**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

**Division of Environmental Remediation, Region 8**
6274 East Avon-Lima Road, Avon, NY 14414-9516
P: (585) 226-5353 I F: (585) 226-8139
www.dec.ny.gov

April 7, 2021

VIA E-Mail

Mr. J.F. Meade IV
Mercury Aircraft, Inc.
8126 County Route 88
Hammondsport, New York 14840

Dear Mr. Meade:

**RE: February 12, 2021 Response to NYSDEC comments**
**Soil Vapor Intrusion (SVI) Investigation Report Revised (May 2020)**
**Mercury Aircraft Site ID# 862006**
**Yates(C), Torrey(T)**

Staff at the New York State Department of Environmental Conservation (the Department) and the New York State Department of Health (NYSDOH) has reviewed the response to our comments. Based on the environmental data collected to date and the most recent SVI data, in conjunction with the summary of the current building operations and occupancy, we have determined that no further actions are needed to address exposures related to soil vapor intrusion in Buildings 400, 275, 250, 225, 185 and 165. The sub-slab depressurization system (SSDS) must continue to operate in Building 175. Under the site management plan (SMP), if use/occupancy in the buildings changes or if additional buildings are constructed, then an additional soil vapor evaluation may be necessary.

We are in receipt of the Emerging Contaminant groundwater sampling plan, and it is currently under review. A response will be sent under a separate cover. Thank you for your continued cooperation.

Sincerely,

**Todd M. Caffoe, P.E.**
Division of Environmental Remediation
**New York State Department of Environmental Conservation**
6274 East Avon-Lima Road, Avon, NY 14414
P: (585) 226-5350 |Todd.Caffoe@dec.ny.gov

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ec: D. Pratt
D. Loew
J. Kenney
T. Forbes
R. Dubiscz
G. Hintz
M. Hammond
K. Wolfe
B. Meade
L. Connolly

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

February 12, 2021

Mr. Todd M. Caffoe, P.E.
New York State Department of
Environmental Conservation
Division of Environmental Remediation
6274 East Avon-Lima Road
Avon, New York 14414-9519

**Re: NYSDEC Site No.8-62-006 Mercury Aircraft- Former Dresden Site, Torrey, New York. Response to NYSDEC Comments on the Soil Vapor Intrusion (SVI) Investigation Report Revised (May 2020) & Emerging Contaminant Sampling.**

Dear Mr. Caffoe:

Benchmark Environmental Engineering & Science, PLLC (Benchmark) has reviewed the Department's September 17, 2020 comments regarding the SVI Investigation Report and Emerging Contaminant Sampling for the above-referenced site. On behalf of our client, Mercury Aircraft, Inc., we offer our responses below. Please note that, where indicated, we have summarized replies to the Department's questions that were received from local Ferro Corporation staff and have not verified the accuracy of the information provided:

**September 17, 2020 Comments**

1. *The report was revised to include the data usability study as requested on April 29, 2020 and the date needs to be changed.*

   **Response:** Acknowledged. We have revised the date of the report to May 8, 2020.

2. *Please clarify if the sub-slab depressurization system (SSDS) in Building 175 was operating during the sample event.*

   **Response:** Visual check of SSDS gauges was made during the SVI Investigation which confirmed that the SDDS was operating during the sampling event. The revised report has been modified to clarify that the ASD system was running during the sampling event.

3. *Please clarify if the groundwater pump and treatment system was operating during the sample event.*

**Response:** The groundwater pump and treat system was in operation at the time of the SVI sampling. The revised report has been modified to state that the pump and treat system was in operation during the SVI sampling event.

4. *Indoor air sample locations IA-2, IA-3, and IA-4 trigger the need for continued monitoring. Please include specific building information for Buildings 250 and 275 to determine what actions would be necessary to reduce exposures. Please also note that an additional extraction point may be used to expand the SSDS to cover these buildings.*

**Response:** The following information is provided based on responses from local Ferro staff:

The portion of Building 250 near sample IA-2 is seldom occupied. A product dryer is in that location; material is loaded and left for 24 hours. Only one operator works in the area at any given time for short durations.

Concerning IA-3, four electrically operated kilns are in this building. One or two operators will work in the building while loading/unloading the containers that transfer through them. Time in the building is limited. Building has four (4) 4' diameter fans mounted in the East wall pulling air out of the building. The building is used as an entry point for access to other buildings.

A "blow off" booth and hose assembly workstation is located in IA-4, again with limited employee occupancy.

5. *Please provide a description for the use of each space including: the square footage of each area, the type of HVAC that is in operation, the activities performed in each building, identify office space vs. storage space and how it is defined, the number of employees, and chemicals used; and*

**Response:** The following information regarding the use of each space where the SVI sampling occurred is provided based on responses from local Ferro staff:

- **Building 165**- (Sample location IA-1) Approximately 19,000 sq ft, used for kiln/oven operations. Limited HVAC use due to heat release from kilns/ovens. Employees travel through this area with limited continuous occupancy.

- **Building 185-** (Sample Location IA-6) Approximately 12,400 sq ft, used for processing /manufacturing. Limited HVAC use due to heat release from kilns/ovens. Movement of employees through area with limited continuous occupancy.

- **Building 225-** (Sample Location IA-7) Approximately 8,200 sq ft processing area with ball mill and oven. Limited HVAC use due to heat release from ovens. Movement of employees through area with limited continuous occupancy.

- **Room B400-** (Sample Location IA-5) Approximately 6,700 sq ft processing equipment area, containing a large mixing vessel. The area serves as connecting throughfare between other buildings. No continuous occupancy of employees in this area. A storage cabinet in this area contained various containers of pvc cements/glues, and aerosol spray paint cans.

- **Building 250-** (Sample Location IA-2 and IA-4) Approximately 8,600 sq ft processing area near sample IA-2, and a hose assembly station near sample IA-4. Limited HVAC use due to heat release from processing equipment. A small break room is near the hose assembly station. Various cans of aerosol spray paints, penetrating oils, and water-based paint containers were stored in cabinets and work benches in this area.

- **Building 275-** (Sample Location IA-3) Approximately 9,900 sq ft, with processing equipment and product storage area. Limited HVAC use in this area. No continuous occupancy of employees in this area.

6. *Sample location IA-5 detected trichloroethene (TCE) in the indoor air at a concentration of 1.52 mcg/m3. It was also detected in the sub-slab at a concentration of 1.56 mcg/m3. Was the subslab seal compromised? Actions should be taken at this location to reduce exposures to TCE and to determine the potential source of TCE.*

**Response:** At the time of the sample collection, the seal on the sub-slab sample appeared to be intact; helium testing indicated no seal leakage. Ferro Corp reports

that the area near sample location IA-5 is mainly a throughfare to other buildings and is not routinely occupied by employees.

**Emerging Contaminants (EC) Sampling and Remaining Site Issues**

7. *On June 12, 2019, the Department requested a work plan to conduct emerging contaminant sampling in groundwater. To date, a work plan has not been received. Please submit a work plan with 60 days of your receipt of this letter;*

**Response:** Acknowledged. An emerging contaminant work plan has been prepared on behalf of Mercury Aircraft, Inc, and will be submitted to the Department under separate cover.

8. *A Site Management Plan (SMP) will be needed once the SVI issues and EC sampling have been completed. Also, an environmental easement will be required;*

**Response:** Acknowledged. An SMP will be prepared, however any easement or deed restriction will need to be filed by Ferro Corp as Mercury Corp does not own the property. We will reach out to Ferro concerning the company's willingness to file an environmental easement on the controlled property, which need to be defined (see response to Comment 10, below).

9. *As part of continued operation and maintenance of the groundwater pump and treat system and the SSDS, the Department has not received any recent groundwater sampling results. Please indicate when the last groundwater monitoring event took place and the current monitoring schedule; and*

**Response:** A round of groundwater sampling was performed in June 2019, the next round of groundwater sampling will be performed in the winter season 2021. Pending approval of the EC Work Plan the EC samples will be collected concurrently. The 2021 monitoring results will include results from the June 2019 event.

10. *The Department needs to update its database for the site boundaries and acreage of this site. The figure that is attached to the current consent order is not legible. Please provide a copy of the site survey with the boundaries of the Mercury Aircraft site clearly identified.*

**Response:** Mercury Aircraft performed tenant operations in a portion of the Ferro property that is now primarily Building 175. To our knowledge, the limits of the Superfund Site have not been clearly defined. Historically, the Site was generally considered to be the area within and downgradient of the solvent spill, which is located on the northern portion of the 55-acre parcel owned by Ferro Corp (see parcel 052.01-1-3.1 on attached Tax Map obtained from Yates County GIS). We would suggest that the area of the Site subject to the environmental easement be

defined as shown on Figure 1. The proposed dividing line is south of MW-9, which has historically shown no groundwater impact. This area would need to be surveyed by a licensed land surveyor with a metes and bounds description prepared for the easement. If this Site definition is acceptable to the Department, Mercury will approach Ferro concerning its willingness to restrict use of property within the proposed Site boundary pursuant to the Department's current Easement template, including prohibiting construction of any new structures without proper soil vapor intrusion protection.

Please contact us if you have any questions or require additional information.

Sincerely,
Benchmark Environmental Engineering & Science, PLLC

Thomas H. Forbes, P.E.
President

cc: J. Meade (Mercury Aircraft)
B. Meade (Mercury Aircraft)
G. Hintz (Mercury Aircraft)
M. Hammond (Mercury Aircraft)
L. Connolly (Harter, Secrest & Emery)

File: 0001-003-100

F:\CAD\Benchmark\Mercury Aircraft\DRESDEN\Tax Map\Figure 2; Site Plan.dwg

LEGEND

PROPERTY BOUNDARY

PROPOSED SOUTHERN LIMIT OF SUPERFUND SITE BOUNDARY

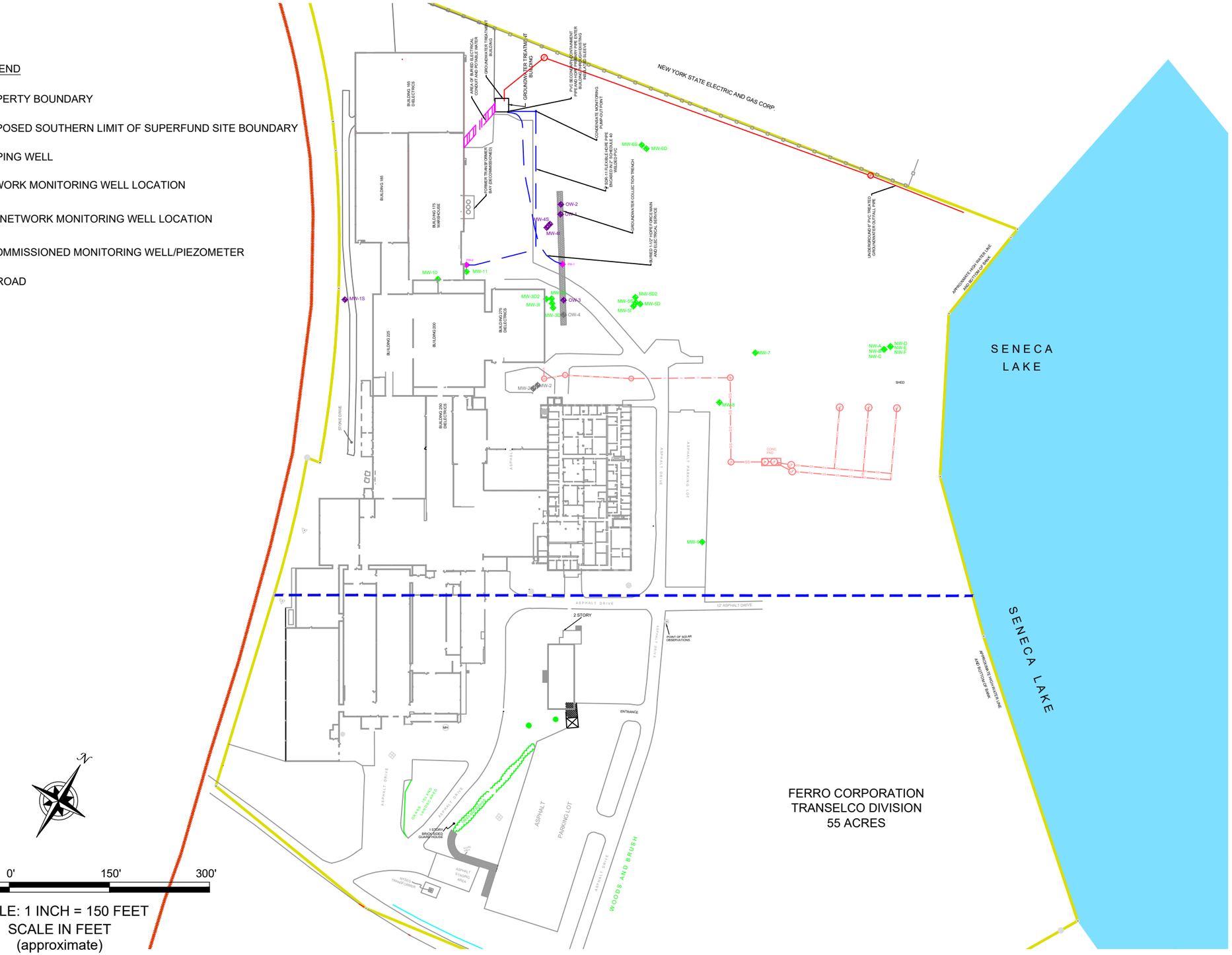
PW-1 PUMPING WELL

MW-1S NETWORK MONITORING WELL LOCATION

MW-5 NON-NETWORK MONITORING WELL LOCATION

MW-2 DECOMMISSIONED MONITORING WELL/PIEZOMETER

RAILROAD




N

150' 0' 150' 300'

SCALE: 1 INCH = 150 FEET
SCALE IN FEET
(approximate)

DATE: FEBRUARY 2021
DRAFTED BY: RFL/CCB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JOB NO.: 0001-003-200

# SITE PLAN

PROPOSED SITE BOUNDARY
FORMER MERCURY AIRCRAFT SITE (NO. 862006)
DRESDEN, NEW YORK

PREPARED FOR
MERCURY CORPORATION AND FERRO CORPORATION

**FIGURE 1**


DISCLAIMER:
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# ATTACMENT 1

**YATES COUNTY TAX MAP 52.01**

# SENECA LAKE

## REAL PROPERTY MAP

**PREPARED BY:** YATES COUNTY
REAL PROPERTY TAX SERVICE
PENN YAN, NEW YORK

DATE MAP CREATED: Mid 1970's
DATE CONVERTED TO GIS FORMAT: 2008
DATE CONVERTED TO SIMPLE GEODATABASE FORMAT: 2016

THIS MAP WAS PREPARED FOR REAL PROPERTY TAX ADMINISTRATION PURPOSES ONLY. IT IS NOT TO BE REPRODUCED OR USED FOR SURVEYING OR CONVEYANCING.

