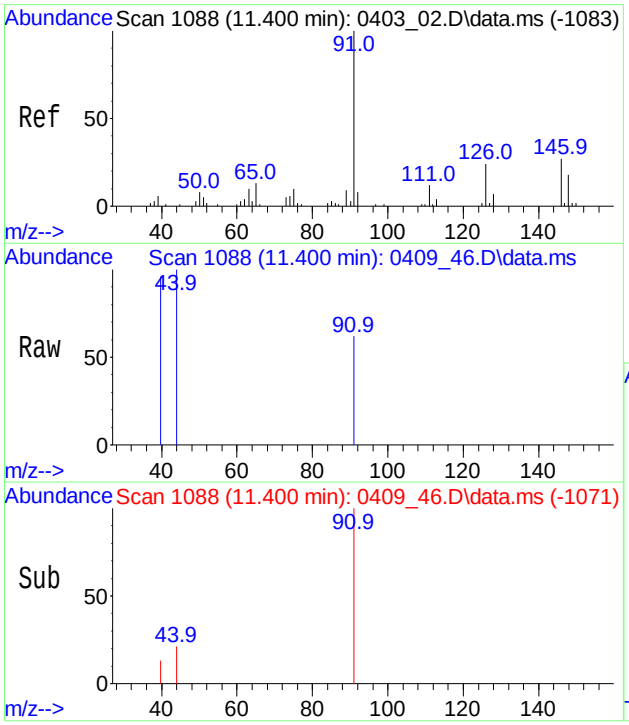
Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_46.D
Acq On : 10 Apr 2019 10:54 am
Operator : CORTEX\ms
Client ID : CC90523 BLANK
Lab ID : CC90523 BLANK
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 16:00:17 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:42:38 2019
Response via : Initial Calibration



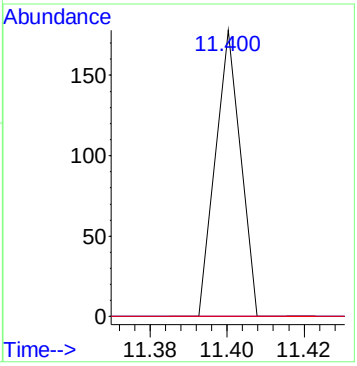






#70
Benzyl chloride
Conc: 8$  0.555 ppbv
RT:  11.400 min  Scan# 1088
Delta R.T.  -0.069 min
Lab File:  0409_46.D
Acq: 10 Apr 2019  10:54 am

Tgt Ion: 91 Resp:  81

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 126 | 0.0 | 18.1 | 27.1# |
| 65 | 0.0 | 9.7 | 14.5# |



1

AIR ANALYSIS DATA SHEET

CLIENT ID: SS-10 DUP 75X

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90523 DUP 75X

Canister: 23327 Lab File ID: 0409_56.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/10/19

Matrix: AIR Dilution Factor: 75

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 115-07-1 | Propylene | 43.6 | U | 43.6 | 43.6 | r |
| 75-71-8 | Dichlorodifluoromethane | 15.2 | U | 15.2 | 15.2 | r |
| 74-87-3 | Chloromethane | 36.3 | U | 36.3 | 36.3 | r |
| 106-99-0 | 1,3-Butadiene | 33.9 | U | 33.9 | 33.9 | r |
| 75-00-3 | Chloroethane | 28.4 | U | 28.4 | 28.4 | r |
| 64-17-5 | Ethanol | 39.8 | U | 39.8 | 39.8 | r |
| 67-64-1 | Acetone | 91.1 | S | 31.6 | 31.6 | r |
| 67-63-0 | Isopropylalcohol | 30.5 | U | 30.5 | 30.5 | r |
| 107-13-1 | Acrylonitrile | 34.6 | U | 34.6 | 34.6 | r |
| 75-09-2 | Methylene Chloride | 64.8 | U | 64.8 | 64.8 | r |
| 75-15-0 | Carbon Disulfide | 24.1 | U | 24.1 | 24.1 | r |
| 1634-04-4 | Methyl tert-butyl ether(MTBE) | 20.8 | U | 20.8 | 20.8 | r |
| 78-93-3 | Methyl Ethyl Ketone | 25.4 | U | 25.4 | 25.4 | r |
| 110-54-3 | Hexane | 21.3 | U | 21.3 | 21.3 | r |
| 141-78-6 | Ethyl acetate | 20.8 | U | 20.8 | 20.8 | r |
| 109-99-9 | Tetrahydrofuran | 25.4 | U | 25.4 | 25.4 | r |
| 71-43-2 | Benzene | 23.5 | U | 23.5 | 23.5 | r |
| 110-82-7 | Cyclohexane | 21.8 | U | 21.8 | 21.8 | r |
| 142-82-5 | Heptane | 18.3 | U | 18.3 | 18.3 | r |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | 18.3 | U | 18.3 | 18.3 | r |
| 10061-02-6 | trans-1,3-Dichloropropene | 16.5 | U | 16.5 | 16.5 | r |
| 108-88-3 | Toluene | 19.9 | U | 19.9 | 19.9 | r |
| 591-78-6 | 2-Hexanone(MBK) | 18.3 | U | 18.3 | 18.3 | r |
| 127-18-4 | Tetrachloroethene | 1030 | | 2.77 | 2.77 | r |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 10.9 | U | 10.9 | 10.9 | r |
| 108-90-7 | Chlorobenzene | 16.3 | U | 16.3 | 16.3 | r |
| 100-41-4 | Ethylbenzene | 17.3 | U | 17.3 | 17.3 | r |
| 100-42-5 | Styrene | 17.6 | U | 17.6 | 17.6 | r |
| 95-47-6 | o-Xylene | 17.3 | U | 17.3 | 17.3 | r |
| 98-82-8 | Isopropylbenzene | 15.3 | U | 15.3 | 15.3 | r |
| 622-96-8 | 4-Ethyltoluene | 15.3 | U | 15.3 | 15.3 | r |
| 108-67-8 | 1,3,5-Trimethylbenzene | 15.3 | U | 15.3 | 15.3 | r |
| 95-63-6 | 1,2,4-Trimethylbenzene | 15.3 | U | 15.3 | 15.3 | r |
| 76-14-2 | 1,2-Dichlorotetrafluoroethane(sim) | 10.7 | U | 10.7 | 10.7 | r |
| 75-01-4 | Vinyl Chloride(sim) | 5.87 | U | 5.87 | 5.87 | r |
| 74-83-9 | Bromomethane(sim) | 19.3 | U | 19.3 | 19.3 | r |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

1

AIR ANALYSIS DATA SHEET

CLIENT ID: SS-10 DUP 75X

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CC90523 DUP 75X

Canister: 23327 Lab File ID: 0409_56.D

Instrument: CHEM20 Column: RTX-1 60M Date Received: 04/08/19

Purge Volume 200 (cc) Date Analyzed: 04/10/19

Matrix: AIR Dilution Factor: 75

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 75-69-4 | Trichlorofluoromethane(sim) | 13.4 | U | 13.4 | 13.4 | r |
| 107-06-2 | 1,2-Dichloroethane(sim) | 18.5 | U | 18.5 | 18.5 | r |
| 71-55-6 | 1,1,1-Trichloroethane(sim) | 13.8 | U | 13.8 | 13.8 | r |
| 56-23-5 | Carbon Tetrachloride(sim) | 2.39 | U | 2.39 | 2.39 | r |
| 75-35-4 | 1,1-Dichloroethene(sim) | 3.79 | U | 3.79 | 3.79 | r |
| 76-13-1 | Trichlorotrifluoroethane(sim) | 9.79 | U | 9.79 | 9.79 | r |
| 156-60-5 | Trans-1,2-Dichloroethene(sim) | 18.9 | U | 18.9 | 18.9 | r |
| 75-34-3 | 1,1-Dichloroethane(sim) | 18.5 | U | 18.5 | 18.5 | r |
| 156-59-2 | Cis-1,2-Dichloroethene(sim) | 3.79 | U | 3.79 | 3.79 | r |
| 67-66-3 | Chloroform(sim) | 15.4 | U | 15.4 | 15.4 | r |
| 78-87-5 | 1,2-dichloropropane(sim) | 16.2 | U | 16.2 | 16.2 | r |
| 75-27-4 | Bromodichloromethane(sim) | 11.2 | U | 11.2 | 11.2 | r |
| 79-01-6 | Trichloroethene(sim) | 11.2 | | 2.79 | 2.79 | r |
| 123-91-1 | 1,4-Dioxane(sim) | 20.8 | U | 20.8 | 20.8 | r |
| 10061-01-5 | cis-1,3-Dichloropropene(sim) | 16.5 | U | 16.5 | 16.5 | r |
| 79-00-5 | 1,1,2-Trichloroethane(sim) | 13.8 | U | 13.8 | 13.8 | r |
| 124-48-1 | Dibromochloromethane(sim) | 8.81 | U | 8.81 | 8.81 | r |
| 106-93-4 | 1,2-Dibromoethane(EDB)(sim) | 9.77 | U | 9.77 | 9.77 | r |
| 75-25-2 | Bromoform(sim) | 7.26 | U | 7.26 | 7.26 | r |
| 179601-23-1 | m,p-Xylene(sim) | 17.3 | U | 17.3 | 17.3 | r |
| 79-34-5 | 1,1,2,2-Tetrachloroethane(sim) | 10.9 | U | 10.9 | 10.9 | r |
| 100-44-7 | Benzyl chloride(sim) | 14.5 | U | 14.5 | 14.5 | r |
| 541-73-1 | 1,3-Dichlorobenzene(sim) | 12.5 | U | 12.5 | 12.5 | r |
| 106-46-7 | 1,4-Dichlorobenzene(sim) | 12.5 | U | 12.5 | 12.5 | r |
| 135-98-8 | sec-Butylbenzene(sim) | 13.7 | U | 13.7 | 13.7 | r |
| 99-87-6 | 4-Isopropyltoluene(sim) | 13.7 | U | 13.7 | 13.7 | r |
| 95-50-1 | 1,2-Dichlorobenzene(sim) | 12.5 | U | 12.5 | 12.5 | r |
| 104-51-8 | n-Butylbenzene(sim) | 13.7 | U | 13.7 | 13.7 | r |
| 120-82-1 | 1,2,4-Trichlorobenzene(sim) | 10.1 | U | 10.1 | 10.1 | r |
| 87-68-3 | Hexachlorobutadiene(sim) | 7.04 | U | 7.04 | 7.04 | r |
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FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_56.D
Acq On : 10 Apr 2019 05:47 pm
Operator : CORTEX\ms
Client ID : SS-10 DUP 75X
Lab ID : CC90523 DUP 75X
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 11 09:05:24 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:42:38 2019
Response via : Initial Calibration

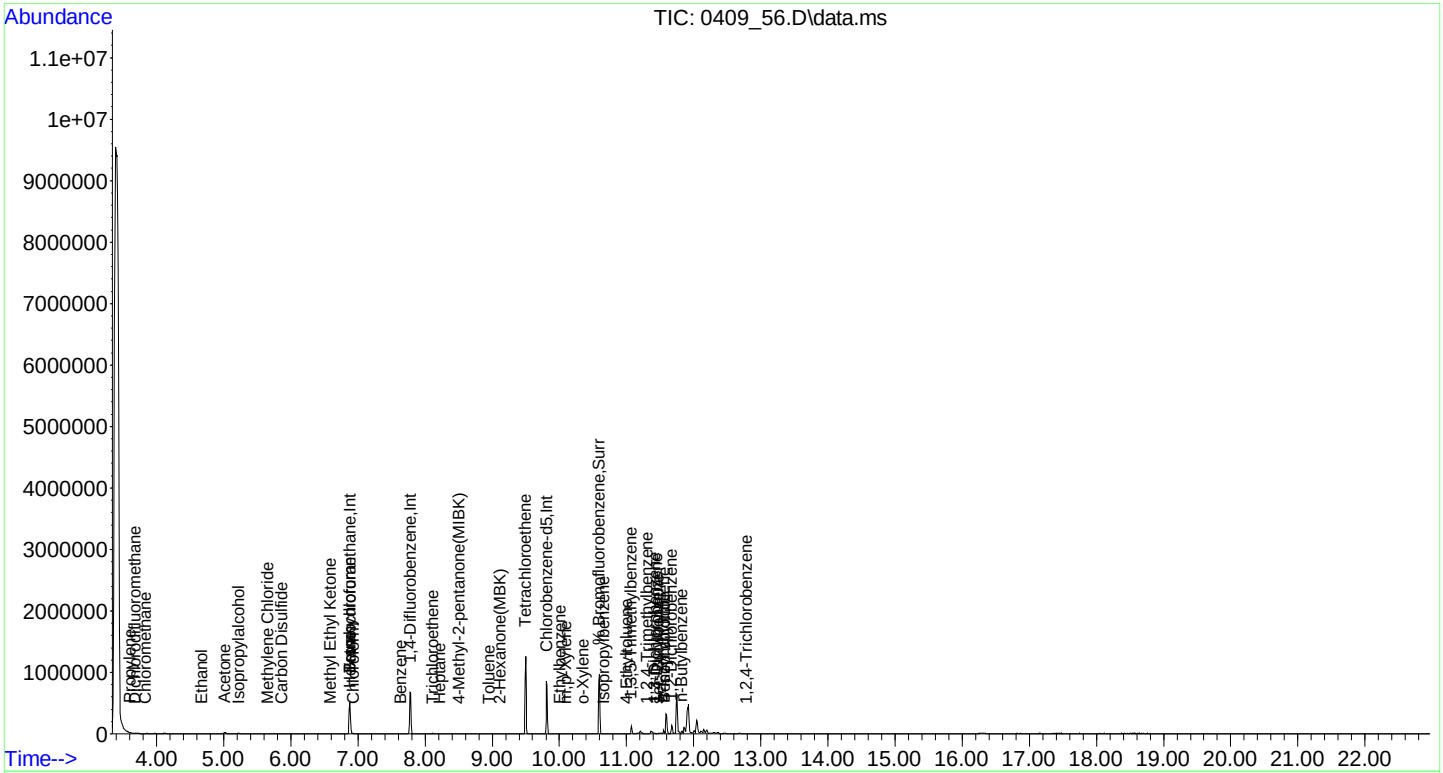
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.879 | 130 | 87632 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.781 | 114 | 302941 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.807 | 82 | 156938 | 10.000 | ng | # | 0.00 |
| 80) Bromochloromethane(sim) | 6.882 | 130 | 122754 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 352072 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 159025 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 208029 | 10.111 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 101.10% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 12) Acetone | 5.017 | 43 | 23796 | 1.215 | ppbv | # | 80 |
| 39) Trichloroethene | 8.111 | 130 | 1889 | 0.166 | ppbv | | 92 |
| 52) Tetrachloroethene | 9.498 | 166 | 165502 | 13.758 | ppbv | # | 85 |
| 70) Benzyl chloride | 11.567 | 91 | 152 | 0.558 | ppbv | # | 34 |
| 97] Trichloroethene(sim) | 8.111 | 130 | 1889 | 0.149 | ppbv | | 97 |
| 103] Tetrachloroethene(sim) | 9.498 | 166 | 165502 | 11.968 | ppbv | # | 85 |

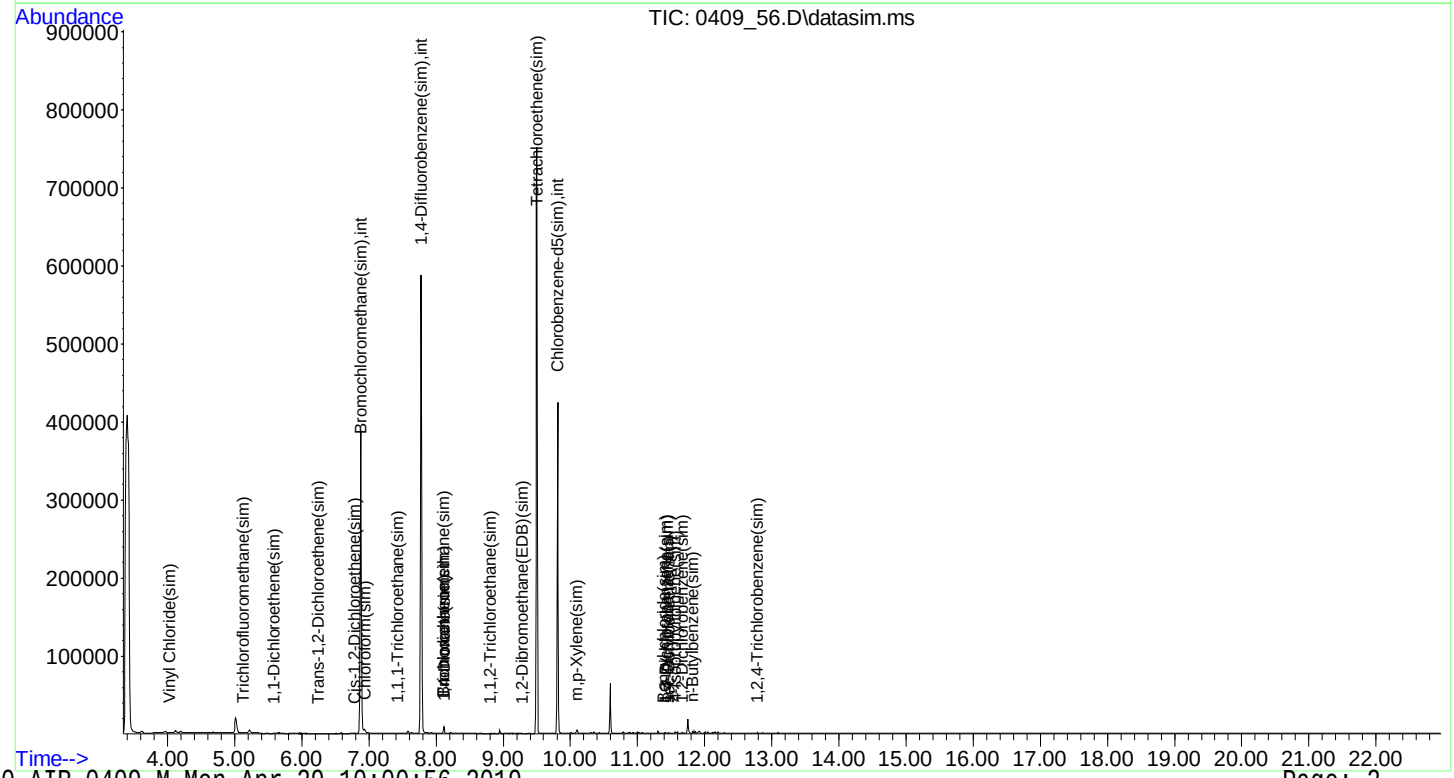
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

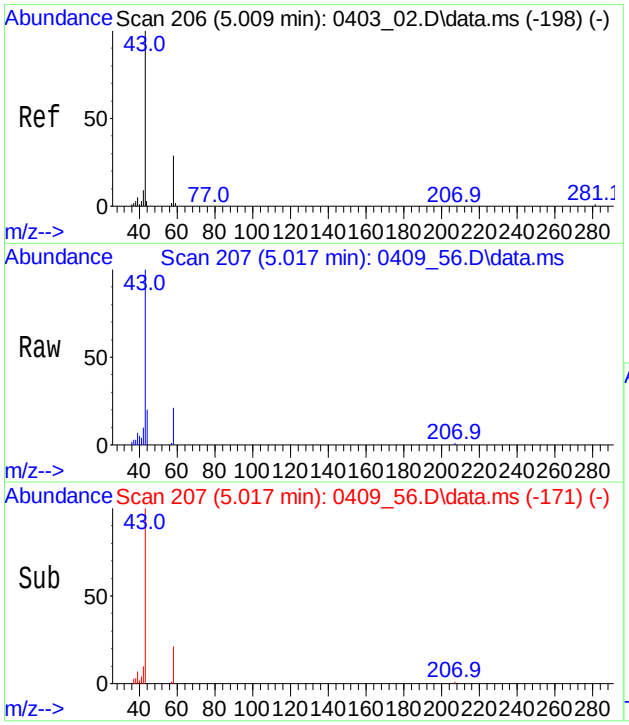
Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\04APR\09\
Data File : 0409_56.D
Acq On : 10 Apr 2019 05:47 pm
Operator : CORTEX\ms
Client ID : SS-10 DUP 75X
Lab ID : CC90523 DUP 75X
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 11 09:05:24 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0409.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 10 09:42:38 2019
Response via : Initial Calibration



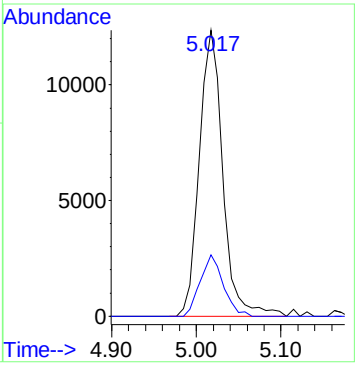



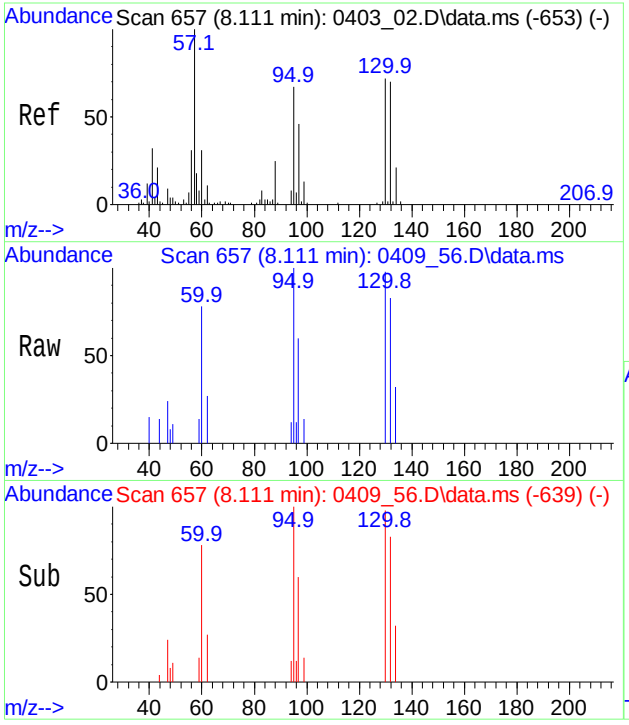



#12
Acetone
Conc: 8$ 1.215 ppbv
RT: 5.017 min Scan# 207
Delta R.T. -0.008 min
Lab File: 0409_56.D
Acq: 10 Apr 2019 05:47 pm

Tgt Ion: 43 Resp: 23796

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 21.0 | 25.9 | 38.9# |

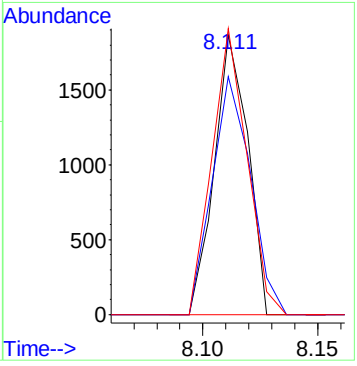


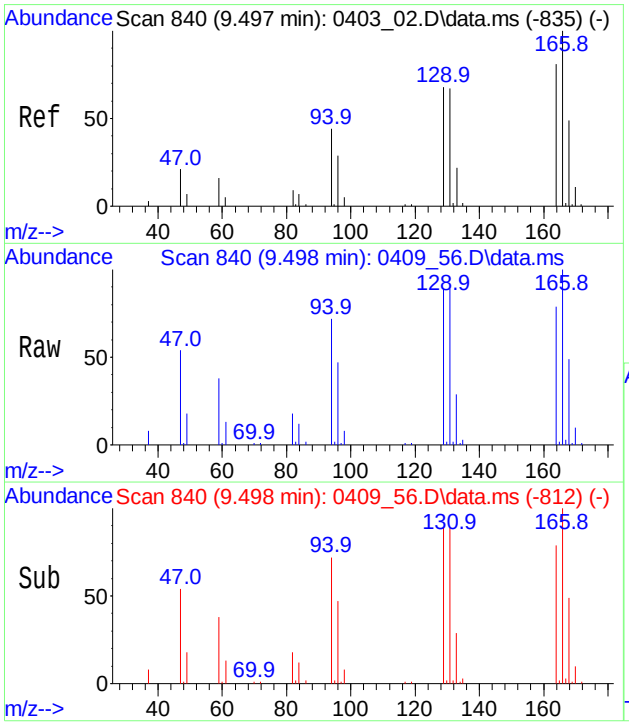




#39
Trichloroethene
Conc: 8$ 0.166 ppbv
RT: 8.111 min Scan# 657
Delta R.T. -0.000 min
Lab File: 0409_56.D
Acq: 10 Apr 2019 05:47 pm

Tgt Ion:130 Resp: 1889

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 98.0 | 78.0 | 117.0 |
| 95 | 107.0 | 73.0 | 109.4 |

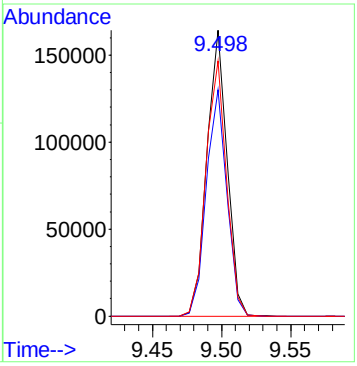


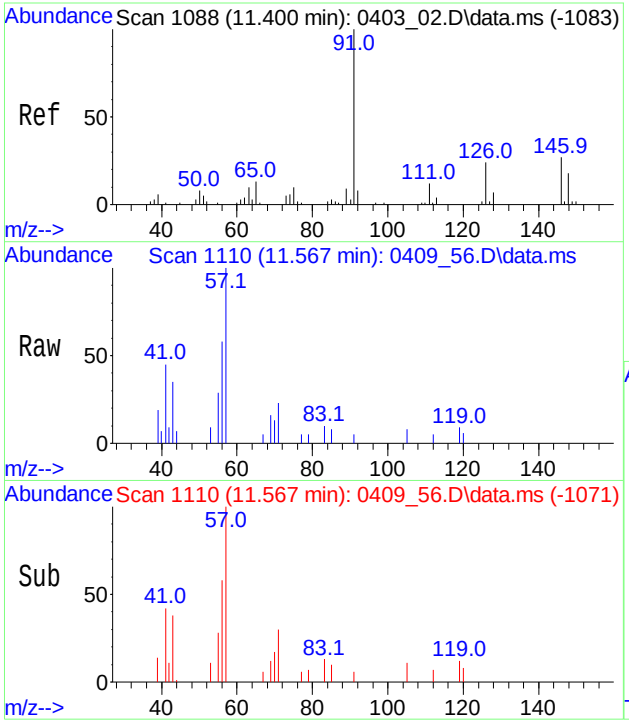



#52
Tetrachloroethene
Conc: 8$ 13.758 ppbv
RT: 9.498 min Scan# 840
Delta R.T. 0.001 min
Lab File: 0409_56.D
Acq: 10 Apr 2019 05:47 pm

Tgt Ion:166 Resp: 165502

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 80.6 | 62.2 | 93.2 |
| 129 | 91.0 | 54.9 | 82.3# |

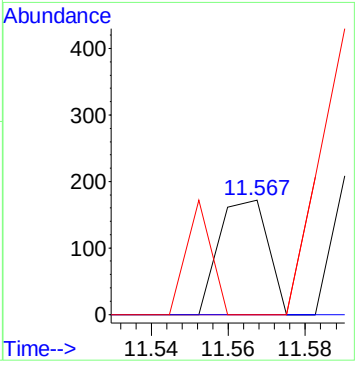


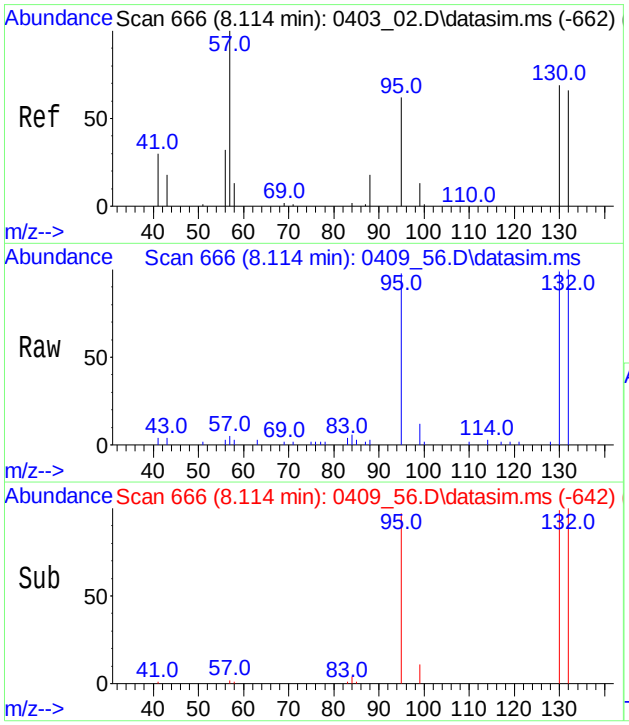




#70
Benzyl chloride
Conc: 8$ 0.558 ppbv
RT: 11.567 min Scan# 1110
Delta R.T. 0.098 min
Lab File: 0409_56.D
Acq: 10 Apr 2019 05:47 pm

Tgt Ion: 91 Resp: 152

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 126 | 0.0 | 18.1 | 27.1# |
| 65 | 51.3 | 9.7 | 14.5# |

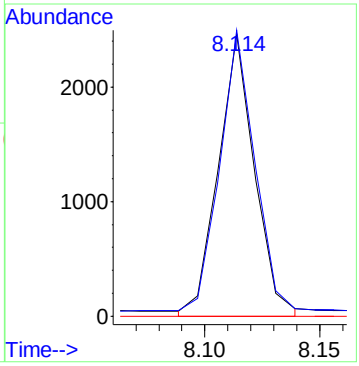


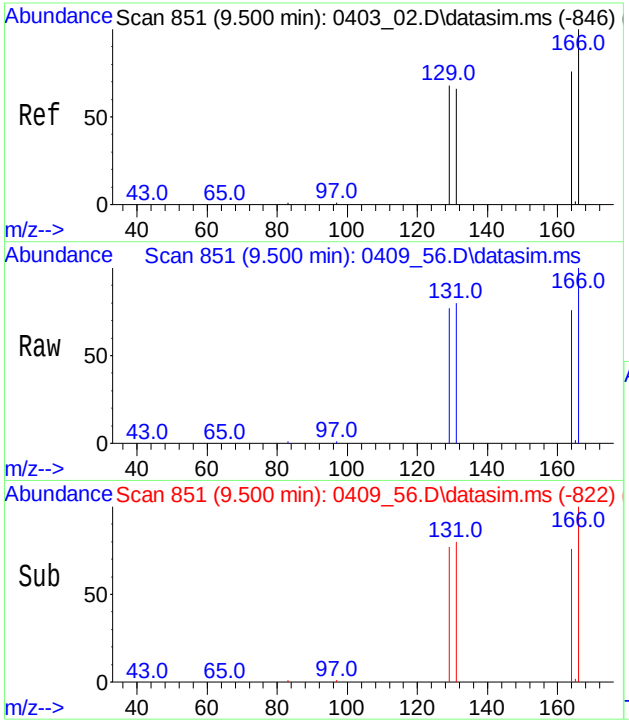



#97
Trichloroethene(sim)
Conc: 8$  0.149 ppbv
RT:  8.111 min  Scan# 666
Delta R.T.  -0.000 min
Lab File:  0409_56.D
Acq: 10 Apr 2019  05:47 pm