### REVISION TABLE

| DATE | MADE BY | CHANGES OR ADDITIONS |
|---|---|---|

### SPECIAL DISTRICTS

| | | |
|---|---|---|
| SCHOOL: | PENN YAN CENTRAL SCHOOL DISTRICT | |
| FIRE: | FD361 | Torrey fire dist - unconfirmed |
| AGRI: | AG001 | Agricultural District 1 |

### LEGEND

| | | | |
|---|---|---|---|
| PROPERTY LINE | SCHOOL DISTRICT LINE | SCH | COMMON OWNERSHIP |
| VILLAGE LINE | FIRE DISTRICT LINE | F | TAX MAP BLOCK NUMBER (1) |
| TOWN LINE | AGRICULTURAL DIST LINE | AGR | TAX MAP PARCEL NUMBER 11 |
| COUNTY LINE | WATER DISTRICT LINE | W | GREAT LOT NO. (2) |
| BLOCK LIMIT | STREAM OR CREEK | | FILED PLAN LOT NO. 14 |
| GREAT LOT LINE | RIGHT OF WAY | | |
| ORIGINAL LOT LINE | | | |

| | |
|---|---|
| DEED ACREAGE | 2.25 A |
| CALULATED ACREAGE | 2.2 A(C) |
| DEED DIMENSION | 45.24' |
| SCALED DIMENSION | 25(S) |
| DIMENSION (MEASURED) | 45(M) |

| | |
|---|---|
| ROAD WIDTH | ROAD (49.5') |
| INTERSTATE HIGHWAY | |
| U.S. HIGHWAY | |
| N.Y.S. HIGHWAY | 14 |
| COUNTY HIGHWAY | 8 |

COORDINATES BASED ON
NEW YORK STATE PLANE COORDINATE SYSTEM
CENTRAL ZONE NAD 83

0 100 200 400 Feet

scale: 1 inch = 200 feet

SHEET INDEX

| | | |
|---|---|---|
| 039.04 | 040.03 | |
| 051.02 | | |
| 051.04 | 052.03 | 052.04 |

**TAX MAP**
**TOWN OF TORREY**
**YATES COUNTY, NEW YORK**
DATE PRINTED 4/17/2020

SECTION **052.01**

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

**Division of Environmental Remediation, Region 8**
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September 17, 2020

Mr. J.F. Meade IV
Mercury Aircraft, Inc.
8126 County Route 88
Hammondsport, New York 14840

Dear Mr. Meade:

**RE: Soil Vapor Intrusion (SVI) Investigation Report Revised (May 2020)**
**Emerging Contaminant Sampling**
**Mercury Aircraft Site ID# 862006**
**Yates(C), Torrey(T)**

Staff at the New York State Department of Environmental Conservation (the Department) and the New York State Department of Health (NYSDOH) has reviewed the referenced document. The following comments on the SVI report need to be addressed.

1. The report was revised to include the data usability study as requested on April 29, 2020 and the date needs to be changed;

2. Please clarify if the sub-slab depressurization system (SSDS) in Building 175 was operating during the sampling event;

3. Please clarify if the groundwater pump and treat system was operating during the sampling event;

4. Indoor air sample locations IA-2, IA-3, and IA-4 trigger the need for continued monitoring. Please include specific building information for Buildings 250 and 275 to determine what actions would be necessary to reduce exposures. Please also note that an additional extraction point may be used to expand the SSDS to cover these buildings;

5. Please provide a description for the use of each space including: the square footage of each area, the type of HVAC that is in operation, the activities performed in each building, identify office space vs. storage space and how it is defined, the number of employees, and chemicals used; and

6. Sample location IA-5 detected trichloroethene (TCE) in the indoor air at a concentration of 1.52 mcg/m3. It was also detected in the sub-slab at a concentration of 1.56 mcg/m3. Was the sub-slab seal compromised? Actions should be taken at this location to reduce exposures to TCE and to determine the potential source of TCE.

**Emerging Contaminant (EC) Sampling and Remaining site issues**

The ultimate goal for this site is to resolve outstanding issues and reclassify the site to a 4 in the New York State Registry of Inactive Hazardous Waste Sites. The following issues will need to be addressed prior to site reclassification:

7. On June 12, 2019, the Department requested a work plan to conduct emerging contaminant sampling in groundwater. To date, a work plan has not been received. Please submit a work plan with 60 days of your receipt of this letter;

8. A Site Management Plan (SMP) will be needed once the SVI issues and EC sampling have been completed. Also, an environmental easement will be required;

9. As part of continued operation and maintenance of the groundwater pump and treat system and the SSDS, the Department has not received any recent groundwater sampling results. Please indicate when the last groundwater monitoring event took place and the current monitoring schedule; and

10. The Department needs to update its database for the site boundaries and acreage of this site. The figure that is attached to the current consent order is not legible. Please provide a copy of the site survey with the boundaries of the Mercury Aircraft site clearly identified.

Please provide a response to these comments within 30 days of your receipt of this letter.

Sincerely,

**Todd M. Caffoe, P.E.**
Division of Environmental Remediation

**New York State Department of Environmental Conservation**
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P: (585) 226-5350 |Todd.Caffoe@dec.ny.gov

www.dec.ny.gov |

attachment

ec: D. Pratt
J. Kenney
T. Forbes
K. Wolfe
B. Meade
L. Connolly

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

May 8, 2020

Mr. Todd M. Caffoe, P.E.
New York State Department of
Environmental Conservation
Division of Environmental Remediation
6274 East Avon-Lima Road
Avon, New York 14414-9519

Re: Soil Vapor Intrusion Investigation Report
NYSDEC Site No. 862006
Former Mercury Aircraft Site, Dresden, New York

Dear Mr. Caffoe:

Benchmark Environmental Engineering & Science, PLLC (Benchmark) has prepared this letter report to summarize the Soil Vapor Intrusion (SVI) activities conducted on Feb 12-13, 2019 on the subject Site (see Figure 1).

## BACKGROUND

The former Mercury Aircraft-Dresden Facility operated within a single building located within a 55-acre industrial park in the Town of Torrey, New York, one mile southeast of the Village of Dresden (see Figure 1). The building and a portion of the surrounding property were formerly owned by Mercury Aircraft and used for the manufacture of stamped metal computer chassis. The former Mercury Aircraft manufacturing facility was purchased by Ferro Corporation (Transelco Division) in 1996, and the former Mercury Aircraft building became known as Ferro Building 175. Figure 2 presents the current layout of the Ferro Complex.

Final remedial measures were substantially completed at the Site in 2002. An interim remedial measure comprised of a groundwater pump and treat system to address chlorinated organic impacts in groundwater serves as a portion of the final remedial measures and is operated in accordance with a 2004 Operation Maintenance and Monitoring Plan.

In March 2005, at the request of the NYSDEC, an SVI investigation was performed at the Former Mercury Aircraft, Inc Dresden Facility building extending into Ferro's production plant. The investigation included four sample locations (see Figure 2, which reflects updated building numbers based on Ferro's current numbering scheme). Results of the sub-slab soil vapor investigation indicated volatile organic compound (VOCs) concentrations (particularly trichloroethene) in the soil vapor and indoor air of Ferro Building 175 requiring mitigation per New York State Department of Health (NYSDOH) guidance. The VOC concentrations detected in Building 200 indicated a need for monitoring but not mitigation. In 2007, Ferro

demolished Building 175 to the top of the concrete slab and constructed a new free-span structure that encompassed the existing Building 175 foundation. A new concrete floor was poured over the existing slab. Concurrent with the construction work, an active subslab depressurization system (ASD) was installed to mitigate vapor migration into Building 175.

As further discussed in the February 2018 Soil Vapor Intrusion Work Plan, NYSDEC more recently notified Ferro Corporation and Mercury Aircraft that it required further assessment of indoor air within the Ferro complex. The Department indicated that this work, as well as any necessary additional SVI mitigation, must be completed along with implementation of certain institutional controls to bring the Site into compliance with current 6NYCRR Part 375 regulations governing NY State Superfund Site closure and to allow reclassification of the Site from a Class 2 (significant threat) site to a Class 4 (remediated, requires ongoing maintenance and monitoring) site. Mercury Aircraft cooperatively entered into Order on Consent (No. R8-20160108-5, effective March 9, 2017) with the NYSDEC to perform the additional SVI investigation. This letter report summarizes the results of sub-slab and indoor air samples collected on February 12-13, 2019 within the Ferro Complex. The locations of the samples are presented on Figure 2 of this report.

## SAMPLE ACTIVITIES

The air samples identified as IA-1 through IA-7 (indoor & sub-slab), were collected using laboratory provided six-liter Summa air canisters equipped with pre-set timed regulators to draw vapors into the canisters over a 24-hour period. Samples were collected in accordance with the SVI Work Plan and NYSDEC comments dated January 17, 2019, with each subslab location subjected to helium tracer testing to verify integrity of the seal surrounding the annular space between the collection tubing and cored concrete. Following the 24-hour sample collection period, the canisters were sealed and the end time and final vacuum were recorded. The canisters were transferred under chain of custody command to Test America Laboratories, Inc., however the sample from location IA-7 sub-slab was not submitted for analysis, as it was discovered that moisture/water from below the concrete slab wept into the boring during the 24-hour sample event and blocked the sample tubing, preventing sufficient vapor for analysis from being drawn into the Summa canister. All other samples were for analysis of Target Compound List (TCL) VOCs per USEPA TO-15 Methodology. At the time of the air sample collection, visual checks of the gauges for the active sub-slab depressurization system (ASD) in Building 175 confirmed that the ASD system was operating. Additionally, the site groundwater pump and treat system was in operation during the air sampling event.

Following setup of the Summa canisters, a chemical product inventory was performed of the complex in areas where the air samples were collected (see Attachment 1). In general, the chemicals identified included 1-gallon and 5-gallon containers of water-based paints near sample location IA-4, along with a chemical storage cabinet that contained several aerosol cans of spray paint, 1- gallon can of acetone, 1-gallon can of xylene, and penetrating oil. A chemical storage cabinet near sample location IA-5 contained similar products, including

paint, pvc cements/glues and an aerosol can of a commercial electronic cleaning spray. No products containing chlorinated VOCs were identified.

Select photographs from the monitoring event are presented as Attachment 2.

## LABORATORY ANALYTICAL RESULTS

A copy of the laboratory analytical report is provided as Attachment 3 to this report. A summary of the analytical results is presented in Table 1. Table 2 provides a comparison of the analytical results to the New York State Department of Health (NYSDOH) Matrix A, B and C thresholds. As indicated on Table 2, Trichloroethene (TCE) fell within the "No Further Action" ("NFA") category at sample locations IA-1 and IA-6, within the "Monitor" category at sample locations IA-2, IA-3 and IA-4 and the Identify Sources/Resample (or mitigate) category at location IA-5. All other compounds categorized under NYSDOH decision matrices fell within the "NFA" category.

## CONCLUSIONS

The results of the sampling indicate that no further mitigation is necessary per the NYSDOH matrices with the possible exception of sample location IA-5, which slightly exceeded the "no further action" criteria and fell into the "identify source(s) and resample or mitigate" category. However, Ferro reports that Location IA-5 is near a large mixing vessel. The area is not routinely occupied; once set up the equipment is turned on and left alone. Otherwise, associates may walk by this area while traversing to other buildings.

Concerning location IA-7 (Building 225) which could not be sampled due to water intrusion, Ferro reports that this area is used for production and is rarely occupied except for pass-through to other buildings or loading or unloading equipment from ovens and a bar mill (1/2-1 hour each event, generally requiring only one person).

Please contact us if you have any questions or require additional information.

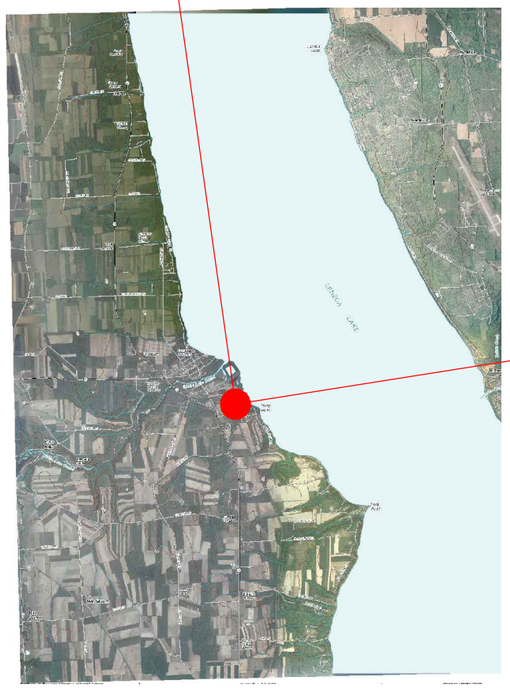
Sincerely,
Benchmark Environmental Engineering & Science, PLLC

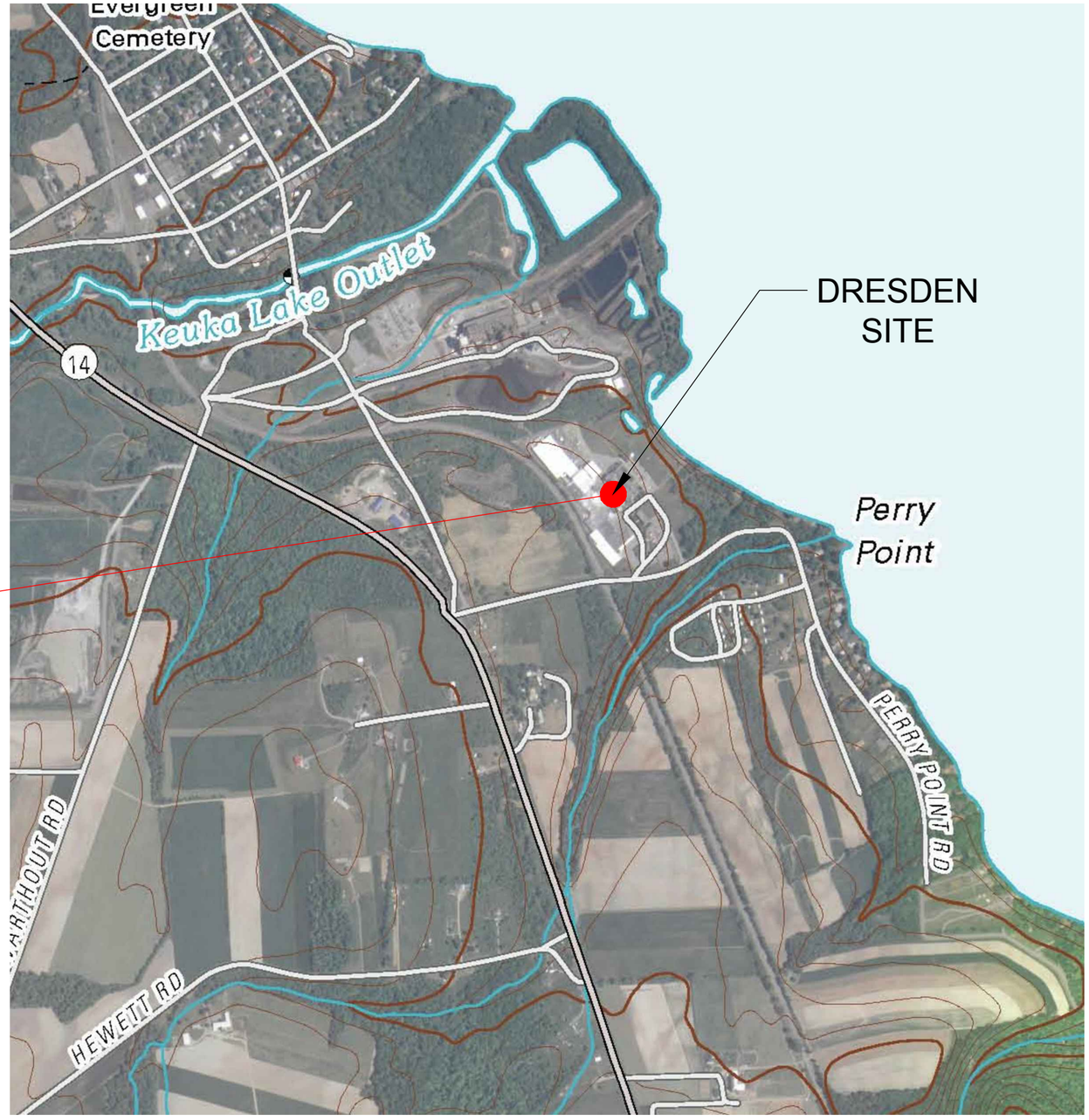
Thomas H. Forbes, P.E.
Principal Engineer

C: J. Meade (Mercury)
B. Meade (Mercury)
M. Hammond (Mercury)
K. Wolfe (Ferro)

# FIGURES

F:\CAD\Benchmark\Mercury Aircraft\DRESDEN\2017 - Soil Vapor Work Plan\Figure 1; Site Vicinity and Location Plan.dwg






N

1,000' 0' 1,000' 2,000'

SCALE: 1 INCH = 1,000 FEET
SCALE IN FEET
(approximate)

BASE MAP ADAPTED FROM 2010 USGS "DRESDEN QUADRANGLE".