Tgt Ion:130 Resp:  1889

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 98.0 | 78.0 | 117.0 |
| 97 | 64.3 | 47.2 | 70.8 |

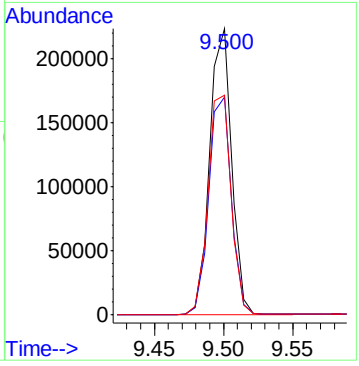



#103
Tetrachloroethene(sim)
Conc: 8$  11.968 ppbv
RT:  9.498 min  Scan# 851
Delta R.T.  0.001 min
Lab File:  0409_56.D
Acq: 10 Apr 2019  05:47 pm

Tgt Ion:166 Resp:  165502

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 80.6 | 57.7 | 97.7 |
| 129 | 91.0 | 48.6 | 88.6# |



AIR ANALYSIS DATA SHEET

CLIENT ID: CANISTER BLK 1405

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CANISTER BLK 1405

Canister: CANBL Lab File ID: 0107_20.D

Instrument: CHEM24 Column: Date Received:

Purge Volume 200 (cc) Date Analyzed: 01/08/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 115-07-1 | Propylene | 0.581 | U | 0.581 | 0.581 | r |
| 75-71-8 | Dichlorodifluoromethane | 0.202 | U | 0.202 | 0.202 | r |
| 74-87-3 | Chloromethane | 0.485 | U | 0.485 | 0.485 | r |
| 106-99-0 | 1,3-Butadiene | 0.452 | U | 0.452 | 0.452 | r |
| 75-00-3 | Chloroethane | 0.379 | U | 0.379 | 0.379 | r |
| 64-17-5 | Ethanol | 0.531 | U | 0.531 | 0.531 | r |
| 67-64-1 | Acetone | 0.421 | U | 0.421 | 0.421 | r |
| 67-63-0 | Isopropylalcohol | 0.407 | U | 0.407 | 0.407 | r |
| 107-13-1 | Acrylonitrile | 0.461 | U | 0.461 | 0.461 | r |
| 75-09-2 | Methylene Chloride | 0.864 | U | 0.864 | 0.864 | r |
| 75-15-0 | Carbon Disulfide | 0.321 | U | 0.321 | 0.321 | r |
| 1634-04-4 | Methyl tert-butyl ether(MTBE) | 0.278 | U | 0.278 | 0.278 | r |
| 78-93-3 | Methyl Ethyl Ketone | 0.339 | U | 0.339 | 0.339 | r |
| 110-54-3 | Hexane | 0.284 | U | 0.284 | 0.284 | r |
| 67-66-3 | Chloroform | 0.205 | U | 0.205 | 0.205 | r |
| 141-78-6 | Ethyl acetate | 0.278 | U | 0.278 | 0.278 | r |
| 109-99-9 | Tetrahydrofuran | 0.339 | U | 0.339 | 0.339 | r |
| 71-43-2 | Benzene | 0.313 | U | 0.313 | 0.313 | r |
| 110-82-7 | Cyclohexane | 0.291 | U | 0.291 | 0.291 | r |
| 142-82-5 | Heptane | 0.244 | U | 0.244 | 0.244 | r |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | 0.244 | U | 0.244 | 0.244 | r |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.220 | U | 0.220 | 0.220 | r |
| 108-88-3 | Toluene | 0.266 | U | 0.266 | 0.266 | r |
| 591-78-6 | 2-Hexanone(MBK) | 0.244 | U | 0.244 | 0.244 | r |
| 108-90-7 | Chlorobenzene | 0.217 | U | 0.217 | 0.217 | r |
| 100-41-4 | Ethylbenzene | 0.230 | U | 0.230 | 0.230 | r |
| 100-42-5 | Styrene | 0.235 | U | 0.235 | 0.235 | r |
| 95-47-6 | o-Xylene | 0.230 | U | 0.230 | 0.230 | r |
| 98-82-8 | Isopropylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 622-96-8 | 4-Ethyltoluene | 0.204 | U | 0.204 | 0.204 | r |
| 108-67-8 | 1,3,5-Trimethylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 76-14-2 | 1,2-Dichlorotetrafluoroethane(sim) | 0.143 | U | 0.143 | 0.143 | r |
| 75-01-4 | Vinyl Chloride(sim) | 0.078 | U | 0.078 | 0.078 | r |
| 74-83-9 | Bromomethane(sim) | 0.258 | U | 0.258 | 0.258 | r |
| 75-69-4 | Trichlorofluoromethane(sim) | 0.178 | U | 0.178 | 0.178 | r |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

1

AIR ANALYSIS DATA SHEET

CLIENT ID: CANISTER BLK 1405

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CANISTER BLK 1405

Canister: CANBL Lab File ID: 0107_20.D

Instrument: CHEM24 Column: Date Received:

Purge Volume 200 (cc) Date Analyzed: 01/08/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 71-55-6 | 1,1,1-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 56-23-5 | Carbon Tetrachloride(sim) | 0.032 | U | 0.032 | 0.032 | r |
| 75-35-4 | 1,1-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 76-13-1 | Trichlorotrifluoroethane(sim) | 0.131 | U | 0.131 | 0.131 | r |
| 156-60-5 | Trans-1,2-Dichloroethene(sim) | 0.252 | U | 0.252 | 0.252 | r |
| 75-34-3 | 1,1-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 156-59-2 | Cis-1,2-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 107-06-2 | 1,2-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 78-87-5 | 1,2-dichloropropane(sim) | 0.217 | U | 0.217 | 0.217 | r |
| 75-27-4 | Bromodichloromethane(sim) | 0.149 | U | 0.149 | 0.149 | r |
| 79-01-6 | Trichloroethene(sim) | 0.037 | U | 0.037 | 0.037 | r |
| 123-91-1 | 1,4-Dioxane(sim) | 0.278 | U | 0.278 | 0.278 | r |
| 10061-01-5 | cis-1,3-Dichloropropene(sim) | 0.220 | U | 0.220 | 0.220 | r |
| 79-00-5 | 1,1,2-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 124-48-1 | Dibromochloromethane(sim) | 0.117 | U | 0.117 | 0.117 | r |
| 106-93-4 | 1,2-Dibromoethane(EDB)(sim) | 0.130 | U | 0.130 | 0.130 | r |
| 127-18-4 | Tetrachloroethene(sim) | 0.037 | U | 0.037 | 0.037 | r |
| 75-25-2 | Bromoform(sim) | 0.097 | U | 0.097 | 0.097 | r |
| 630-20-6 | 1,1,1,2-Tetrachloroethane(sim) | 0.146 | U | 0.146 | 0.146 | r |
| 179601-23-1 | m,p-Xylene(sim) | 0.230 | U | 0.230 | 0.230 | r |
| 79-34-5 | 1,1,2,2-Tetrachloroethane(sim) | 0.146 | U | 0.146 | 0.146 | r |
| 100-44-7 | Benzyl chloride(sim) | 0.193 | U | 0.193 | 0.193 | r |
| 541-73-1 | 1,3-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 106-46-7 | 1,4-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 135-98-8 | sec-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 99-87-6 | 4-Isopropyltoluene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 95-50-1 | 1,2-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 104-51-8 | n-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 120-82-1 | 1,2,4-Trichlorobenzene(sim) | 0.135 | U | 0.135 | 0.135 | r |
| 87-68-3 | Hexachlorobutadiene(sim) | 0.094 | U | 0.094 | 0.094 | r |
| | | | | | | |
| | | | | | | |
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| | | | | | | |
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FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM24\01JAN\07\
Data File : 0107_20.D
Acq On : 8 Jan 2019 10:33 am
Operator : Keith
Client ID : CANISTER BLK 1405
Lab ID : CANISTER BLK 1405
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jan 08 12:09:26 2019
Quant Method : H:\AIR2019\CHEM24\METHODS\24AIR_1220.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Thu Dec 20 23:30:36 2018
Response via : Initial Calibration

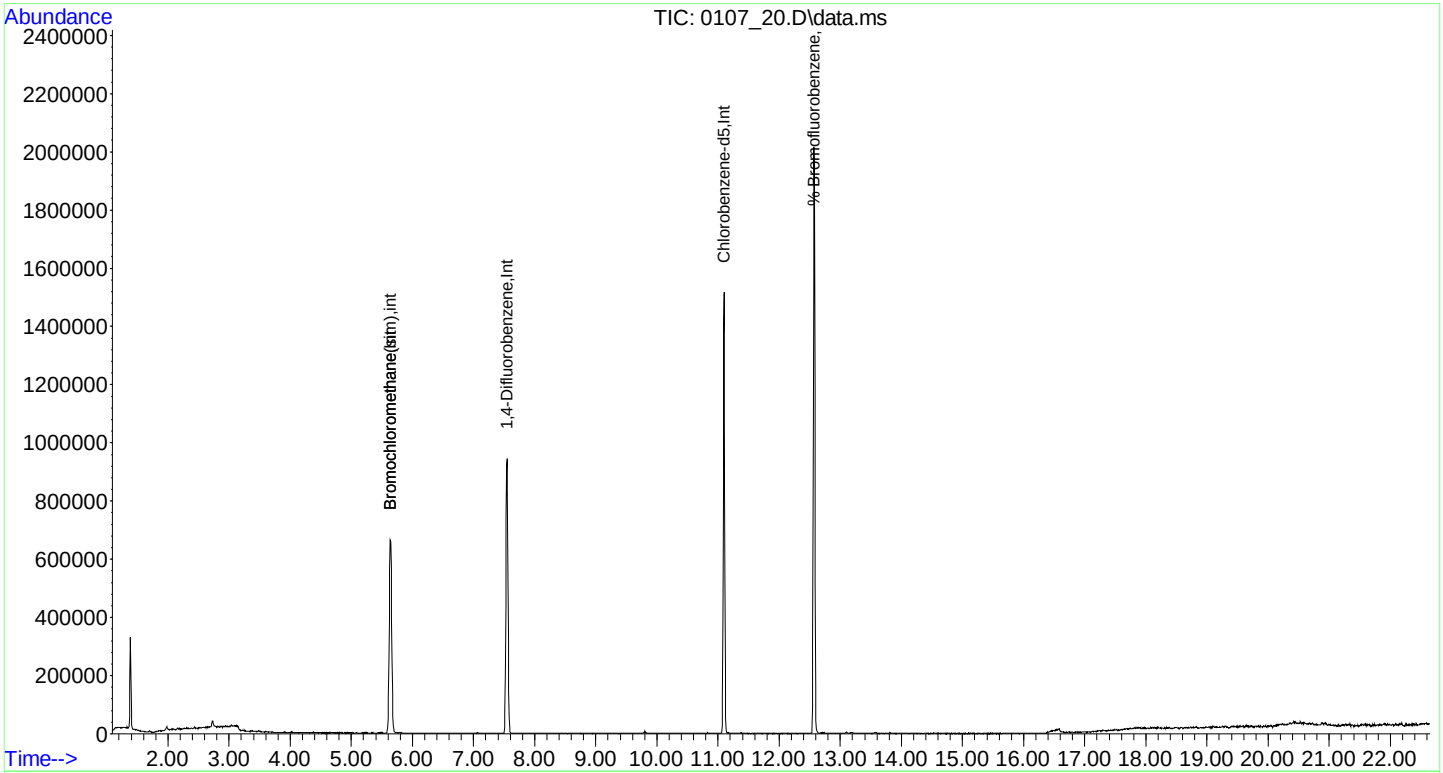
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Bromochloromethane | 5.637 | 130 | 350671 | 10.000 | ng | -0.04 |
| 36) 1,4-Difluorobenzene | 7.549 | 114 | 954864 | 10.000 | ng | -0.02 |
| 53) Chlorobenzene-d5 | 11.099 | 82 | 441550 | 10.000 | ng | -0.01 |
| 80) Bromochloromethane(sim) | 5.637 | 130 | 350671 | 10.000 | ng | -0.04 |
| 93) 1,4-Difluorobenzene(sim) | 7.545 | 114 | 1030170 | 10.000 | ng | #-0.03 |
| 103) Chlorobenzene-d5(sim) | 11.095 | 82 | 485453 | 10.000 | ng | #-0.01 |
| System Monitoring Compounds | | | | | | |
| 62) % Bromofluorobenzene | 12.570 | 95 | 619435 | 9.254 | ppbv | -0.01 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 92.50% | | | |
| Target Compounds | | | | | | Qvalue |

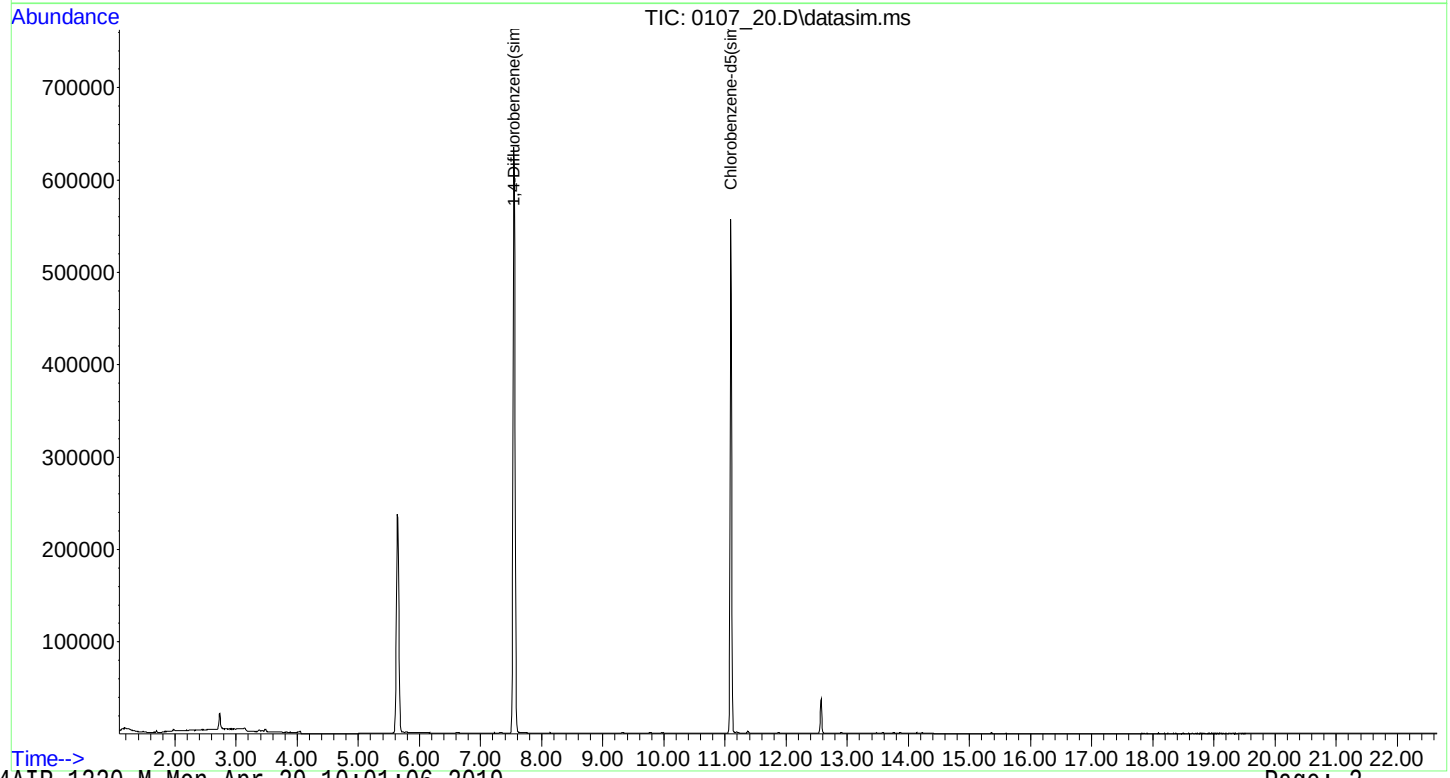
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM24\01JAN\07\
Data File : 0107_20.D
Acq On : 8 Jan 2019 10:33 am
Operator : Keith
Client ID : CANISTER BLK 1405
Lab ID : CANISTER BLK 1405
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jan 08 12:09:26 2019
Quant Method : H:\AIR2019\CHEM24\METHODS\24AIR_1220.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Thu Dec 20 23:30:36 2018
Response via : Initial Calibration



# Canister Cleaning Certification



**Batch Id:** 1405
**QC Canister Id:** 801
**Canister Ids:** 11291, 13644, 173, 19635, 19786, 19859, 21345, 225, 23345, 28565, 801, 9767

**Certified:** ☑
**Certified Date:** 1/8/2019 10:33:00 AM
**Certified By:** KCA
**Certified Computer:** AIRLAB
**Sample Id:** blk 1405

**Comment:** Initial vacuum of all canisters in this batch is -30 psig.

**Data File:** H:\AIR2019\CHEM24\01JAN\07\0107_20.D\0107_20-24AIR_1220.rr

| Analyte | Result (ppbv) | Analyte | Result (ppbv) |
|---|---|---|---|
| % Bromofluorobenzene | 9.2542 | 1,1,1,2-Tetrachloroethane | 0 |
| 1,1,1,2-Tetrachloroethane(sim) | 0 | 1,1,1-Trichloroethane | 0 |
| 1,1,1-Trichloroethane(sim) | 0 | 1,1,2,2-Tetrachloroethane | 0 |
| 1,1,2,2-Tetrachloroethane(sim) | 0 | 1,1,2-Trichloroethane | 0 |
| 1,1,2-Trichloroethane(sim) | 0 | 1,1-Dichloroethane | 0 |
| 1,1-Dichloroethane(sim) | 0 | 1,1-Dichloroethene | 0 |
| 1,1-Dichloroethene(sim) | 0 | 1,2,4-Trichlorobenzene | 0 |
| 1,2,4-Trichlorobenzene(sim) | 0 | 1,2,4-Trimethylbenzene | 0 |
| 1,2-Dibromoethane(EDB) | 0 | 1,2-Dibromoethane(EDB)(sim) | 0 |
| 1,2-Dichlorobenzene | 0 | 1,2-Dichlorobenzene(sim) | 0 |
| 1,2-Dichloroethane | 0 | 1,2-Dichloroethane(sim) | 0 |
| 1,2-dichloropropane | 0 | 1,2-dichloropropane(sim) | 0 |
| 1,2-Dichlorotetrafluoroethane | 0 | 1,2-Dichlorotetrafluoroethane(sim) | 0 |
| 1,3,5-Trimethylbenzene | 0 | 1,3-Butadiene | 0 |
| 1,3-Dichlorobenzene | 0 | 1,3-Dichlorobenzene(sim) | 0 |
| 1,4-Dichlorobenzene | 0 | 1,4-Dichlorobenzene(sim) | 0 |
| 1,4-Difluorobenzene | 10 | 1,4-Difluorobenzene(sim) | 10 |
| 1,4-Dioxane | 0 | 1,4-Dioxane(sim) | 0 |
| 2,2,4-trimethylpentane | 0 | 2-Chlorotoluene | 0 |
| 2-Hexanone(MBK) | 0 | 4-Ethyltoluene | 0 |
| 4-Isopropyltoluene | 0 | 4-Isopropyltoluene(sim) | 0 |
| 4-Methyl-2-pentanone(MIBK) | 0 | Acetone | 0 |
| Acrylonitrile | 0 | Allyl Chloride | 0 |
| Benzene | 0 | Benzyl chloride | 0 |
| Benzyl chloride(sim) | 0 | Bromochloromethane | 10 |
| Bromochloromethane(sim) | 10 | Bromodichloromethane | 0 |
| Bromodichloromethane(sim) | 0 | Bromoform | 0 |
| Bromoform(sim) | 0 | Bromomethane | 0 |
| Bromomethane(sim) | 0 | Carbon Disulfide | 0 |
| Carbon Tetrachloride | 0 | Carbon Tetrachloride(sim) | 0 |
| Chlorobenzene | 0 | Chlorobenzene-d5 | 10 |
| Chlorobenzene-d5(sim) | 10 | Chloroethane | 0 |
| Chloroform | 0 | Chloromethane | 0 |
| Cis-1,2-Dichloroethene | 0 | Cis-1,2-Dichloroethene(sim) | 0 |
| cis-1,3-Dichloropropene | 0 | cis-1,3-Dichloropropene(sim) | 0 |
| Cyclohexane | 0 | Dibromochloromethane | 0 |
| Dibromochloromethane(sim) | 0 | Dichlorodifluoromethane | 0 |
| Ethanol | 0 | Ethyl acetate | 0 |
| Ethylbenzene | 0 | Heptane | 0 |
| Hexachlorobutadiene | 0 | Hexachlorobutadiene(sim) | 0 |
| Hexane | 0 | Isopropylalcohol | 0 |
| Isopropylbenzene | 0 | m,p-Xylene | 0 |
| m,p-Xylene(sim) | 0 | Methyl Ethyl Ketone | 0 |
| Methyl methacrylate | 0 | Methyl tert-butyl ether(MTBE) | 0 |
| Methylene Chloride | 0 | n-Butylbenzene | 0 |
| n-Butylbenzene(sim) | 0 | n-Propylbenzene | 0 |

# Canister Cleaning Certification

**Batch Id:** 1405
**QC Canister Id:** 801
**Canister Ids:** 11291, 13644, 173, 19635, 19786, 19859, 21345, 225, 23345, 28565, 801, 9767

**Certified:** ☑
**Certified Date:** 1/8/2019 10:33:00 AM
**Certified By:** KCA
**Certified Computer:** AIRLAB
**Sample Id:** blk 1405

**Comment:** Initial vacuum of all canisters in this batch is -30 psig.

**Data File:** H:\AIR2019\CHEM24\01JAN\07\0107_20.D\0107_20-24AIR_1220.rr

| Analyte | Result (ppbv) | Analyte | Result (ppbv) |
|---|---|---|---|
| n-Propylbenzene(sim) | 0 | Naphthalene | 0 |
| o-Xylene | 0 | Propylene | 0 |
| sec-Butylbenzene | 0 | sec-Butylbenzene(sim) | 0 |
| Styrene | 0 | tert-butyl alcohol | 0 |
| tert-butylbenzenze | 0 | tert-butylbenzenze(sim) | 0 |
| Tetrachloroethene | 0 | Tetrachloroethene(sim) | 0 |
| Tetrahydrofuran | 0 | Toluene | 0 |
| Trans-1,2-Dichloroethene | 0 | Trans-1,2-Dichloroethene(sim) | 0 |
| trans-1,3-Dichloropropene | 0 | Trichloroethene | 0 |
| Trichloroethene(sim) | 0 | Trichlorofluoromethane | 0 |
| Trichlorofluoromethane(sim) | 0 | Trichlorotrifluoroethane | 0 |
| Trichlorotrifluoroethane(sim) | 0 | Vinyl Bromide | 0 |
| Vinyl Chloride | 0 | Vinyl Chloride(sim) | 0 |

AIR ANALYSIS DATA SHEET

CLIENT ID: CANISTER BLK 1417

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CANISTER BLK 1417

Canister: CANBL Lab File ID: 0125_09.D

Instrument: CHEM20 Column: Date Received:

Purge Volume 200 (cc) Date Analyzed: 01/25/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 115-07-1 | Propylene | 0.581 | U | 0.581 | 0.581 | r |
| 75-71-8 | Dichlorodifluoromethane | 0.202 | U | 0.202 | 0.202 | r |
| 74-87-3 | Chloromethane | 0.485 | U | 0.485 | 0.485 | r |
| 106-99-0 | 1,3-Butadiene | 0.452 | U | 0.452 | 0.452 | r |
| 75-00-3 | Chloroethane | 0.379 | U | 0.379 | 0.379 | r |
| 64-17-5 | Ethanol | 0.531 | U | 0.531 | 0.531 | r |
| 67-64-1 | Acetone | 0.421 | U | 0.421 | 0.421 | r |
| 67-63-0 | Isopropylalcohol | 0.407 | U | 0.407 | 0.407 | r |
| 107-13-1 | Acrylonitrile | 0.461 | U | 0.461 | 0.461 | r |
| 75-09-2 | Methylene Chloride | 0.864 | U | 0.864 | 0.864 | r |
| 75-15-0 | Carbon Disulfide | 0.321 | U | 0.321 | 0.321 | r |
| 1634-04-4 | Methyl tert-butyl ether(MTBE) | 0.278 | U | 0.278 | 0.278 | r |
| 78-93-3 | Methyl Ethyl Ketone | 0.339 | U | 0.339 | 0.339 | r |
| 110-54-3 | Hexane | 0.284 | U | 0.284 | 0.284 | r |
| 67-66-3 | Chloroform | 0.205 | U | 0.205 | 0.205 | r |
| 141-78-6 | Ethyl acetate | 0.278 | U | 0.278 | 0.278 | r |
| 109-99-9 | Tetrahydrofuran | 0.339 | U | 0.339 | 0.339 | r |
| 71-43-2 | Benzene | 0.313 | U | 0.313 | 0.313 | r |
| 110-82-7 | Cyclohexane | 0.291 | U | 0.291 | 0.291 | r |
| 142-82-5 | Heptane | 0.244 | U | 0.244 | 0.244 | r |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | 0.244 | U | 0.244 | 0.244 | r |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.220 | U | 0.220 | 0.220 | r |
| 108-88-3 | Toluene | 0.266 | U | 0.266 | 0.266 | r |
| 591-78-6 | 2-Hexanone(MBK) | 0.244 | U | 0.244 | 0.244 | r |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.146 | U | 0.146 | 0.146 | r |
| 108-90-7 | Chlorobenzene | 0.217 | U | 0.217 | 0.217 | r |
| 100-41-4 | Ethylbenzene | 0.230 | U | 0.230 | 0.230 | r |
| 100-42-5 | Styrene | 0.235 | U | 0.235 | 0.235 | r |
| 95-47-6 | o-Xylene | 0.230 | U | 0.230 | 0.230 | r |
| 98-82-8 | Isopropylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 622-96-8 | 4-Ethyltoluene | 0.204 | U | 0.204 | 0.204 | r |
| 108-67-8 | 1,3,5-Trimethylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 76-14-2 | 1,2-Dichlorotetrafluoroethane(sim) | 0.143 | U | 0.143 | 0.143 | r |
| 75-01-4 | Vinyl Chloride(sim) | 0.078 | U | 0.078 | 0.078 | r |
| 74-83-9 | Bromomethane(sim) | 0.258 | U | 0.258 | 0.258 | r |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

1

AIR ANALYSIS DATA SHEET

CLIENT ID: CANISTER BLK 1417

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CANISTER BLK 1417

Canister: CANBL Lab File ID: 0125_09.D

Instrument: CHEM20 Column: Date Received:

Purge Volume 200 (cc) Date Analyzed: 01/25/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 75-69-4 | Trichlorofluoromethane(sim) | 0.178 | U | 0.178 | 0.178 | r |
| 107-06-2 | 1,2-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 71-55-6 | 1,1,1-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 56-23-5 | Carbon Tetrachloride(sim) | 0.032 | U | 0.032 | 0.032 | r |
| 75-35-4 | 1,1-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 76-13-1 | Trichlorotrifluoroethane(sim) | 0.131 | U | 0.131 | 0.131 | r |
| 156-60-5 | Trans-1,2-Dichloroethene(sim) | 0.252 | U | 0.252 | 0.252 | r |
| 75-34-3 | 1,1-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 156-59-2 | Cis-1,2-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 78-87-5 | 1,2-dichloropropane(sim) | 0.217 | U | 0.217 | 0.217 | r |
| 75-27-4 | Bromodichloromethane(sim) | 0.149 | U | 0.149 | 0.149 | r |
| 79-01-6 | Trichloroethene(sim) | 0.037 | U | 0.037 | 0.037 | r |
| 123-91-1 | 1,4-Dioxane(sim) | 0.278 | U | 0.278 | 0.278 | r |
| 10061-01-5 | cis-1,3-Dichloropropene(sim) | 0.220 | U | 0.220 | 0.220 | r |
| 79-00-5 | 1,1,2-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 124-48-1 | Dibromochloromethane(sim) | 0.117 | U | 0.117 | 0.117 | r |
| 106-93-4 | 1,2-Dibromoethane(EDB)(sim) | 0.130 | U | 0.130 | 0.130 | r |
| 127-18-4 | Tetrachloroethene(sim) | 0.037 | U | 0.037 | 0.037 | r |
| 75-25-2 | Bromoform(sim) | 0.097 | U | 0.097 | 0.097 | r |
| 179601-23-1 | m,p-Xylene(sim) | 0.230 | U | 0.230 | 0.230 | r |
| 79-34-5 | 1,1,2,2-Tetrachloroethane(sim) | 0.146 | U | 0.146 | 0.146 | r |
| 100-44-7 | Benzyl chloride(sim) | 0.193 | U | 0.193 | 0.193 | r |
| 541-73-1 | 1,3-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 106-46-7 | 1,4-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 135-98-8 | sec-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 99-87-6 | 4-Isopropyltoluene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 95-50-1 | 1,2-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 104-51-8 | n-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 120-82-1 | 1,2,4-Trichlorobenzene(sim) | 0.135 | U | 0.135 | 0.135 | r |
| 87-68-3 | Hexachlorobutadiene(sim) | 0.094 | U | 0.094 | 0.094 | r |
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FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\01JAN\25\
Data File : 0125_09.D
Acq On : 25 Jan 2019 11:12 pm
Operator : CORTEX\ms
Client ID : CANISTER BLK 1417
Lab ID : CANISTER BLK 1417
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 27 22:42:26 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0117.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Thu Jan 17 13:49:54 2019
Response via : Initial Calibration