DATE: FEBRUARY 2017
DRAFTED BY: RFL

# SITE VICINITY AND LOCATION MAP

SOIL VAPOR INTRUSION INVESTIGATION WORK PLAN
FORMER MERCURY AIRCRAFT SITE (NO. 862006)
DRESDEN, NEW YORK

PREPARED FOR
MERCURY CORPORATION AND FERRO CORPORATION

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC
2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

JOB NO.: 0001-003-200

**FIGURE 1**

DISCLAIMER:
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LEGEND

PROPERTY BOUNDARY

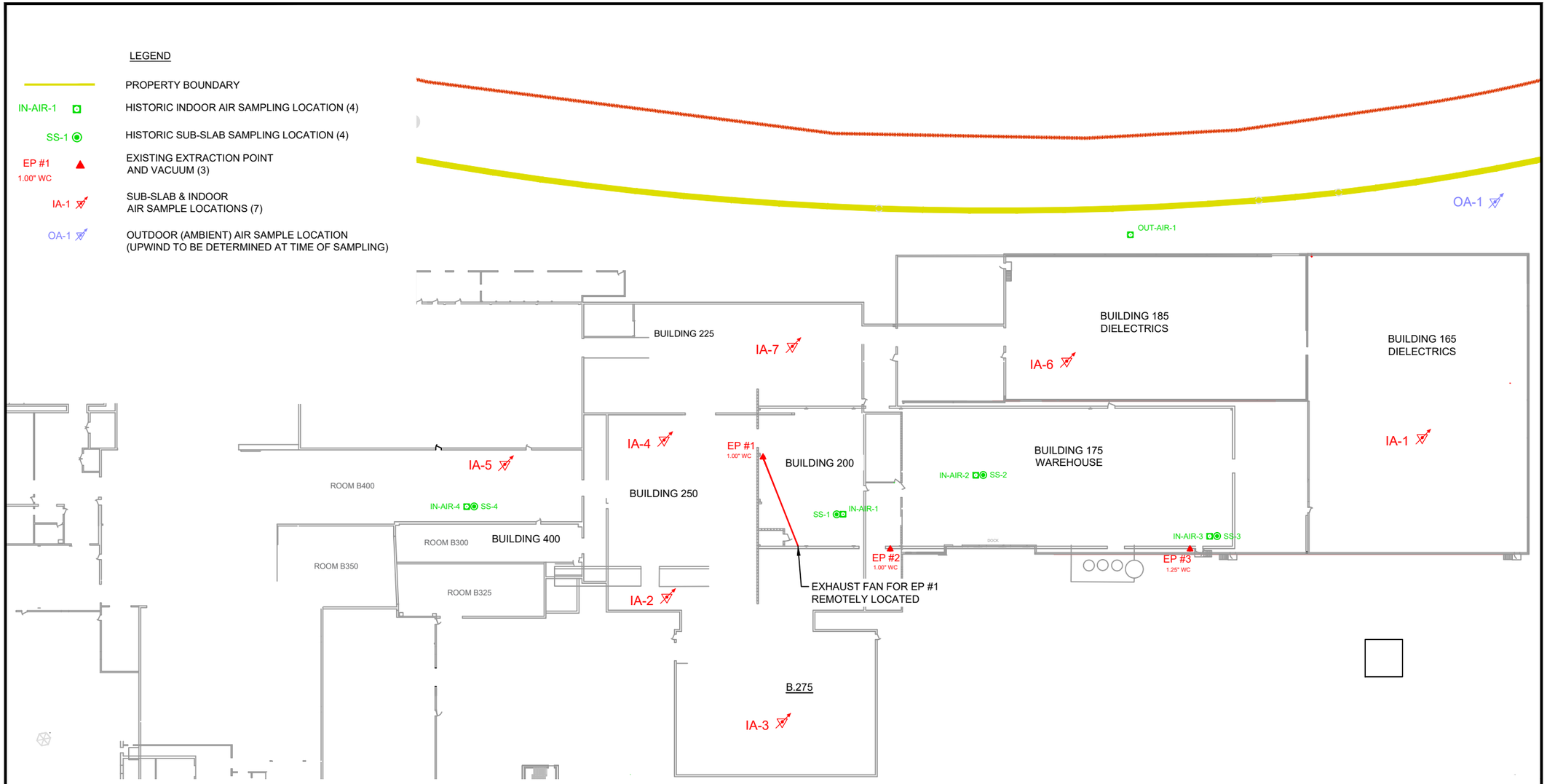
IN-AIR-1 HISTORIC INDOOR AIR SAMPLING LOCATION (4)

SS-1 HISTORIC SUB-SLAB SAMPLING LOCATION (4)

EP #1 EXISTING EXTRACTION POINT AND VACUUM (3)
1.00" WC

IA-1 SUB-SLAB & INDOOR AIR SAMPLE LOCATIONS (7)

OA-1 OUTDOOR (AMBIENT) AIR SAMPLE LOCATION (UPWIND TO BE DETERMINED AT TIME OF SAMPLING)




N

60' 0' 60' 120'

SCALE: 1 INCH = 60 FEET
SCALE IN FEET
(approximate)

DATE: MARCH 2019
DRAFTED BY: RFL/CCB


2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC


JOB NO.: 0001-003-200

# SVI SAMPLING LOCATIONS

SOIL VAPOR INTRUSION INVESTIGATION REPORT
FORMER MERCURY AIRCRAFT SITE (NO. 862006)
DRESDEN, NEW YORK

PREPARED FOR
MERCURY CORPORATION AND FERRO CORPORATION

**FIGURE 2**


DISCLAIMER:
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# TABLES

**TABLE 1**

**SUMMARY OF AIR SAMPLING RESULTS**
**SOIL VAPOR INTRUSION INVESTIGATION REPORT**
**NYSDEC SITE No 862006**
**FORMER MERCURY AIRCRAFT SITE**

| Parameter [1] | Sample Location | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | IA-1 SUB-SLAB | IA-1 INDOOR AIR | IA-2 SUB-SLAB | IA-2 INDOOR AIR | IA-3 SUB-SLAB | IA-3 INDOOR AIR | IA-4 SUB-SLAB | IA-4 INDOOR AIR | IA-5 SUB-SLAB | IA-5 INDOOR AIR | IA-6 SUB-SLAB | IA-6 INDOOR AIR | IA-7 SUB-SLAB | IA-7 INDOOR AIR | OUTDOOR AIR |
| ***Volatile Organics Compounds (VOCs) - ug/m3 (micrograms per cubic meter)*** | ***Sample Location*** | | | | | | | | | | | | | | |
| 1,1,2-Trichloroethane | 0.51 J | 0.52 J | 0.55 J | 0.54 J | 0.54 J | 0.54 J | ND | 0.53 J | 0.51 J | 0.49 J | 0.48 J | 0.47 J | NS | 0.5 J | 0.47 J |
| 1,2,4-Trimethylbenzene | 1.51 | ND | 0.45 J | ND | 1.69 | ND | 2.33 J | ND | 0.64 J | ND | ND | ND | NS | ND | ND |
| 1,3,5-Trimethylbenzene | 0.75 J | ND | ND | ND | 0.58 J | ND | 2.13 J | ND | ND | ND | ND | ND | NS | ND | ND |
| 1,3-Butadiene | ND | ND | ND | ND | ND | ND | 1.69 | ND | ND | ND | ND | ND | NS | ND | ND |
| 1,1-Dichloroethane | 3.59 | ND | ND | ND | ND | ND | 1.47 J | ND | ND | ND | ND | ND | NS | ND | ND |
| 1,1-Dichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | NS | ND | ND |
| 1,1,1-Trichloroethane (TCA) | 45.2 | ND | ND | ND | 107 | ND | ND | ND | 1.37 | ND | ND | ND | NS | ND | ND |
| 4-Ethyltoluene | 0.45 J | ND | ND | ND | 0.44 J | ND | ND | ND | ND | ND | ND | ND | NS | ND | ND |
| 4-Isopropyltoluene | 3.13 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | NS | ND | ND |
| Acetone | 16.5 | ND | 13.6 | 15.7 | 15 | 12.3 | 147 | 27.3 | 19.5 | 6.38 J | ND | ND | NS | 12.3 | ND |
| Benzene | 12.6 | 0.72 | 1.12 | 0.85 | 10.1 | 0.87 | 41 | 0.93 | 1.27 | 0.68 | 0.56 J | 0.55 J | NS | 0.58 J | 0.32 J |
| Carbon disulfide | 5.54 | ND | ND | 0.77 J | 1.41 J | ND | 41.6 | 1.04 J | 0.99 J | ND | ND | ND | NS | ND | ND |
| Carbon tetrachloride [2,3] | 0.21 J | 0.41 | 0.49 | 0.42 | 2.50 | 0.44 | ND | 0.44 | 0.36 | 0.41 | 0.38 | 0.38 | NS | 0.43 | 0.41 |
| Chloroform | 2.5 | ND | 0.47 J | 0.49 J | ND | 0.41 J | 7.9 | ND | ND | ND | ND | ND | NS | 0.25 J | ND |
| Chlorodifluoromethane | ND | ND | 0.97 J | ND | 24.5 | ND | ND | 0.97 J | ND | 1.04 J | ND | ND | NS | ND | ND |
| Chloromethane | ND | ND | ND | 1.09 | ND | 1.07 | ND | 1.21 | ND | 1.1 | 1 J | 1.01 | NS | 1.01 J | 0.96 J |
| cis-1,2-Dichloroethene | 9.72 | ND | ND | ND | ND | ND | 1.88 | 0.93 | ND | ND | ND | ND | NS | 0.47 | ND |
| Cumene (Isopropylbenzene) | 0.71 J | ND | ND | ND | 0.34 J | ND | 2.53 J | ND | ND | ND | ND | ND | NS | ND | ND |
| Cyclohexane | 21.4 | ND | 1.12 | ND | 17.4 | ND | 46.5 | ND | 2.24 | ND | 0.39 J | ND | NS | ND | ND |
| Dichlorodifluoromethane | 2.22 J | 2.12 J | 2.29 J | 2.2 J | 2.32 J | 2.21 J | ND | 2.41 J | 2.37 J | 2.32 J | 2.21 J | 2.2 J | NS | 2.23 J | 2.25 J |
| Ethylbenzene | 3.08 | ND | 0.38 J | ND | 1.65 | 0.36 J | 6.26 | 0.62 J | 0.58 J | ND | ND | ND | NS | ND | ND |
| Isopropanol | 27.1 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | NS | ND | ND |
| Isopropyl alcohol | ND | ND | 10.3 J | 14.8 | ND | 9.69 J | ND | 20.3 | ND | ND | ND | ND | NS | 6.3 J | ND |
| Methyl ethyl ketone | 13 | ND | 1.66 | ND | 6.86 | ND | 25.3 | 1.52 | 1.67 | ND | 0.88 J | 0.76 J | NS | ND | ND |
| Methyl isobutyl ketone | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | NS | ND | ND |
| Methylene Chloride | 1.18 J | ND | 1.14 J | ND | 4.52 | 1.45 J | 2.74 J | 0.72 J | 1.4 J | ND | 0.91 J | 0.81 J | NS | ND | ND |
| Napthalene | 3.98 | ND | ND | ND | 4.72 | ND | ND | ND | ND | ND | ND | ND | NS | ND | ND |
| n-Butane | 66.5 | 1.69 | 6.49 | 4.65 | 41.2 | 4.84 | 146 | 4.88 | 10.3 | 3.79 | 36.6 | 2.14 | NS | 2 | 1.2 |
| n-Heptane | 53 | ND | 1.51 | ND | 18.5 | ND | 65.8 | ND | 3.45 | ND | ND | ND | NS | ND | ND |
| n-Hexane | 64.9 | 0.6 J | 3.05 | 0.88 | 42 | 1.04 | 143 | 0.95 | 6.09 | 0.79 | 1.37 | ND | NS | ND | ND |
| n-Propylbenzene | 0.54 J | ND | ND | ND | 0.43 J | ND | 3.18 | ND | ND | ND | ND | ND | NS | ND | ND |
| Styrene | 1.10 | ND | ND | ND | 1.43 | ND | ND | ND | 0.61 J | ND | ND | ND | NS | ND | ND |
| sec-Butylbenzene | ND | ND | ND | ND | ND | ND | 2.89 J | ND | ND | ND | ND | ND | NS | ND | ND |
| Tetrachloroethene | 0.44 J | 0.4 J | 3.71 | 1.13 J | 10.7 | 1.14 J | ND | 0.93 J | 2.89 | 4.26 | ND | ND | NS | 0.22 J | ND |
| Toluene | 32 | 0.99 | 1.77 | 0.75 | 31 | 1.3 | 127 | 0.95 | 3.71 | 0.77 | 0.74 J | 0.65 J | NS | 0.44 J | 0.27 J |
| trans-1,2-Dichloroethene | 0.93 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | NS | ND | ND |
| Trichloroethene | 31.6 | ND | 6.24 | 0.56 | 5.66 | 0.79 | 29.6 | 0.85 | 1.59 | 1.52 | ND | ND | NS | 0.26 | ND |
| Trichlorofluoromethane | 1.03 J | 1.15 | 1.17 | 1.18 | 3.63 | 1.25 | ND | 1.3 | 1.14 | 1.18 | 1.15 U | 1.15 U | NS | 1.14 U | 1.15 U |
| o-Xylene | 3.77 | ND | 0.46 J | ND | 2.39 | 0.33 J | 7.37 | 0.66 J | 0.81 J | ND | ND | ND | NS | ND | ND |
| p/m-Xylene | 14.2 | 0.49 J | 0.98 J | 0.43 J | 7.4 | 0.67 J | 26.4 | 1.75 J | 1.92 J | 0.44 J | 0.48 J | 0.67 J | NS | 0.43 J | ND |

**Notes:**
1. Only those parameters detected above the method detection limit, at a minimum of one location, are presented in this table.
2. Constituent monitored under NYSDOH Vapor/ Indoor Air Quality Standards - October 2006/June 2007 & May 2017
3. NYSDOH Decision Matrix 1 used to determine appropriate corrective action.
4. NYSDOH Decision Matrix 2 used to determine appropriate corrective action.

**Definitions:**
ND = Parameter not detected above laboratory detection limit.
U = The analyte was analyzed for but was not detected above the level of the reported sample quantitation limit.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
NS = No Sample collected due to sample canister malfunction.

**TABLE 2**

**COMPARISON OF AIR SAMPLING RESULTS TO NYSDOH MATRICIES**
**SOIL VAPOR INTRUSION INVESTIGATION REPORT**

**NYSDEC SITE No 862006**
**FORMER MERCURY AIRCRAFT SITE**
**DRESDEN, NEW YORK**

| Sample Location | Trichloroethene (TCE) | | Carbon Tetrachloride | | cis-1,2-Dichloroethene | | 1,1-Dichloroethene | | Tetrachloroethene (PCE) | | 1,1,1 -Trichloroethane | | Methylene Chloride | | Vinyl Chloride | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Lab Reported Concentration ($ug/m^3$) | Soil Vapor / Indoor Air Matrix A | Lab Reported Concentration ($ug/m^3$) | Soil Vapor / Indoor Air Matrix A | Lab Reported Concentration ($ug/m^3$) | Soil Vapor / Indoor Air Matrix A | Lab Reported Concentration ($ug/m^3$) | Soil Vapor / Indoor Air Matrix A | Lab Reported Concentration ($ug/m^3$) | Soil Vapor / Indoor Air Matrix B | Lab Reported Concentration ($ug/m^3$) | Soil Vapor / Indoor Air Matrix B | Lab Reported Concentration ($ug/m^3$) | Soil Vapor / Indoor Air Matrix B | Lab Reported Concentration ($ug/m^3$) | Soil Vapor / Indoor Air Matrix C |
| IA-1 SUBSLAB | 31.6 | NFA | 0.21 | NFA | 9.72 | NFA | ND | NFA | 0.44 | NFA | 45.2 | NFA | 1.18 | NFA | ND | NFA |
| IA-1 INDOOR AIR | ND | | 0.41 | | ND | | ND | | 0.4 | | ND | | ND | | ND | |
| IA-2 SUBSLAB | 6.24 | MONITOR | 0.49 | NFA | ND | NFA | ND | NFA | 3.71 | NFA | ND | NFA | 1.14 | NFA | ND | NFA |
| IA-2 INDOOR AIR | 0.56 | | 0.42 | | ND | | ND | | 1.13 | | ND | | ND | | ND | |
| IA-3 SUBSLAB | 5.66 | MONITOR | 2.5 | NFA | ND | NFA | ND | NFA | 10.7 | NFA | 107 | NFA | 4.52 | NFA | ND | NFA |
| IA-3 INDOOR AIR | 0.79 | | 0.44 | | ND | | ND | | 1.14 | | ND | | 1.45 | | ND | |
| IA-4 SUBSLAB | 29.6 | MONITOR | ND | NFA | 1.88 | NFA | ND | NFA | ND | NFA | ND | NFA | 2.74 | NFA | ND | NFA |
| IA-4 INDOOR AIR | 0.85 | | 0.44 | | 0.93 | | ND | | 0.93 | | ND | | 0.72 | | ND | |
| IA-5 SUBSLAB | 1.59 | IS/R | 0.36 | NFA | ND | NFA | ND | NFA | 2.89 | NFA | ND | NFA | 1.4 | NFA | ND | NFA |
| IA-5 INDOOR AIR | 1.52 | | 0.41 | | ND | | ND | | 4.26 | | ND | | ND | | ND | |
| IA-6 SUBSLAB | ND | NFA | 0.38 | NFA | ND | NFA | ND | NFA | ND | NFA | ND | NFA | 0.91 | NFA | ND | |
| IA-6 INDOOR AIR | ND | | 0.38 | | ND | | ND | | ND | | ND | | 0.81 | | ND | NFA |
| IA-7 INDOOR AIR | 0.26 | | 0.43 | | 0.47 | | ND | | 0.22 | | 0.47 | | ND | | ND | |

**Notes:**
ND = Parameter not detected above laboratory detection limit.
NFA = No further action.
IS/R = Identify source(s) & resample or mitigate.

= NYSDOH Matrix A Compounds
= NYSDOH Matrix B Compounds
= NYSDOH Matrix C Compounds

**Analytes Assigned:**
Trichloroethene (TCE), cis-1,2-Dichloroethene (c12-DCE), 1,1-Dichloroethene (11-DCE), Carbon Tetrachloride

| SUB-SLAB VAPOR CONCENTRATION of COMPOUND ($mcg/m^3$) | INDOOR AIR CONCENTRATION of COMPOUND ($mcg/m^3$) | | |
|---|---|---|---|
| | < 0.2 | 0.2 to < 1 | 1 and above |
| < 6 | 1. No further action | 2. No Further Action | 3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE |
| 6 to < 60 | 4. No further action | 5. MONITOR | 6. MITIGATE |
| 60 and above | 7. MITIGATE | 8. MITIGATE | 9. MITIGATE |

**Analytes Assigned:**
Tetrachloroethene (PCE), 1,1,1-Trichloroethane (111-TCA), Methylene Chloride

| SUB-SLAB VAPOR CONCENTRATION of COMPOUND ($mcg/m^3$) | INDOOR AIR CONCENTRATION of COMPOUND ($mcg/m^3$) | | |
|---|---|---|---|
| | < 3 | 3 to < 10 | 10 and above |
| < 100 | 1. No further action | 2. No Further Action | 3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE |
| 100 to < 1,000 | 4. No further action | 5. MONITOR | 6. MITIGATE |
| 1,000 and above | 7. MITIGATE | 8. MITIGATE | 9. MITIGATE |

**Analytes Assigned:**
Vinyl Chloride

| SUB-SLAB VAPOR CONCENTRATION of COMPOUND ($mcg/m^3$) | INDOOR AIR CONCENTRATION of COMPOUND ($mcg/m^3$) | |
|---|---|---|
| | < 0.2 | 0.2 and above |
| < 6 | 1. No further action | 2. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE |
| 6 to < 60 | 3. MONITOR | 4. MITIGATE |
| 60 and above | 5. MITIGATE | 6. MITIGATE |

# ATTACHMENT 1

## Chemical Inventory

BENCHMARK

## PRODUCT INVENTORY FORM

| Location | Product Description | Size (units) | Condition [1] |
|---|---|---|---|
| Building 250 (near sample IA-4) | Water based Paint | 1 gal | used/opened |
| Building 250 (near sample IA-4) | Water Based Paint | 5 gal | used/opened |
| Building 250 (near sample IA-4) | Spray Paint | 16 oz | used/opened |
| Building 250 (near sample IA-4) | Acetone | 1 gal | used/opened |
| Building 250 (near sample IA-4) | Xylene | 1 gal | used/opened |
| Building 250 (near sample IA-4) | Penetrating Oil | 16 oz | used/opened |
| | | | |
| Building 400 (near sample IA-5) | Spray Paint | 16 oz | used/opened |
| Building 400 (near sample IA-5) | PVC cement | 12 oz | used/opened |
| Building 400 (near sample IA-5) | PVC primer | 12 oz | used/opened |
| Building 400 (near sample IA-5) | Commercial electrical cleaning spray | 16 oz | used/opened |
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# ATTACHMENT 2

**Photo Log**

BENCHMARK

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

# PHOTOGRAPHIC LOG

| **Client Name:** | **Site Location:** | **Project No.:** |
|---|---|---|
| Mercury Corporation | Former Mercury Site (Current Ferro Complex)<br>Dresden, NY | 0001-002-200 |

| **Photo No.** | **Date** |
|---|---|
| 1 | 02/12/19 |

**Direction Photo Taken:**
Northwest

**Description:**
IA-1 Indoor Air and Sub-slab sample locations.

| **Photo No.** | **Date** |
|---|---|
| 2 | 02/12/19 |

**Direction Photo Taken:**
East

**Description:**
IA-2 Indoor Air and Sub-slab sample locations.

*Prepared By:* *RLD*

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

# PHOTOGRAPHIC LOG

| Client Name: | Site Location: | Project No.: |
|---|---|---|
| Mercury Corporation | Former Mercury Site (Current Ferro Complex)<br>Dresden, NY | 0001-002-200 |

| Photo No. | Date |
|---|---|
| 3 | 02/12/19 |

**Direction Photo Taken:**
Southwest

**Description:**
IA-3 Indoor Air and Sub-slab sample locations.

| Photo No. | Date |
|---|---|
| 4 | 02/12/19 |

**Direction Photo Taken:**
Southwest

**Description:**
IA-4 Indoor Air and Sub-slab sample locations.

*Prepared By:* *RLD*

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

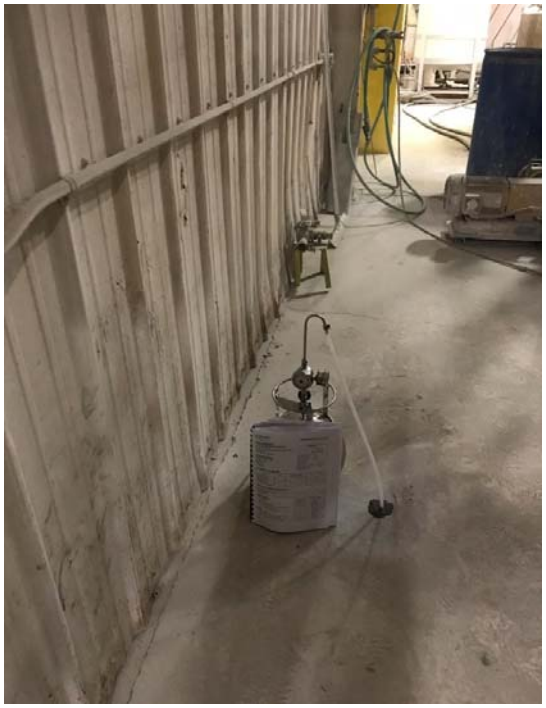
# PHOTOGRAPHIC LOG

| Client Name: | Site Location: | Project No.: |
|---|---|---|
| Mercury Corporation | Former Mercury Site (Current Ferro Complex)<br>Dresden, NY | 0001-002-200 |

| Photo No. | Date |
|---|---|
| 5 | 02/12/19 |

**Direction Photo Taken:**
North

**Description:**
IA-5 Sub-slab sample location



| Photo No. | Date |
|---|---|
| 6 | 02/12/19 |

**Direction Photo Taken:**
North

**Description:**
IA-5 Indoor air sample location

*Prepared By:* *RLD*

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

# PHOTOGRAPHIC LOG

| Client Name: | Site Location: | Project No.: |
|---|---|---|
| Mercury Corporation | Former Mercury Site (Current Ferro Complex)<br>Dresden, NY | 0001-002-200 |

| Photo No. | Date |
|---|---|
| 7 | 02/12/19 |

**Direction Photo Taken:**
South

**Description:**
IA-6 Sub-slab sample location

| Photo No. | Date |
|---|---|
| 8 | 02/12/19 |

**Direction Photo Taken:**
West

**Description:**
IA-6 Indoor air sample location

*Prepared By:* *RLD*

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

# PHOTOGRAPHIC LOG

| Client Name: | Site Location: | Project No.: |
|---|---|---|
| Mercury Corporation | Former Mercury Site (Current Ferro Complex)<br>Dresden, NY | 0001-002-200 |

| Photo No. | Date |
|---|---|
| 9 | 02/12/19 |

**Direction Photo Taken:**
Southwest

**Description:**
IA-7 Indoor Air and Sub-slab sample locations.

| Photo No. | Date |
|---|---|
| 10 | 02/12/19 |

**Direction Photo Taken:**
West

**Description:**
Outdoor air sample location

*Prepared By:* *RLD*

# ATTACHMENT 3

**Laboratory Analytical Report**

BENCHMARK

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 05403
Tel: (802)660-1990

TestAmerica Job ID: 200-47424-1
Client Project/Site: Benchmark - Mercury Aircraft (Dresdan)

For:
Benchmark Env. Eng. & Science, PLLC
2558 Hamburg Turnpike
Suite 300
Lackawanna, New York 14218

Attn: Mr. Tom Forbes

*Authorized for release by:*
*2/28/2019 9:35:34 AM*

Brian Fischer, Manager of Project Management
(716)504-9835
brian.fischer@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at:
www.testamericainc.com

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

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

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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## Qualifiers

### Air - GC/MS VOA

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

## Glossary

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

## Job ID: 200-47424-1

### Laboratory: TestAmerica Burlington

**Narrative**

**Job Narrative**
**200-47424-1**

**Comments**
No additional comments.

**Receipt**
The samples were received on 2/15/2019 10:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice.

**Receipt Exceptions**

During the canister pressure check performed upon receipt, the following sample was found to be received at ambient pressure. The associated flow controller was evaluated and was found to be within the acceptable flow range as compared to the original set flow rate.

**Air Toxics**
Method(s) TO-15: The continuing calibration verification (CCV) associated with batch 200-140047 recovered above the upper control limit for 1,2,4-Trichlorobenzene, 3-Chloropropene and Naphthalene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: IA-5-SUBSLAB (200-47424-9) and IA-5-INDOOR AIR (200-47424-10).

Method(s) TO-15: The continuing calibration verification (CCV) associated with batch 200-140028 recovered above the upper control limit for Bromoform. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: IA-6-SUBSLAB (200-47424-11), IA-6-INDOOR AIR (200-47424-12), IA-7-INDOOR AIR (200-47424-14) and OUTDOOR AIR (200-47424-15).

Method(s) TO-15: The laboratory control sample (LCS) for analytical batch 200-140028 recovered outside control limits for the following analytes: 1,2,4-Trichlorobenzene and Naphthalene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) TO-15: The laboratory control sample (LCS) for analytical batch 200-140052 recovered outside control limits for the following analytes: Naphthalene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) TO-15: The laboratory control sample (LCS) for analytical batch 200-140147 recovered outside control limits for the following analytes: Naphthalene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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

# Detection Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

## Client Sample ID: IA-1-SUBSLAB

## Lab Sample ID: 200-47424-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 45.2 | | 1.09 | 0.37 | ug/m3 | 1 | | TO-15 | Total/NA |
| 1,1,2-Trichlorotrifluoroethane | 0.51 | J | 1.53 | 0.24 | ug/m3 | 1 | | TO-15 | Total/NA |
| 1,1-Dichloroethane | 3.59 | | 0.81 | 0.11 | ug/m3 | 1 | | TO-15 | Total/NA |
| 1,2,4-Trimethylbenzene | 1.51 | | 0.98 | 0.39 | ug/m3 | 1 | | TO-15 | Total/NA |
| 1,3,5-Trimethylbenzene | 0.75 | J | 0.98 | 0.29 | ug/m3 | 1 | | TO-15 | Total/NA |
| 4-Ethyltoluene | 0.45 | J | 0.98 | 0.34 | ug/m3 | 1 | | TO-15 | Total/NA |
| 4-Isopropyltoluene | 3.13 | | 1.10 | 0.41 | ug/m3 | 1 | | TO-15 | Total/NA |
| Acetone | 16.5 | | 11.9 | 6.18 | ug/m3 | 1 | | TO-15 | Total/NA |
| Benzene | 12.6 | | 0.64 | 0.23 | ug/m3 | 1 | | TO-15 | Total/NA |
| Carbon disulfide | 5.54 | | 1.56 | 0.37 | ug/m3 | 1 | | TO-15 | Total/NA |
| Carbon tetrachloride | 0.21 | J | 0.22 | 0.15 | ug/m3 | 1 | | TO-15 | Total/NA |
| Chloroform | 2.50 | | 0.98 | 0.25 | ug/m3 | 1 | | TO-15 | Total/NA |
| cis-1,2-Dichloroethene | 9.72 | | 0.14 | 0.15 | ug/m3 | 1 | | TO-15 | Total/NA |
| Cumene | 0.71 | J | 0.98 | 0.29 | ug/m3 | 1 | | TO-15 | Total/NA |
| Cyclohexane | 21.4 | | 0.69 | 0.22 | ug/m3 | 1 | | TO-15 | Total/NA |
| Dichlorodifluoromethane | 2.22 | J | 2.47 | 0.99 | ug/m3 | 1 | | TO-15 | Total/NA |
| Ethylbenzene | 3.08 | | 0.87 | 0.32 | ug/m3 | 1 | | TO-15 | Total/NA |
| Isopropyl alcohol | 27.1 | | 12.3 | 4.42 | ug/m3 | 1 | | TO-15 | Total/NA |
| m,p-Xylene | 14.2 | | 2.17 | 0.30 | ug/m3 | 1 | | TO-15 | Total/NA |
| Methyl Ethyl Ketone (2-Butanone) | 13.0 | | 1.47 | 0.59 | ug/m3 | 1 | | TO-15 | Total/NA |
| Methylene Chloride | 1.18 | J | 1.74 | 0.69 | ug/m3 | 1 | | TO-15 | Total/NA |
| Naphthalene | 3.98 | | 2.62 | 1.63 | ug/m3 | 1 | | TO-15 | Total/NA |
| n-Butane | 66.5 | | 1.19 | 0.74 | ug/m3 | 1 | | TO-15 | Total/NA |
| n-Heptane | 53.0 | | 0.82 | 0.57 | ug/m3 | 1 | | TO-15 | Total/NA |
| n-Hexane | 64.9 | | 0.70 | 0.56 | ug/m3 | 1 | | TO-15 | Total/NA |
| n-Propylbenzene | 0.54 | J | 0.98 | 0.34 | ug/m3 | 1 | | TO-15 | Total/NA |
| o-Xylene | 3.77 | | 0.87 | 0.31 | ug/m3 | 1 | | TO-15 | Total/NA |
| Styrene | 1.10 | | 0.85 | 0.37 | ug/m3 | 1 | | TO-15 | Total/NA |
| Tetrachloroethene | 0.44 | J | 1.36 | 0.20 | ug/m3 | 1 | | TO-15 | Total/NA |
| Toluene | 32.0 | | 0.75 | 0.26 | ug/m3 | 1 | | TO-15 | Total/NA |
| trans-1,2-Dichloroethene | 0.93 | | 0.79 | 0.29 | ug/m3 | 1 | | TO-15 | Total/NA |
| Trichloroethene | 31.6 | | 0.19 | 0.16 | ug/m3 | 1 | | TO-15 | Total/NA |
| Trichlorofluoromethane | 1.03 | J | 1.12 | 0.35 | ug/m3 | 1 | | TO-15 | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 8.29 | | 0.20 | 0.068 | ppb v/v | 1 | | TO-15 | Total/NA |
| 1,1,2-Trichlorotrifluoroethane | 0.067 | J | 0.20 | 0.031 | ppb v/v | 1 | | TO-15 | Total/NA |
| 1,1-Dichloroethane | 0.89 | | 0.20 | 0.026 | ppb v/v | 1 | | TO-15 | Total/NA |
| 1,2,4-Trimethylbenzene | 0.31 | | 0.20 | 0.080 | ppb v/v | 1 | | TO-15 | Total/NA |
| 1,3,5-Trimethylbenzene | 0.15 | J | 0.20 | 0.058 | ppb v/v | 1 | | TO-15 | Total/NA |
| 4-Ethyltoluene | 0.092 | J | 0.20 | 0.069 | ppb v/v | 1 | | TO-15 | Total/NA |
| 4-Isopropyltoluene | 0.57 | | 0.20 | 0.075 | ppb v/v | 1 | | TO-15 | Total/NA |
| Acetone | 6.95 | | 5.00 | 2.60 | ppb v/v | 1 | | TO-15 | Total/NA |
| Benzene | 3.96 | | 0.20 | 0.071 | ppb v/v | 1 | | TO-15 | Total/NA |
| Carbon disulfide | 1.78 | | 0.50 | 0.12 | ppb v/v | 1 | | TO-15 | Total/NA |
| Carbon tetrachloride | 0.034 | J | 0.035 | 0.024 | ppb v/v | 1 | | TO-15 | Total/NA |
| Chloroform | 0.51 | | 0.20 | 0.052 | ppb v/v | 1 | | TO-15 | Total/NA |
| cis-1,2-Dichloroethene | 2.45 | | 0.035 | 0.037 | ppb v/v | 1 | | TO-15 | Total/NA |
| Cumene | 0.14 | J | 0.20 | 0.059 | ppb v/v | 1 | | TO-15 | Total/NA |
| Cyclohexane | 6.21 | | 0.20 | 0.063 | ppb v/v | 1 | | TO-15 | Total/NA |
| Dichlorodifluoromethane | 0.45 | J | 0.50 | 0.20 | ppb v/v | 1 | | TO-15 | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: IA-1-SUBSLAB (Continued)