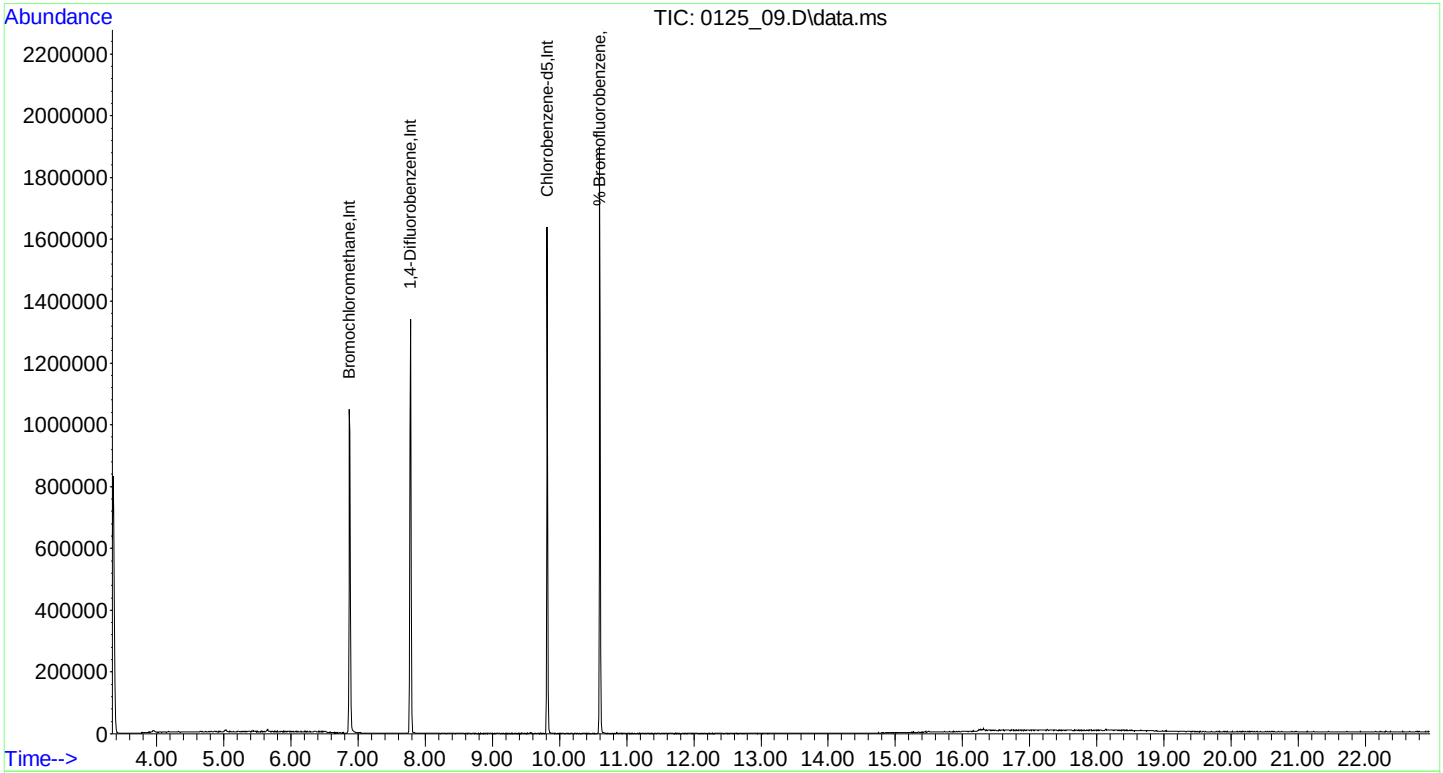
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.871 | 130 | 254300 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.781 | 114 | 677151 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.816 | 82 | 279098 | 10.000 | ng | | 0.00 |
| 80) Bromochloromethane(sim) | 6.874 | 130 | 328492 | 10.000 | ng | # | 0.00 |
| 93) 1,4-Difluorobenzene(sim) | 7.781 | 114 | 677151 | 10.000 | ng | | 0.00 |
| 103) Chlorobenzene-d5(sim) | 9.816 | 82 | 279098 | 10.000 | ng | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.597 | 95 | 378740 | 9.991 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 99.90% | | | | |
| Target Compounds | | | | | | | Qvalue |

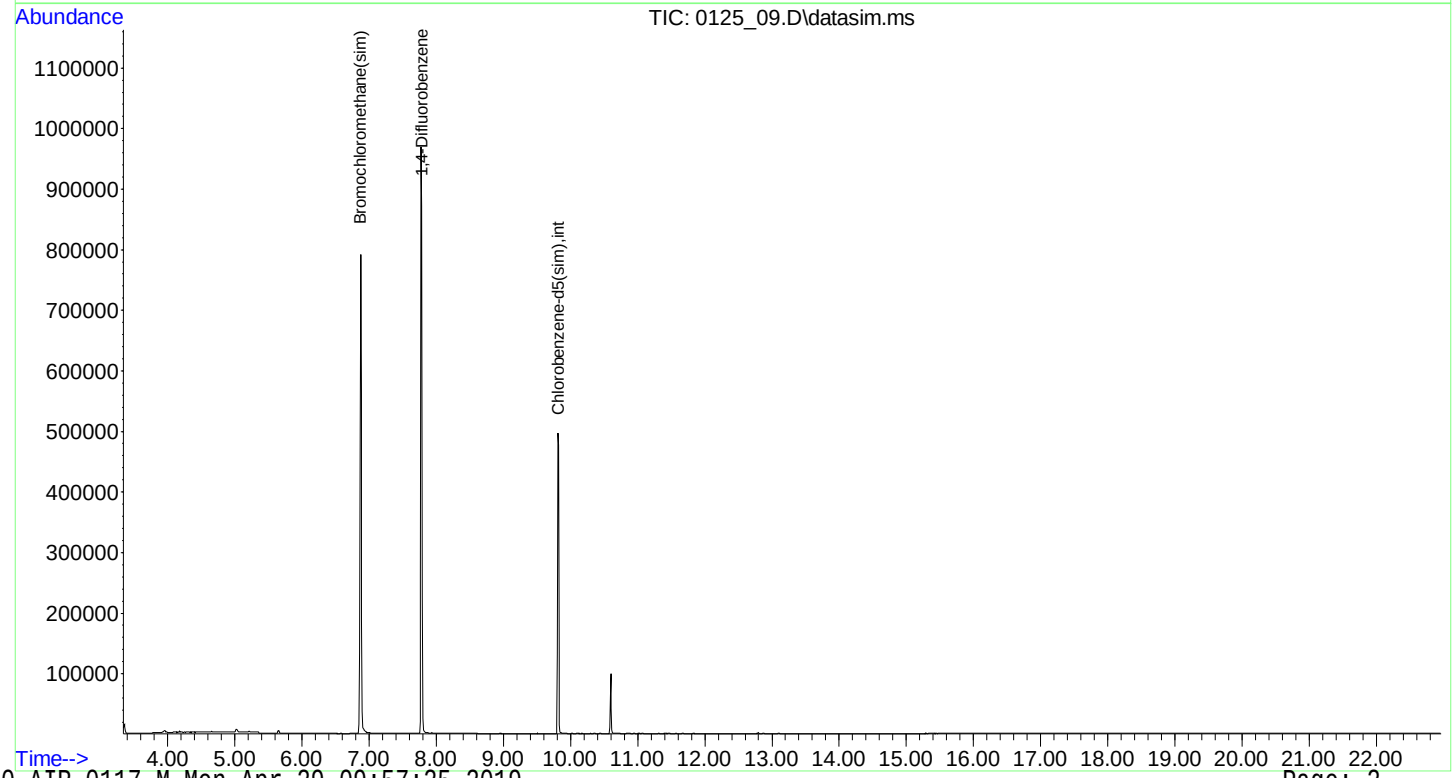
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\01JAN\25\
Data File : 0125_09.D
Acq On : 25 Jan 2019 11:12 pm
Operator : CORTEX\ms
Client ID : CANISTER BLK 1417
Lab ID : CANISTER BLK 1417
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 27 22:42:26 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0117.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Thu Jan 17 13:49:54 2019
Response via : Initial Calibration



# Canister Cleaning Certification



**Batch Id:** 1417

**QC Canister Id:** 804

**Canister Ids:** 11292, 12855, 12867, 19916, 19932, 219, 230, 23326, 23352, 28560, 28587, 804

**Certified:** ☑

**Certified Date:** 1/25/2019 11:12:00 PM

**Certified By:** KCA

**Certified Computer:** AIRLAB

**Sample Id:** blk 1417

**Comment:** Initial vacuum of all canisters in this batch is -30 psig.

**Data File:** H:\AIR2019\CHEM20\01JAN\25\0125_09.D\0125_09-20_AIR_0117.rr

| Analyte | Result (ppbv) | Analyte | Result (ppbv) |
|---|---|---|---|
| % Bromofluorobenzene | 9.9909 | 1,1,1,2-Tetrachloroethane | 0 |
| 1,1,1-Trichloroethane | 0 | 1,1,1-Trichloroethane(sim) | 0 |
| 1,1,2,2-Tetrachloroethane | 0 | 1,1,2,2-Tetrachloroethane(sim) | 0 |
| 1,1,2-Trichloroethane | 0 | 1,1,2-Trichloroethane(sim) | 0 |
| 1,1-Dichloroethane | 0 | 1,1-Dichloroethane(sim) | 0 |
| 1,1-Dichloroethene | 0 | 1,1-Dichloroethene(sim) | 0 |
| 1,2,4-Trichlorobenzene | 0 | 1,2,4-Trichlorobenzene(sim) | 0 |
| 1,2,4-Trimethylbenzene | 0 | 1,2-Dibromoethane(EDB) | 0 |
| 1,2-Dibromoethane(EDB)(sim) | 0 | 1,2-Dichlorobenzene | 0 |
| 1,2-Dichlorobenzene(sim) | 0 | 1,2-Dichloroethane | 0 |
| 1,2-Dichloroethane(sim) | 0 | 1,2-dichloropropane | 0 |
| 1,2-dichloropropane(sim) | 0 | 1,2-Dichlorotetrafluoroethane | 0 |
| 1,2-Dichlorotetrafluoroethane(sim) | 0 | 1,3,5-Trimethylbenzene | 0 |
| 1,3-Butadiene | 0 | 1,3-Dichlorobenzene | 0 |
| 1,3-Dichlorobenzene(sim) | 0 | 1,4-Dichlorobenzene | 0 |
| 1,4-Dichlorobenzene(sim) | 0 | 1,4-Difluorobenzene | 10 |
| 1,4-Difluorobenzene(sim) | 10 | 1,4-Dioxane | 0 |
| 1,4-Dioxane(sim) | 0 | 2,2,4-trimethylpentane | 0 |
| 2-Chlorotoluene | 0 | 2-Hexanone(MBK) | 0 |
| 4-Ethyltoluene | 0 | 4-Isopropyltoluene | 0 |
| 4-Isopropyltoluene(sim) | 0 | 4-Methyl-2-pentanone(MIBK) | 0 |
| Acetone | 0 | Acrylonitrile | 0 |
| Allyl Chloride | 0 | Benzene | 0 |
| Benzyl chloride | 0 | Benzyl chloride(sim) | 0 |
| Bromochloromethane | 10 | Bromochloromethane(sim) | 10 |
| Bromodichloromethane | 0 | Bromodichloromethane(sim) | 0 |
| Bromoform | 0 | Bromoform(sim) | 0 |
| Bromomethane | 0 | Bromomethane(sim) | 0 |
| Carbon Disulfide | 0 | Carbon Tetrachloride | 0 |
| Carbon Tetrachloride(sim) | 0 | Chlorobenzene | 0 |
| Chlorobenzene-d5 | 10 | Chlorobenzene-d5(sim) | 10 |
| Chloroethane | 0 | Chloroform | 0 |
| Chloromethane | 0 | Cis-1,2-Dichloroethene | 0 |
| Cis-1,2-Dichloroethene(sim) | 0 | cis-1,3-Dichloropropene | 0 |
| cis-1,3-Dichloropropene(sim) | 0 | Cyclohexane | 0 |
| Dibromochloromethane | 0 | Dibromochloromethane(sim) | 0 |
| Dichlorodifluoromethane | 0 | Ethanol | 0 |
| Ethyl acetate | 0 | Ethylbenzene | 0 |
| Heptane | 0 | Hexachlorobutadiene | 0 |
| Hexachlorobutadiene(sim) | 0.0135 | Hexane | 0 |
| Isopropylalcohol | 0 | Isopropylbenzene | 0 |
| m,p-Xylene | 0 | m,p-Xylene(sim) | 0 |
| Methyl Ethyl Ketone | 0 | Methyl methacrylate | 0 |
| Methyl tert-butyl ether(MTBE) | 0 | Methylene Chloride | 0 |
| n-Butylbenzene | 0 | n-Butylbenzene(sim) | 0 |
| n-Propylbenzene | 0 | n-Propylbenzene(sim) | 0 |

# Canister Cleaning Certification

**Batch Id:** 1417
**QC Canister Id:** 804
**Canister Ids:** 11292, 12855, 12867, 19916, 19932, 219, 230, 23326, 23352, 28560, 28587, 804

**Certified:** ☑
**Certified Date:** 1/25/2019 11:12:00 PM
**Certified By:** KCA
**Certified Computer:** AIRLAB
**Sample Id:** blk 1417

**Comment:** Initial vacuum of all canisters in this batch is -30 psig.

**Data File:** H:\AIR2019\CHEM20\01JAN\25\0125_09.D\0125_09-20_AIR_0117.rr

| Analyte | Result (ppbv) | Analyte | Result (ppbv) |
|---|---|---|---|
| Naphthalene | 0 | Naphthalene(sim) | 0 |
| o-Xylene | 0 | Propylene | 0 |
| sec-Butylbenzene | 0 | sec-Butylbenzene(sim) | 0 |
| Styrene | 0 | tert-butyl alcohol | 0 |
| tert-butylbenzenze | 0 | tert-butylbenzenze(sim) | 0 |
| Tetrachloroethene | 0 | Tetrachloroethene(sim) | 0 |
| Tetrahydrofuran | 0 | Toluene | 0 |
| Trans-1,2-Dichloroethene | 0 | Trans-1,2-Dichloroethene(sim) | 0 |
| trans-1,3-Dichloropropene | 0 | Trichloroethene | 0 |
| Trichloroethene(sim) | 0 | Trichlorofluoromethane | 0 |
| Trichlorofluoromethane(sim) | 0 | Trichlorotrifluoroethane | 0 |
| Trichlorotrifluoroethane(sim) | 0 | Vinyl Bromide | 0 |
| Vinyl Chloride | 0 | Vinyl Chloride(sim) | 0 |

AIR ANALYSIS DATA SHEET

CLIENT ID: CANISTER BLK 1423

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CANISTER BLK 1423

Canister: CANBL Lab File ID: 0131_31.D

Instrument: CHEM20 Column: Date Received:

Purge Volume 200 (cc) Date Analyzed: 02/01/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 115-07-1 | Propylene | 0.581 | U | 0.581 | 0.581 | r |
| 75-71-8 | Dichlorodifluoromethane | 0.202 | U | 0.202 | 0.202 | r |
| 74-87-3 | Chloromethane | 0.485 | U | 0.485 | 0.485 | r |
| 106-99-0 | 1,3-Butadiene | 0.452 | U | 0.452 | 0.452 | r |
| 75-00-3 | Chloroethane | 0.379 | U | 0.379 | 0.379 | r |
| 64-17-5 | Ethanol | 0.531 | U | 0.531 | 0.531 | r |
| 67-64-1 | Acetone | 0.421 | U | 0.421 | 0.421 | r |
| 67-63-0 | Isopropylalcohol | 0.407 | U | 0.407 | 0.407 | r |
| 107-13-1 | Acrylonitrile | 0.461 | U | 0.461 | 0.461 | r |
| 75-09-2 | Methylene Chloride | 0.864 | U | 0.864 | 0.864 | r |
| 75-15-0 | Carbon Disulfide | 0.321 | U | 0.321 | 0.321 | r |
| 1634-04-4 | Methyl tert-butyl ether(MTBE) | 0.278 | U | 0.278 | 0.278 | r |
| 78-93-3 | Methyl Ethyl Ketone | 0.339 | U | 0.339 | 0.339 | r |
| 110-54-3 | Hexane | 0.284 | U | 0.284 | 0.284 | r |
| 67-66-3 | Chloroform | 0.205 | U | 0.205 | 0.205 | r |
| 141-78-6 | Ethyl acetate | 0.278 | U | 0.278 | 0.278 | r |
| 109-99-9 | Tetrahydrofuran | 0.339 | U | 0.339 | 0.339 | r |
| 71-43-2 | Benzene | 0.313 | U | 0.313 | 0.313 | r |
| 110-82-7 | Cyclohexane | 0.291 | U | 0.291 | 0.291 | r |
| 142-82-5 | Heptane | 0.244 | U | 0.244 | 0.244 | r |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | 0.244 | U | 0.244 | 0.244 | r |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.220 | U | 0.220 | 0.220 | r |
| 108-88-3 | Toluene | 0.266 | U | 0.266 | 0.266 | r |
| 591-78-6 | 2-Hexanone(MBK) | 0.244 | U | 0.244 | 0.244 | r |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.146 | U | 0.146 | 0.146 | r |
| 108-90-7 | Chlorobenzene | 0.217 | U | 0.217 | 0.217 | r |
| 100-41-4 | Ethylbenzene | 0.230 | U | 0.230 | 0.230 | r |
| 100-42-5 | Styrene | 0.235 | U | 0.235 | 0.235 | r |
| 95-47-6 | o-Xylene | 0.230 | U | 0.230 | 0.230 | r |
| 98-82-8 | Isopropylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 622-96-8 | 4-Ethyltoluene | 0.204 | U | 0.204 | 0.204 | r |
| 108-67-8 | 1,3,5-Trimethylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 76-14-2 | 1,2-Dichlorotetrafluoroethane(sim) | 0.143 | U | 0.143 | 0.143 | r |
| 75-01-4 | Vinyl Chloride(sim) | 0.078 | U | 0.078 | 0.078 | r |
| 74-83-9 | Bromomethane(sim) | 0.258 | U | 0.258 | 0.258 | r |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

1

AIR ANALYSIS DATA SHEET

CLIENT ID: CANISTER BLK 1423

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CANISTER BLK 1423

Canister: CANBL Lab File ID: 0131_31.D

Instrument: CHEM20 Column: Date Received:

Purge Volume 200 (cc) Date Analyzed: 02/01/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 75-69-4 | Trichlorofluoromethane(sim) | 0.178 | U | 0.178 | 0.178 | r |
| 107-06-2 | 1,2-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 71-55-6 | 1,1,1-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 56-23-5 | Carbon Tetrachloride(sim) | 0.032 | U | 0.032 | 0.032 | r |
| 75-35-4 | 1,1-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 76-13-1 | Trichlorotrifluoroethane(sim) | 0.131 | U | 0.131 | 0.131 | r |
| 156-60-5 | Trans-1,2-Dichloroethene(sim) | 0.252 | U | 0.252 | 0.252 | r |
| 75-34-3 | 1,1-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 156-59-2 | Cis-1,2-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 78-87-5 | 1,2-dichloropropane(sim) | 0.217 | U | 0.217 | 0.217 | r |
| 75-27-4 | Bromodichloromethane(sim) | 0.149 | U | 0.149 | 0.149 | r |
| 79-01-6 | Trichloroethene(sim) | 0.037 | U | 0.037 | 0.037 | r |
| 123-91-1 | 1,4-Dioxane(sim) | 0.278 | U | 0.278 | 0.278 | r |
| 10061-01-5 | cis-1,3-Dichloropropene(sim) | 0.220 | U | 0.220 | 0.220 | r |
| 79-00-5 | 1,1,2-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 124-48-1 | Dibromochloromethane(sim) | 0.117 | U | 0.117 | 0.117 | r |
| 106-93-4 | 1,2-Dibromoethane(EDB)(sim) | 0.130 | U | 0.130 | 0.130 | r |
| 127-18-4 | Tetrachloroethene(sim) | 0.037 | U | 0.037 | 0.037 | r |
| 75-25-2 | Bromoform(sim) | 0.097 | U | 0.097 | 0.097 | r |
| 179601-23-1 | m,p-Xylene(sim) | 0.230 | U | 0.230 | 0.230 | r |
| 79-34-5 | 1,1,2,2-Tetrachloroethane(sim) | 0.146 | U | 0.146 | 0.146 | r |
| 100-44-7 | Benzyl chloride(sim) | 0.193 | U | 0.193 | 0.193 | r |
| 541-73-1 | 1,3-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 106-46-7 | 1,4-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 135-98-8 | sec-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 99-87-6 | 4-Isopropyltoluene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 95-50-1 | 1,2-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 104-51-8 | n-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 120-82-1 | 1,2,4-Trichlorobenzene(sim) | 0.135 | U | 0.135 | 0.135 | r |
| 87-68-3 | Hexachlorobutadiene(sim) | 0.094 | U | 0.094 | 0.094 | r |
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FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\01JAN\31\
Data File : 0131_31.D
Acq On : 01 Feb 2019 12:31 pm
Operator : CORTEX\ms
Client ID : CANISTER BLK 1423
Lab ID : CANISTER BLK 1423
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 01 15:19:32 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0130.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Thu Jan 31 13:55:06 2019
Response via : Initial Calibration

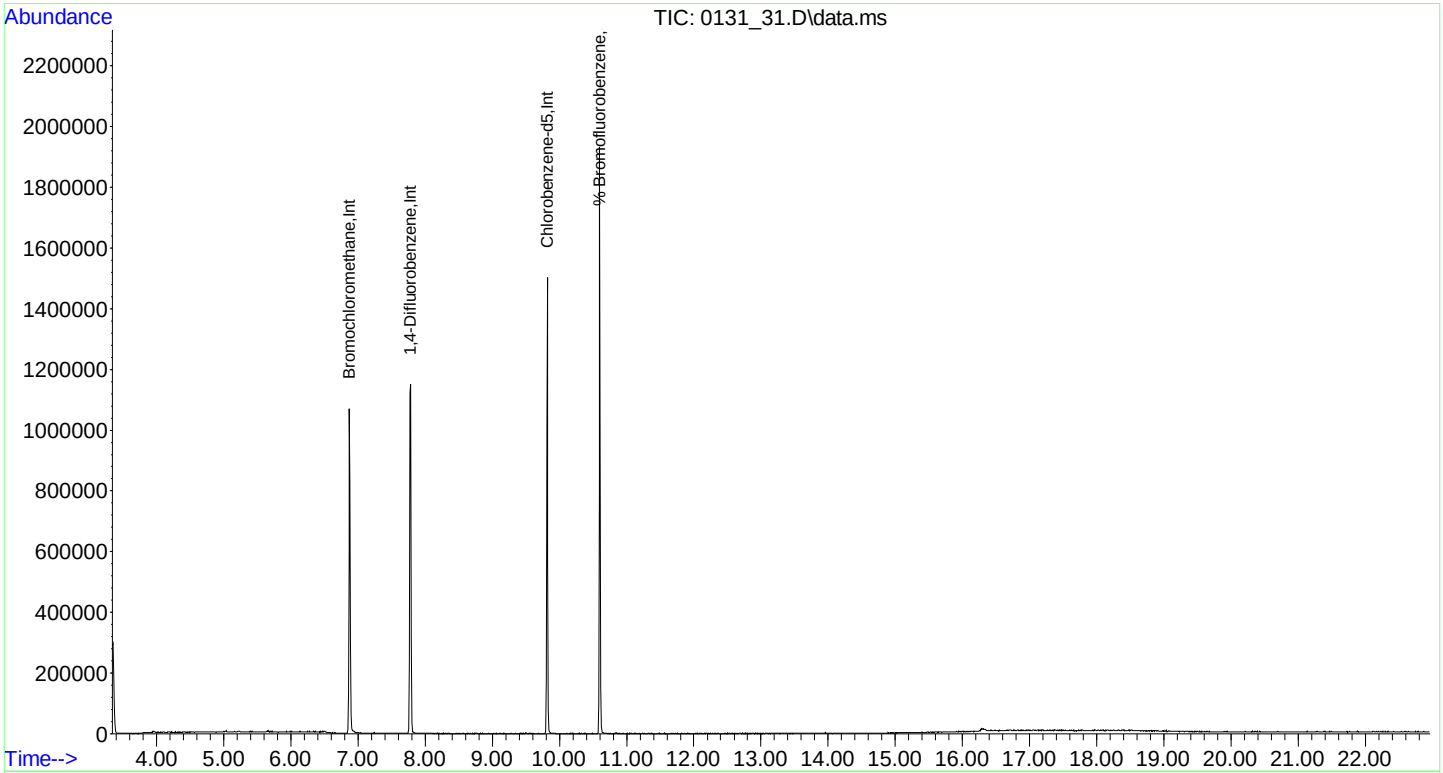
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.872 | 130 | 257388 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.782 | 114 | 631377 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.817 | 82 | 256556 | 10.000 | ng | | 0.00 |
| 80) Bromochloromethane(sim) | 6.875 | 130 | 329081 | 10.000 | ng | # | 0.00 |
| 93) 1,4-Difluorobenzene(sim) | 7.782 | 114 | 631377 | 10.000 | ng | | 0.00 |
| 103) Chlorobenzene-d5(sim) | 9.817 | 82 | 256556 | 10.000 | ng | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.598 | 95 | 352914 | 10.119 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 101.20% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 52) Tetrachloroethene | 9.500 | 166 | 563 | 0.023 | ppbv | | 92 |
| 102] Tetrachloroethene(sim) | 9.503 | 166 | 750 | 0.026 | ppbv | | 99 |

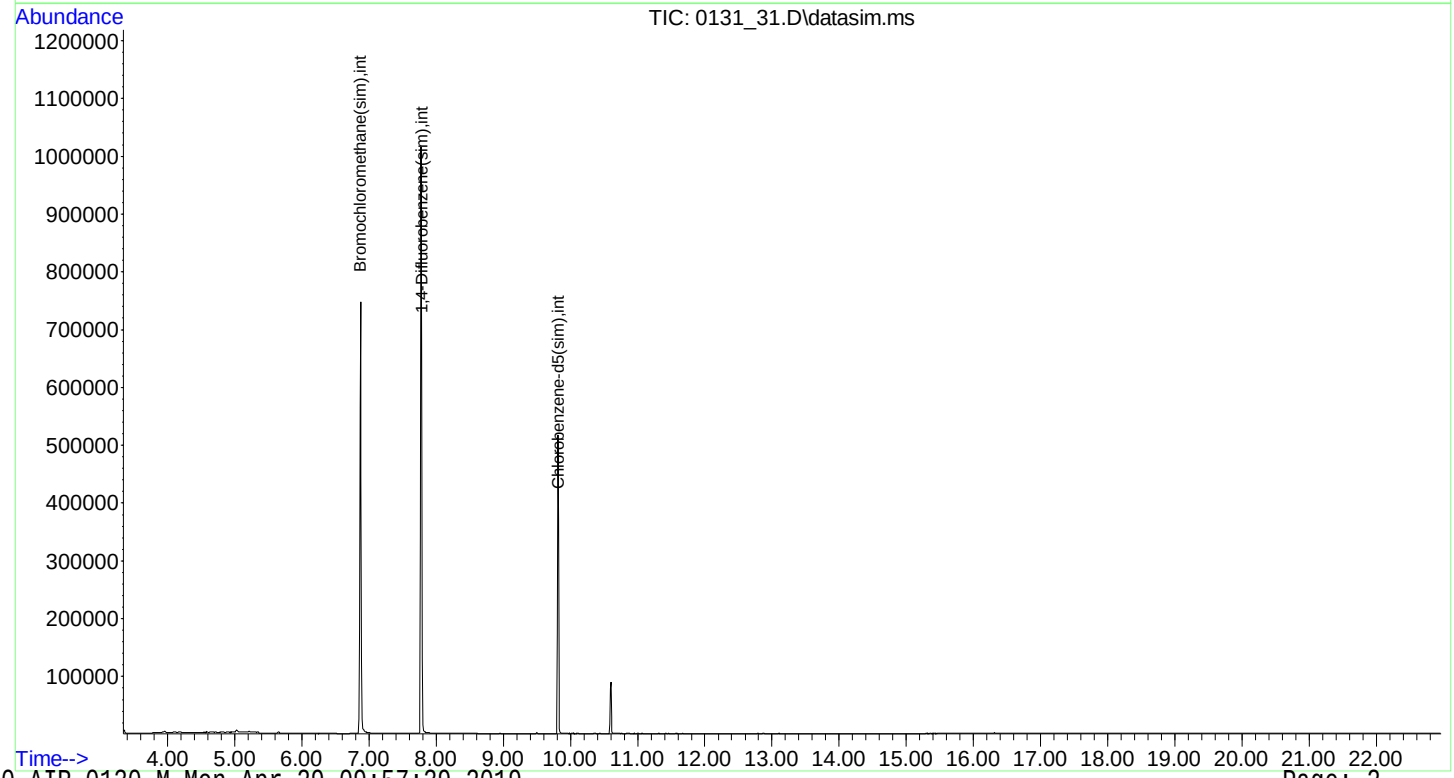
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

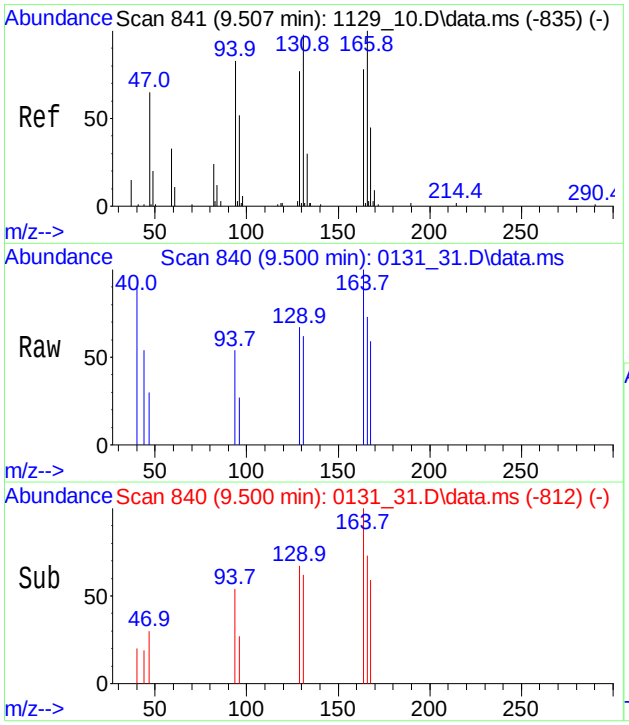
Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\01JAN\31\
Data File : 0131_31.D
Acq On : 01 Feb 2019 12:31 pm
Operator : CORTEX\ms
Client ID : CANISTER BLK 1423
Lab ID : CANISTER BLK 1423
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 01 15:19:32 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0130.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Thu Jan 31 13:55:06 2019
Response via : Initial Calibration