## Lab Sample ID: 200-47424-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | 0.71 | | 0.20 | 0.073 | ppb v/v | 1 | | TO-15 | Total/NA |
| Isopropyl alcohol | 11.0 | | 5.00 | 1.80 | ppb v/v | 1 | | TO-15 | Total/NA |
| m,p-Xylene | 3.26 | | 0.50 | 0.070 | ppb v/v | 1 | | TO-15 | Total/NA |
| Methyl Ethyl Ketone (2-Butanone) | 4.40 | | 0.50 | 0.20 | ppb v/v | 1 | | TO-15 | Total/NA |
| Methylene Chloride | 0.34 | J | 0.50 | 0.20 | ppb v/v | 1 | | TO-15 | Total/NA |
| Naphthalene | 0.76 | | 0.50 | 0.31 | ppb v/v | 1 | | TO-15 | Total/NA |
| n-Butane | 28.0 | | 0.50 | 0.31 | ppb v/v | 1 | | TO-15 | Total/NA |
| n-Heptane | 12.9 | | 0.20 | 0.14 | ppb v/v | 1 | | TO-15 | Total/NA |
| n-Hexane | 18.4 | | 0.20 | 0.16 | ppb v/v | 1 | | TO-15 | Total/NA |
| n-Propylbenzene | 0.11 | J | 0.20 | 0.069 | ppb v/v | 1 | | TO-15 | Total/NA |
| o-Xylene | 0.87 | | 0.20 | 0.071 | ppb v/v | 1 | | TO-15 | Total/NA |
| Styrene | 0.26 | | 0.20 | 0.086 | ppb v/v | 1 | | TO-15 | Total/NA |
| Tetrachloroethene | 0.066 | J | 0.20 | 0.029 | ppb v/v | 1 | | TO-15 | Total/NA |
| Toluene | 8.49 | | 0.20 | 0.069 | ppb v/v | 1 | | TO-15 | Total/NA |
| trans-1,2-Dichloroethene | 0.23 | | 0.20 | 0.074 | ppb v/v | 1 | | TO-15 | Total/NA |
| Trichloroethene | 5.88 | | 0.035 | 0.030 | ppb v/v | 1 | | TO-15 | Total/NA |
| Trichlorofluoromethane | 0.18 | J | 0.20 | 0.062 | ppb v/v | 1 | | TO-15 | Total/NA |

## Client Sample ID: IA-1-INDOOR AIR

## Lab Sample ID: 200-47424-2

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichlorotrifluoroethane | 0.52 | J | 1.53 | 0.24 | ug/m3 | 1 | | TO-15 | Total/NA |
| Benzene | 0.72 | | 0.64 | 0.23 | ug/m3 | 1 | | TO-15 | Total/NA |
| Carbon tetrachloride | 0.41 | | 0.22 | 0.15 | ug/m3 | 1 | | TO-15 | Total/NA |
| Dichlorodifluoromethane | 2.12 | J | 2.47 | 0.99 | ug/m3 | 1 | | TO-15 | Total/NA |
| m,p-Xylene | 0.49 | J | 2.17 | 0.30 | ug/m3 | 1 | | TO-15 | Total/NA |
| n-Butane | 1.69 | | 1.19 | 0.74 | ug/m3 | 1 | | TO-15 | Total/NA |
| n-Hexane | 0.60 | J | 0.70 | 0.56 | ug/m3 | 1 | | TO-15 | Total/NA |
| Tetrachloroethene | 0.40 | J | 1.36 | 0.20 | ug/m3 | 1 | | TO-15 | Total/NA |
| Toluene | 0.99 | | 0.75 | 0.26 | ug/m3 | 1 | | TO-15 | Total/NA |
| Trichlorofluoromethane | 1.15 | | 1.12 | 0.35 | ug/m3 | 1 | | TO-15 | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichlorotrifluoroethane | 0.068 | J | 0.20 | 0.031 | ppb v/v | 1 | | TO-15 | Total/NA |
| Benzene | 0.23 | | 0.20 | 0.071 | ppb v/v | 1 | | TO-15 | Total/NA |
| Carbon tetrachloride | 0.065 | | 0.035 | 0.024 | ppb v/v | 1 | | TO-15 | Total/NA |
| Dichlorodifluoromethane | 0.43 | J | 0.50 | 0.20 | ppb v/v | 1 | | TO-15 | Total/NA |
| m,p-Xylene | 0.11 | J | 0.50 | 0.070 | ppb v/v | 1 | | TO-15 | Total/NA |
| n-Butane | 0.71 | | 0.50 | 0.31 | ppb v/v | 1 | | TO-15 | Total/NA |
| n-Hexane | 0.17 | J | 0.20 | 0.16 | ppb v/v | 1 | | TO-15 | Total/NA |
| Tetrachloroethene | 0.060 | J | 0.20 | 0.029 | ppb v/v | 1 | | TO-15 | Total/NA |
| Toluene | 0.26 | | 0.20 | 0.069 | ppb v/v | 1 | | TO-15 | Total/NA |
| Trichlorofluoromethane | 0.21 | | 0.20 | 0.062 | ppb v/v | 1 | | TO-15 | Total/NA |

## Client Sample ID: IA-2-SUBSLAB

## Lab Sample ID: 200-47424-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichlorotrifluoroethane | 0.55 | J | 1.53 | 0.24 | ug/m3 | 1 | | TO-15 | Total/NA |
| 1,2,4-Trimethylbenzene | 0.45 | J | 0.98 | 0.39 | ug/m3 | 1 | | TO-15 | Total/NA |
| Acetone | 13.6 | | 11.9 | 6.18 | ug/m3 | 1 | | TO-15 | Total/NA |
| Benzene | 1.12 | | 0.64 | 0.23 | ug/m3 | 1 | | TO-15 | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: IA-2-SUBSLAB (Continued)

## Lab Sample ID: 200-47424-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Carbon tetrachloride | 0.49 | | 0.22 | 0.15 | ug/m3 | 1 | | TO-15 | Total/NA |
| Chlorodifluoromethane | 0.97 | J | 1.77 | 0.92 | ug/m3 | 1 | | TO-15 | Total/NA |
| Chloroform | 0.47 | J | 0.98 | 0.25 | ug/m3 | 1 | | TO-15 | Total/NA |
| Cyclohexane | 1.12 | | 0.69 | 0.22 | ug/m3 | 1 | | TO-15 | Total/NA |
| Dichlorodifluoromethane | 2.29 | J | 2.47 | 0.99 | ug/m3 | 1 | | TO-15 | Total/NA |
| Ethylbenzene | 0.38 | J | 0.87 | 0.32 | ug/m3 | 1 | | TO-15 | Total/NA |
| Isopropyl alcohol | 10.3 | J | 12.3 | 4.42 | ug/m3 | 1 | | TO-15 | Total/NA |
| m,p-Xylene | 0.98 | J | 2.17 | 0.30 | ug/m3 | 1 | | TO-15 | Total/NA |
| Methyl Ethyl Ketone (2-Butanone) | 1.66 | | 1.47 | 0.59 | ug/m3 | 1 | | TO-15 | Total/NA |
| Methylene Chloride | 1.14 | J | 1.74 | 0.69 | ug/m3 | 1 | | TO-15 | Total/NA |
| n-Butane | 6.49 | | 1.19 | 0.74 | ug/m3 | 1 | | TO-15 | Total/NA |
| n-Heptane | 1.51 | | 0.82 | 0.57 | ug/m3 | 1 | | TO-15 | Total/NA |
| n-Hexane | 3.05 | | 0.70 | 0.56 | ug/m3 | 1 | | TO-15 | Total/NA |
| o-Xylene | 0.46 | J | 0.87 | 0.31 | ug/m3 | 1 | | TO-15 | Total/NA |
| Tetrachloroethene | 3.71 | | 1.36 | 0.20 | ug/m3 | 1 | | TO-15 | Total/NA |
| Toluene | 1.77 | | 0.75 | 0.26 | ug/m3 | 1 | | TO-15 | Total/NA |
| Trichloroethene | 6.24 | | 0.19 | 0.16 | ug/m3 | 1 | | TO-15 | Total/NA |
| Trichlorofluoromethane | 1.17 | | 1.12 | 0.35 | ug/m3 | 1 | | TO-15 | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichlorotrifluoroethane | 0.071 | J | 0.20 | 0.031 | ppb v/v | 1 | | TO-15 | Total/NA |
| 1,2,4-Trimethylbenzene | 0.092 | J | 0.20 | 0.080 | ppb v/v | 1 | | TO-15 | Total/NA |
| Acetone | 5.72 | | 5.00 | 2.60 | ppb v/v | 1 | | TO-15 | Total/NA |
| Benzene | 0.35 | | 0.20 | 0.071 | ppb v/v | 1 | | TO-15 | Total/NA |
| Carbon tetrachloride | 0.078 | | 0.035 | 0.024 | ppb v/v | 1 | | TO-15 | Total/NA |
| Chlorodifluoromethane | 0.27 | J | 0.50 | 0.26 | ppb v/v | 1 | | TO-15 | Total/NA |
| Chloroform | 0.097 | J | 0.20 | 0.052 | ppb v/v | 1 | | TO-15 | Total/NA |
| Cyclohexane | 0.33 | | 0.20 | 0.063 | ppb v/v | 1 | | TO-15 | Total/NA |
| Dichlorodifluoromethane | 0.46 | J | 0.50 | 0.20 | ppb v/v | 1 | | TO-15 | Total/NA |
| Ethylbenzene | 0.086 | J | 0.20 | 0.073 | ppb v/v | 1 | | TO-15 | Total/NA |
| Isopropyl alcohol | 4.21 | J | 5.00 | 1.80 | ppb v/v | 1 | | TO-15 | Total/NA |
| m,p-Xylene | 0.23 | J | 0.50 | 0.070 | ppb v/v | 1 | | TO-15 | Total/NA |
| Methyl Ethyl Ketone (2-Butanone) | 0.56 | | 0.50 | 0.20 | ppb v/v | 1 | | TO-15 | Total/NA |
| Methylene Chloride | 0.33 | J | 0.50 | 0.20 | ppb v/v | 1 | | TO-15 | Total/NA |
| n-Butane | 2.73 | | 0.50 | 0.31 | ppb v/v | 1 | | TO-15 | Total/NA |
| n-Heptane | 0.37 | | 0.20 | 0.14 | ppb v/v | 1 | | TO-15 | Total/NA |
| n-Hexane | 0.86 | | 0.20 | 0.16 | ppb v/v | 1 | | TO-15 | Total/NA |
| o-Xylene | 0.11 | J | 0.20 | 0.071 | ppb v/v | 1 | | TO-15 | Total/NA |
| Tetrachloroethene | 0.55 | | 0.20 | 0.029 | ppb v/v | 1 | | TO-15 | Total/NA |
| Toluene | 0.47 | | 0.20 | 0.069 | ppb v/v | 1 | | TO-15 | Total/NA |
| Trichloroethene | 1.16 | | 0.035 | 0.030 | ppb v/v | 1 | | TO-15 | Total/NA |
| Trichlorofluoromethane | 0.21 | | 0.20 | 0.062 | ppb v/v | 1 | | TO-15 | Total/NA |

## Client Sample ID: IA-2-INDOOR AIR

## Lab Sample ID: 200-47424-4

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichlorotrifluoroethane | 0.54 | J | 1.53 | 0.24 | ug/m3 | 1 | | TO-15 | Total/NA |
| Acetone | 15.7 | | 11.9 | 6.18 | ug/m3 | 1 | | TO-15 | Total/NA |
| Benzene | 0.85 | | 0.64 | 0.23 | ug/m3 | 1 | | TO-15 | Total/NA |
| Carbon disulfide | 0.77 | J | 1.56 | 0.37 | ug/m3 | 1 | | TO-15 | Total/NA |
| Carbon tetrachloride | 0.42 | | 0.22 | 0.15 | ug/m3 | 1 | | TO-15 | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: IA-2-INDOOR AIR (Continued) — Lab Sample ID: 200-47424-4

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloroform | 0.49 | J | 0.98 | 0.25 | ug/m3 | 1 | | TO-15 | Total/NA |
| Chloromethane | 1.09 | | 1.03 | 0.52 | ug/m3 | 1 | | TO-15 | Total/NA |
| Dichlorodifluoromethane | 2.20 | J | 2.47 | 0.99 | ug/m3 | 1 | | TO-15 | Total/NA |
| Isopropyl alcohol | 14.8 | | 12.3 | 4.42 | ug/m3 | 1 | | TO-15 | Total/NA |
| m,p-Xylene | 0.43 | J | 2.17 | 0.30 | ug/m3 | 1 | | TO-15 | Total/NA |
| n-Butane | 4.65 | | 1.19 | 0.74 | ug/m3 | 1 | | TO-15 | Total/NA |
| n-Hexane | 0.88 | | 0.70 | 0.56 | ug/m3 | 1 | | TO-15 | Total/NA |
| Tetrachloroethene | 1.13 | J | 1.36 | 0.20 | ug/m3 | 1 | | TO-15 | Total/NA |
| Toluene | 0.75 | | 0.75 | 0.26 | ug/m3 | 1 | | TO-15 | Total/NA |
| Trichloroethene | 0.56 | | 0.19 | 0.16 | ug/m3 | 1 | | TO-15 | Total/NA |
| Trichlorofluoromethane | 1.18 | | 1.12 | 0.35 | ug/m3 | 1 | | TO-15 | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichlorotrifluoroethane | 0.070 | J | 0.20 | 0.031 | ppb v/v | 1 | | TO-15 | Total/NA |
| Acetone | 6.62 | | 5.00 | 2.60 | ppb v/v | 1 | | TO-15 | Total/NA |
| Benzene | 0.27 | | 0.20 | 0.071 | ppb v/v | 1 | | TO-15 | Total/NA |
| Carbon disulfide | 0.25 | J | 0.50 | 0.12 | ppb v/v | 1 | | TO-15 | Total/NA |
| Carbon tetrachloride | 0.066 | | 0.035 | 0.024 | ppb v/v | 1 | | TO-15 | Total/NA |
| Chloroform | 0.10 | J | 0.20 | 0.052 | ppb v/v | 1 | | TO-15 | Total/NA |
| Chloromethane | 0.53 | | 0.50 | 0.25 | ppb v/v | 1 | | TO-15 | Total/NA |
| Dichlorodifluoromethane | 0.44 | J | 0.50 | 0.20 | ppb v/v | 1 | | TO-15 | Total/NA |
| Isopropyl alcohol | 6.01 | | 5.00 | 1.80 | ppb v/v | 1 | | TO-15 | Total/NA |
| m,p-Xylene | 0.099 | J | 0.50 | 0.070 | ppb v/v | 1 | | TO-15 | Total/NA |
| n-Butane | 1.96 | | 0.50 | 0.31 | ppb v/v | 1 | | TO-15 | Total/NA |
| n-Hexane | 0.25 | | 0.20 | 0.16 | ppb v/v | 1 | | TO-15 | Total/NA |
| Tetrachloroethene | 0.17 | J | 0.20 | 0.029 | ppb v/v | 1 | | TO-15 | Total/NA |
| Toluene | 0.20 | | 0.20 | 0.069 | ppb v/v | 1 | | TO-15 | Total/NA |
| Trichloroethene | 0.10 | | 0.035 | 0.030 | ppb v/v | 1 | | TO-15 | Total/NA |
| Trichlorofluoromethane | 0.21 | | 0.20 | 0.062 | ppb v/v | 1 | | TO-15 | Total/NA |

## Client Sample ID: IA-3-SUBSLAB — Lab Sample ID: 200-47424-5

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 107 | | 1.09 | 0.37 | ug/m3 | 1 | | TO-15 | Total/NA |
| 1,1,2-Trichlorotrifluoroethane | 0.54 | J | 1.53 | 0.24 | ug/m3 | 1 | | TO-15 | Total/NA |
| 1,2,4-Trimethylbenzene | 1.69 | | 0.98 | 0.39 | ug/m3 | 1 | | TO-15 | Total/NA |
| 1,3,5-Trimethylbenzene | 0.58 | J | 0.98 | 0.29 | ug/m3 | 1 | | TO-15 | Total/NA |
| 4-Ethyltoluene | 0.44 | J | 0.98 | 0.34 | ug/m3 | 1 | | TO-15 | Total/NA |
| Acetone | 15.0 | | 11.9 | 6.18 | ug/m3 | 1 | | TO-15 | Total/NA |
| Benzene | 10.1 | | 0.64 | 0.23 | ug/m3 | 1 | | TO-15 | Total/NA |
| Carbon disulfide | 1.41 | J | 1.56 | 0.37 | ug/m3 | 1 | | TO-15 | Total/NA |
| Carbon tetrachloride | 2.50 | | 0.22 | 0.15 | ug/m3 | 1 | | TO-15 | Total/NA |
| Chlorodifluoromethane | 24.5 | | 1.77 | 0.92 | ug/m3 | 1 | | TO-15 | Total/NA |
| Cumene | 0.34 | J | 0.98 | 0.29 | ug/m3 | 1 | | TO-15 | Total/NA |
| Cyclohexane | 17.4 | | 0.69 | 0.22 | ug/m3 | 1 | | TO-15 | Total/NA |
| Dichlorodifluoromethane | 2.32 | J | 2.47 | 0.99 | ug/m3 | 1 | | TO-15 | Total/NA |
| Ethylbenzene | 1.65 | | 0.87 | 0.32 | ug/m3 | 1 | | TO-15 | Total/NA |
| m,p-Xylene | 7.41 | | 2.17 | 0.30 | ug/m3 | 1 | | TO-15 | Total/NA |
| Methyl Ethyl Ketone (2-Butanone) | 6.86 | | 1.47 | 0.59 | ug/m3 | 1 | | TO-15 | Total/NA |
| Methylene Chloride | 4.52 | | 1.74 | 0.69 | ug/m3 | 1 | | TO-15 | Total/NA |
| Naphthalene | 4.72 | | 2.62 | 1.63 | ug/m3 | 1 | | TO-15 | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: IA-3-SUBSLAB (Continued)

## Lab Sample ID: 200-47424-5

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| n-Butane | 41.2 | | 1.19 | 0.74 | ug/m3 | 1 | | TO-15 | Total/NA |
| n-Heptane | 18.5 | | 0.82 | 0.57 | ug/m3 | 1 | | TO-15 | Total/NA |
| n-Hexane | 42.0 | | 0.70 | 0.56 | ug/m3 | 1 | | TO-15 | Total/NA |
| n-Propylbenzene | 0.43 | J | 0.98 | 0.34 | ug/m3 | 1 | | TO-15 | Total/NA |
| o-Xylene | 2.39 | | 0.87 | 0.31 | ug/m3 | 1 | | TO-15 | Total/NA |
| Styrene | 1.43 | | 0.85 | 0.37 | ug/m3 | 1 | | TO-15 | Total/NA |
| Tetrachloroethene | 10.7 | | 1.36 | 0.20 | ug/m3 | 1 | | TO-15 | Total/NA |
| Toluene | 31.0 | | 0.75 | 0.26 | ug/m3 | 1 | | TO-15 | Total/NA |
| Trichloroethene | 5.66 | | 0.19 | 0.16 | ug/m3 | 1 | | TO-15 | Total/NA |
| Trichlorofluoromethane | 3.63 | | 1.12 | 0.35 | ug/m3 | 1 | | TO-15 | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 19.7 | | 0.20 | 0.068 | ppb v/v | 1 | | TO-15 | Total/NA |
| 1,1,2-Trichlorotrifluoroethane | 0.070 | J | 0.20 | 0.031 | ppb v/v | 1 | | TO-15 | Total/NA |
| 1,2,4-Trimethylbenzene | 0.34 | | 0.20 | 0.080 | ppb v/v | 1 | | TO-15 | Total/NA |
| 1,3,5-Trimethylbenzene | 0.12 | J | 0.20 | 0.058 | ppb v/v | 1 | | TO-15 | Total/NA |
| 4-Ethyltoluene | 0.090 | J | 0.20 | 0.069 | ppb v/v | 1 | | TO-15 | Total/NA |
| Acetone | 6.30 | | 5.00 | 2.60 | ppb v/v | 1 | | TO-15 | Total/NA |
| Benzene | 3.17 | | 0.20 | 0.071 | ppb v/v | 1 | | TO-15 | Total/NA |
| Carbon disulfide | 0.45 | J | 0.50 | 0.12 | ppb v/v | 1 | | TO-15 | Total/NA |
| Carbon tetrachloride | 0.40 | | 0.035 | 0.024 | ppb v/v | 1 | | TO-15 | Total/NA |
| Chlorodifluoromethane | 6.94 | | 0.50 | 0.26 | ppb v/v | 1 | | TO-15 | Total/NA |
| Cumene | 0.068 | J | 0.20 | 0.059 | ppb v/v | 1 | | TO-15 | Total/NA |
| Cyclohexane | 5.05 | | 0.20 | 0.063 | ppb v/v | 1 | | TO-15 | Total/NA |
| Dichlorodifluoromethane | 0.47 | J | 0.50 | 0.20 | ppb v/v | 1 | | TO-15 | Total/NA |
| Ethylbenzene | 0.38 | | 0.20 | 0.073 | ppb v/v | 1 | | TO-15 | Total/NA |
| m,p-Xylene | 1.71 | | 0.50 | 0.070 | ppb v/v | 1 | | TO-15 | Total/NA |
| Methyl Ethyl Ketone (2-Butanone) | 2.33 | | 0.50 | 0.20 | ppb v/v | 1 | | TO-15 | Total/NA |
| Methylene Chloride | 1.30 | | 0.50 | 0.20 | ppb v/v | 1 | | TO-15 | Total/NA |
| Naphthalene | 0.90 | | 0.50 | 0.31 | ppb v/v | 1 | | TO-15 | Total/NA |
| n-Butane | 17.3 | | 0.50 | 0.31 | ppb v/v | 1 | | TO-15 | Total/NA |
| n-Heptane | 4.52 | | 0.20 | 0.14 | ppb v/v | 1 | | TO-15 | Total/NA |
| n-Hexane | 11.9 | | 0.20 | 0.16 | ppb v/v | 1 | | TO-15 | Total/NA |
| n-Propylbenzene | 0.088 | J | 0.20 | 0.069 | ppb v/v | 1 | | TO-15 | Total/NA |
| o-Xylene | 0.55 | | 0.20 | 0.071 | ppb v/v | 1 | | TO-15 | Total/NA |
| Styrene | 0.34 | | 0.20 | 0.086 | ppb v/v | 1 | | TO-15 | Total/NA |
| Tetrachloroethene | 1.57 | | 0.20 | 0.029 | ppb v/v | 1 | | TO-15 | Total/NA |
| Toluene | 8.21 | | 0.20 | 0.069 | ppb v/v | 1 | | TO-15 | Total/NA |
| Trichloroethene | 1.05 | | 0.035 | 0.030 | ppb v/v | 1 | | TO-15 | Total/NA |
| Trichlorofluoromethane | 0.65 | | 0.20 | 0.062 | ppb v/v | 1 | | TO-15 | Total/NA |

## Client Sample ID: IA-3-INDOOR AIR

## Lab Sample ID: 200-47424-6

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichlorotrifluoroethane | 0.54 | J | 1.53 | 0.24 | ug/m3 | 1 | | TO-15 | Total/NA |
| Acetone | 12.3 | | 11.9 | 6.18 | ug/m3 | 1 | | TO-15 | Total/NA |
| Benzene | 0.87 | | 0.64 | 0.23 | ug/m3 | 1 | | TO-15 | Total/NA |
| Carbon tetrachloride | 0.44 | | 0.22 | 0.15 | ug/m3 | 1 | | TO-15 | Total/NA |
| Chloroform | 0.41 | J | 0.98 | 0.25 | ug/m3 | 1 | | TO-15 | Total/NA |
| Chloromethane | 1.07 | | 1.03 | 0.52 | ug/m3 | 1 | | TO-15 | Total/NA |
| Dichlorodifluoromethane | 2.21 | J | 2.47 | 0.99 | ug/m3 | 1 | | TO-15 | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: IA-3-INDOOR AIR (Continued) — Lab Sample ID: 200-47424-6

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | 0.36 | J | 0.87 | 0.32 | ug/m3 | 1 | | TO-15 | Total/NA |
| Isopropyl alcohol | 9.69 | J | 12.3 | 4.42 | ug/m3 | 1 | | TO-15 | Total/NA |
| m,p-Xylene | 0.67 | J | 2.17 | 0.30 | ug/m3 | 1 | | TO-15 | Total/NA |
| Methylene Chloride | 1.45 | J | 1.74 | 0.69 | ug/m3 | 1 | | TO-15 | Total/NA |
| n-Butane | 4.84 | | 1.19 | 0.74 | ug/m3 | 1 | | TO-15 | Total/NA |
| n-Hexane | 1.04 | | 0.70 | 0.56 | ug/m3 | 1 | | TO-15 | Total/NA |
| o-Xylene | 0.33 | J | 0.87 | 0.31 | ug/m3 | 1 | | TO-15 | Total/NA |
| Tetrachloroethene | 1.14 | J | 1.36 | 0.20 | ug/m3 | 1 | | TO-15 | Total/NA |
| Toluene | 1.30 | | 0.75 | 0.26 | ug/m3 | 1 | | TO-15 | Total/NA |
| Trichloroethene | 0.79 | | 0.19 | 0.16 | ug/m3 | 1 | | TO-15 | Total/NA |
| Trichlorofluoromethane | 1.25 | | 1.12 | 0.35 | ug/m3 | 1 | | TO-15 | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichlorotrifluoroethane | 0.070 | J | 0.20 | 0.031 | ppb v/v | 1 | | TO-15 | Total/NA |
| Acetone | 5.16 | | 5.00 | 2.60 | ppb v/v | 1 | | TO-15 | Total/NA |
| Benzene | 0.27 | | 0.20 | 0.071 | ppb v/v | 1 | | TO-15 | Total/NA |
| Carbon tetrachloride | 0.070 | | 0.035 | 0.024 | ppb v/v | 1 | | TO-15 | Total/NA |
| Chloroform | 0.085 | J | 0.20 | 0.052 | ppb v/v | 1 | | TO-15 | Total/NA |
| Chloromethane | 0.52 | | 0.50 | 0.25 | ppb v/v | 1 | | TO-15 | Total/NA |
| Dichlorodifluoromethane | 0.45 | J | 0.50 | 0.20 | ppb v/v | 1 | | TO-15 | Total/NA |
| Ethylbenzene | 0.083 | J | 0.20 | 0.073 | ppb v/v | 1 | | TO-15 | Total/NA |
| Isopropyl alcohol | 3.94 | J | 5.00 | 1.80 | ppb v/v | 1 | | TO-15 | Total/NA |
| m,p-Xylene | 0.15 | J | 0.50 | 0.070 | ppb v/v | 1 | | TO-15 | Total/NA |
| Methylene Chloride | 0.42 | J | 0.50 | 0.20 | ppb v/v | 1 | | TO-15 | Total/NA |
| n-Butane | 2.03 | | 0.50 | 0.31 | ppb v/v | 1 | | TO-15 | Total/NA |
| n-Hexane | 0.30 | | 0.20 | 0.16 | ppb v/v | 1 | | TO-15 | Total/NA |
| o-Xylene | 0.075 | J | 0.20 | 0.071 | ppb v/v | 1 | | TO-15 | Total/NA |
| Tetrachloroethene | 0.17 | J | 0.20 | 0.029 | ppb v/v | 1 | | TO-15 | Total/NA |
| Toluene | 0.35 | | 0.20 | 0.069 | ppb v/v | 1 | | TO-15 | Total/NA |
| Trichloroethene | 0.15 | | 0.035 | 0.030 | ppb v/v | 1 | | TO-15 | Total/NA |
| Trichlorofluoromethane | 0.22 | | 0.20 | 0.062 | ppb v/v | 1 | | TO-15 | Total/NA |

## Client Sample ID: IA-4-SUBSLAB — Lab Sample ID: 200-47424-7

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethane | 1.47 | J | 2.43 | 0.32 | ug/m3 | 3 | | TO-15 | Total/NA |
| 1,2,4-Trimethylbenzene | 2.33 | J | 2.95 | 1.18 | ug/m3 | 3 | | TO-15 | Total/NA |
| 1,3,5-Trimethylbenzene | 2.13 | J | 2.95 | 0.86 | ug/m3 | 3 | | TO-15 | Total/NA |
| 1,3-Butadiene | 1.69 | | 1.33 | 0.43 | ug/m3 | 3 | | TO-15 | Total/NA |
| Acetone | 147 | | 35.6 | 18.5 | ug/m3 | 3 | | TO-15 | Total/NA |
| Benzene | 41.0 | | 1.92 | 0.68 | ug/m3 | 3 | | TO-15 | Total/NA |
| Carbon disulfide | 41.6 | | 4.67 | 1.12 | ug/m3 | 3 | | TO-15 | Total/NA |
| Chloroform | 7.90 | | 2.93 | 0.76 | ug/m3 | 3 | | TO-15 | Total/NA |
| cis-1,2-Dichloroethene | 1.88 | | 0.42 | 0.44 | ug/m3 | 3 | | TO-15 | Total/NA |
| Cumene | 2.53 | J | 2.95 | 0.87 | ug/m3 | 3 | | TO-15 | Total/NA |
| Cyclohexane | 46.5 | | 2.07 | 0.65 | ug/m3 | 3 | | TO-15 | Total/NA |
| Ethylbenzene | 6.26 | | 2.61 | 0.95 | ug/m3 | 3 | | TO-15 | Total/NA |
| m,p-Xylene | 26.4 | | 6.51 | 0.91 | ug/m3 | 3 | | TO-15 | Total/NA |
| Methyl Ethyl Ketone (2-Butanone) | 25.3 | | 4.42 | 1.77 | ug/m3 | 3 | | TO-15 | Total/NA |
| Methylene Chloride | 2.74 | J | 5.21 | 2.08 | ug/m3 | 3 | | TO-15 | Total/NA |
| n-Butane | 146 | | 3.57 | 2.21 | ug/m3 | 3 | | TO-15 | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: IA-4-SUBSLAB (Continued)