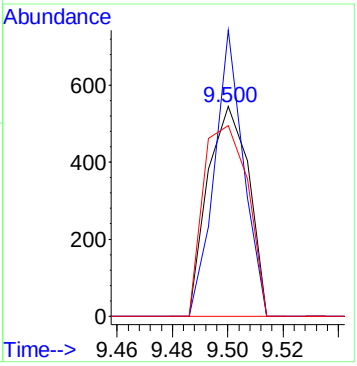



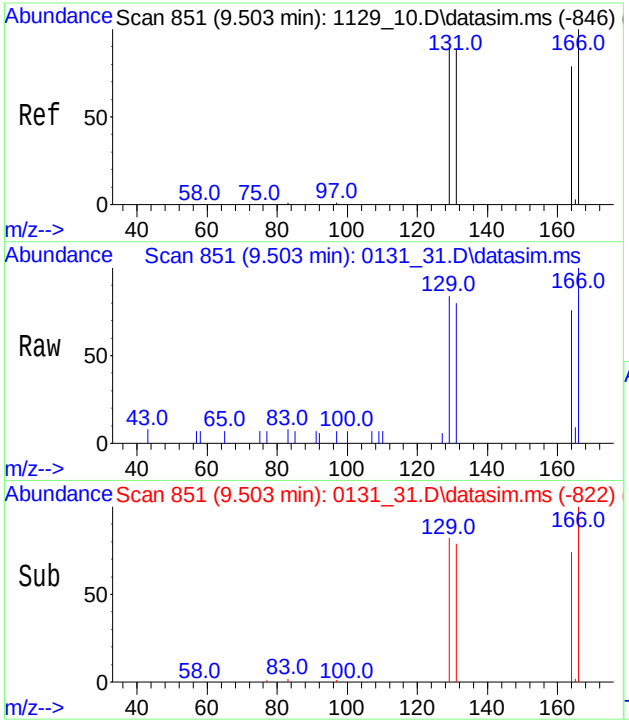



#52
Tetrachloroethene
Conc: 8$  Below Cal
RT:  9.500 min  Scan# 840
Delta R.T.  -0.006 min
Lab File:  0131_31.D
Acq: 01 Feb 2019  12:31 pm

Tgt Ion:166 Resp:  563

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 96.3 | 72.2 | 108.4 |
| 129 | 98.8 | 87.3 | 130.9 |

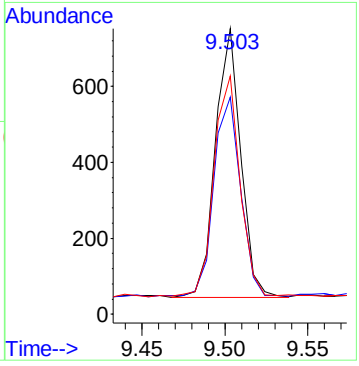



#102
Tetrachloroethene(sim)
Conc: 8$  Below Cal
RT:  9.503 min  Scan# 851
Delta R.T.  0.001 min
Lab File:  0131_31.D
Acq: 01 Feb 2019  12:31 pm

Tgt Ion:166 Resp:  750

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 77.2 | 56.7 | 96.7 |
| 129 | 84.1 | 65.7 | 105.7 |



# Canister Cleaning Certification



**Batch Id:** 1423

**QC Canister Id:** 814

**Canister Ids:** 21365, 23324, 23329, 28550, 28562, 28581, 28600, 28609, 28623, 352, 355, 814

**Certified:** ☑

**Certified Date:** 2/1/2019 12:31:00 PM

**Certified By:** KCA

**Certified Computer:** AIRLAB

**Sample Id:** blk 1423

**Comment:** Initial vacuum of all canisters in this batch is -30 psig.

**Data File:** H:\AIR2019\CHEM20\01JAN\31\0131_31.D\0131_31-20_AIR_0130.rr

| Analyte | Result (ppbv) | Analyte | Result (ppbv) |
|---|---|---|---|
| % Bromofluorobenzene | 10.119 | 1,1,1,2-Tetrachloroethane | 0 |
| 1,1,1-Trichloroethane | 0 | 1,1,1-Trichloroethane(sim) | 0 |
| 1,1,2,2-Tetrachloroethane | 0 | 1,1,2,2-Tetrachloroethane(sim) | 0 |
| 1,1,2-Trichloroethane | 0 | 1,1,2-Trichloroethane(sim) | 0 |
| 1,1-Dichloroethane | 0 | 1,1-Dichloroethane(sim) | 0 |
| 1,1-Dichloroethene | 0 | 1,1-Dichloroethene(sim) | 0 |
| 1,2,4-Trichlorobenzene | 0 | 1,2,4-Trichlorobenzene(sim) | 0 |
| 1,2,4-Trimethylbenzene | 0 | 1,2-Dibromoethane(EDB) | 0 |
| 1,2-Dibromoethane(EDB)(sim) | 0 | 1,2-Dichlorobenzene | 0 |
| 1,2-Dichlorobenzene(sim) | 0 | 1,2-Dichloroethane | 0 |
| 1,2-Dichloroethane(sim) | 0 | 1,2-dichloropropane | 0 |
| 1,2-dichloropropane(sim) | 0 | 1,2-Dichlorotetrafluoroethane | 0 |
| 1,2-Dichlorotetrafluoroethane(sim) | 0 | 1,3,5-Trimethylbenzene | 0 |
| 1,3-Butadiene | 0 | 1,3-Dichlorobenzene | 0 |
| 1,3-Dichlorobenzene(sim) | 0 | 1,4-Dichlorobenzene | 0 |
| 1,4-Dichlorobenzene(sim) | 0 | 1,4-Difluorobenzene | 10 |
| 1,4-Difluorobenzene(sim) | 10 | 1,4-Dioxane | 0 |
| 1,4-Dioxane(sim) | 0 | 2,2,4-trimethylpentane | 0 |
| 2-Chlorotoluene | 0 | 2-Hexanone(MBK) | 0 |
| 4-Ethyltoluene | 0 | 4-Isopropyltoluene | 0 |
| 4-Isopropyltoluene(sim) | 0 | 4-Methyl-2-pentanone(MIBK) | 0 |
| Acetone | 0 | Acrylonitrile | 0 |
| Allyl Chloride | 0 | Benzene | 0 |
| Benzyl chloride | 0 | Benzyl chloride(sim) | 0 |
| Bromochloromethane | 10 | Bromochloromethane(sim) | 10 |
| Bromodichloromethane | 0 | Bromodichloromethane(sim) | 0 |
| Bromoform | 0 | Bromoform(sim) | 0 |
| Bromomethane | 0 | Bromomethane(sim) | 0 |
| Carbon Disulfide | 0 | Carbon Tetrachloride | 0 |
| Carbon Tetrachloride(sim) | 0 | Chlorobenzene | 0 |
| Chlorobenzene-d5 | 10 | Chlorobenzene-d5(sim) | 10 |
| Chloroethane | 0 | Chloroform | 0 |
| Chloromethane | 0 | Cis-1,2-Dichloroethene | 0 |
| Cis-1,2-Dichloroethene(sim) | 0 | cis-1,3-Dichloropropene | 0 |
| cis-1,3-Dichloropropene(sim) | 0 | Cyclohexane | 0 |
| Dibromochloromethane | 0 | Dibromochloromethane(sim) | 0 |
| Dichlorodifluoromethane | 0 | Ethanol | 0 |
| Ethyl acetate | 0 | Ethylbenzene | 0 |
| Heptane | 0 | Hexachlorobutadiene | 0 |
| Hexachlorobutadiene(sim) | 0 | Hexane | 0 |
| Isopropylalcohol | 0 | Isopropylbenzene | 0 |
| m,p-Xylene | 0 | m,p-Xylene(sim) | 0 |
| Methyl Ethyl Ketone | 0 | Methyl methacrylate | 0 |
| Methyl tert-butyl ether(MTBE) | 0 | Methylene Chloride | 0 |
| n-Butylbenzene | 0 | n-Butylbenzene(sim) | 0 |
| n-Propylbenzene | 0 | n-Propylbenzene(sim) | 0 |

# Canister Cleaning Certification

**Batch Id:** 1423
**QC Canister Id:** 814
**Canister Ids:** 21365, 23324, 23329, 28550, 28562, 28581, 28600, 28609, 28623, 352, 355, 814

**Certified:** ☑
**Certified Date:** 2/1/2019 12:31:00 PM
**Certified By:** KCA
**Certified Computer:** AIRLAB
**Sample Id:** blk 1423

**Comment:** Initial vacuum of all canisters in this batch is -30 psig.

**Data File:** H:\AIR2019\CHEM20\01JAN\31\0131_31.D\0131_31-20_AIR_0130.rr

| Analyte | Result (ppbv) | Analyte | Result (ppbv) |
|---|---|---|---|
| Naphthalene | 0 | Naphthalene(sim) | 0 |
| o-Xylene | 0 | Propylene | 0 |
| sec-Butylbenzene | 0 | sec-Butylbenzene(sim) | 0 |
| Styrene | 0 | tert-butyl alcohol | 0 |
| tert-butylbenzenze | 0 | tert-butylbenzenze(sim) | 0 |
| Tetrachloroethene | 0 | Tetrachloroethene(sim) | 0 |
| Tetrahydrofuran | 0 | Toluene | 0 |
| Trans-1,2-Dichloroethene | 0 | Trans-1,2-Dichloroethene(sim) | 0 |
| trans-1,3-Dichloropropene | 0 | Trichloroethene | 0 |
| Trichloroethene(sim) | 0 | Trichlorofluoromethane | 0 |
| Trichlorofluoromethane(sim) | 0 | Trichlorotrifluoroethane | 0 |
| Trichlorotrifluoroethane(sim) | 0 | Vinyl Bromide | 0 |
| Vinyl Chloride | 0 | Vinyl Chloride(sim) | 0 |

CLIENT ID

AIR ANALYSIS DATA SHEET

CANISTER BLK 1429

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CANISTER BLK 1429

Canister: CANBL Lab File ID: 0205_21.D

Instrument: CHEM24 Column: Date Received:

Purge Volume 200 (cc) Date Analyzed: 02/06/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 115-07-1 | Propylene | 0.581 | U | 0.581 | 0.581 | r |
| 75-71-8 | Dichlorodifluoromethane | 0.202 | U | 0.202 | 0.202 | r |
| 74-87-3 | Chloromethane | 0.485 | U | 0.485 | 0.485 | r |
| 106-99-0 | 1,3-Butadiene | 0.452 | U | 0.452 | 0.452 | r |
| 75-00-3 | Chloroethane | 0.379 | U | 0.379 | 0.379 | r |
| 64-17-5 | Ethanol | 0.531 | U | 0.531 | 0.531 | r |
| 67-64-1 | Acetone | 0.421 | U | 0.421 | 0.421 | r |
| 67-63-0 | Isopropylalcohol | 0.407 | U | 0.407 | 0.407 | r |
| 107-13-1 | Acrylonitrile | 0.461 | U | 0.461 | 0.461 | r |
| 75-09-2 | Methylene Chloride | 0.864 | U | 0.864 | 0.864 | r |
| 75-15-0 | Carbon Disulfide | 0.321 | U | 0.321 | 0.321 | r |
| 1634-04-4 | Methyl tert-butyl ether(MTBE) | 0.278 | U | 0.278 | 0.278 | r |
| 78-93-3 | Methyl Ethyl Ketone | 0.339 | U | 0.339 | 0.339 | r |
| 110-54-3 | Hexane | 0.284 | U | 0.284 | 0.284 | r |
| 67-66-3 | Chloroform | 0.205 | U | 0.205 | 0.205 | r |
| 141-78-6 | Ethyl acetate | 0.278 | U | 0.278 | 0.278 | r |
| 109-99-9 | Tetrahydrofuran | 0.339 | U | 0.339 | 0.339 | r |
| 71-43-2 | Benzene | 0.313 | U | 0.313 | 0.313 | r |
| 110-82-7 | Cyclohexane | 0.291 | U | 0.291 | 0.291 | r |
| 142-82-5 | Heptane | 0.244 | U | 0.244 | 0.244 | r |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | 0.244 | U | 0.244 | 0.244 | r |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.220 | U | 0.220 | 0.220 | r |
| 108-88-3 | Toluene | 0.266 | U | 0.266 | 0.266 | r |
| 591-78-6 | 2-Hexanone(MBK) | 0.244 | U | 0.244 | 0.244 | r |
| 108-90-7 | Chlorobenzene | 0.217 | U | 0.217 | 0.217 | r |
| 100-41-4 | Ethylbenzene | 0.230 | U | 0.230 | 0.230 | r |
| 100-42-5 | Styrene | 0.235 | U | 0.235 | 0.235 | r |
| 95-47-6 | o-Xylene | 0.230 | U | 0.230 | 0.230 | r |
| 98-82-8 | Isopropylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 622-96-8 | 4-Ethyltoluene | 0.204 | U | 0.204 | 0.204 | r |
| 108-67-8 | 1,3,5-Trimethylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 76-14-2 | 1,2-Dichlorotetrafluoroethane(sim) | 0.143 | U | 0.143 | 0.143 | r |
| 75-01-4 | Vinyl Chloride(sim) | 0.078 | U | 0.078 | 0.078 | r |
| 74-83-9 | Bromomethane(sim) | 0.258 | U | 0.258 | 0.258 | r |
| 75-69-4 | Trichlorofluoromethane(sim) | 0.178 | U | 0.178 | 0.178 | r |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

1

AIR ANALYSIS DATA SHEET

CLIENT ID: CANISTER BLK 1429

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CANISTER BLK 1429

Canister: CANBL Lab File ID: 0205_21.D

Instrument: CHEM24 Column: Date Received:

Purge Volume 200 (cc) Date Analyzed: 02/06/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 71-55-6 | 1,1,1-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 56-23-5 | Carbon Tetrachloride(sim) | 0.032 | U | 0.032 | 0.032 | r |
| 75-35-4 | 1,1-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 76-13-1 | Trichlorotrifluoroethane(sim) | 0.131 | U | 0.131 | 0.131 | r |
| 156-60-5 | Trans-1,2-Dichloroethene(sim) | 0.252 | U | 0.252 | 0.252 | r |
| 75-34-3 | 1,1-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 156-59-2 | Cis-1,2-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 107-06-2 | 1,2-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 78-87-5 | 1,2-dichloropropane(sim) | 0.217 | U | 0.217 | 0.217 | r |
| 75-27-4 | Bromodichloromethane(sim) | 0.149 | U | 0.149 | 0.149 | r |
| 79-01-6 | Trichloroethene(sim) | 0.037 | U | 0.037 | 0.037 | r |
| 123-91-1 | 1,4-Dioxane(sim) | 0.278 | U | 0.278 | 0.278 | r |
| 10061-01-5 | cis-1,3-Dichloropropene(sim) | 0.220 | U | 0.220 | 0.220 | r |
| 79-00-5 | 1,1,2-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 124-48-1 | Dibromochloromethane(sim) | 0.117 | U | 0.117 | 0.117 | r |
| 106-93-4 | 1,2-Dibromoethane(EDB)(sim) | 0.130 | U | 0.130 | 0.130 | r |
| 127-18-4 | Tetrachloroethene(sim) | 0.037 | U | 0.037 | 0.037 | r |
| 75-25-2 | Bromoform(sim) | 0.097 | U | 0.097 | 0.097 | r |
| 630-20-6 | 1,1,1,2-Tetrachloroethane(sim) | 0.146 | U | 0.146 | 0.146 | r |
| 179601-23-1 | m,p-Xylene(sim) | 0.230 | U | 0.230 | 0.230 | r |
| 79-34-5 | 1,1,2,2-Tetrachloroethane(sim) | 0.146 | U | 0.146 | 0.146 | r |
| 100-44-7 | Benzyl chloride(sim) | 0.193 | U | 0.193 | 0.193 | r |
| 541-73-1 | 1,3-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 106-46-7 | 1,4-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 135-98-8 | sec-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 99-87-6 | 4-Isopropyltoluene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 95-50-1 | 1,2-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 104-51-8 | n-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 120-82-1 | 1,2,4-Trichlorobenzene(sim) | 0.135 | U | 0.135 | 0.135 | r |
| 87-68-3 | Hexachlorobutadiene(sim) | 0.094 | U | 0.094 | 0.094 | r |
| | | | | | | |
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FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM24\02FEB\05\
Data File : 0205_21.D
Acq On : 6 Feb 2019 5:11 am
Operator : Keith
Client ID : CANISTER BLK 1429
Lab ID : CANISTER BLK 1429
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 06 10:35:34 2019
Quant Method : H:\AIR2019\CHEM24\METHODS\24AIR_0205.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Feb 06 09:31:49 2019
Response via : Initial Calibration

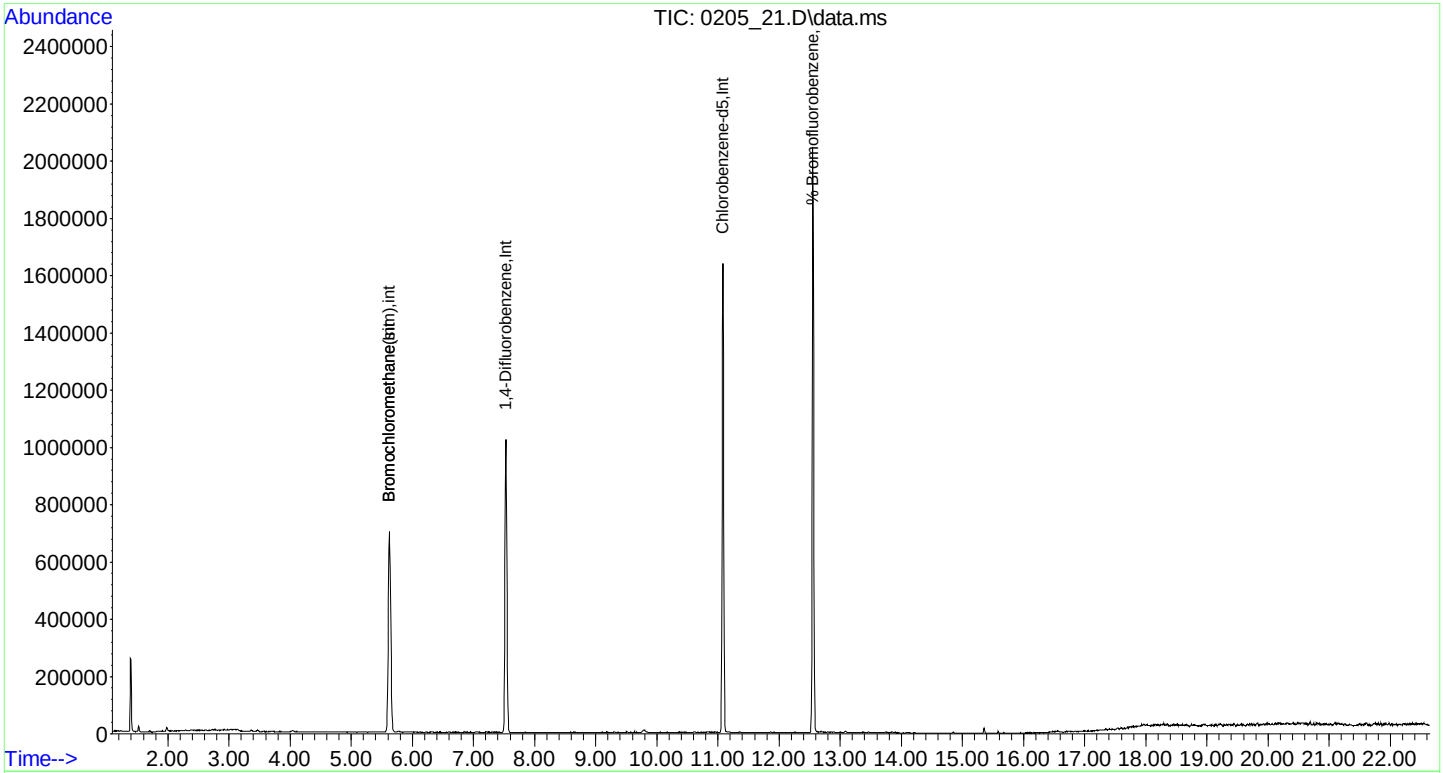
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 5.623 | 130 | 346390 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.528 | 114 | 998793 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 11.079 | 82 | 528094 | 10.000 | ng | | 0.00 |
| 80) Bromochloromethane(sim) | 5.623 | 130 | 346390 | 10.000 | ng | | 0.00 |
| 93) 1,4-Difluorobenzene(sim) | 7.531 | 114 | 1091216 | 10.000 | ng | # | 0.00 |
| 103) Chlorobenzene-d5(sim) | 11.075 | 82 | 566602 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 12.551 | 95 | 708233 | 9.520 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 95.20% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 77) 1,2,4-Trichlorobenzene | 15.356 | 180 | 2017 | 0.083 | ppbv | | 99 |
| 79) Hexachlorobutadiene | 15.356 | 225 | 1641 | 0.046 | ppbv | | 99 |
| 117] 1,2,4-Trichlorobenzene... | 15.354 | 180 | 2446 | 0.073 | ppbv | | 94 |

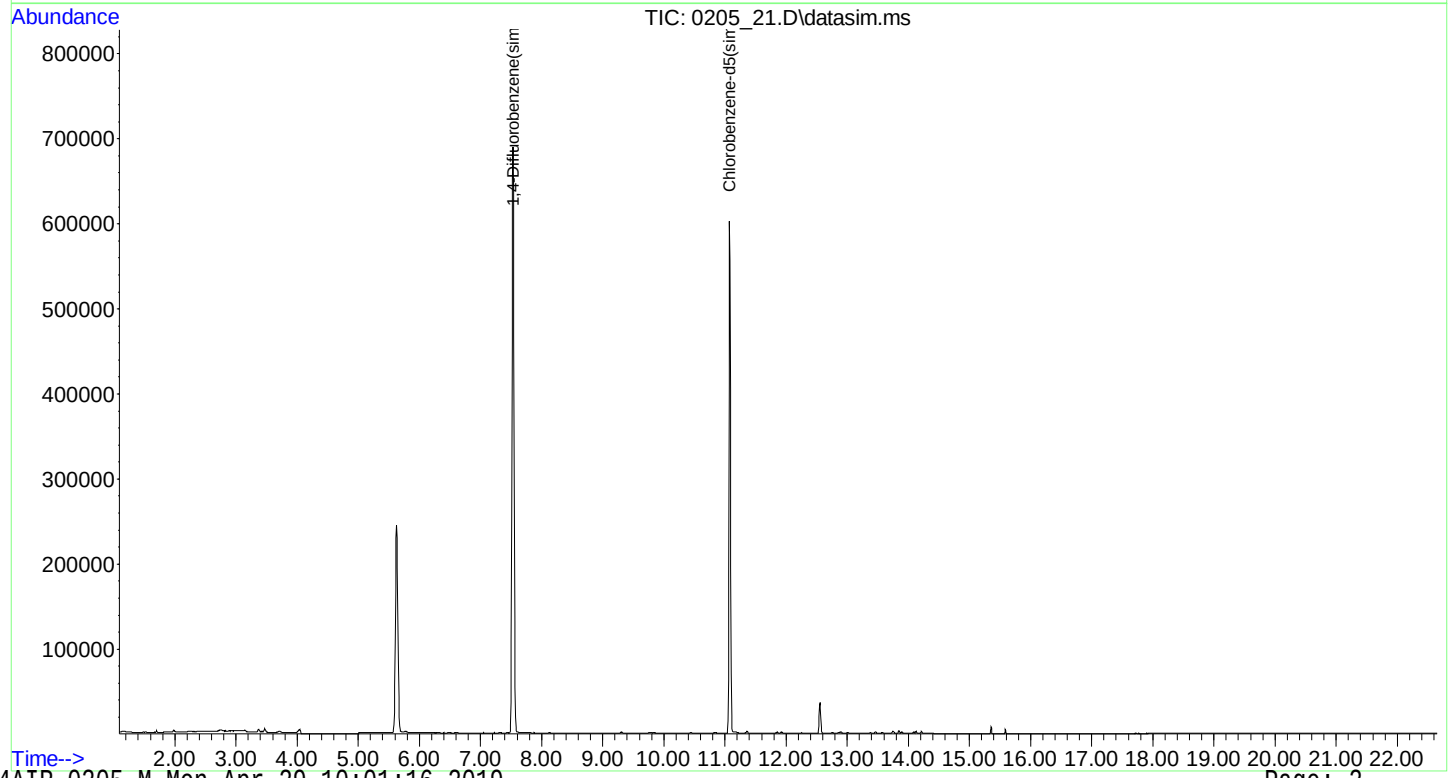
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

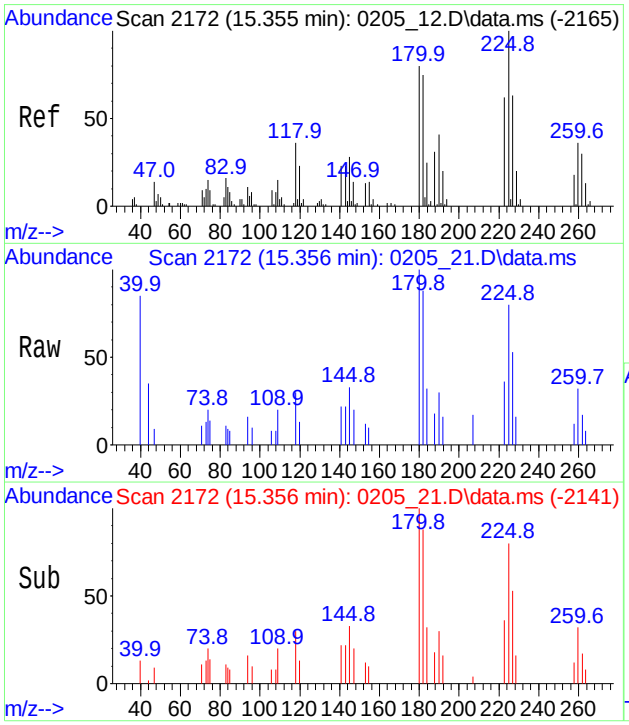
Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM24\02FEB\05\
Data File : 0205_21.D
Acq On : 6 Feb 2019 5:11 am
Operator : Keith
Client ID : CANISTER BLK 1429
Lab ID : CANISTER BLK 1429
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 06 10:35:34 2019
Quant Method : H:\AIR2019\CHEM24\METHODS\24AIR_0205.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Feb 06 09:31:49 2019
Response via : Initial Calibration



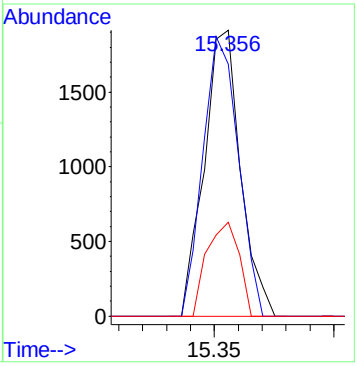



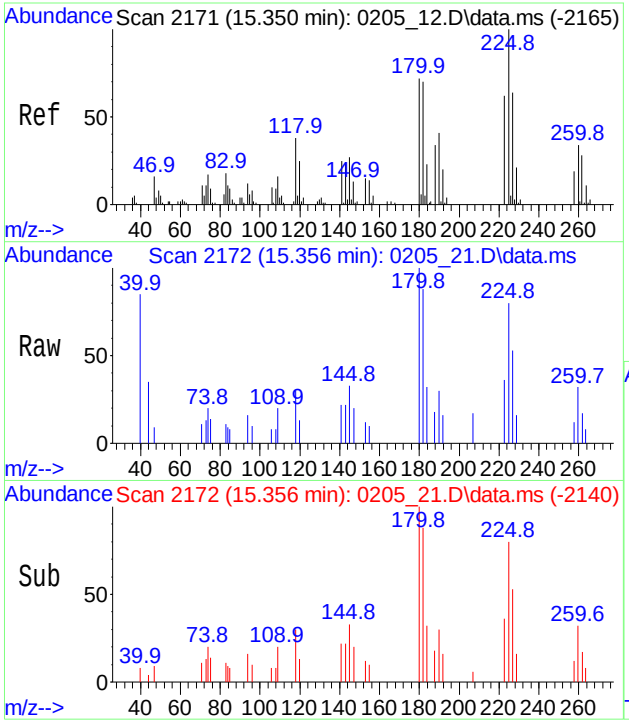



#77
1,2,4-Trichlorobenzene
Conc: 8$  Below Cal
RT:  15.356 min  Scan# 2172
Delta R.T.  0.001 min
Lab File:  0205_21.D
Acq:  6 Feb 2019  5:11 am

Tgt Ion:180 Resp:  2017

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 180 | 100 | | |
| 182 | 95.5 | 76.6 | 115.0 |
| 145 | 29.0 | 21.3 | 31.9 |

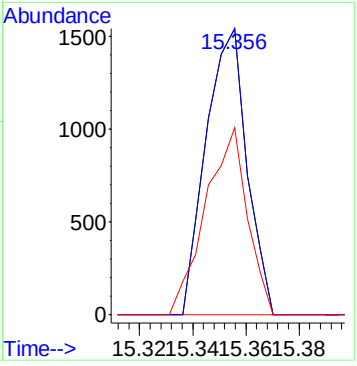


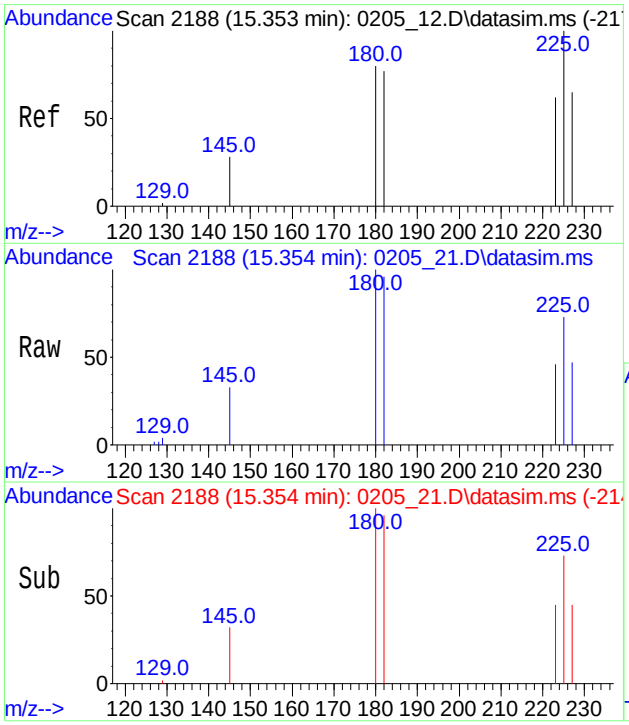




#79
Hexachlorobutadiene
Conc: 8$  Below Cal
RT:  15.356 min  Scan# 2172
Delta R.T.  0.005 min
Lab File:  0205_21.D
Acq:  6 Feb 2019  5:11 am