## Lab Sample ID: 200-47424-7

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| n-Heptane | 65.8 | | 2.46 | 1.72 | ug/m3 | 3 | | TO-15 | Total/NA |
| n-Hexane | 143 | | 2.11 | 1.69 | ug/m3 | 3 | | TO-15 | Total/NA |
| n-Propylbenzene | 3.18 | | 2.95 | 1.02 | ug/m3 | 3 | | TO-15 | Total/NA |
| o-Xylene | 7.37 | | 2.61 | 0.92 | ug/m3 | 3 | | TO-15 | Total/NA |
| sec-Butylbenzene | 2.89 | J | 3.29 | 1.09 | ug/m3 | 3 | | TO-15 | Total/NA |
| Toluene | 127 | | 2.26 | 0.78 | ug/m3 | 3 | | TO-15 | Total/NA |
| Trichloroethene | 29.6 | | 0.56 | 0.48 | ug/m3 | 3 | | TO-15 | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethane | 0.36 | J | 0.60 | 0.078 | ppb v/v | 3 | | TO-15 | Total/NA |
| 1,2,4-Trimethylbenzene | 0.47 | J | 0.60 | 0.24 | ppb v/v | 3 | | TO-15 | Total/NA |
| 1,3,5-Trimethylbenzene | 0.43 | J | 0.60 | 0.17 | ppb v/v | 3 | | TO-15 | Total/NA |
| 1,3-Butadiene | 0.77 | | 0.60 | 0.20 | ppb v/v | 3 | | TO-15 | Total/NA |
| Acetone | 62.0 | | 15.0 | 7.80 | ppb v/v | 3 | | TO-15 | Total/NA |
| Benzene | 12.8 | | 0.60 | 0.21 | ppb v/v | 3 | | TO-15 | Total/NA |
| Carbon disulfide | 13.4 | | 1.50 | 0.36 | ppb v/v | 3 | | TO-15 | Total/NA |
| Chloroform | 1.62 | | 0.60 | 0.16 | ppb v/v | 3 | | TO-15 | Total/NA |
| cis-1,2-Dichloroethene | 0.47 | | 0.11 | 0.11 | ppb v/v | 3 | | TO-15 | Total/NA |
| Cumene | 0.51 | J | 0.60 | 0.18 | ppb v/v | 3 | | TO-15 | Total/NA |
| Cyclohexane | 13.5 | | 0.60 | 0.19 | ppb v/v | 3 | | TO-15 | Total/NA |
| Ethylbenzene | 1.44 | | 0.60 | 0.22 | ppb v/v | 3 | | TO-15 | Total/NA |
| m,p-Xylene | 6.08 | | 1.50 | 0.21 | ppb v/v | 3 | | TO-15 | Total/NA |
| Methyl Ethyl Ketone (2-Butanone) | 8.59 | | 1.50 | 0.60 | ppb v/v | 3 | | TO-15 | Total/NA |
| Methylene Chloride | 0.79 | J | 1.50 | 0.60 | ppb v/v | 3 | | TO-15 | Total/NA |
| n-Butane | 61.2 | | 1.50 | 0.93 | ppb v/v | 3 | | TO-15 | Total/NA |
| n-Heptane | 16.1 | | 0.60 | 0.42 | ppb v/v | 3 | | TO-15 | Total/NA |
| n-Hexane | 40.6 | | 0.60 | 0.48 | ppb v/v | 3 | | TO-15 | Total/NA |
| n-Propylbenzene | 0.65 | | 0.60 | 0.21 | ppb v/v | 3 | | TO-15 | Total/NA |
| o-Xylene | 1.70 | | 0.60 | 0.21 | ppb v/v | 3 | | TO-15 | Total/NA |
| sec-Butylbenzene | 0.53 | J | 0.60 | 0.20 | ppb v/v | 3 | | TO-15 | Total/NA |
| Toluene | 33.8 | | 0.60 | 0.21 | ppb v/v | 3 | | TO-15 | Total/NA |
| Trichloroethene | 5.52 | | 0.10 | 0.090 | ppb v/v | 3 | | TO-15 | Total/NA |

## Client Sample ID: IA-4-INDOOR AIR

## Lab Sample ID: 200-47424-8

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichlorotrifluoroethane | 0.53 | J | 1.53 | 0.24 | ug/m3 | 1 | | TO-15 | Total/NA |
| Acetone | 27.3 | | 11.9 | 6.18 | ug/m3 | 1 | | TO-15 | Total/NA |
| Benzene | 0.93 | | 0.64 | 0.23 | ug/m3 | 1 | | TO-15 | Total/NA |
| Carbon disulfide | 1.04 | J | 1.56 | 0.37 | ug/m3 | 1 | | TO-15 | Total/NA |
| Carbon tetrachloride | 0.44 | | 0.22 | 0.15 | ug/m3 | 1 | | TO-15 | Total/NA |
| Chlorodifluoromethane | 0.97 | J | 1.77 | 0.92 | ug/m3 | 1 | | TO-15 | Total/NA |
| Chloromethane | 1.21 | | 1.03 | 0.52 | ug/m3 | 1 | | TO-15 | Total/NA |
| cis-1,2-Dichloroethene | 0.93 | | 0.14 | 0.15 | ug/m3 | 1 | | TO-15 | Total/NA |
| Dichlorodifluoromethane | 2.41 | J | 2.47 | 0.99 | ug/m3 | 1 | | TO-15 | Total/NA |
| Ethylbenzene | 0.62 | J | 0.87 | 0.32 | ug/m3 | 1 | | TO-15 | Total/NA |
| Isopropyl alcohol | 20.3 | | 12.3 | 4.42 | ug/m3 | 1 | | TO-15 | Total/NA |
| m,p-Xylene | 1.75 | J | 2.17 | 0.30 | ug/m3 | 1 | | TO-15 | Total/NA |
| Methyl Ethyl Ketone (2-Butanone) | 1.52 | | 1.47 | 0.59 | ug/m3 | 1 | | TO-15 | Total/NA |
| Methylene Chloride | 0.72 | J | 1.74 | 0.69 | ug/m3 | 1 | | TO-15 | Total/NA |
| n-Butane | 4.88 | | 1.19 | 0.74 | ug/m3 | 1 | | TO-15 | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: IA-4-INDOOR AIR (Continued) — Lab Sample ID: 200-47424-8

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| n-Hexane | 0.95 | | 0.70 | 0.56 | ug/m3 | 1 | | TO-15 | Total/NA |
| o-Xylene | 0.66 | J | 0.87 | 0.31 | ug/m3 | 1 | | TO-15 | Total/NA |
| Tetrachloroethene | 0.93 | J | 1.36 | 0.20 | ug/m3 | 1 | | TO-15 | Total/NA |
| Toluene | 0.95 | | 0.75 | 0.26 | ug/m3 | 1 | | TO-15 | Total/NA |
| Trichloroethene | 0.85 | | 0.19 | 0.16 | ug/m3 | 1 | | TO-15 | Total/NA |
| Trichlorofluoromethane | 1.30 | | 1.12 | 0.35 | ug/m3 | 1 | | TO-15 | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichlorotrifluoroethane | 0.069 | J | 0.20 | 0.031 | ppb v/v | 1 | | TO-15 | Total/NA |
| Acetone | 11.5 | | 5.00 | 2.60 | ppb v/v | 1 | | TO-15 | Total/NA |
| Benzene | 0.29 | | 0.20 | 0.071 | ppb v/v | 1 | | TO-15 | Total/NA |
| Carbon disulfide | 0.33 | J | 0.50 | 0.12 | ppb v/v | 1 | | TO-15 | Total/NA |
| Carbon tetrachloride | 0.070 | | 0.035 | 0.024 | ppb v/v | 1 | | TO-15 | Total/NA |
| Chlorodifluoromethane | 0.27 | J | 0.50 | 0.26 | ppb v/v | 1 | | TO-15 | Total/NA |
| Chloromethane | 0.59 | | 0.50 | 0.25 | ppb v/v | 1 | | TO-15 | Total/NA |
| cis-1,2-Dichloroethene | 0.23 | | 0.035 | 0.037 | ppb v/v | 1 | | TO-15 | Total/NA |
| Dichlorodifluoromethane | 0.49 | J | 0.50 | 0.20 | ppb v/v | 1 | | TO-15 | Total/NA |
| Ethylbenzene | 0.14 | J | 0.20 | 0.073 | ppb v/v | 1 | | TO-15 | Total/NA |
| Isopropyl alcohol | 8.25 | | 5.00 | 1.80 | ppb v/v | 1 | | TO-15 | Total/NA |
| m,p-Xylene | 0.40 | J | 0.50 | 0.070 | ppb v/v | 1 | | TO-15 | Total/NA |
| Methyl Ethyl Ketone (2-Butanone) | 0.51 | | 0.50 | 0.20 | ppb v/v | 1 | | TO-15 | Total/NA |
| Methylene Chloride | 0.21 | J | 0.50 | 0.20 | ppb v/v | 1 | | TO-15 | Total/NA |
| n-Butane | 2.05 | | 0.50 | 0.31 | ppb v/v | 1 | | TO-15 | Total/NA |
| n-Hexane | 0.27 | | 0.20 | 0.16 | ppb v/v | 1 | | TO-15 | Total/NA |
| o-Xylene | 0.15 | J | 0.20 | 0.071 | ppb v/v | 1 | | TO-15 | Total/NA |
| Tetrachloroethene | 0.14 | J | 0.20 | 0.029 | ppb v/v | 1 | | TO-15 | Total/NA |
| Toluene | 0.25 | | 0.20 | 0.069 | ppb v/v | 1 | | TO-15 | Total/NA |
| Trichloroethene | 0.16 | | 0.035 | 0.030 | ppb v/v | 1 | | TO-15 | Total/NA |
| Trichlorofluoromethane | 0.23 | | 0.20 | 0.062 | ppb v/v | 1 | | TO-15 | Total/NA |

## Client Sample ID: IA-5-SUBSLAB — Lab Sample ID: 200-47424-9

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.37 | | 1.09 | 0.37 | ug/m3 | 1 | | TO-15 | Total/NA |
| 1,1,2-Trichlorotrifluoroethane | 0.51 | J | 1.53 | 0.24 | ug/m3 | 1 | | TO-15 | Total/NA |
| 1,2,4-Trimethylbenzene | 0.64 | J | 0.98 | 0.39 | ug/m3 | 1 | | TO-15 | Total/NA |
| Acetone | 19.5 | | 11.9 | 6.18 | ug/m3 | 1 | | TO-15 | Total/NA |
| Benzene | 1.27 | | 0.64 | 0.23 | ug/m3 | 1 | | TO-15 | Total/NA |
| Carbon disulfide | 0.99 | J | 1.56 | 0.37 | ug/m3 | 1 | | TO-15 | Total/NA |
| Carbon tetrachloride | 0.36 | | 0.22 | 0.15 | ug/m3 | 1 | | TO-15 | Total/NA |
| Cyclohexane | 2.24 | | 0.69 | 0.22 | ug/m3 | 1 | | TO-15 | Total/NA |
| Dichlorodifluoromethane | 2.37 | J | 2.47 | 0.99 | ug/m3 | 1 | | TO-15 | Total/NA |
| Ethylbenzene | 0.58 | J | 0.87 | 0.32 | ug/m3 | 1 | | TO-15 | Total/NA |
| m,p-Xylene | 1.92 | J | 2.17 | 0.30 | ug/m3 | 1 | | TO-15 | Total/NA |
| Methyl Ethyl Ketone (2-Butanone) | 1.67 | | 1.47 | 0.59 | ug/m3 | 1 | | TO-15 | Total/NA |
| Methylene Chloride | 1.40 | J | 1.74 | 0.69 | ug/m3 | 1 | | TO-15 | Total/NA |
| n-Butane | 10.3 | | 1.19 | 0.74 | ug/m3 | 1 | | TO-15 | Total/NA |
| n-Heptane | 3.45 | | 0.82 | 0.57 | ug/m3 | 1 | | TO-15 | Total/NA |
| n-Hexane | 6.09 | | 0.70 | 0.56 | ug/m3 | 1 | | TO-15 | Total/NA |
| o-Xylene | 0.81 | J | 0.87 | 0.31 | ug/m3 | 1 | | TO-15 | Total/NA |
| Styrene | 0.61 | J | 0.85 | 0.37 | ug/m3 | 1 | | TO-15 | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: IA-5-SUBSLAB (Continued)

## Lab Sample ID: 200-47424-9

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Tetrachloroethene | 2.89 | | 1.36 | 0.20 | ug/m3 | 1 | | TO-15 | Total/NA |
| Toluene | 3.71 | | 0.75 | 0.26 | ug/m3 | 1 | | TO-15 | Total/NA |
| Trichloroethene | 1.59 | | 0.19 | 0.16 | ug/m3 | 1 | | TO-15 | Total/NA |
| Trichlorofluoromethane | 1.14 | | 1.12 | 0.35 | ug/m3 | 1 | | TO-15 | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.25 | | 0.20 | 0.068 | ppb v/v | 1 | | TO-15 | Total/NA |
| 1,1,2-Trichlorotrifluoroethane | 0.067 | J | 0.20 | 0.031 | ppb v/v | 1 | | TO-15 | Total/NA |
| 1,2,4-Trimethylbenzene | 0.13 | J | 0.20 | 0.080 | ppb v/v | 1 | | TO-15 | Total/NA |
| Acetone | 8.20 | | 5.00 | 2.60 | ppb v/v | 1 | | TO-15 | Total/NA |
| Benzene | 0.40 | | 0.20 | 0.071 | ppb v/v | 1 | | TO-15 | Total/NA |
| Carbon disulfide | 0.32 | J | 0.50 | 0.12 | ppb v/v | 1 | | TO-15 | Total/NA |
| Carbon tetrachloride | 0.057 | | 0.035 | 0.024 | ppb v/v | 1 | | TO-15 | Total/NA |
| Cyclohexane | 0.65 | | 0.20 | 0.063 | ppb v/v | 1 | | TO-15 | Total/NA |
| Dichlorodifluoromethane | 0.48 | J | 0.50 | 0.20 | ppb v/v | 1 | | TO-15 | Total/NA |
| Ethylbenzene | 0.13 | J | 0.20 | 0.073 | ppb v/v | 1 | | TO-15 | Total/NA |
| m,p-Xylene | 0.44 | J | 0.50 | 0.070 | ppb v/v | 1 | | TO-15 | Total/NA |
| Methyl Ethyl Ketone (2-Butanone) | 0.57 | | 0.50 | 0.20 | ppb v/v | 1 | | TO-15 | Total/NA |
| Methylene Chloride | 0.40 | J | 0.50 | 0.20 | ppb v/v | 1 | | TO-15 | Total/NA |
| n-Butane | 4.33 | | 0.50 | 0.31 | ppb v/v | 1 | | TO-15 | Total/NA |
| n-Heptane | 0.84 | | 0.20 | 0.14 | ppb v/v | 1 | | TO-15 | Total/NA |
| n-Hexane | 1.73 | | 0.20 | 0.16 | ppb v/v | 1 | | TO-15 | Total/NA |
| o-Xylene | 0.19 | J | 0.20 | 0.071 | ppb v/v | 1 | | TO-15 | Total/NA |
| Styrene | 0.14 | J | 0.20 | 0.086 | ppb v/v | 1 | | TO-15 | Total/NA |
| Tetrachloroethene | 0.43 | | 0.20 | 0.029 | ppb v/v | 1 | | TO-15 | Total/NA |
| Toluene | 0.98 | | 0.20 | 0.069 | ppb v/v | 1 | | TO-15 | Total/NA |
| Trichloroethene | 0.30 | | 0.035 | 0.030 | ppb v/v | 1 | | TO-15 | Total/NA |
| Trichlorofluoromethane | 0.20 | | 0.20 | 0.062 | ppb v/v | 1 | | TO-15 | Total/NA |