Tgt Ion:225 Resp:  1641

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 225 | 100 | | |
| 225 | 100.0 | 60.0 | 140.0 |
| 227 | 66.9 | 39.1 | 91.1 |

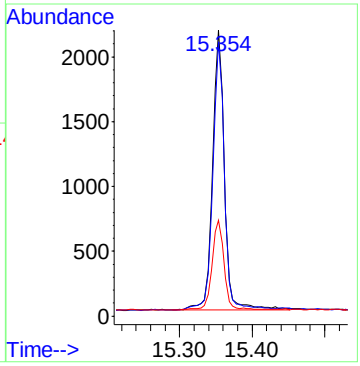





#117
1,2,4-Trichlorobenzene(sim)
Conc: 8$  Below Cal
RT:  15.354 min  Scan# 2188
Delta R.T.  0.001 min
Lab File:  0205_21.D
Acq:  6 Feb 2019  5:11 am

Tgt Ion:180 Resp:  2446

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 180 | 100 | | |
| 182 | 94.1 | 78.0 | 118.0 |
| 145 | 33.4 | 6.0 | 46.0 |



# Canister Cleaning Certification



**Batch Id:** 1429
**QC Canister Id:** 802
**Canister Ids:** 13641, 13647, 21344, 21367, 21370, 23334, 28603, 469, 492, 496, 497, 802

**Certified:** ☑
**Certified Date:** 2/6/2019 5:11:00 AM
**Certified By:** KCA
**Certified Computer:** AIRLAB
**Sample Id:** blk 1429

**Comment:** Initial vacuum of all canisters in this batch is -30 psig.

**Data File:** H:\AIR2019\CHEM24\02FEB\05\0205_21.D\0205_21-24AIR_0205.rr

| Analyte | Result (ppbv) | Analyte | Result (ppbv) |
|---|---|---|---|
| % Bromofluorobenzene | 9.5204 | 1,1,1,2-Tetrachloroethane | 0 |
| 1,1,1,2-Tetrachloroethane(sim) | 0 | 1,1,1-Trichloroethane | 0 |
| 1,1,1-Trichloroethane(sim) | 0 | 1,1,2,2-Tetrachloroethane | 0 |
| 1,1,2,2-Tetrachloroethane(sim) | 0 | 1,1,2-Trichloroethane | 0 |
| 1,1,2-Trichloroethane(sim) | 0 | 1,1-Dichloroethane | 0 |
| 1,1-Dichloroethane(sim) | 0 | 1,1-Dichloroethene | 0 |
| 1,1-Dichloroethene(sim) | 0 | 1,2,4-Trichlorobenzene | 0 |
| 1,2,4-Trichlorobenzene(sim) | 0 | 1,2,4-Trimethylbenzene | 0 |
| 1,2-Dibromoethane(EDB) | 0 | 1,2-Dibromoethane(EDB)(sim) | 0 |
| 1,2-Dichlorobenzene | 0 | 1,2-Dichlorobenzene(sim) | 0 |
| 1,2-Dichloroethane | 0 | 1,2-Dichloroethane(sim) | 0 |
| 1,2-dichloropropane | 0 | 1,2-dichloropropane(sim) | 0 |
| 1,2-Dichlorotetrafluoroethane | 0 | 1,2-Dichlorotetrafluoroethane(sim) | 0 |
| 1,3,5-Trimethylbenzene | 0 | 1,3-Butadiene | 0 |
| 1,3-Dichlorobenzene | 0 | 1,3-Dichlorobenzene(sim) | 0 |
| 1,4-Dichlorobenzene | 0 | 1,4-Dichlorobenzene(sim) | 0 |
| 1,4-Difluorobenzene | 10 | 1,4-Difluorobenzene(sim) | 10 |
| 1,4-Dioxane | 0 | 1,4-Dioxane(sim) | 0 |
| 2,2,4-trimethylpentane | 0 | 2-Chlorotoluene | 0 |
| 2-Hexanone(MBK) | 0 | 4-Ethyltoluene | 0 |
| 4-Isopropyltoluene | 0 | 4-Isopropyltoluene(sim) | 0 |
| 4-Methyl-2-pentanone(MIBK) | 0 | Acetone | 0 |
| Acrylonitrile | 0 | Allyl Chloride | 0 |
| Benzene | 0 | Benzyl chloride | 0 |
| Benzyl chloride(sim) | 0 | Bromochloromethane | 10 |
| Bromochloromethane(sim) | 10 | Bromodichloromethane | 0 |
| Bromodichloromethane(sim) | 0 | Bromoform | 0 |
| Bromoform(sim) | 0 | Bromomethane | 0 |
| Bromomethane(sim) | 0 | Carbon Disulfide | 0 |
| Carbon Tetrachloride | 0 | Carbon Tetrachloride(sim) | 0 |
| Chlorobenzene | 0 | Chlorobenzene-d5 | 10 |
| Chlorobenzene-d5(sim) | 10 | Chloroethane | 0 |
| Chloroform | 0 | Chloromethane | 0 |
| Cis-1,2-Dichloroethene | 0 | Cis-1,2-Dichloroethene(sim) | 0 |
| cis-1,3-Dichloropropene | 0 | cis-1,3-Dichloropropene(sim) | 0 |
| Cyclohexane | 0 | Dibromochloromethane | 0 |
| Dibromochloromethane(sim) | 0 | Dichlorodifluoromethane | 0 |
| Ethanol | 0.1819 | Ethyl acetate | 0 |
| Ethylbenzene | 0 | Heptane | 0 |
| Hexachlorobutadiene | 0 | Hexachlorobutadiene(sim) | 0.0343 |
| Hexane | 0 | Isopropylalcohol | 0 |
| Isopropylbenzene | 0 | m,p-Xylene | 0 |
| m,p-Xylene(sim) | 0 | Methyl Ethyl Ketone | 0 |
| Methyl methacrylate | 0 | Methyl tert-butyl ether(MTBE) | 0 |
| Methylene Chloride | 0 | n-Butylbenzene | 0 |
| n-Butylbenzene(sim) | 0 | n-Propylbenzene | 0 |

# Canister Cleaning Certification

**Batch Id:** 1429
**QC Canister Id:** 802
**Canister Ids:** 13641, 13647, 21344, 21367, 21370, 23334, 28603, 469, 492, 496, 497, 802

**Certified:** ☑
**Certified Date:** 2/6/2019 5:11:00 AM
**Certified By:** KCA
**Certified Computer:** AIRLAB
**Sample Id:** blk 1429

**Comment:** Initial vacuum of all canisters in this batch is -30 psig.

**Data File:** H:\AIR2019\CHEM24\02FEB\05\0205_21.D\0205_21-24AIR_0205.rr

| Analyte | Result (ppbv) | Analyte | Result (ppbv) |
|---|---|---|---|
| n-Propylbenzene(sim) | 0 | Naphthalene | 0 |
| o-Xylene | 0 | Propylene | 0 |
| sec-Butylbenzene | 0 | sec-Butylbenzene(sim) | 0 |
| Styrene | 0 | tert-butyl alcohol | 0.1712 |
| tert-butylbenzenze | 0 | tert-butylbenzenze(sim) | 0 |
| Tetrachloroethene | 0 | Tetrachloroethene(sim) | 0 |
| Tetrahydrofuran | 0 | Toluene | 0 |
| Trans-1,2-Dichloroethene | 0 | Trans-1,2-Dichloroethene(sim) | 0 |
| trans-1,3-Dichloropropene | 0 | Trichloroethene | 0 |
| Trichloroethene(sim) | 0 | Trichlorofluoromethane | 0 |
| Trichlorofluoromethane(sim) | 0 | Trichlorotrifluoroethane | 0 |
| Trichlorotrifluoroethane(sim) | 0 | Vinyl Bromide | 0 |
| Vinyl Chloride | 0 | Vinyl Chloride(sim) | 0 |

CLIENT ID

AIR ANALYSIS DATA SHEET

CANISTER BLK 1467

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CANISTER BLK 1467

Canister: CANBL Lab File ID: 0317_30.D

Instrument: CHEM24 Column: Date Received:

Purge Volume 200 (cc) Date Analyzed: 03/18/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 115-07-1 | Propylene | 0.581 | U | 0.581 | 0.581 | r |
| 75-71-8 | Dichlorodifluoromethane | 0.202 | U | 0.202 | 0.202 | r |
| 74-87-3 | Chloromethane | 0.485 | U | 0.485 | 0.485 | r |
| 106-99-0 | 1,3-Butadiene | 0.452 | U | 0.452 | 0.452 | r |
| 75-00-3 | Chloroethane | 0.379 | U | 0.379 | 0.379 | r |
| 64-17-5 | Ethanol | 0.531 | U | 0.531 | 0.531 | r |
| 67-64-1 | Acetone | 0.421 | U | 0.421 | 0.421 | r |
| 67-63-0 | Isopropylalcohol | 0.407 | U | 0.407 | 0.407 | r |
| 107-13-1 | Acrylonitrile | 0.461 | U | 0.461 | 0.461 | r |
| 75-09-2 | Methylene Chloride | 0.864 | U | 0.864 | 0.864 | r |
| 75-15-0 | Carbon Disulfide | 0.321 | U | 0.321 | 0.321 | r |
| 1634-04-4 | Methyl tert-butyl ether(MTBE) | 0.278 | U | 0.278 | 0.278 | r |
| 78-93-3 | Methyl Ethyl Ketone | 0.339 | U | 0.339 | 0.339 | r |
| 110-54-3 | Hexane | 0.284 | U | 0.284 | 0.284 | r |
| 141-78-6 | Ethyl acetate | 0.278 | U | 0.278 | 0.278 | r |
| 109-99-9 | Tetrahydrofuran | 0.339 | U | 0.339 | 0.339 | r |
| 71-43-2 | Benzene | 0.313 | U | 0.313 | 0.313 | r |
| 110-82-7 | Cyclohexane | 0.291 | U | 0.291 | 0.291 | r |
| 142-82-5 | Heptane | 0.244 | U | 0.244 | 0.244 | r |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | 0.244 | U | 0.244 | 0.244 | r |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.220 | U | 0.220 | 0.220 | r |
| 108-88-3 | Toluene | 0.266 | U | 0.266 | 0.266 | r |
| 591-78-6 | 2-Hexanone(MBK) | 0.244 | U | 0.244 | 0.244 | r |
| 108-90-7 | Chlorobenzene | 0.217 | U | 0.217 | 0.217 | r |
| 100-41-4 | Ethylbenzene | 0.230 | U | 0.230 | 0.230 | r |
| 100-42-5 | Styrene | 0.235 | U | 0.235 | 0.235 | r |
| 95-47-6 | o-Xylene | 0.230 | U | 0.230 | 0.230 | r |
| 98-82-8 | Isopropylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 622-96-8 | 4-Ethyltoluene | 0.204 | U | 0.204 | 0.204 | r |
| 108-67-8 | 1,3,5-Trimethylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 76-14-2 | 1,2-Dichlorotetrafluoroethane(sim) | 0.143 | U | 0.143 | 0.143 | r |
| 75-01-4 | Vinyl Chloride(sim) | 0.078 | U | 0.078 | 0.078 | r |
| 74-83-9 | Bromomethane(sim) | 0.258 | U | 0.258 | 0.258 | r |
| 75-69-4 | Trichlorofluoromethane(sim) | 0.178 | U | 0.178 | 0.178 | r |
| 71-55-6 | 1,1,1-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

1

AIR ANALYSIS DATA SHEET

CLIENT ID: CANISTER BLK 1467

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CANISTER BLK 1467

Canister: CANBL Lab File ID: 0317_30.D

Instrument: CHEM24 Column: Date Received:

Purge Volume 200 (cc) Date Analyzed: 03/18/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 56-23-5 | Carbon Tetrachloride(sim) | 0.032 | U | 0.032 | 0.032 | r |
| 75-35-4 | 1,1-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 76-13-1 | Trichlorotrifluoroethane(sim) | 0.131 | U | 0.131 | 0.131 | r |
| 156-60-5 | Trans-1,2-Dichloroethene(sim) | 0.252 | U | 0.252 | 0.252 | r |
| 75-34-3 | 1,1-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 156-59-2 | Cis-1,2-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 67-66-3 | Chloroform(sim) | 0.205 | U | 0.205 | 0.205 | r |
| 107-06-2 | 1,2-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 78-87-5 | 1,2-dichloropropane(sim) | 0.217 | U | 0.217 | 0.217 | r |
| 75-27-4 | Bromodichloromethane(sim) | 0.149 | U | 0.149 | 0.149 | r |
| 79-01-6 | Trichloroethene(sim) | 0.037 | U | 0.037 | 0.037 | r |
| 123-91-1 | 1,4-Dioxane(sim) | 0.278 | U | 0.278 | 0.278 | r |
| 10061-01-5 | cis-1,3-Dichloropropene(sim) | 0.220 | U | 0.220 | 0.220 | r |
| 79-00-5 | 1,1,2-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 124-48-1 | Dibromochloromethane(sim) | 0.117 | U | 0.117 | 0.117 | r |
| 106-93-4 | 1,2-Dibromoethane(EDB)(sim) | 0.130 | U | 0.130 | 0.130 | r |
| 127-18-4 | Tetrachloroethene(sim) | 0.037 | U | 0.037 | 0.037 | r |
| 75-25-2 | Bromoform(sim) | 0.097 | U | 0.097 | 0.097 | r |
| 630-20-6 | 1,1,1,2-Tetrachloroethane(sim) | 0.146 | U | 0.146 | 0.146 | r |
| 179601-23-1 | m,p-Xylene(sim) | 0.230 | U | 0.230 | 0.230 | r |
| 79-34-5 | 1,1,2,2-Tetrachloroethane(sim) | 0.146 | U | 0.146 | 0.146 | r |
| 100-44-7 | Benzyl chloride(sim) | 0.193 | U | 0.193 | 0.193 | r |
| 541-73-1 | 1,3-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 106-46-7 | 1,4-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 135-98-8 | sec-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 99-87-6 | 4-Isopropyltoluene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 95-50-1 | 1,2-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 104-51-8 | n-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 120-82-1 | 1,2,4-Trichlorobenzene(sim) | 0.135 | U | 0.135 | 0.135 | r |
| 87-68-3 | Hexachlorobutadiene(sim) | 0.094 | U | 0.094 | 0.094 | r |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM24\03MAR\17\
Data File : 0317_30.D
Acq On : 18 Mar 2019 5:14 pm
Operator : Keith
Client ID : CANISTER BLK 1467
Lab ID : CANISTER BLK 1467
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Mar 19 08:35:53 2019
Quant Method : H:\AIR2019\CHEM24\METHODS\24AIR_0312.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Mar 13 10:08:37 2019
Response via : Initial Calibration

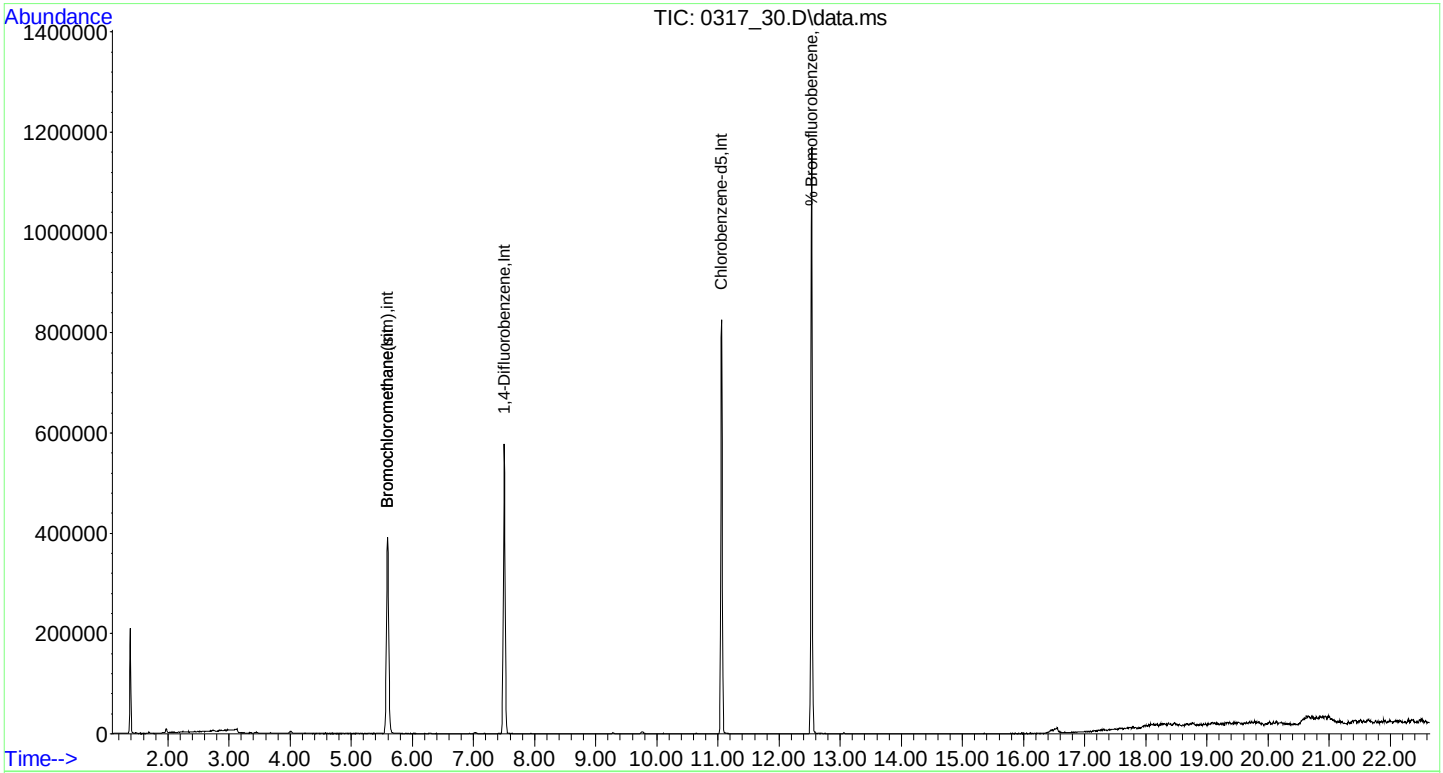
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 5.594 | 130 | 181634 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.501 | 114 | 480310 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 11.059 | 82 | 242021 | 10.000 | ng | | 0.00 |
| 80) Bromochloromethane(sim) | 5.594 | 130 | 181634 | 10.000 | ng | | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.501 | 114 | 480310 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 11.059 | 82 | 242021 | 10.000 | ng | # | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 12.532 | 95 | 335870 | 9.755 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 97.50% | | | | |
| Target Compounds | | | | | | | Qvalue |

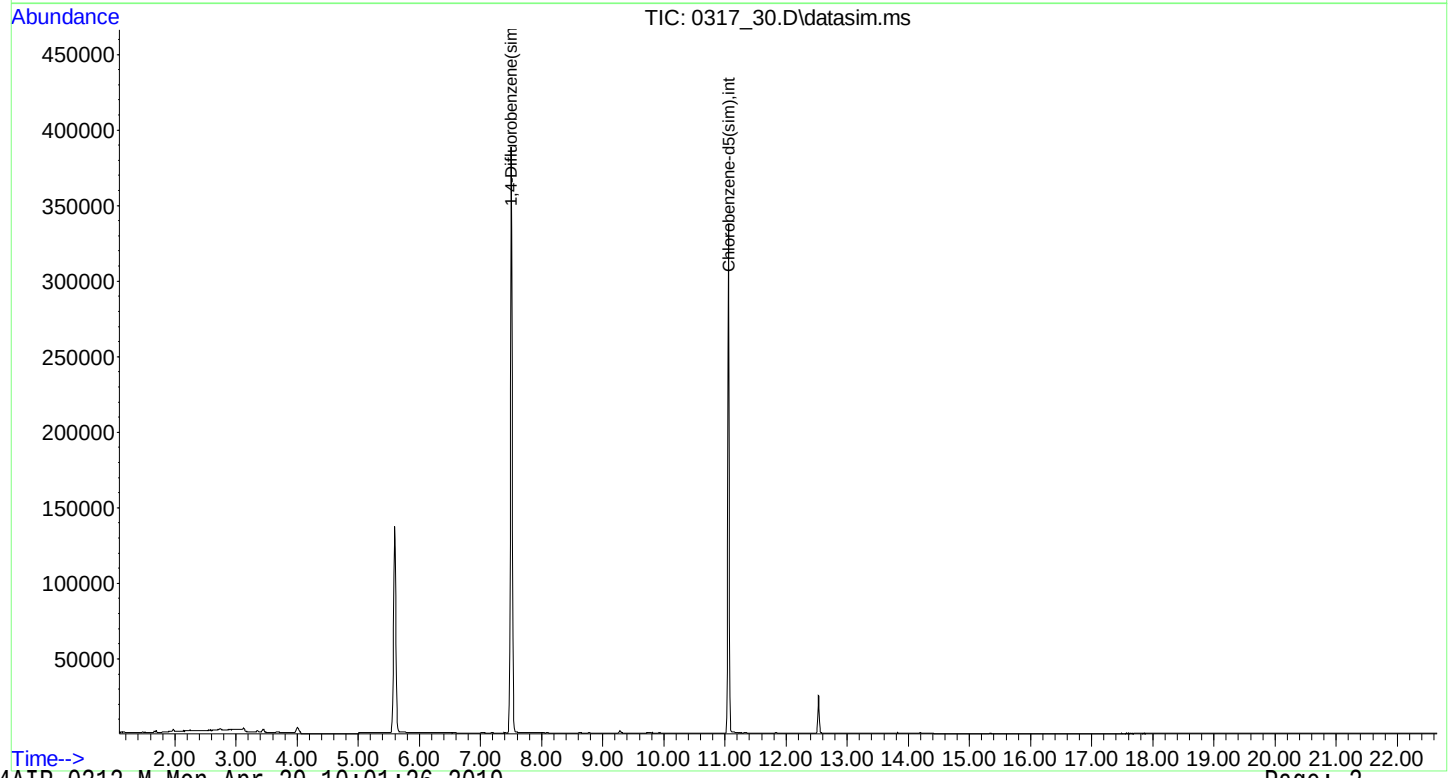
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM24\03MAR\17\
Data File : 0317_30.D
Acq On : 18 Mar 2019 5:14 pm
Operator : Keith
Client ID : CANISTER BLK 1467
Lab ID : CANISTER BLK 1467
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Mar 19 08:35:53 2019
Quant Method : H:\AIR2019\CHEM24\METHODS\24AIR_0312.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Mar 13 10:08:37 2019
Response via : Initial Calibration



# Canister Cleaning Certification



**Batch Id:** 1467
**QC Canister Id:** 812
**Canister Ids:** 19632, 19916, 19960, 215, 222, 228, 28581, 28609, 28623, 456, 489, 812

**Certified:** ☑
**Certified Date:** 3/18/2019 5:14:00 PM
**Certified By:** k
**Certified Computer:** AIRLAB
**Sample Id:** blk 1467

**Comment:** Initial vacuum of all canisters in this batch is -30 psig.

1 Compounds > than RL

**Data File:** H:\AIR2019\CHEM24\03MAR\17\0317_30.D\0317_30-24AIR_0312.rr

| | | | |
|---|---|---|---|
| % Bromofluorobenzene | 9.7546 | 1,1,1,2-Tetrachloroethane | 0 |
| 1,1,1,2-Tetrachloroethane(sim) | 0 | 1,1,1-Trichloroethane | 0 |
| 1,1,1-Trichloroethane(sim) | 0 | 1,1,2,2-Tetrachloroethane | 0 |
| 1,1,2,2-Tetrachloroethane(sim) | 0 | 1,1,2-Trichloroethane | 0 |
| 1,1,2-Trichloroethane(sim) | 0 | 1,1-Dichloroethane | 0 |
| 1,1-Dichloroethane(sim) | 0 | 1,1-Dichloroethene | 0 |
| 1,1-Dichloroethene(sim) | 0 | 1,2,4-Trichlorobenzene | 0 |
| 1,2,4-Trichlorobenzene(sim) | 0 | 1,2,4-Trimethylbenzene | 0 |
| 1,2-Dibromoethane(EDB) | 0 | 1,2-Dibromoethane(EDB)(sim) | 0 |
| 1,2-Dichlorobenzene | 0 | 1,2-Dichlorobenzene(sim) | 0 |
| 1,2-Dichloroethane | 0 | 1,2-Dichloroethane(sim) | 0 |
| 1,2-dichloropropane | 0 | 1,2-dichloropropane(sim) | 0 |
| 1,2-Dichlorotetrafluoroethane | 0 | 1,2-Dichlorotetrafluoroethane(sim) | 0 |
| 1,3,5-Trimethylbenzene | 0 | 1,3-Butadiene | 0 |
| 1,3-Dichlorobenzene | 0 | 1,3-Dichlorobenzene(sim) | 0 |
| 1,4-Dichlorobenzene | 0 | 1,4-Dichlorobenzene(sim) | 0 |
| 1,4-Difluorobenzene | 10 | 1,4-Difluorobenzene(sim) | 10 |
| 1,4-Dioxane | 0 | 1,4-Dioxane(sim) | 0 |
| 2,2,4-trimethylpentane | 0 | 2-Chlorotoluene | 0 |
| 2-Hexanone(MBK) | 0 | 4-Ethyltoluene | 0 |
| 4-Isopropyltoluene | 0 | 4-Isopropyltoluene(sim) | 0 |
| 4-Methyl-2-pentanone(MIBK) | 0 | Acetone | 0 |
| Acrylonitrile | 0 | Allyl Chloride | 0 |
| Benzene | 0 | Benzyl chloride | 0 |
| Benzyl chloride(sim) | 0 | Bromochloromethane | 10 |
| Bromochloromethane(sim) | 10 | Bromodichloromethane | 0 |
| Bromodichloromethane(sim) | 0 | Bromoform | 0 |
| Bromoform(sim) | 0 | Bromomethane | 0 |
| Bromomethane(sim) | 0 | Carbon Disulfide | 0 |
| Carbon Tetrachloride | 0 | Carbon Tetrachloride(sim) | 0 |
| Chlorobenzene | 0 | Chlorobenzene-d5 | 10 |
| Chlorobenzene-d5(sim) | 10 | Chloroethane | 0 |
| Chloroform | 0 | Chloroform(sim) | 0 |
| Chloromethane | 0 | Cis-1,2-Dichloroethene | 0 |
| Cis-1,2-Dichloroethene(sim) | 0 | cis-1,3-Dichloropropene | 0 |
| cis-1,3-Dichloropropene(sim) | 0 | Cyclohexane | 0 |
| Dibromochloromethane | 0 | Dibromochloromethane(sim) | 0 |
| Dichlorodifluoromethane | 0 | Ethanol | 0 |
| Ethyl acetate | 0 | Ethylbenzene | 0 |
| Heptane | 0 | Hexachlorobutadiene | 0 |
| Hexachlorobutadiene(sim) | 0 | Hexane | 0 |
| Isopropylalcohol | 0 | Isopropylbenzene | 0 |
| m,p-Xylene | 0 | m,p-Xylene(sim) | 0 |
| Methyl Ethyl Ketone | 0 | Methyl methacrylate | 0 |
| Methyl tert-butyl ether(MTBE) | 0 | Methylene Chloride | 0 |
| n-Butylbenzene | 0 | n-Butylbenzene(sim) | 0 |

# Canister Cleaning Certification



**Batch Id:** 1467
**QC Canister Id:** 812
**Canister Ids:** 19632, 19916, 19960, 215, 222, 228, 28581, 28609, 28623, 456, 489, 812

**Certified:** ☑
**Certified Date:** 3/18/2019 5:14:00 PM
**Certified By:** k
**Certified Computer:** AIRLAB
**Sample Id:** blk 1467

**Comment:** Initial vacuum of all canisters in this batch is -30 psig.

1 Compounds > than RL

**Data File:** H:\AIR2019\CHEM24\03MAR\17\0317_30.D\0317_30-24AIR_0312.rr

| | | | |
|---|---|---|---|
| n-Propylbenzene | 0 | n-Propylbenzene(sim) | 0 |
| Naphthalene | 0 | o-Xylene | 0 |
| Propylene | 0 | sec-Butylbenzene | 0 |
| sec-Butylbenzene(sim) | 0 | Styrene | 0 |
| tert-butyl alcohol | 0.3539 | tert-butylbenzenze | 0 |
| tert-butylbenzenze(sim) | 0 | Tetrachloroethene | 0 |
| Tetrachloroethene(sim) | 0 | Tetrahydrofuran | 0 |
| Toluene | 0 | Trans-1,2-Dichloroethene | 0 |
| Trans-1,2-Dichloroethene(sim) | 0 | trans-1,3-Dichloropropene | 0 |
| Trichloroethene | 0 | Trichloroethene(sim) | 0 |
| Trichlorofluoromethane | 0 | Trichlorofluoromethane(sim) | 0 |
| Trichlorotrifluoroethane | 0 | Trichlorotrifluoroethane(sim) | 0 |
| Vinyl Bromide | 0 | Vinyl Chloride | 0 |
| Vinyl Chloride(sim) | 0 | | |

1

AIR ANALYSIS DATA SHEET

CLIENT ID: CANISTER BLK 1473

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CANISTER BLK 1473

Canister: CANBL Lab File ID: 0322_11.D

Instrument: CHEM20 Column: Date Received:

Purge Volume 200 (cc) Date Analyzed: 03/22/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 115-07-1 | Propylene | 0.581 | U | 0.581 | 0.581 | r |
| 75-71-8 | Dichlorodifluoromethane | 0.202 | U | 0.202 | 0.202 | r |
| 74-87-3 | Chloromethane | 0.485 | U | 0.485 | 0.485 | r |
| 106-99-0 | 1,3-Butadiene | 0.452 | U | 0.452 | 0.452 | r |
| 75-00-3 | Chloroethane | 0.379 | U | 0.379 | 0.379 | r |
| 64-17-5 | Ethanol | 0.531 | U | 0.531 | 0.531 | r |
| 67-64-1 | Acetone | 0.421 | U | 0.421 | 0.421 | r |
| 67-63-0 | Isopropylalcohol | 0.407 | U | 0.407 | 0.407 | r |
| 107-13-1 | Acrylonitrile | 0.461 | U | 0.461 | 0.461 | r |
| 75-09-2 | Methylene Chloride | 0.864 | U | 0.864 | 0.864 | r |
| 75-15-0 | Carbon Disulfide | 0.321 | U | 0.321 | 0.321 | r |
| 1634-04-4 | Methyl tert-butyl ether(MTBE) | 0.278 | U | 0.278 | 0.278 | r |
| 78-93-3 | Methyl Ethyl Ketone | 0.339 | U | 0.339 | 0.339 | r |
| 110-54-3 | Hexane | 0.284 | U | 0.284 | 0.284 | r |
| 141-78-6 | Ethyl acetate | 0.278 | U | 0.278 | 0.278 | r |
| 109-99-9 | Tetrahydrofuran | 0.339 | U | 0.339 | 0.339 | r |
| 71-43-2 | Benzene | 0.313 | U | 0.313 | 0.313 | r |
| 110-82-7 | Cyclohexane | 0.291 | U | 0.291 | 0.291 | r |
| 142-82-5 | Heptane | 0.244 | U | 0.244 | 0.244 | r |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | 0.244 | U | 0.244 | 0.244 | r |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.220 | U | 0.220 | 0.220 | r |
| 108-88-3 | Toluene | 0.266 | U | 0.266 | 0.266 | r |
| 591-78-6 | 2-Hexanone(MBK) | 0.244 | U | 0.244 | 0.244 | r |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.146 | U | 0.146 | 0.146 | r |
| 108-90-7 | Chlorobenzene | 0.217 | U | 0.217 | 0.217 | r |
| 100-41-4 | Ethylbenzene | 0.230 | U | 0.230 | 0.230 | r |
| 100-42-5 | Styrene | 0.235 | U | 0.235 | 0.235 | r |
| 95-47-6 | o-Xylene | 0.230 | U | 0.230 | 0.230 | r |
| 98-82-8 | Isopropylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 622-96-8 | 4-Ethyltoluene | 0.204 | U | 0.204 | 0.204 | r |
| 108-67-8 | 1,3,5-Trimethylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 76-14-2 | 1,2-Dichlorotetrafluoroethane(sim) | 0.143 | U | 0.143 | 0.143 | r |
| 75-01-4 | Vinyl Chloride(sim) | 0.078 | U | 0.078 | 0.078 | r |
| 74-83-9 | Bromomethane(sim) | 0.258 | U | 0.258 | 0.258 | r |
| 75-69-4 | Trichlorofluoromethane(sim) | 0.178 | U | 0.178 | 0.178 | r |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

1

AIR ANALYSIS DATA SHEET

CLIENT ID: CANISTER BLK 1473

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CANISTER BLK 1473

Canister: CANBL Lab File ID: 0322_11.D

Instrument: CHEM20 Column: Date Received:

Purge Volume 200 (cc) Date Analyzed: 03/22/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 107-06-2 | 1,2-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 71-55-6 | 1,1,1-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 56-23-5 | Carbon Tetrachloride(sim) | 0.032 | U | 0.032 | 0.032 | r |
| 75-35-4 | 1,1-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 76-13-1 | Trichlorotrifluoroethane(sim) | 0.131 | U | 0.131 | 0.131 | r |
| 156-60-5 | Trans-1,2-Dichloroethene(sim) | 0.252 | U | 0.252 | 0.252 | r |
| 75-34-3 | 1,1-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 156-59-2 | Cis-1,2-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 67-66-3 | Chloroform(sim) | 0.205 | U | 0.205 | 0.205 | r |
| 78-87-5 | 1,2-dichloropropane(sim) | 0.217 | U | 0.217 | 0.217 | r |
| 75-27-4 | Bromodichloromethane(sim) | 0.149 | U | 0.149 | 0.149 | r |
| 79-01-6 | Trichloroethene(sim) | 0.037 | U | 0.037 | 0.037 | r |
| 123-91-1 | 1,4-Dioxane(sim) | 0.278 | U | 0.278 | 0.278 | r |
| 10061-01-5 | cis-1,3-Dichloropropene(sim) | 0.220 | U | 0.220 | 0.220 | r |
| 79-00-5 | 1,1,2-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 124-48-1 | Dibromochloromethane(sim) | 0.117 | U | 0.117 | 0.117 | r |
| 106-93-4 | 1,2-Dibromoethane(EDB)(sim) | 0.130 | U | 0.130 | 0.130 | r |
| 127-18-4 | Tetrachloroethene(sim) | 0.037 | U | 0.037 | 0.037 | r |
| 75-25-2 | Bromoform(sim) | 0.097 | U | 0.097 | 0.097 | r |
| 179601-23-1 | m,p-Xylene(sim) | 0.230 | U | 0.230 | 0.230 | r |
| 79-34-5 | 1,1,2,2-Tetrachloroethane(sim) | 0.146 | U | 0.146 | 0.146 | r |
| 100-44-7 | Benzyl chloride(sim) | 0.193 | U | 0.193 | 0.193 | r |
| 541-73-1 | 1,3-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 106-46-7 | 1,4-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 135-98-8 | sec-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 99-87-6 | 4-Isopropyltoluene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 95-50-1 | 1,2-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 104-51-8 | n-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 120-82-1 | 1,2,4-Trichlorobenzene(sim) | 0.135 | U | 0.135 | 0.135 | r |
| 87-68-3 | Hexachlorobutadiene(sim) | 0.094 | U | 0.094 | 0.094 | r |
| | | | | | | |
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FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\03MAR\22\
Data File : 0322_11.D
Acq On : 22 Mar 2019 05:01 pm
Operator : CORTEX\ms
Client ID : CANISTER BLK 1473
Lab ID : CANISTER BLK 1473
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 25 09:35:38 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0321.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Mon Mar 25 09:24:14 2019
Response via : Initial Calibration

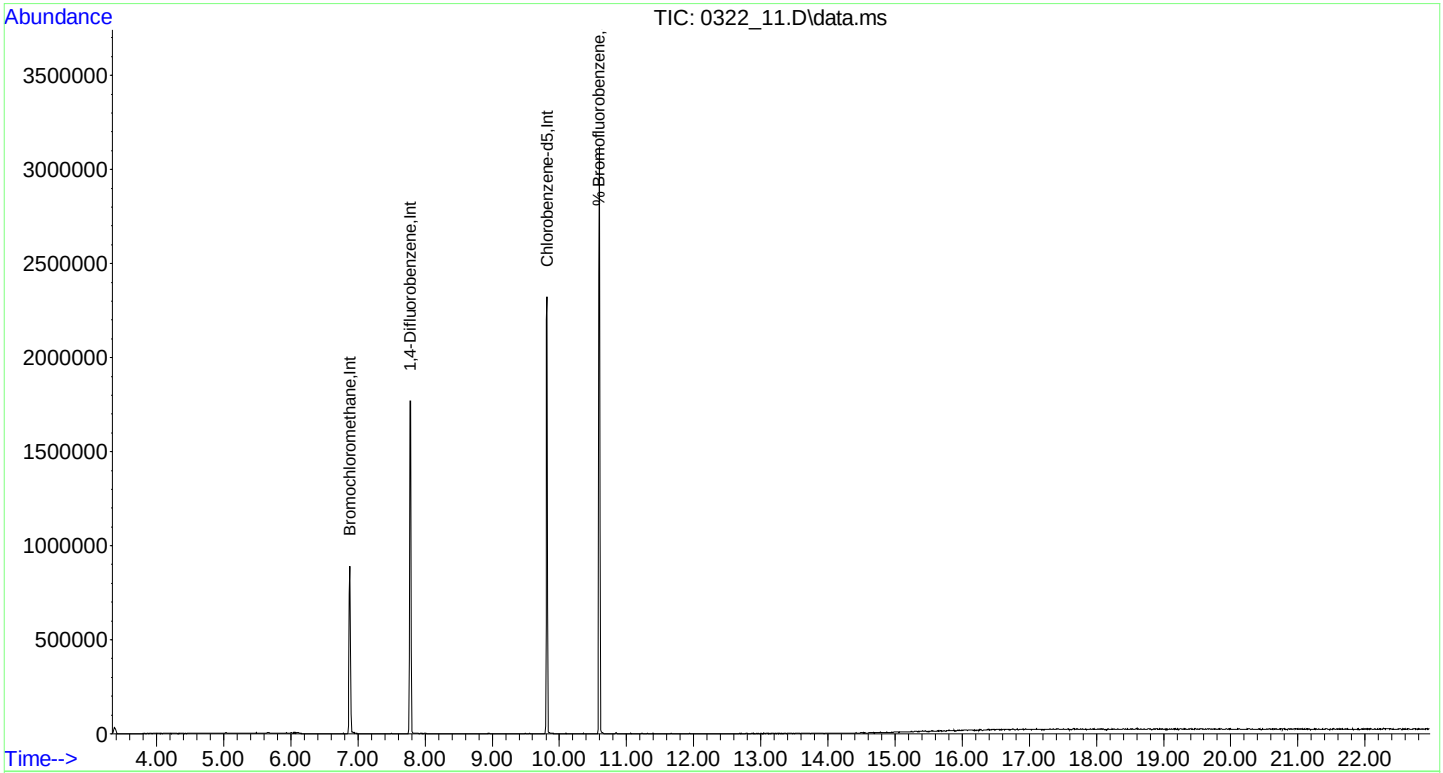
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 6.879 | 130 | 202805 | 10.000 | ng | | 0.00 |
| 36) 1,4-Difluorobenzene | 7.781 | 114 | 946700 | 10.000 | ng | | 0.00 |
| 53) Chlorobenzene-d5 | 9.815 | 82 | 479618 | 10.000 | ng | | 0.00 |
| 80) Bromochloromethane(sim) | 6.882 | 130 | 257004 | 10.000 | ng | # | 0.00 |
| 94) 1,4-Difluorobenzene(sim) | 7.775 | 114 | 1096383 | 10.000 | ng | | 0.00 |
| 104) Chlorobenzene-d5(sim) | 9.810 | 82 | 491031 | 10.000 | ng | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 62) % Bromofluorobenzene | 10.596 | 95 | 686766 | 10.265 | ppbv | | 0.00 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 102.70% | | | | |
| Target Compounds | | | | | | | Qvalue |

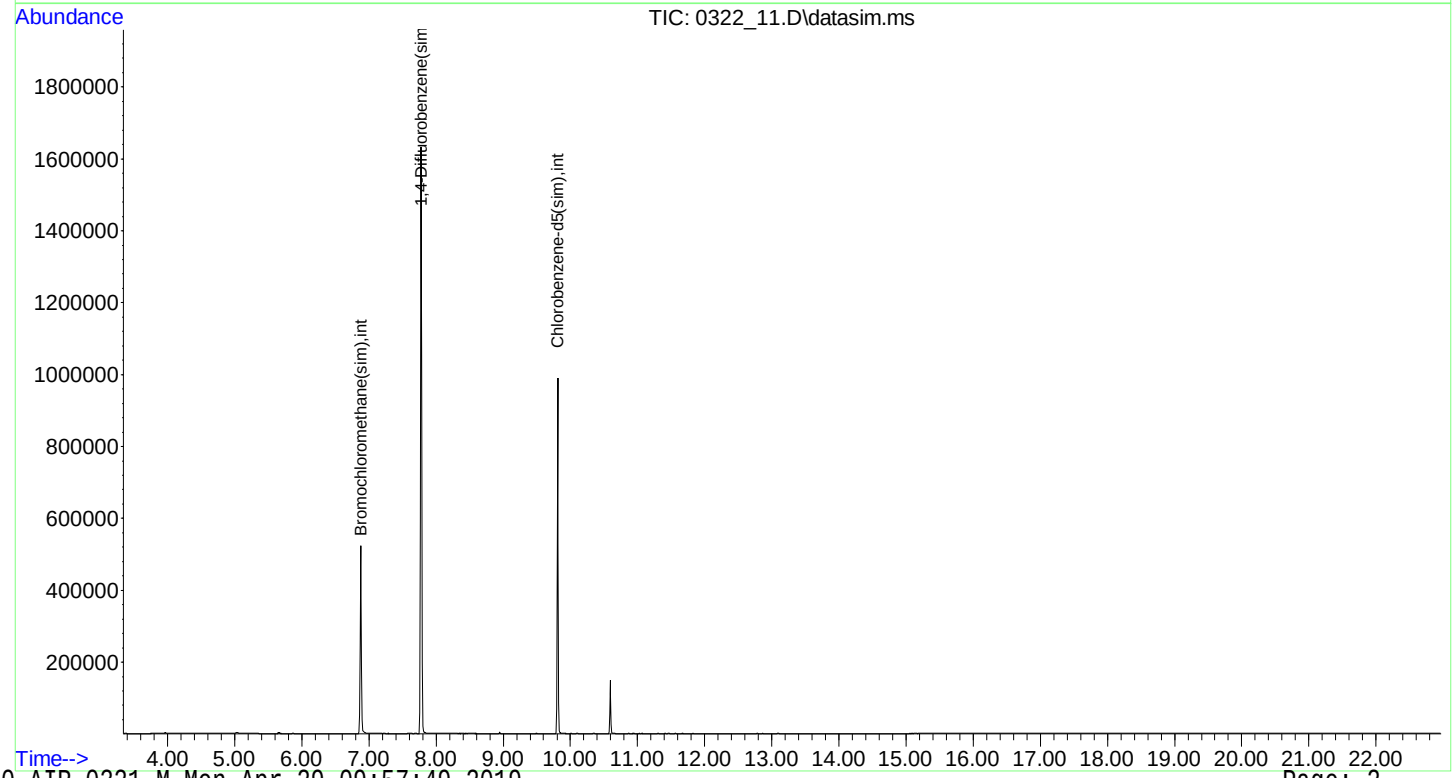
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM20\03MAR\22\
Data File : 0322_11.D
Acq On : 22 Mar 2019 05:01 pm
Operator : CORTEX\ms
Client ID : CANISTER BLK 1473
Lab ID : CANISTER BLK 1473
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 25 09:35:38 2019
Quant Method : H:\AIR2019\CHEM20\METHODS\20_AIR_0321.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Mon Mar 25 09:24:14 2019
Response via : Initial Calibration



# Canister Cleaning Certification



**Batch Id:** 1473

**QC Canister Id:** 706

**Canister Ids:** 13635, 13647, 19732, 19854, 21357, 216, 28548, 28557, 28563, 28603, 353, 706

**Certified:** ☑

**Certified Date:** 3/22/2019 5:01:00 PM

**Certified By:** KCA

**Certified Computer:** AIRLAB

**Sample Id:** blk 1473

**Comment:** Initial vacuum of all canisters in this batch is -30 psig.

**Data File:** H:\AIR2019\CHEM20\03MAR\22\0322_11.D\0322_11-20_AIR_0321.rr

| Analyte | Result (ppbv) | Analyte | Result (ppbv) |
|---|---|---|---|
| % Bromofluorobenzene | 10.2651 | 1,1,1,2-Tetrachloroethane | 0 |
| 1,1,1-Trichloroethane | 0 | 1,1,1-Trichloroethane(sim) | 0 |
| 1,1,2,2-Tetrachloroethane | 0 | 1,1,2,2-Tetrachloroethane(sim) | 0 |
| 1,1,2-Trichloroethane | 0 | 1,1,2-Trichloroethane(sim) | 0 |
| 1,1-Dichloroethane | 0 | 1,1-Dichloroethane(sim) | 0 |
| 1,1-Dichloroethene | 0 | 1,1-Dichloroethene(sim) | 0 |
| 1,2,4-Trichlorobenzene | 0 | 1,2,4-Trichlorobenzene(sim) | 0 |
| 1,2,4-Trimethylbenzene | 0 | 1,2-Dibromoethane(EDB) | 0 |
| 1,2-Dibromoethane(EDB)(sim) | 0 | 1,2-Dichlorobenzene | 0 |
| 1,2-Dichlorobenzene(sim) | 0 | 1,2-Dichloroethane | 0 |
| 1,2-Dichloroethane(sim) | 0 | 1,2-dichloropropane | 0 |
| 1,2-dichloropropane(sim) | 0 | 1,2-Dichlorotetrafluoroethane | 0 |
| 1,2-Dichlorotetrafluoroethane(sim) | 0 | 1,3,5-Trimethylbenzene | 0 |
| 1,3-Butadiene | 0 | 1,3-Dichlorobenzene | 0 |
| 1,3-Dichlorobenzene(sim) | 0 | 1,4-Dichlorobenzene | 0 |
| 1,4-Dichlorobenzene(sim) | 0 | 1,4-Difluorobenzene | 10 |
| 1,4-Difluorobenzene(sim) | 10 | 1,4-Dioxane | 0 |
| 1,4-Dioxane(sim) | 0 | 2,2,4-trimethylpentane | 0 |
| 2-Chlorotoluene | 0 | 2-Hexanone(MBK) | 0 |
| 4-Ethyltoluene | 0 | 4-Isopropyltoluene | 0 |
| 4-Isopropyltoluene(sim) | 0 | 4-Methyl-2-pentanone(MIBK) | 0 |
| Acetone | 0 | Acrylonitrile | 0 |
| Allyl Chloride | 0 | Benzene | 0 |
| Benzyl chloride | 0 | Benzyl chloride(sim) | 0 |
| Bromochloromethane | 10 | Bromochloromethane(sim) | 10 |
| Bromodichloromethane | 0 | Bromodichloromethane(sim) | 0 |
| Bromoform | 0 | Bromoform(sim) | 0 |
| Bromomethane | 0 | Bromomethane(sim) | 0 |
| Carbon Disulfide | 0 | Carbon Tetrachloride | 0 |
| Carbon Tetrachloride(sim) | 0 | Chlorobenzene | 0 |
| Chlorobenzene-d5 | 10 | Chlorobenzene-d5(sim) | 10 |
| Chloroethane | 0 | Chloroform | 0 |
| Chloroform(sim) | 0 | Chloromethane | 0 |
| Cis-1,2-Dichloroethene | 0 | Cis-1,2-Dichloroethene(sim) | 0 |
| cis-1,3-Dichloropropene | 0 | cis-1,3-Dichloropropene(sim) | 0 |
| Cyclohexane | 0 | Dibromochloromethane | 0 |
| Dibromochloromethane(sim) | 0 | Dichlorodifluoromethane | 0 |
| Ethanol | 0 | Ethyl acetate | 0 |
| Ethylbenzene | 0 | Heptane | 0 |
| Hexachlorobutadiene | 0 | Hexachlorobutadiene(sim) | 0 |
| Hexane | 0 | Isopropylalcohol | 0 |
| Isopropylbenzene | 0 | m,p-Xylene | 0 |
| m,p-Xylene(sim) | 0 | Methyl Ethyl Ketone | 0 |
| Methyl methacrylate | 0 | Methyl tert-butyl ether(MTBE) | 0 |
| Methylene Chloride | 0 | n-Butylbenzene | 0 |
| n-Butylbenzene(sim) | 0 | n-Propylbenzene | 0 |

# Canister Cleaning Certification

**Batch Id:** 1473
**QC Canister Id:** 706
**Canister Ids:** 13635, 13647, 19732, 19854, 21357, 216, 28548, 28557, 28563, 28603, 353, 706

**Certified:** ☑
**Certified Date:** 3/22/2019 5:01:00 PM
**Certified By:** KCA
**Certified Computer:** AIRLAB
**Sample Id:** blk 1473

**Comment:** Initial vacuum of all canisters in this batch is -30 psig.

**Data File:** H:\AIR2019\CHEM20\03MAR\22\0322_11.D\0322_11-20_AIR_0321.rr

| Analyte | Result (ppbv) | Analyte | Result (ppbv) |
|---|---|---|---|
| n-Propylbenzene(sim) | 0 | Naphthalene | 0 |
| Naphthalene(sim) | 0 | o-Xylene | 0 |
| Propylene | 0 | sec-Butylbenzene | 0 |
| sec-Butylbenzene(sim) | 0 | Styrene | 0 |
| tert-butyl alcohol | 0 | tert-butylbenzenze | 0 |
| tert-butylbenzenze(sim) | 0 | Tetrachloroethene | 0 |
| Tetrachloroethene(sim) | 0 | Tetrahydrofuran | 0 |
| Toluene | 0 | Trans-1,2-Dichloroethene | 0 |
| Trans-1,2-Dichloroethene(sim) | 0 | trans-1,3-Dichloropropene | 0 |
| Trichloroethene | 0 | Trichloroethene(sim) | 0 |
| Trichlorofluoromethane | 0 | Trichlorofluoromethane(sim) | 0 |
| Trichlorotrifluoroethane | 0 | Trichlorotrifluoroethane(sim) | 0 |
| Vinyl Bromide | 0 | Vinyl Chloride | 0 |
| Vinyl Chloride(sim) | 0 | | |

AIR ANALYSIS DATA SHEET

CLIENT ID: CANISTER BLK 1474

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CANISTER BLK 1474

Canister: CANBL Lab File ID: 0322_08.D

Instrument: CHEM24 Column: Date Received:

Purge Volume 200 (cc) Date Analyzed: 03/22/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 115-07-1 | Propylene | 0.581 | U | 0.581 | 0.581 | r |
| 75-71-8 | Dichlorodifluoromethane | 0.202 | U | 0.202 | 0.202 | r |
| 74-87-3 | Chloromethane | 0.485 | U | 0.485 | 0.485 | r |
| 106-99-0 | 1,3-Butadiene | 0.452 | U | 0.452 | 0.452 | r |
| 75-00-3 | Chloroethane | 0.379 | U | 0.379 | 0.379 | r |
| 64-17-5 | Ethanol | 0.531 | U | 0.531 | 0.531 | r |
| 67-64-1 | Acetone | 0.421 | U | 0.421 | 0.421 | r |
| 67-63-0 | Isopropylalcohol | 0.407 | U | 0.407 | 0.407 | r |
| 107-13-1 | Acrylonitrile | 0.461 | U | 0.461 | 0.461 | r |
| 75-09-2 | Methylene Chloride | 0.864 | U | 0.864 | 0.864 | r |
| 75-15-0 | Carbon Disulfide | 0.321 | U | 0.321 | 0.321 | r |
| 1634-04-4 | Methyl tert-butyl ether(MTBE) | 0.278 | U | 0.278 | 0.278 | r |
| 78-93-3 | Methyl Ethyl Ketone | 0.339 | U | 0.339 | 0.339 | r |
| 110-54-3 | Hexane | 0.284 | U | 0.284 | 0.284 | r |
| 141-78-6 | Ethyl acetate | 0.278 | U | 0.278 | 0.278 | r |
| 109-99-9 | Tetrahydrofuran | 0.339 | U | 0.339 | 0.339 | r |
| 71-43-2 | Benzene | 0.313 | U | 0.313 | 0.313 | r |
| 110-82-7 | Cyclohexane | 0.291 | U | 0.291 | 0.291 | r |
| 142-82-5 | Heptane | 0.244 | U | 0.244 | 0.244 | r |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | 0.244 | U | 0.244 | 0.244 | r |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.220 | U | 0.220 | 0.220 | r |
| 108-88-3 | Toluene | 0.266 | U | 0.266 | 0.266 | r |
| 591-78-6 | 2-Hexanone(MBK) | 0.244 | U | 0.244 | 0.244 | r |
| 108-90-7 | Chlorobenzene | 0.217 | U | 0.217 | 0.217 | r |
| 100-41-4 | Ethylbenzene | 0.230 | U | 0.230 | 0.230 | r |
| 100-42-5 | Styrene | 0.235 | U | 0.235 | 0.235 | r |
| 95-47-6 | o-Xylene | 0.230 | U | 0.230 | 0.230 | r |
| 98-82-8 | Isopropylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 622-96-8 | 4-Ethyltoluene | 0.204 | U | 0.204 | 0.204 | r |
| 108-67-8 | 1,3,5-Trimethylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.204 | U | 0.204 | 0.204 | r |
| 76-14-2 | 1,2-Dichlorotetrafluoroethane(sim) | 0.143 | U | 0.143 | 0.143 | r |
| 75-01-4 | Vinyl Chloride(sim) | 0.078 | U | 0.078 | 0.078 | r |
| 74-83-9 | Bromomethane(sim) | 0.258 | U | 0.258 | 0.258 | r |
| 75-69-4 | Trichlorofluoromethane(sim) | 0.178 | U | 0.178 | 0.178 | r |
| 71-55-6 | 1,1,1-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

1

AIR ANALYSIS DATA SHEET

CLIENT ID: CANISTER BLK 1474

Client: WALDENE Lab: Phoenix Env. Labs

SDG No.: GCC90508 Lab Sample ID: CANISTER BLK 1474

Canister: CANBL Lab File ID: 0322_08.D

Instrument: CHEM24 Column: Date Received:

Purge Volume 200 (cc) Date Analyzed: 03/22/19

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

| CAS NO. | COMPOUND | CONC. | Q | MDL | PQL | R |
|---|---|---|---|---|---|---|
| 56-23-5 | Carbon Tetrachloride(sim) | 0.032 | U | 0.032 | 0.032 | r |
| 75-35-4 | 1,1-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 76-13-1 | Trichlorotrifluoroethane(sim) | 0.131 | U | 0.131 | 0.131 | r |
| 156-60-5 | Trans-1,2-Dichloroethene(sim) | 0.252 | U | 0.252 | 0.252 | r |
| 75-34-3 | 1,1-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 156-59-2 | Cis-1,2-Dichloroethene(sim) | 0.051 | U | 0.051 | 0.051 | r |
| 67-66-3 | Chloroform(sim) | 0.205 | U | 0.205 | 0.205 | r |
| 107-06-2 | 1,2-Dichloroethane(sim) | 0.247 | U | 0.247 | 0.247 | r |
| 78-87-5 | 1,2-dichloropropane(sim) | 0.217 | U | 0.217 | 0.217 | r |
| 75-27-4 | Bromodichloromethane(sim) | 0.149 | U | 0.149 | 0.149 | r |
| 79-01-6 | Trichloroethene(sim) | 0.037 | U | 0.037 | 0.037 | r |
| 123-91-1 | 1,4-Dioxane(sim) | 0.278 | U | 0.278 | 0.278 | r |
| 10061-01-5 | cis-1,3-Dichloropropene(sim) | 0.220 | U | 0.220 | 0.220 | r |
| 79-00-5 | 1,1,2-Trichloroethane(sim) | 0.183 | U | 0.183 | 0.183 | r |
| 124-48-1 | Dibromochloromethane(sim) | 0.117 | U | 0.117 | 0.117 | r |
| 106-93-4 | 1,2-Dibromoethane(EDB)(sim) | 0.130 | U | 0.130 | 0.130 | r |
| 127-18-4 | Tetrachloroethene(sim) | 0.037 | U | 0.037 | 0.037 | r |
| 75-25-2 | Bromoform(sim) | 0.097 | U | 0.097 | 0.097 | r |
| 630-20-6 | 1,1,1,2-Tetrachloroethane(sim) | 0.146 | U | 0.146 | 0.146 | r |
| 179601-23-1 | m,p-Xylene(sim) | 0.230 | U | 0.230 | 0.230 | r |
| 79-34-5 | 1,1,2,2-Tetrachloroethane(sim) | 0.146 | U | 0.146 | 0.146 | r |
| 100-44-7 | Benzyl chloride(sim) | 0.193 | U | 0.193 | 0.193 | r |
| 541-73-1 | 1,3-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 106-46-7 | 1,4-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 135-98-8 | sec-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 99-87-6 | 4-Isopropyltoluene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 95-50-1 | 1,2-Dichlorobenzene(sim) | 0.166 | U | 0.166 | 0.166 | r |
| 104-51-8 | n-Butylbenzene(sim) | 0.182 | U | 0.182 | 0.182 | r |
| 120-82-1 | 1,2,4-Trichlorobenzene(sim) | 0.135 | U | 0.135 | 0.135 | r |
| 87-68-3 | Hexachlorobutadiene(sim) | 0.094 | U | 0.094 | 0.094 | r |
| | | | | | | |
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FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2019\CHEM24\03MAR\22\
Data File : 0322_08.D
Acq On : 22 Mar 2019 4:59 pm
Operator : Keith
Client ID : CANISTER BLK 1474
Lab ID : CANISTER BLK 1474
ALS Vial : 8 Sample Multiplier: 1

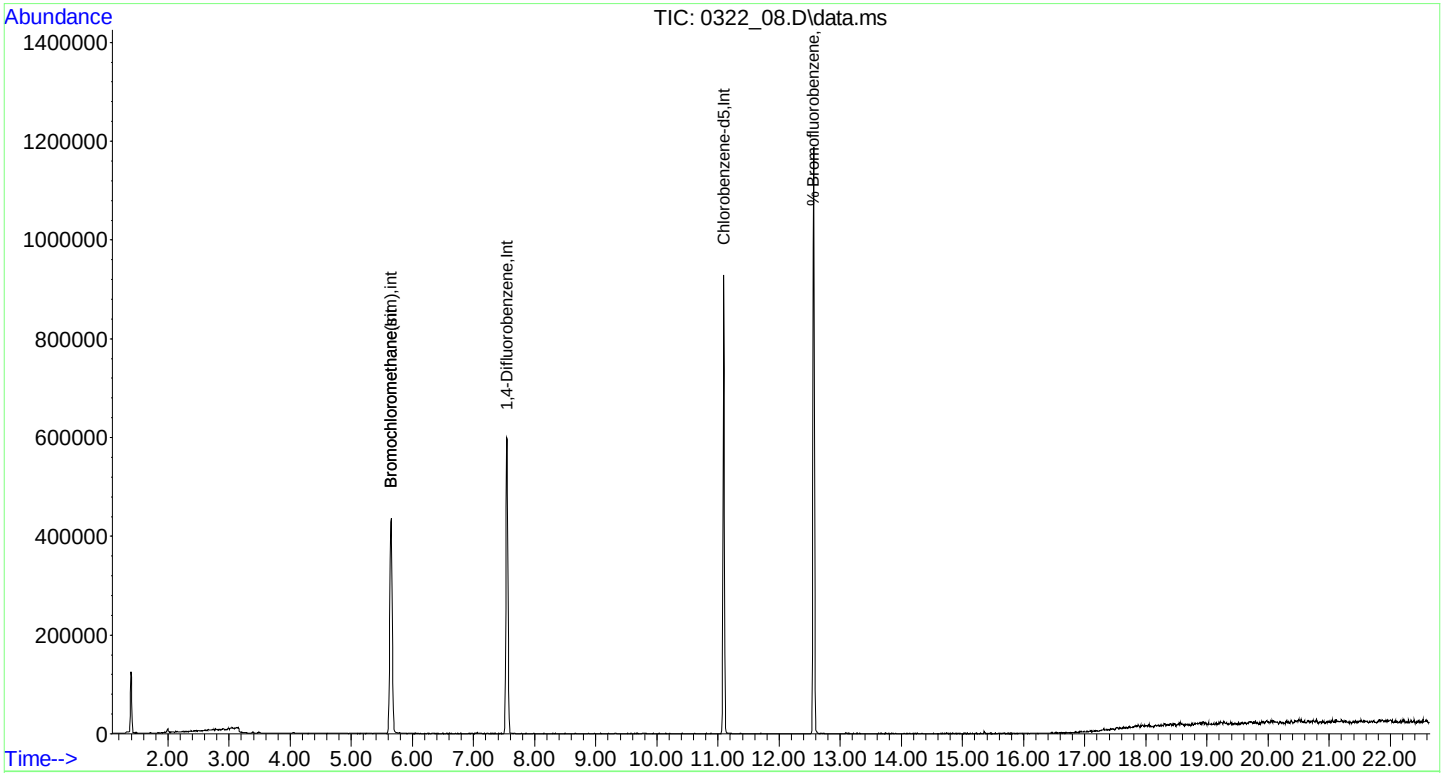
Quant Time: Mar 25 08:33:05 2019
Quant Method : H:\AIR2019\CHEM24\METHODS\24AIR_0320.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Thu Mar 21 15:12:43 2019
Response via : Initial Calibration

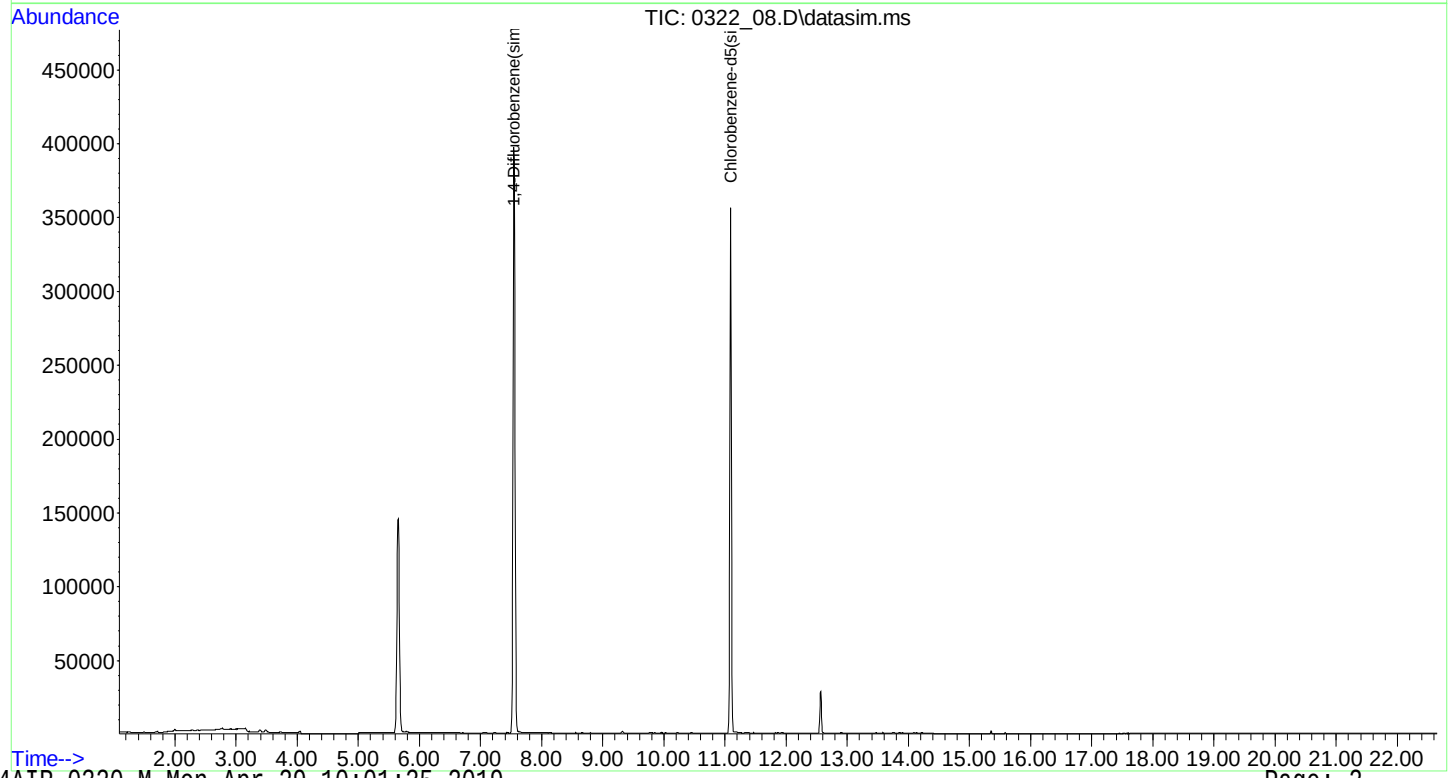
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Bromochloromethane | 5.651 | 130 | 190712 | 10.000 | ng | 0.06 |
| 36) 1,4-Difluorobenzene | 7.549 | 114 | 508308 | 10.000 | ng | 0.04 |
| 53) Chlorobenzene-d5 | 11.093 | 82 | 260300 | 10.000 | ng | 0.03 |
| 80) Bromochloromethane(sim) | 5.651 | 130 | 190712 | 10.000 | ng | 0.06 |
| 94) 1,4-Difluorobenzene(sim) | 7.549 | 114 | 508308 | 10.000 | ng | 0.04 |
| 104) Chlorobenzene-d5(sim) | 11.093 | 82 | 260300 | 10.000 | ng | 0.03 |
| System Monitoring Compounds | | | | | | |
| 62) % Bromofluorobenzene | 12.564 | 95 | 339541 | 9.255 | ppbv | 0.03 |
| Spiked Amount 10.000 | Range 70 - 130 | | Recovery = 92.50% | | | |
| Target Compounds | | | | | | Qvalue |

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Data Path : H:\AIR2019\CHEM24\03MAR\22\
Data File : 0322_08.D
Acq On : 22 Mar 2019 4:59 pm
Operator : Keith
Client ID : CANISTER BLK 1474
Lab ID : CANISTER BLK 1474
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 25 08:33:05 2019
Quant Method : H:\AIR2019\CHEM24\METHODS\24AIR_0320.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Thu Mar 21 15:12:43 2019
Response via : Initial Calibration



# Canister Cleaning Certification



**Batch Id:** 1474

**QC Canister Id:** 715

**Canister Ids:** 11285, 11286, 156, 18851, 21341, 23327, 23340, 28592, 28600, 28607, 482, 715

**Certified:** ☑

**Certified Date:** 3/22/2019 4:59:00 PM

**Certified By:** KCA

**Certified Computer:** AIRLAB

**Sample Id:** blk 1474

**Comment:** Initial vacuum of all canisters in this batch is -30 psig.

**Data File:** H:\AIR2019\CHEM24\03MAR\22\0322_08.D\0322_08-24AIR_0320.rr

| Analyte | Result (ppbv) | Analyte | Result (ppbv) |
|---|---|---|---|
| % Bromofluorobenzene | 9.255 | 1,1,1,2-Tetrachloroethane | 0 |
| 1,1,1,2-Tetrachloroethane(sim) | 0 | 1,1,1-Trichloroethane | 0 |
| 1,1,1-Trichloroethane(sim) | 0 | 1,1,2,2-Tetrachloroethane | 0 |
| 1,1,2,2-Tetrachloroethane(sim) | 0 | 1,1,2-Trichloroethane | 0 |
| 1,1,2-Trichloroethane(sim) | 0 | 1,1-Dichloroethane | 0 |
| 1,1-Dichloroethane(sim) | 0 | 1,1-Dichloroethene | 0 |
| 1,1-Dichloroethene(sim) | 0 | 1,2,4-Trichlorobenzene | 0 |
| 1,2,4-Trichlorobenzene(sim) | 0 | 1,2,4-Trimethylbenzene | 0 |
| 1,2-Dibromoethane(EDB) | 0 | 1,2-Dibromoethane(EDB)(sim) | 0 |
| 1,2-Dichlorobenzene | 0 | 1,2-Dichlorobenzene(sim) | 0 |
| 1,2-Dichloroethane | 0 | 1,2-Dichloroethane(sim) | 0 |
| 1,2-dichloropropane | 0 | 1,2-dichloropropane(sim) | 0 |
| 1,2-Dichlorotetrafluoroethane | 0 | 1,2-Dichlorotetrafluoroethane(sim) | 0 |
| 1,3,5-Trimethylbenzene | 0 | 1,3-Butadiene | 0 |
| 1,3-Dichlorobenzene | 0 | 1,3-Dichlorobenzene(sim) | 0 |
| 1,4-Dichlorobenzene | 0 | 1,4-Dichlorobenzene(sim) | 0 |
| 1,4-Difluorobenzene | 10 | 1,4-Difluorobenzene(sim) | 10 |
| 1,4-Dioxane | 0 | 1,4-Dioxane(sim) | 0 |
| 2,2,4-trimethylpentane | 0 | 2-Chlorotoluene | 0 |
| 2-Hexanone(MBK) | 0 | 4-Ethyltoluene | 0 |
| 4-Isopropyltoluene | 0 | 4-Isopropyltoluene(sim) | 0 |
| 4-Methyl-2-pentanone(MIBK) | 0 | Acetone | 0 |
| Acrylonitrile | 0 | Allyl Chloride | 0 |
| Benzene | 0 | Benzyl chloride | 0 |
| Benzyl chloride(sim) | 0 | Bromochloromethane | 10 |
| Bromochloromethane(sim) | 10 | Bromodichloromethane | 0 |
| Bromodichloromethane(sim) | 0 | Bromoform | 0 |
| Bromoform(sim) | 0 | Bromomethane | 0 |
| Bromomethane(sim) | 0 | Carbon Disulfide | 0 |
| Carbon Tetrachloride | 0 | Carbon Tetrachloride(sim) | 0 |
| Chlorobenzene | 0 | Chlorobenzene-d5 | 10 |
| Chlorobenzene-d5(sim) | 10 | Chloroethane | 0 |
| Chloroform | 0 | Chloroform(sim) | 0 |
| Chloromethane | 0 | Cis-1,2-Dichloroethene | 0 |
| Cis-1,2-Dichloroethene(sim) | 0 | cis-1,3-Dichloropropene | 0 |
| cis-1,3-Dichloropropene(sim) | 0 | Cyclohexane | 0 |
| Dibromochloromethane | 0 | Dibromochloromethane(sim) | 0 |
| Dichlorodifluoromethane | 0 | Ethanol | 0 |
| Ethyl acetate | 0 | Ethylbenzene | 0 |
| Heptane | 0 | Hexachlorobutadiene | 0 |
| Hexachlorobutadiene(sim) | 0 | Hexane | 0 |
| Isopropylalcohol | 0 | Isopropylbenzene | 0 |
| m,p-Xylene | 0 | m,p-Xylene(sim) | 0 |
| Methyl Ethyl Ketone | 0 | Methyl methacrylate | 0 |
| Methyl tert-butyl ether(MTBE) | 0 | Methylene Chloride | 0 |
| n-Butylbenzene | 0 | n-Butylbenzene(sim) | 0 |

# Canister Cleaning Certification



**Batch Id:** 1474

**QC Canister Id:** 715

**Canister Ids:** 11285, 11286, 156, 18851, 21341, 23327, 23340, 28592, 28600, 28607, 482, 715

**Certified:** ☑

**Certified Date:** 3/22/2019 4:59:00 PM

**Certified By:** KCA

**Certified Computer:** AIRLAB

**Sample Id:** blk 1474

**Comment:** Initial vacuum of all canisters in this batch is -30 psig.

**Data File:** H:\AIR2019\CHEM24\03MAR\22\0322_08.D\0322_08-24AIR_0320.rr

| Analyte | Result (ppbv) | Analyte | Result (ppbv) |
|---|---|---|---|
| n-Propylbenzene | 0 | n-Propylbenzene(sim) | 0 |
| Naphthalene | 0 | o-Xylene | 0 |
| Propylene | 0 | sec-Butylbenzene | 0 |
| sec-Butylbenzene(sim) | 0 | Styrene | 0 |
| tert-butyl alcohol | 0 | tert-butylbenzenze | 0 |
| tert-butylbenzenze(sim) | 0 | Tetrachloroethene | 0 |
| Tetrachloroethene(sim) | 0 | Tetrahydrofuran | 0 |
| Toluene | 0 | Trans-1,2-Dichloroethene | 0 |
| Trans-1,2-Dichloroethene(sim) | 0 | trans-1,3-Dichloropropene | 0 |
| Trichloroethene | 0 | Trichloroethene(sim) | 0 |
| Trichlorofluoromethane | 0 | Trichlorofluoromethane(sim) | 0 |
| Trichlorotrifluoroethane | 0 | Trichlorotrifluoroethane(sim) | 0 |
| Vinyl Bromide | 0 | Vinyl Chloride | 0 |
| Vinyl Chloride(sim) | 0 | | |

# Injection Log

Data Directory: H:\AIR2019\CHEM20\01JAN\25\

| Line | Vl | FileName | SampleName | MiscInfo | Injection Time |
|---|---|---|---|---|---|
| 1) | 0 | 0125_33.D | xxxxxxxxxx | | N/A |
| 2) | 1 | 0125_01.D | xxxxxxxxxx | | 01/25/19 18:03 |
| 3) | 1 | 0125_02.D | xxxxxxxxxx | | 01/25/19 18:42 |
| 4) | 1 | 0125_03.D | xxxxxxxxxx | | 01/25/19 19:20 |
| 5) | 1 | 0125_04.D | xxxxxxxxxx | | 01/25/19 20:01 |
| 6) | 1 | 0125_05.D | xxxxxxxxxx | | 01/25/19 20:39 |
| 7) | 1 | 0125_06.D | xxxxxxxxxx | | 01/25/19 21:15 |
| 8) | 1 | 0125_07.D | xxxxxxxxxx | | 01/25/19 21:50 |
| 9) | 1 | 0125_08.D | xxxxxxxxxx | | 01/25/19 22:31 |
| 10) | 1 | 0125_09.D | CANISTER BLK 1417 | CANISTER BLK 1417 | 01/25/19 23:12 |
| 11) | 1 | 0125_10.D | xxxxxxxxxx | | 01/25/19 23:52 |
| 12) | 1 | 0125_11.D | xxxxxxxxxx | | 01/26/19 0:33 |
| 13) | 1 | 0125_12.D | xxxxxxxxxx | | 01/26/19 1:15 |
| 14) | 1 | 0125_13.D | xxxxxxxxxx | | 01/26/19 1:56 |
| 15) | 1 | 0125_14.D | xxxxxxxxxx | | 01/26/19 2:37 |
| 16) | 1 | 0125_15.D | xxxxxxxxxx | | 01/26/19 3:18 |
| 17) | 1 | 0125_16.D | xxxxxxxxxx | | 01/26/19 4:00 |
| 18) | 1 | 0125_17.D | xxxxxxxxxx | | 01/26/19 4:41 |
| 19) | 1 | 0125_18.D | xxxxxxxxxx | | 01/26/19 5:22 |
| 20) | 1 | 0125_19.D | xxxxxxxxxx | | 01/26/19 6:04 |
| 21) | 1 | 0125_20.D | xxxxxxxxxx | | 01/26/19 6:42 |
| 22) | 1 | 0125_21.D | xxxxxxxxxx | | 01/26/19 7:20 |
| 23) | 1 | 0125_22.D | xxxxxxxxxx | | 01/26/19 7:58 |
| 24) | 1 | 0125_23.D | xxxxxxxxxx | | 01/26/19 8:37 |
| 25) | 1 | 0125_24.D | xxxxxxxxxx | | 01/26/19 9:15 |
| 26) | 1 | 0125_25.D | xxxxxxxxxx | | 01/26/19 9:53 |
| 27) | 1 | 0125_26.D | xxxxxxxxxx | | 01/26/19 10:32 |
| 28) | 1 | 0125_27.D | xxxxxxxxxx | | 01/26/19 11:10 |
| 29) | 1 | 0125_28.D | xxxxxxxxxx | | 01/26/19 11:49 |
| 30) | 1 | 0125_29.D | xxxxxxxxxx | | 01/26/19 12:30 |
| 31) | 1 | 0125_30.D | xxxxxxxxxx | | 01/26/19 13:11 |
| 32) | 1 | 0125_31.D | xxxxxxxxxx | | 01/26/19 13:50 |
| 33) | 1 | 0125_32.D | xxxxxxxxxx | | 01/26/19 14:28 |

# Injection Log

Data Directory: H:\AIR2019\CHEM20\01JAN\31\

| Line | Vl | FileName | SampleName | MiscInfo | Injection Time |
|---|---|---|---|---|---|
| 1) | 0 | 0131_60.D | xxxxxxxxxx | | N/A |
| 2) | 1 | 0131_01.D | xxxxxxxxxx | | 01/31/19 14:20 |
| 3) | 1 | 0131_02.D | xxxxxxxxxx | | 01/31/19 14:59 |
| 4) | 1 | 0131_03.D | xxxxxxxxxx | | 01/31/19 15:37 |
| 5) | 1 | 0131_04.D | xxxxxxxxxx | | 01/31/19 16:18 |
| 6) | 1 | 0131_05.D | xxxxxxxxxx | | 01/31/19 16:57 |
| 7) | 1 | 0131_06.D | xxxxxxxxxx | | 01/31/19 17:33 |
| 8) | 1 | 0131_07.D | xxxxxxxxxx | | 01/31/19 18:08 |
| 9) | 1 | 0131_08.D | xxxxxxxxxx | | 01/31/19 18:50 |
| 10) | 1 | 0131_09.D | xxxxxxxxxx | | 01/31/19 19:30 |
| 11) | 1 | 0131_10.D | xxxxxxxxxx | | 01/31/19 20:12 |
| 12) | 1 | 0131_11.D | xxxxxxxxxx | | 01/31/19 21:20 |
| 13) | 1 | 0131_12.D | xxxxxxxxxx | | 01/31/19 22:02 |
| 14) | 1 | 0131_13.D | xxxxxxxxxx | | 01/31/19 22:43 |
| 15) | 1 | 0131_14.D | xxxxxxxxxx | | 01/31/19 23:24 |
| 16) | 1 | 0131_15.D | xxxxxxxxxx | | 02/01/19 0:06 |
| 17) | 1 | 0131_16.D | xxxxxxxxxx | | 02/01/19 0:47 |
| 18) | 1 | 0131_17.D | xxxxxxxxxx | | 02/01/19 1:28 |
| 19) | 1 | 0131_18.D | xxxxxxxxxx | | 02/01/19 2:09 |
| 20) | 1 | 0131_19.D | xxxxxxxxxx | | 02/01/19 2:51 |
| 21) | 1 | 0131_20.D | xxxxxxxxxx | | 02/01/19 3:32 |
| 22) | 1 | 0131_21.D | xxxxxxxxxx | | 02/01/19 4:14 |
| 23) | 1 | 0131_22.D | xxxxxxxxxx | | 02/01/19 4:55 |
| 24) | 1 | 0131_23.D | xxxxxxxxxx | | 02/01/19 5:37 |
| 25) | 1 | 0131_24.D | xxxxxxxxxx | | 02/01/19 6:18 |
| 26) | 1 | 0131_25.D | xxxxxxxxxx | | 02/01/19 6:56 |
| 27) | 1 | 0131_26.D | xxxxxxxxxx | | 02/01/19 7:34 |
| 28) | 1 | 0131_27.D | xxxxxxxxxx | | 02/01/19 9:49 |
| 29) | 1 | 0131_28.D | xxxxxxxxxx | | 02/01/19 10:31 |
| 30) | 1 | 0131_29.D | xxxxxxxxxx | | 02/01/19 11:09 |
| 31) | 1 | 0131_30.D | xxxxxxxxxx | | 02/01/19 11:50 |
| 32) | 1 | 0131_31.D | CANISTER BLK 1423 | CANISTER BLK 1423 | 02/01/19 12:31 |
| 33) | 1 | 0131_32.D | xxxxxxxxxx | | 02/01/19 13:09 |
| 34) | 1 | 0131_33.D | xxxxxxxxxx | | 02/01/19 13:47 |
| 35) | 1 | 0131_34.D | xxxxxxxxxx | | 02/01/19 14:26 |
| 36) | 1 | 0131_35.D | xxxxxxxxxx | | 02/01/19 15:06 |
| 37) | 1 | 0131_36.D | xxxxxxxxxx | | 02/01/19 15:45 |
| 38) | 1 | 0131_37.D | xxxxxxxxxx | | 02/01/19 16:20 |
| 39) | 1 | 0131_38.D | xxxxxxxxxx | | 02/01/19 16:56 |
| 40) | 1 | 0131_39.D | xxxxxxxxxx | | 02/01/19 18:21 |
| 41) | 1 | 0131_40.D | xxxxxxxxxx | | 02/01/19 19:02 |
| 42) | 1 | 0131_41.D | xxxxxxxxxx | | 02/01/19 19:43 |
| 43) | 1 | 0131_42.D | xxxxxxxxxx | | 02/01/19 20:19 |
| 44) | 1 | 0131_43.D | xxxxxxxxxx | | 02/01/19 21:00 |
| 45) | 1 | 0131_44.D | xxxxxxxxxx | | 02/01/19 21:41 |
| 46) | 1 | 0131_45.D | xxxxxxxxxx | | 02/01/19 22:22 |
| 47) | 1 | 0131_46.D | xxxxxxxxxx | | 02/01/19 23:03 |
| 48) | 1 | 0131_47.D | xxxxxxxxxx | | 02/01/19 23:44 |
| 49) | 1 | 0131_48.D | xxxxxxxxxx | | 02/02/19 0:26 |
| 50) | 1 | 0131_49.D | xxxxxxxxxx | | 02/02/19 2:20 |
| 51) | 1 | 0131_50.D | xxxxxxxxxx | | 02/02/19 3:01 |
| 52) | 1 | 0131_51.D | xxxxxxxxxx | | 02/02/19 3:42 |
| 53) | 1 | 0131_52.D | xxxxxxxxxx | | 02/02/19 4:23 |
| 54) | 1 | 0131_53.D | xxxxxxxxxx | | 02/02/19 5:05 |
| 55) | 1 | 0131_54.D | xxxxxxxxxx | | 02/02/19 5:46 |
| 56) | 1 | 0131_55.D | xxxxxxxxxx | | 02/02/19 6:27 |
| 57) | 1 | 0131_56.D | xxxxxxxxxx | | 02/02/19 7:08 |
| 58) | 1 | 0131_57.D | xxxxxxxxxx | | 02/02/19 7:55 |
| 59) | 1 | 0131_58.D | xxxxxxxxxx | | 02/02/19 8:33 |
| 60) | 1 | 0131_59.D | xxxxxxxxxx | | 02/02/19 9:12 |

# Injection Log

Data Directory: H:\AIR2019\CHEM20\03MAR\22\

| Line | Vl | FileName | SampleName | MiscInfo | Injection Time |
|---|---|---|---|---|---|
| 1) | 0 | 0322_33.D | xxxxxxxxxx | | N/A |
| 2) | 1 | 0322_01.D | xxxxxxxxxx | | 03/22/19 10:33 |
| 3) | 1 | 0322_02.D | xxxxxxxxxx | | 03/22/19 11:11 |
| 4) | 1 | 0322_03.D | xxxxxxxxxx | | 03/22/19 11:50 |
| 5) | 1 | 0322_04.D | xxxxxxxxxx | | 03/22/19 12:30 |
| 6) | 1 | 0322_05.D | xxxxxxxxxx | | 03/22/19 13:08 |
| 7) | 1 | 0322_06.D | xxxxxxxxxx | | 03/22/19 13:44 |
| 8) | 1 | 0322_07.D | xxxxxxxxxx | | 03/22/19 14:19 |
| 9) | 1 | 0322_08.D | xxxxxxxxxx | | 03/22/19 15:00 |
| 10) | 1 | 0322_09.D | xxxxxxxxxx | | 03/22/19 15:40 |
| 11) | 1 | 0322_10.D | xxxxxxxxxx | | 03/22/19 16:21 |
| 12) | 1 | 0322_11.D | CANISTER BLK 1473 | CANISTER BLK 1473 | 03/22/19 17:01 |
| 13) | 1 | 0322_12.D | xxxxxxxxxx | | 03/22/19 18:59 |
| 14) | 1 | 0322_13.D | xxxxxxxxxx | | 03/22/19 19:37 |
| 15) | 1 | 0322_14.D | xxxxxxxxxx | | 03/22/19 20:15 |
| 16) | 1 | 0322_15.D | xxxxxxxxxx | | 03/22/19 20:53 |
| 17) | 1 | 0322_16.D | xxxxxxxxxx | | 03/22/19 21:31 |
| 18) | 1 | 0322_17.D | xxxxxxxxxx | | 03/22/19 22:09 |
| 19) | 1 | 0322_18.D | xxxxxxxxxx | | 03/22/19 22:50 |
| 20) | 1 | 0322_19.D | xxxxxxxxxx | | 03/22/19 23:28 |
| 21) | 1 | 0322_20.D | xxxxxxxxxx | | 03/23/19 0:10 |
| 22) | 1 | 0322_21.D | xxxxxxxxxx | | 03/23/19 0:51 |
| 23) | 1 | 0322_22.D | xxxxxxxxxx | | 03/23/19 1:32 |
| 24) | 1 | 0322_23.D | xxxxxxxxxx | | 03/23/19 2:10 |
| 25) | 1 | 0322_24.D | xxxxxxxxxx | | 03/23/19 2:48 |
| 26) | 1 | 0322_25.D | xxxxxxxxxx | | 03/23/19 3:29 |
| 27) | 1 | 0322_26.D | xxxxxxxxxx | | 03/23/19 4:10 |
| 28) | 1 | 0322_27.D | xxxxxxxxxx | | 03/23/19 4:48 |
| 29) | 1 | 0322_28.D | xxxxxxxxxx | | 03/23/19 5:26 |
| 30) | 1 | 0322_29.D | xxxxxxxxxx | | 03/23/19 6:04 |
| 31) | 1 | 0322_30.D | xxxxxxxxxx | | 03/23/19 9:23 |
| 32) | 1 | 0322_31.D | xxxxxxxxxx | | 03/23/19 10:01 |
| 33) | 1 | 0322_32.D | xxxxxxxxxx | | 03/23/19 10:40 |

# Injection Log

Data Directory: H:\AIR2019\CHEM20\04APR\09\

| Line | Vl | FileName | SampleName | MiscInfo | Injection Time |
|---|---|---|---|---|---|
| 1) | 0 | 0409_58.D | xxxxxxxxxx | | N/A |
| 2) | 1 | 0409_01.D | xxxxxxxxxx | | 04/09/19 5:57 |
| 3) | 1 | 0409_02.D | BFB TUNE | 0/0 | 04/09/19 6:32 |
| 4) | 1 | 0409_03.D | xxxxxxxxxx | | 04/09/19 7:08 |
| 5) | 1 | 0409_04.D | ICAL 0.02 | 0.02 | 04/09/19 7:45 |
| 6) | 1 | 0409_05.D | ICAL 0.035 | 0.035 | 04/09/19 8:22 |
| 7) | 1 | 0409_06.D | ICAL 0.05 | 0.05 | 04/09/19 8:59 |
| 8) | 1 | 0409_07.D | ICAL 0.1 | 0.10 | 04/09/19 9:36 |
| 9) | 1 | 0409_08.D | ICAL 0.5 | 0.50 | 04/09/19 10:16 |
| 10) | 1 | 0409_09.D | ICAL 2.5 | 2.5 | 04/09/19 10:56 |
| 11) | 1 | 0409_10.D | ICAL 5 | 5.0 | 04/09/19 11:33 |
| 12) | 1 | 0409_11.D | ICAL 25 | 25 | 04/09/19 12:13 |
| 13) | 1 | 0409_12.D | ICAL 40 | 40 | 04/09/19 12:55 |
| 14) | 1 | 0409_13.D | xxxxxxxxxx | | 04/09/19 13:31 |
| 15) | 1 | 0409_14.D | BFB TUNE | 1ppb cc | 04/09/19 14:09 |
| 16) | 1 | 0409_15.D | ICAL 0.2 | 0.2ppb | 04/09/19 14:47 |
| 17) | 1 | 0409_16.D | ICAL 10 | 10ppb cc | 04/09/19 15:24 |
| 18) | 1 | 0409_17.D | CC90508 LCS | CC90508 LCS | 04/09/19 16:04 |
| 19) | 1 | 0409_18.D | xxxxxxxxxx | | 04/09/19 16:40 |
| 20) | 1 | 0409_19.D | CC90508 BLANK | CC90508 BLANK | 04/09/19 17:15 |
| 21) | 1 | 0409_20.D | IA-4 | CC90508 | 04/09/19 17:56 |
| 22) | 1 | 0409_21.D | IA-4 DUP | CC90508 DUP | 04/09/19 18:37 |
| 23) | 1 | 0409_22.D | IA-7 | CC90513 | 04/09/19 19:18 |
| 24) | 1 | 0409_23.D | IA-1 | CC90514 | 04/09/19 20:00 |
| 25) | 1 | 0409_24.D | IA-2 | CC90515 | 04/09/19 20:41 |
| 26) | 1 | 0409_25.D | IA-3 | CC90516 | 04/09/19 21:22 |
| 27) | 1 | 0409_26.D | AA-DUP | CC90518 | 04/09/19 22:03 |
| 28) | 1 | 0409_27.D | AA-1 | CC90519 | 04/09/19 22:44 |
| 29) | 1 | 0409_28.D | AA-2 | CC90520 | 04/09/19 23:25 |
| 30) | 1 | 0409_29.D | IA-10 | CC90521 | 04/10/19 0:06 |
| 31) | 1 | 0409_30.D | IA-DUP | CC90522 | 04/10/19 0:47 |
| 32) | 1 | 0409_31.D | SS-3 5X | CC90509 5X | 04/10/19 1:24 |
| 33) | 1 | 0409_32.D | xxxxxxxxxx | | 04/10/19 2:02 |
| 34) | 1 | 0409_33.D | SS-4 5X | CC90511 5X | 04/10/19 2:40 |
| 35) | 1 | 0409_34.D | SS-DUP 5X | CC90512 5X | 04/10/19 3:18 |
| 36) | 1 | 0409_35.D | SS-2 5X | CC90517 5X | 04/10/19 3:56 |
| 37) | 1 | 0409_36.D | SS-10 5X | CC90523 5X | 04/10/19 4:33 |
| 38) | 1 | 0409_37.D | SS-1 5X | CC90524 5X | 04/10/19 5:11 |
| 39) | 1 | 0409_38.D | xxxxxxxxxx | | 04/10/19 5:48 |
| 40) | 1 | 0409_39.D | SS-7 | CC90510 | 04/10/19 6:28 |
| 41) | 1 | 0409_40.D | xxxxxxxxxx | | 04/10/19 7:09 |
| 42) | 1 | 0409_41.D | BFB TUNE - CCAL 1 | 1ppb cc - 1ppb cc | 04/10/19 7:47 |
| 43) | 1 | 0409_42.D | xxxxxxxxxx | | 04/10/19 8:25 |
| 44) | 1 | 0409_43.D | CC90523 LCS | CC90523 LCS | 04/10/19 9:05 |
| 45) | 1 | 0409_44.D | xxxxxxxxxx | | 04/10/19 9:43 |
| 46) | 1 | 0409_45.D | xxxxxxxxxx | | 04/10/19 10:18 |
| 47) | 1 | 0409_46.D | CC90523 BLANK | CC90523 BLANK | 04/10/19 10:54 |
| 48) | 1 | 0409_47.D | SS-3 75X | CC90509 75X | 04/10/19 12:05 |
| 49) | 1 | 0409_48.D | SS-4 75X | CC90511 75X | 04/10/19 12:42 |
| 50) | 1 | 0409_49.D | SS-DUP 75X | CC90512 75X | 04/10/19 13:20 |
| 51) | 1 | 0409_50.D | xxxxxxxxxx | | 04/10/19 13:57 |
| 52) | 1 | 0409_51.D | SS-10 75X | CC90523 75X | 04/10/19 14:35 |
| 53) | 1 | 0409_52.D | SS-1 75X | CC90524 75X | 04/10/19 15:12 |
| 54) | 1 | 0409_53.D | xxxxxxxxxx | | 04/10/19 15:54 |
| 55) | 1 | 0409_54.D | xxxxxxxxxx | | 04/10/19 16:32 |
| 56) | 1 | 0409_55.D | SS-2 300X | CC90517 300X | 04/10/19 17:09 |
| 57) | 1 | 0409_56.D | SS-10 DUP 75X | CC90523 DUP 75X | 04/10/19 17:47 |
| 58) | 1 | 0409_57.D | xxxxxxxxxx | | 04/10/19 18:25 |

# Injection Log

Data Directory: H:\AIR2019\CHEM24\01JAN\07\

| Line | Vl | FileName | SampleName | MiscInfo | Injection Time |
|---|---|---|---|---|---|
| 1) | 1 | 0107_01.D | xxxxxxxxxx | | 01/07/19 16:54 |
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| 3) | 3 | 0107_03.D | xxxxxxxxxx | | 01/07/19 18:10 |
| 4) | 5 | 0107_04.D | xxxxxxxxxx | | 01/07/19 18:51 |
| 5) | 7 | 0107_05.D | xxxxxxxxxx | | 01/07/19 19:29 |
| 6) | 8 | 0107_06.D | xxxxxxxxxx | | 01/07/19 20:05 |
| 7) | 9 | 0107_07.D | xxxxxxxxxx | | 01/07/19 20:41 |
| 8) | 10 | 0107_08.D | xxxxxxxxxx | | 01/07/19 21:21 |
| 9) | 11 | 0107_09.D | xxxxxxxxxx | | 01/07/19 22:02 |
| 10) | 12 | 0107_10.D | xxxxxxxxxx | | 01/07/19 22:43 |
| 11) | 13 | 0107_11.D | xxxxxxxxxx | | 01/07/19 23:24 |
| 12) | 14 | 0107_12.D | xxxxxxxxxx | | 01/08/19 0:05 |
| 13) | 15 | 0107_13.D | xxxxxxxxxx | | 01/08/19 1:05 |
| 14) | 16 | 0107_14.D | xxxxxxxxxx | | 01/08/19 1:56 |
| 15) | 17 | 0107_15.D | xxxxxxxxxx | | 01/08/19 2:37 |
| 16) | 18 | 0107_16.D | xxxxxxxxxx | | 01/08/19 3:18 |
| 17) | 19 | 0107_17.D | xxxxxxxxxx | | 01/08/19 3:59 |
| 18) | 20 | 0107_18.D | xxxxxxxxxx | | 01/08/19 4:40 |
| 19) | 21 | 0107_19.D | xxxxxxxxxx | | 01/08/19 5:21 |
| 20) | 22 | 0107_20.D | CANISTER BLK 1405 | CANISTER BLK 1405 | 01/08/19 10:33 |
| 21) | 23 | 0107_21.D | xxxxxxxxxx | | 01/08/19 11:11 |
| 22) | 24 | 0107_22.D | xxxxxxxxxx | | 01/08/19 11:49 |

# Injection Log

Data Directory: H:\AIR2019\CHEM24\02FEB\05\

| Line | Vl | FileName | SampleName | MiscInfo | Injection Time |
|---|---|---|---|---|---|
| 1) | 0 | 0206_08.D | xxxxxxxxxx | | N/A |
| 2) | 0 | 0206_18.D | xxxxxxxxxx | | N/A |
| 3) | 22 | 0204_21.D | xxxxxxxxxx | | 02/05/19 15:50 |
| 4) | 3 | 0205_01.D | xxxxxxxxxx | | 02/05/19 16:45 |
| 5) | 3 | 0205_02.D | xxxxxxxxxx | | 02/05/19 17:19 |
| 6) | 4 | 0205_03.D | xxxxxxxxxx | | 02/05/19 17:53 |
| 7) | 5 | 0205_04.D | xxxxxxxxxx | | 02/05/19 18:27 |
| 8) | 4 | 0205_05.D | xxxxxxxxxx | | 02/05/19 19:01 |
| 9) | 4 | 0205_06.D | xxxxxxxxxx | | 02/05/19 19:35 |
| 10) | 5 | 0205_07.D | xxxxxxxxxx | | 02/05/19 20:10 |
| 11) | 6 | 0205_08.D | xxxxxxxxxx | | 02/05/19 20:44 |
| 12) | 8 | 0205_09.D | xxxxxxxxxx | | 02/05/19 21:18 |
| 13) | 9 | 0205_10.D | xxxxxxxxxx | | 02/05/19 21:56 |
| 14) | 10 | 0205_11.D | xxxxxxxxxx | | 02/05/19 22:31 |
| 15) | 10 | 0205_12.D | xxxxxxxxxx | | 02/05/19 23:09 |
| 16) | 12 | 0205_13.D | xxxxxxxxxx | | 02/05/19 23:43 |
| 17) | 12 | 0205_14.D | xxxxxxxxxx | | 02/06/19 0:18 |
| 18) | 13 | 0205_15.D | xxxxxxxxxx | | 02/06/19 0:57 |
| 19) | 14 | 0205_16.D | xxxxxxxxxx | | 02/06/19 1:38 |
| 20) | 15 | 0205_17.D | xxxxxxxxxx | | 02/06/19 2:42 |
| 21) | 16 | 0205_18.D | xxxxxxxxxx | | 02/06/19 3:24 |
| 22) | 16 | 0205_19.D | xxxxxxxxxx | | 02/06/19 3:58 |
| 23) | 17 | 0205_20.D | xxxxxxxxxx | | 02/06/19 4:32 |
| 24) | 18 | 0205_21.D | CANISTER BLK 1429 | CANISTER BLK 1429 | 02/06/19 5:11 |
| 25) | 19 | 0205_22.D | xxxxxxxxxx | | 02/06/19 5:51 |
| 26) | 20 | 0205_23.D | xxxxxxxxxx | | 02/06/19 6:30 |
| 27) | 21 | 0205_24.D | xxxxxxxxxx | | 02/06/19 7:11 |
| 28) | 22 | 0205_25.D | xxxxxxxxxx | | 02/06/19 7:51 |
| 29) | 23 | 0205_26.D | xxxxxxxxxx | | 02/06/19 8:31 |
| 30) | 24 | 0205_27.D | xxxxxxxxxx | | 02/06/19 9:11 |
| 31) | 25 | 0205_28.D | xxxxxxxxxx | | 02/06/19 10:04 |
| 32) | 26 | 0205_29.D | xxxxxxxxxx | | 02/06/19 10:48 |
| 33) | 27 | 0205_30.D | xxxxxxxxxx | | 02/06/19 11:24 |
| 34) | 28 | 0205_31.D | xxxxxxxxxx | | 02/06/19 11:58 |
| 35) | 29 | 0205_32.D | xxxxxxxxxx | | 02/06/19 12:38 |
| 36) | 30 | 0205_33.D | xxxxxxxxxx | | 02/06/19 13:18 |
| 37) | 31 | 0205_34.D | xxxxxxxxxx | | 02/06/19 13:53 |
| 38) | 32 | 0205_35.D | xxxxxxxxxx | | 02/06/19 14:28 |
| 39) | 33 | 0205_36.D | xxxxxxxxxx | | 02/06/19 15:06 |
| 40) | 34 | 0205_37.D | xxxxxxxxxx | | 02/06/19 15:41 |
| 41) | 35 | 0205_38.D | xxxxxxxxxx | | 02/06/19 16:16 |
| 42) | 36 | 0205_39.D | xxxxxxxxxx | | 02/06/19 16:51 |
| 43) | 37 | 0205_40.D | xxxxxxxxxx | | 02/06/19 17:26 |
| 44) | 38 | 0205_41.D | xxxxxxxxxx | | 02/06/19 18:01 |
| 45) | 39 | 0206_01.D | xxxxxxxxxx | | 02/06/19 18:35 |
| 46) | 40 | 0206_02.D | xxxxxxxxxx | | 02/06/19 19:11 |
| 47) | 41 | 0206_03.D | xxxxxxxxxx | | 02/06/19 19:48 |
| 48) | 42 | 0206_04.D | xxxxxxxxxx | | 02/06/19 20:27 |
| 49) | 43 | 0206_05.D | xxxxxxxxxx | | 02/06/19 21:04 |
| 50) | 44 | 0206_06.D | xxxxxxxxxx | | 02/06/19 21:38 |
| 51) | 45 | 0206_07.D | xxxxxxxxxx | | 02/06/19 22:12 |
| 52) | 47 | 0206_09.D | xxxxxxxxxx | | 02/06/19 23:03 |
| 53) | 48 | 0206_10.D | xxxxxxxxxx | | 02/07/19 0:24 |
| 54) | 49 | 0206_11.D | xxxxxxxxxx | | 02/07/19 1:03 |
| 55) | 50 | 0206_12.D | xxxxxxxxxx | | 02/07/19 1:42 |
| 56) | 51 | 0206_13.D | xxxxxxxxxx | | 02/07/19 2:21 |
| 57) | 52 | 0206_14.D | xxxxxxxxxx | | 02/07/19 3:00 |
| 58) | 53 | 0206_15.D | xxxxxxxxxx | | 02/07/19 3:39 |
| 59) | 54 | 0206_16.D | xxxxxxxxxx | | 02/07/19 4:18 |
| 60) | 55 | 0206_17.D | xxxxxxxxxx | | 02/07/19 4:54 |

# Injection Log

Data Directory: H:\AIR2019\CHEM24\03MAR\17\

| Line | Vl | FileName | SampleName | MiscInfo | Injection Time |
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| 2) | 21 | 0317_01.D | xxxxxxxxxx | | 03/17/19 21:04 |
| 3) | 22 | 0317_02.D | xxxxxxxxxx | | 03/17/19 21:38 |
| 4) | 23 | 0317_03.D | xxxxxxxxxx | | 03/17/19 22:13 |
| 5) | 24 | 0317_04.D | xxxxxxxxxx | | 03/17/19 22:50 |
| 6) | 25 | 0317_05.D | xxxxxxxxxx | | 03/17/19 23:23 |
| 7) | 26 | 0317_06.D | xxxxxxxxxx | | 03/18/19 0:41 |
| 8) | 27 | 0317_07.D | xxxxxxxxxx | | 03/18/19 1:13 |
| 9) | 28 | 0317_08.D | xxxxxxxxxx | | 03/18/19 1:50 |
| 10) | 29 | 0317_09.D | xxxxxxxxxx | | 03/18/19 2:27 |
| 11) | 29 | 0317_10.D | xxxxxxxxxx | | 03/18/19 3:05 |
| 12) | 30 | 0317_11.D | xxxxxxxxxx | | 03/18/19 3:42 |
| 13) | 31 | 0317_12.D | xxxxxxxxxx | | 03/18/19 4:19 |
| 14) | 32 | 0317_13.D | xxxxxxxxxx | | 03/18/19 4:57 |
| 15) | 33 | 0317_14.D | xxxxxxxxxx | | 03/18/19 5:30 |
| 16) | 34 | 0317_15.D | xxxxxxxxxx | | 03/18/19 6:02 |
| 17) | 35 | 0317_16.D | xxxxxxxxxx | | 03/18/19 6:35 |
| 18) | 36 | 0317_17.D | xxxxxxxxxx | | 03/18/19 7:07 |
| 19) | 37 | 0317_18.D | xxxxxxxxxx | | 03/18/19 7:40 |
| 20) | 39 | 0317_20.D | xxxxxxxxxx | | 03/18/19 10:31 |
| 21) | 40 | 0317_21.D | xxxxxxxxxx | | 03/18/19 11:08 |
| 22) | 41 | 0317_22.D | xxxxxxxxxx | | 03/18/19 11:45 |
| 23) | 42 | 0317_23.D | xxxxxxxxxx | | 03/18/19 12:18 |
| 24) | 43 | 0317_24.D | xxxxxxxxxx | | 03/18/19 12:51 |
| 25) | 44 | 0317_25.D | xxxxxxxxxx | | 03/18/19 13:24 |
| 26) | 45 | 0317_26.D | xxxxxxxxxx | | 03/18/19 14:45 |
| 27) | 46 | 0317_27.D | xxxxxxxxxx | | 03/18/19 15:23 |
| 28) | 47 | 0317_28.D | xxxxxxxxxx | | 03/18/19 16:00 |
| 29) | 48 | 0317_29.D | xxxxxxxxxx | | 03/18/19 16:37 |
| 30) | 49 | 0317_30.D | CANISTER BLK 1467 | CANISTER BLK 1467 | 03/18/19 17:14 |
| 31) | 50 | 0317_31.D | xxxxxxxxxx | | 03/18/19 17:48 |
| 32) | 51 | 0317_32.D | xxxxxxxxxx | | 03/18/19 18:22 |
| 33) | 52 | 0317_33.D | xxxxxxxxxx | | 03/18/19 19:00 |
| 34) | 53 | 0317_34.D | xxxxxxxxxx | | 03/18/19 19:34 |
| 35) | 54 | 0317_35.D | xxxxxxxxxx | | 03/18/19 20:05 |
| 36) | 55 | 0317_36.D | xxxxxxxxxx | | 03/18/19 20:37 |
| 37) | 56 | 0317_37.D | xxxxxxxxxx | | 03/18/19 21:19 |
| 38) | 57 | 0317_38.D | xxxxxxxxxx | | 03/18/19 21:56 |
| 39) | 58 | 0317_39.D | xxxxxxxxxx | | 03/18/19 22:38 |
| 40) | 59 | 0317_40.D | xxxxxxxxxx | | 03/18/19 23:11 |
| 41) | 60 | 0317_41.D | xxxxxxxxxx | | 03/18/19 23:45 |
| 42) | 61 | 0317_42.D | xxxxxxxxxx | | 03/19/19 0:18 |
| 43) | 62 | 0317_43.D | xxxxxxxxxx | | 03/19/19 0:52 |
| 44) | 63 | 0317_44.D | xxxxxxxxxx | | 03/19/19 1:25 |
| 45) | 64 | 0317_45.D | xxxxxxxxxx | | 03/19/19 1:58 |
| 46) | 65 | 0317_46.D | xxxxxxxxxx | | 03/19/19 2:35 |
| 47) | 66 | 0317_47.D | xxxxxxxxxx | | 03/19/19 3:12 |
| 48) | 67 | 0317_48.D | xxxxxxxxxx | | 03/19/19 3:45 |
| 49) | 68 | 0317_49.D | xxxxxxxxxx | | 03/19/19 9:25 |
| 50) | 69 | 0317_50.D | xxxxxxxxxx | | 03/19/19 9:58 |
| 51) | 70 | 0317_51.D | xxxxxxxxxx | | 03/19/19 15:24 |
| 52) | 71 | 0317_52.D | xxxxxxxxxx | | 03/19/19 15:57 |

# Injection Log

Data Directory: H:\AIR2019\CHEM24\03MAR\22\

| Line | Vl | FileName | SampleName | MiscInfo | Injection Time |
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| 3) | 2 | 0322_02.D | xxxxxxxxxx | | 03/22/19 13:26 |
| 4) | 3 | 0322_03.D | xxxxxxxxxx | | 03/22/19 14:01 |
| 5) | 4 | 0322_04.D | xxxxxxxxxx | | 03/22/19 14:39 |
| 6) | 5 | 0322_05.D | xxxxxxxxxx | | 03/22/19 15:13 |
| 7) | 6 | 0322_06.D | xxxxxxxxxx | | 03/22/19 15:45 |
| 8) | 7 | 0322_07.D | xxxxxxxxxx | | 03/22/19 16:18 |
| 9) | 8 | 0322_08.D | CANISTER BLK 1474 | CANISTER BLK 1474 | 03/22/19 16:59 |
| 10) | 9 | 0322_09.D | xxxxxxxxxx | | 03/22/19 18:58 |
| 11) | 10 | 0322_10.D | xxxxxxxxxx | | 03/22/19 19:36 |
| 12) | 11 | 0322_11.D | xxxxxxxxxx | | 03/22/19 20:13 |
| 13) | 12 | 0322_12.D | xxxxxxxxxx | | 03/22/19 20:51 |
| 14) | 13 | 0322_13.D | xxxxxxxxxx | | 03/22/19 21:28 |
| 15) | 14 | 0322_14.D | xxxxxxxxxx | | 03/22/19 22:06 |
| 16) | 15 | 0322_15.D | xxxxxxxxxx | | 03/22/19 22:39 |
| 17) | 16 | 0322_16.D | xxxxxxxxxx | | 03/22/19 23:11 |
| 18) | 17 | 0322_17.D | xxxxxxxxxx | | 03/22/19 23:49 |
| 19) | 18 | 0322_18.D | xxxxxxxxxx | | 03/23/19 0:24 |
| 20) | 19 | 0322_19.D | xxxxxxxxxx | | 03/23/19 1:01 |
| 21) | 20 | 0322_20.D | xxxxxxxxxx | | 03/23/19 1:39 |
| 22) | 21 | 0322_21.D | xxxxxxxxxx | | 03/23/19 2:16 |
| 23) | 22 | 0322_22.D | xxxxxxxxxx | | 03/23/19 2:49 |
| 24) | 23 | 0322_23.D | xxxxxxxxxx | | 03/23/19 3:41 |
| 25) | 24 | 0322_24.D | xxxxxxxxxx | | 03/23/19 4:15 |
| 26) | 25 | 0322_25.D | xxxxxxxxxx | | 03/23/19 4:49 |
| 27) | 26 | 0322_26.D | xxxxxxxxxx | | 03/23/19 5:23 |
| 28) | 27 | 0322_27.D | xxxxxxxxxx | | 03/23/19 5:58 |
| 29) | 28 | 0322_28.D | xxxxxxxxxx | | 03/23/19 9:14 |
| 30) | 29 | 0322_29.D | xxxxxxxxxx | | 03/23/19 9:51 |
| 31) | 30 | 0322_30.D | xxxxxxxxxx | | 03/23/19 10:27 |
| 32) | 31 | 0322_31.D | xxxxxxxxxx | | 03/23/19 11:03 |
| 33) | 32 | 0322_32.D | xxxxxxxxxx | | 03/23/19 11:40 |
| 34) | 33 | 0322_33.D | xxxxxxxxxx | | 03/23/19 12:16 |
| 35) | 36 | 0322_35.D | xxxxxxxxxx | | 03/23/19 12:49 |
| 36) | 37 | 0322_36.D | xxxxxxxxxx | | 03/23/19 13:23 |

**APPENDIX G**
**April 2019 Investigation Data Usability Summary Report**

# Data Usability Summary Report

Soil Vapor Intrusion Investigation
Former Imperial Cleaners Site
218 Lakeville Road
Lake Success, NY 11020
BCP Site # C130225

This Data Usability Summary Report (DUSR) has been prepared to validate the results of the sub-slab vapor, indoor air and ambient air sampling conducted in and around 218 Lakeville Road, Lake Success, NY on April 4-5, 2019 in association with a soil vapor intrusion (SVI) investigation, and in accordance with the NYSDEC-approved *Remedial Work Plan* (RWP) for the site (Walden, February 2019)

This DUSR has been prepared in accordance with NYSDEC Draft DER-10 Appendix 2B – Guidance for Data Deliverables and the Development of Data Usability Summary Reports. The DUSR provides a thorough evaluation of analytical data without using the services of an independent third-party data validator. The primary objective of the DUSR is to determine whether or not the data presented meets project specific criteria for data quality and use.

The analytical data was evaluated by Mr. Lawrence Zeman (Walden), whose experience and qualifications to prepare the DUSR for this project are presented in the attached resume (see Attachment A). The sub-slab vapor, indoor air and ambient air samples collected for laboratory analysis were submitted to Phoenix Environmental Laboratories, Inc. (Phoenix) of Manchester, NH, a NYSDOH Environmental Laboratory Approval Program (ELAP) certified laboratory (NY Lab Registration #11301), and analyzed for volatile organic compounds (VOCs) via U.S. Environmental Protection Agency (USEPA) Method TO-15 with the analytical detection limits set forth in the *Guidance for Evaluating Soil Vapor Intrusion in the State of New York* (dated October 2006, with updates, referred to herein as "SVI Guidance"). The DUSR process consisted of evaluating the analytical data package produced by Phoenix and answering the following questions.

1. **Were there any component of the sampling protocol which deviated from established sampling procedures?**

   The sub-slab vapor, indoor air and ambient air samples were collected in laboratory-provided, individually certified 6-liter Summa® canisters equipped with flow regulators. The regulators were calibrated by the laboratory for a sampling period of 24 hours; this sampling duration was chosen in accordance with SVI Guidance for residential indoor air sampling to

reflect the typical exposure scenario. The sampling followed the established sampling procedures in the NYSDEC-approved February 2019 RWP for the Site.

2. **Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables?**

   The sampling and analytical program outlined in the RWP was designed to conform to the NYSDEC ASP Category B and USEPA CLP deliverables criteria. Both field sampling and laboratory analytical activities were performed with built-in QA/QC programs. Duplicate samples were collected at a minimum of one (1) sample per ten (10) samples collected, with a minimum of one (1) of each type of sample (i.e., one sub-slab, one indoor air and one outdoor air). The analytical laboratory (Phoenix) included method blanks and batch QA/QC samples as part of their standard QA/QC program. Additionally, the samples were handled in compliance with the holding time allowances, meeting the NYSDEC ASP Category B and USEPA CLP deliverables criteria requirements.

3. **Have all holding times been met?**

   Times of sample receipt, extraction, and analysis have been inspected to determine whether the holding time specifications have been met. All of the samples were analyzed within the specified holding times.

4. **Do all QC data (blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls, and sample data) fall within the protocol-required limits and specifications?**

   All of the primary sample and QC data were reviewed. Duplicate sample analyses demonstrated a reasonable level of accuracy in the analytical results, and all of the QA/QC data met the protocol-required criteria with exceptions as noted below.

   Two (2) duplicate QA/QC samples were run by the laboratory as part of their standard QA/QC program; a copy of the laboratory QA/QC report is included herein in Appendix B. The evaluation of the QA/QC data indicated that all laboratory control sample (LCS) recovery and sample duplicate relative percent difference (RPD) values were within required limits with the following exceptions:

   - The RPD recovery for 4-Ethyltoluene, Cyclohexane, Ethanol, Heptane, Tetrachloroethane, Acetone and Carbon Disulfide exceeded the QA/QC acceptance criteria for 2 of the collected sample duplicates. The full analytical run is acceptable

due to the fact that field duplicate samples have the potential for higher RPD due to discrete sample differences.

- The LCS exceeded the QA/QC acceptance criteria for 1,2,4-Trichlorobenzene, Bromoform, Dibromochloromethane and Hexachlorobutadiene. All sample results for 1,2,4-Trichlorobenzene, Bromoform, Dibromochloromethane and Hexachlorobutadiene were below laboratory method detection limits (MDLs) and reported as less than the MDLs. Since all LCS associated outliers exceeded the upper acceptance criteria, any bias in the primary samples would be high and the potential for undetected analytes is low, thus the analytical batch is acceptable.

- The LCS exceeded the QA/QC acceptance criteria for Ethanol. Ethanol is a prevalent compound in the laboratory environment and elevated quality control results are not uncommon. Since Ethanol exceeded the upper acceptance criteria, any bias in the primary samples would be high and the potential for undetected analytes is low, thus the analytical batch is acceptable.

In summary, although analytes from the QA/QC sample data did not meet all required laboratory criteria, the reliability of the laboratory results should not be affected.

5. **Have all the data been generated using established and agreed upon analytical protocols?**

Laboratory analytical protocols have been developed by the USEPA and are published in USEPA *Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air: Method TO-15* (Second Edition, January 1999). The review of the laboratory deliverables indicated that the analytical data for this project were generated following these standard protocols.

6. **Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms?**

An evaluation of the raw data confirmed the accuracy of the results provided in the data summary sheets and the quality control verification forms included in the analytical data package prepared by the laboratory.

7. **Have the correct data qualifiers been used?**

The laboratory provided a list of qualifiers used in their data reporting. QC failures such as potential sample contamination by laboratory solvents or estimation of sample result values due to analyte concentrations detected above calibration ranges were checked back to the reported data to determine whether the qualifiers were properly used. The evaluation indicated that the laboratory flagged the data using the correct data qualifiers when necessary. The data qualifiers comply with the NYSDEC Analytical Services Protocol (ASP) 95 revised guidelines.

8. **Have the minimum reporting limits been met?**

The minimum reporting limits specified in the February 2019 RWP are as follows:

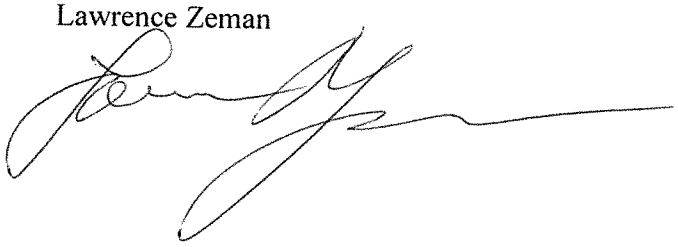
- All VOCs in sub-slab soil vapor samples: 1.0 ug/$m^3$
- For the indoor and outdoor air samples:
  - 0.20 ug/$m^3$ for trichloroethene (TCE), carbon tetrachloride, cis-1,2-dichloroethene, 1,1-dichloroethene, and vinyl chloride
  - 1.0 ug/$m^3$ for all other VOCs in the USEPA Method TO-15 analysis.

The laboratory utilized reporting limits of 0.25 µg/$m^3$ for tetrachloroethene (PCE), 0.20 µg/$m^3$ for TCE, cis-1,2-DCE, 1,1-DCE, vinyl chloride, and carbon tetrachloride, and 1.0 µg/$m^3$ for all other reportable VOCs which meets the minimum required reporting limits for all samples collected on April 4-5, 2019.

**Summary**

In summary, analytical data package review conducted when preparing this DUSR found no data deficiencies, analytical protocol deviations, or quality control problems that impact the quality of the data. No significant QC exceedances were identified and it was determined that none of the data should be rejected. Therefore, there is no need for resampling or reanalysis based on the evaluation presented herein.

Prepared by:
Lawrence Zeman



**Attachment A**

**Resume of Environmental Professional**



# Lawrence F. Zeman

## Project Scientist II

Lawrence has 20 years of environmental and lab consulting experience, taking on difficult laboratory issues and QA/QC. He is very well versed in areas as diverse as regulatory compliance, test protocol development and implementation, management of instrument repair and maintenance, field inspections and on-site audits, correlation studies of various analyses and engineering/technical reporting.

### EDUCATION

*B.A. Biology, Minor in Chemistry* Queens College

### LICENSES/ CERTIFICATIONS

New York State ELAP Laboratory Director

New York State ELAP Laboratory Microbiology Assistant Director

New York Department of Health Laboratory Technologist

OSHA HAZWOPER 40-hour & OSHA 10-hour Certified

### SELECTED RELEVANT EXPERIENCE

**Various Clients, New York**

- Performed sample collection of various sample types at industrial facilities and construction & remediation project sites;
  Conducted soil sample collection, field activities oversight and continuous air monitoring for Community Air Monitoring Program (CAMP) in accordance with DER-10 as follows:
  - Elmhurst Tank Park & Playground, Queens, NY (2009 – 2011);
  - Calvert Vaux Park and Athletic Fields, Brooklyn, NY (2009 – 2011), as an Independent Environmental Monitor (IEM) on-site technician;
  - Harlem Rive Greenway, Bronx, NY (2011 – 2012);
  - Beach Channel H.S. Athletic Fields (2016);
  - P.S. 63M William McKinley School, Manhattan, NY (2016);
  - P.S. 131 Abigail Adams Public School, Queens, NY (2017);
  - Forest Hills High School, Queens, NY (2017)
- Developed and implemented new testing protocols and test procedures;
- Conducted instrumentation repair and scheduled maintenance;
- Conducted correlation studies of various analytic procedures;
- Verified laboratory Quality Assurance and Quality Control procedures and data;
- Responsible for regulatory compliance and quality control;
- Prepared and submitted facilities' annual Zoning Performance Standards Compliance Reports, including noise, vibration, odor and opacity testing for DSNY permit renewal;
- Provided environmental services to ensure compliance for facility's NYS DEC Title V Air Facility Permit. Completed monthly, semi-annual and annual compliance reports;
- Conducted field Inspections and on-site audits;
- Preformed field measurements and recording of Noise and Vibration;
- Prepared Engineering & Technical Reports;
- Prepared New York City Community Right-To-Know Law and SARA reports for Industrial facilities