## Client Sample ID: IA-5-INDOOR AIR

## Lab Sample ID: 200-47424-10

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichlorotrifluoroethane | 0.49 | J | 1.53 | 0.24 | ug/m3 | 1 | | TO-15 | Total/NA |
| Acetone | 6.38 | J | 11.9 | 6.18 | ug/m3 | 1 | | TO-15 | Total/NA |
| Benzene | 0.68 | | 0.64 | 0.23 | ug/m3 | 1 | | TO-15 | Total/NA |
| Carbon tetrachloride | 0.41 | | 0.22 | 0.15 | ug/m3 | 1 | | TO-15 | Total/NA |
| Chlorodifluoromethane | 1.04 | J | 1.77 | 0.92 | ug/m3 | 1 | | TO-15 | Total/NA |
| Chloromethane | 1.10 | | 1.03 | 0.52 | ug/m3 | 1 | | TO-15 | Total/NA |
| Dichlorodifluoromethane | 2.32 | J | 2.47 | 0.99 | ug/m3 | 1 | | TO-15 | Total/NA |
| m,p-Xylene | 0.44 | J | 2.17 | 0.30 | ug/m3 | 1 | | TO-15 | Total/NA |
| n-Butane | 3.79 | | 1.19 | 0.74 | ug/m3 | 1 | | TO-15 | Total/NA |
| n-Hexane | 0.79 | | 0.70 | 0.56 | ug/m3 | 1 | | TO-15 | Total/NA |
| Tetrachloroethene | 4.26 | | 1.36 | 0.20 | ug/m3 | 1 | | TO-15 | Total/NA |
| Toluene | 0.77 | | 0.75 | 0.26 | ug/m3 | 1 | | TO-15 | Total/NA |
| Trichloroethene | 1.52 | | 0.19 | 0.16 | ug/m3 | 1 | | TO-15 | Total/NA |
| Trichlorofluoromethane | 1.18 | | 1.12 | 0.35 | ug/m3 | 1 | | TO-15 | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichlorotrifluoroethane | 0.064 | J | 0.20 | 0.031 | ppb v/v | 1 | | TO-15 | Total/NA |
| Acetone | 2.69 | J | 5.00 | 2.60 | ppb v/v | 1 | | TO-15 | Total/NA |
| Benzene | 0.21 | | 0.20 | 0.071 | ppb v/v | 1 | | TO-15 | Total/NA |
| Carbon tetrachloride | 0.064 | | 0.035 | 0.024 | ppb v/v | 1 | | TO-15 | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: IA-5-INDOOR AIR (Continued) — Lab Sample ID: 200-47424-10

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chlorodifluoromethane | 0.29 | J | 0.50 | 0.26 | ppb v/v | 1 | | TO-15 | Total/NA |
| Chloromethane | 0.53 | | 0.50 | 0.25 | ppb v/v | 1 | | TO-15 | Total/NA |
| Dichlorodifluoromethane | 0.47 | J | 0.50 | 0.20 | ppb v/v | 1 | | TO-15 | Total/NA |
| m,p-Xylene | 0.10 | J | 0.50 | 0.070 | ppb v/v | 1 | | TO-15 | Total/NA |
| n-Butane | 1.59 | | 0.50 | 0.31 | ppb v/v | 1 | | TO-15 | Total/NA |
| n-Hexane | 0.22 | | 0.20 | 0.16 | ppb v/v | 1 | | TO-15 | Total/NA |
| Tetrachloroethene | 0.63 | | 0.20 | 0.029 | ppb v/v | 1 | | TO-15 | Total/NA |
| Toluene | 0.20 | | 0.20 | 0.069 | ppb v/v | 1 | | TO-15 | Total/NA |
| Trichloroethene | 0.28 | | 0.035 | 0.030 | ppb v/v | 1 | | TO-15 | Total/NA |
| Trichlorofluoromethane | 0.21 | | 0.20 | 0.062 | ppb v/v | 1 | | TO-15 | Total/NA |

## Client Sample ID: IA-6-SUBSLAB — Lab Sample ID: 200-47424-11

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichlorotrifluoroethane | 0.48 | J | 1.53 | 0.24 | ug/m3 | 1 | | TO-15 | Total/NA |
| Benzene | 0.56 | J | 0.64 | 0.23 | ug/m3 | 1 | | TO-15 | Total/NA |
| Carbon tetrachloride | 0.38 | | 0.22 | 0.15 | ug/m3 | 1 | | TO-15 | Total/NA |
| Chloromethane | 1.0 | J | 1.03 | 0.52 | ug/m3 | 1 | | TO-15 | Total/NA |
| Cyclohexane | 0.39 | J | 0.69 | 0.22 | ug/m3 | 1 | | TO-15 | Total/NA |
| Dichlorodifluoromethane | 2.21 | J | 2.47 | 0.99 | ug/m3 | 1 | | TO-15 | Total/NA |
| m,p-Xylene | 0.48 | J | 2.17 | 0.30 | ug/m3 | 1 | | TO-15 | Total/NA |
| Methyl Ethyl Ketone (2-Butanone) | 0.88 | J | 1.47 | 0.59 | ug/m3 | 1 | | TO-15 | Total/NA |
| Methylene Chloride | 0.91 | J | 1.74 | 0.69 | ug/m3 | 1 | | TO-15 | Total/NA |
| n-Butane | 36.6 | | 1.19 | 0.74 | ug/m3 | 1 | | TO-15 | Total/NA |
| n-Hexane | 1.37 | | 0.70 | 0.56 | ug/m3 | 1 | | TO-15 | Total/NA |
| Toluene | 0.74 | J | 0.75 | 0.26 | ug/m3 | 1 | | TO-15 | Total/NA |
| Trichlorofluoromethane | 1.15 | B | 1.12 | 0.35 | ug/m3 | 1 | | TO-15 | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichlorotrifluoroethane | 0.063 | J | 0.20 | 0.031 | ppb v/v | 1 | | TO-15 | Total/NA |
| Benzene | 0.17 | J | 0.20 | 0.071 | ppb v/v | 1 | | TO-15 | Total/NA |
| Carbon tetrachloride | 0.061 | | 0.035 | 0.024 | ppb v/v | 1 | | TO-15 | Total/NA |
| Chloromethane | 0.48 | J | 0.50 | 0.25 | ppb v/v | 1 | | TO-15 | Total/NA |
| Cyclohexane | 0.11 | J | 0.20 | 0.063 | ppb v/v | 1 | | TO-15 | Total/NA |
| Dichlorodifluoromethane | 0.45 | J | 0.50 | 0.20 | ppb v/v | 1 | | TO-15 | Total/NA |
| m,p-Xylene | 0.11 | J | 0.50 | 0.070 | ppb v/v | 1 | | TO-15 | Total/NA |
| Methyl Ethyl Ketone (2-Butanone) | 0.30 | J | 0.50 | 0.20 | ppb v/v | 1 | | TO-15 | Total/NA |
| Methylene Chloride | 0.26 | J | 0.50 | 0.20 | ppb v/v | 1 | | TO-15 | Total/NA |
| n-Butane | 15.4 | | 0.50 | 0.31 | ppb v/v | 1 | | TO-15 | Total/NA |
| n-Hexane | 0.39 | | 0.20 | 0.16 | ppb v/v | 1 | | TO-15 | Total/NA |
| Toluene | 0.20 | J | 0.20 | 0.069 | ppb v/v | 1 | | TO-15 | Total/NA |
| Trichlorofluoromethane | 0.20 | B | 0.20 | 0.062 | ppb v/v | 1 | | TO-15 | Total/NA |

## Client Sample ID: IA-6-INDOOR AIR — Lab Sample ID: 200-47424-12

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichlorotrifluoroethane | 0.47 | J | 1.53 | 0.24 | ug/m3 | 1 | | TO-15 | Total/NA |
| Benzene | 0.55 | J | 0.64 | 0.23 | ug/m3 | 1 | | TO-15 | Total/NA |
| Carbon tetrachloride | 0.38 | | 0.22 | 0.15 | ug/m3 | 1 | | TO-15 | Total/NA |
| Chloromethane | 1.01 | J | 1.03 | 0.52 | ug/m3 | 1 | | TO-15 | Total/NA |
| Dichlorodifluoromethane | 2.20 | J | 2.47 | 0.99 | ug/m3 | 1 | | TO-15 | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: IA-6-INDOOR AIR (Continued)

## Lab Sample ID: 200-47424-12

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| m,p-Xylene | 0.67 | J | 2.17 | 0.30 | ug/m3 | 1 | | TO-15 | Total/NA |
| Methyl Ethyl Ketone (2-Butanone) | 0.76 | J | 1.47 | 0.59 | ug/m3 | 1 | | TO-15 | Total/NA |
| Methylene Chloride | 0.81 | J | 1.74 | 0.69 | ug/m3 | 1 | | TO-15 | Total/NA |
| n-Butane | 2.14 | | 1.19 | 0.74 | ug/m3 | 1 | | TO-15 | Total/NA |
| Toluene | 0.65 | J | 0.75 | 0.26 | ug/m3 | 1 | | TO-15 | Total/NA |
| Trichlorofluoromethane | 1.15 | B | 1.12 | 0.35 | ug/m3 | 1 | | TO-15 | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichlorotrifluoroethane | 0.061 | J | 0.20 | 0.031 | ppb v/v | 1 | | TO-15 | Total/NA |
| Benzene | 0.17 | J | 0.20 | 0.071 | ppb v/v | 1 | | TO-15 | Total/NA |
| Carbon tetrachloride | 0.061 | | 0.035 | 0.024 | ppb v/v | 1 | | TO-15 | Total/NA |
| Chloromethane | 0.49 | J | 0.50 | 0.25 | ppb v/v | 1 | | TO-15 | Total/NA |
| Dichlorodifluoromethane | 0.44 | J | 0.50 | 0.20 | ppb v/v | 1 | | TO-15 | Total/NA |
| m,p-Xylene | 0.16 | J | 0.50 | 0.070 | ppb v/v | 1 | | TO-15 | Total/NA |
| Methyl Ethyl Ketone (2-Butanone) | 0.26 | J | 0.50 | 0.20 | ppb v/v | 1 | | TO-15 | Total/NA |
| Methylene Chloride | 0.23 | J | 0.50 | 0.20 | ppb v/v | 1 | | TO-15 | Total/NA |
| n-Butane | 0.90 | | 0.50 | 0.31 | ppb v/v | 1 | | TO-15 | Total/NA |
| Toluene | 0.17 | J | 0.20 | 0.069 | ppb v/v | 1 | | TO-15 | Total/NA |
| Trichlorofluoromethane | 0.20 | B | 0.20 | 0.062 | ppb v/v | 1 | | TO-15 | Total/NA |

## Client Sample ID: IA-7-INDOOR AIR

## Lab Sample ID: 200-47424-14

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichlorotrifluoroethane | 0.50 | J | 1.53 | 0.24 | ug/m3 | 1 | | TO-15 | Total/NA |
| Acetone | 12.3 | | 11.9 | 6.18 | ug/m3 | 1 | | TO-15 | Total/NA |
| Benzene | 0.58 | J | 0.64 | 0.23 | ug/m3 | 1 | | TO-15 | Total/NA |
| Carbon tetrachloride | 0.43 | | 0.22 | 0.15 | ug/m3 | 1 | | TO-15 | Total/NA |
| Chloroform | 0.25 | J | 0.98 | 0.25 | ug/m3 | 1 | | TO-15 | Total/NA |
| Chloromethane | 1.01 | J | 1.03 | 0.52 | ug/m3 | 1 | | TO-15 | Total/NA |
| cis-1,2-Dichloroethene | 0.47 | | 0.14 | 0.15 | ug/m3 | 1 | | TO-15 | Total/NA |
| Dichlorodifluoromethane | 2.23 | J | 2.47 | 0.99 | ug/m3 | 1 | | TO-15 | Total/NA |
| Isopropyl alcohol | 6.30 | J | 12.3 | 4.42 | ug/m3 | 1 | | TO-15 | Total/NA |
| m,p-Xylene | 0.43 | J | 2.17 | 0.30 | ug/m3 | 1 | | TO-15 | Total/NA |
| n-Butane | 2.00 | | 1.19 | 0.74 | ug/m3 | 1 | | TO-15 | Total/NA |
| Tetrachloroethene | 0.22 | J | 1.36 | 0.20 | ug/m3 | 1 | | TO-15 | Total/NA |
| Toluene | 0.44 | J | 0.75 | 0.26 | ug/m3 | 1 | | TO-15 | Total/NA |
| Trichloroethene | 0.26 | | 0.19 | 0.16 | ug/m3 | 1 | | TO-15 | Total/NA |
| Trichlorofluoromethane | 1.14 | B | 1.12 | 0.35 | ug/m3 | 1 | | TO-15 | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichlorotrifluoroethane | 0.065 | J | 0.20 | 0.031 | ppb v/v | 1 | | TO-15 | Total/NA |
| Acetone | 5.18 | | 5.00 | 2.60 | ppb v/v | 1 | | TO-15 | Total/NA |
| Benzene | 0.18 | J | 0.20 | 0.071 | ppb v/v | 1 | | TO-15 | Total/NA |
| Carbon tetrachloride | 0.068 | | 0.035 | 0.024 | ppb v/v | 1 | | TO-15 | Total/NA |
| Chloroform | 0.052 | J | 0.20 | 0.052 | ppb v/v | 1 | | TO-15 | Total/NA |
| Chloromethane | 0.49 | J | 0.50 | 0.25 | ppb v/v | 1 | | TO-15 | Total/NA |
| cis-1,2-Dichloroethene | 0.12 | | 0.035 | 0.037 | ppb v/v | 1 | | TO-15 | Total/NA |
| Dichlorodifluoromethane | 0.45 | J | 0.50 | 0.20 | ppb v/v | 1 | | TO-15 | Total/NA |
| Isopropyl alcohol | 2.56 | J | 5.00 | 1.80 | ppb v/v | 1 | | TO-15 | Total/NA |
| m,p-Xylene | 0.099 | J | 0.50 | 0.070 | ppb v/v | 1 | | TO-15 | Total/NA |
| n-Butane | 0.84 | | 0.50 | 0.31 | ppb v/v | 1 | | TO-15 | Total/NA |
| Tetrachloroethene | 0.033 | J | 0.20 | 0.029 | ppb v/v | 1 | | TO-15 | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: IA-7-INDOOR AIR (Continued) — Lab Sample ID: 200-47424-14

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Toluene | 0.12 | J | 0.20 | 0.069 | ppb v/v | 1 | | TO-15 | Total/NA |
| Trichloroethene | 0.048 | | 0.035 | 0.030 | ppb v/v | 1 | | TO-15 | Total/NA |
| Trichlorofluoromethane | 0.20 | B | 0.20 | 0.062 | ppb v/v | 1 | | TO-15 | Total/NA |

## Client Sample ID: OUTDOOR AIR — Lab Sample ID: 200-47424-15

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichlorotrifluoroethane | 0.47 | J | 1.53 | 0.24 | ug/m3 | 1 | | TO-15 | Total/NA |
| Benzene | 0.32 | J | 0.64 | 0.23 | ug/m3 | 1 | | TO-15 | Total/NA |
| Carbon tetrachloride | 0.41 | | 0.22 | 0.15 | ug/m3 | 1 | | TO-15 | Total/NA |
| Chloromethane | 0.96 | J | 1.03 | 0.52 | ug/m3 | 1 | | TO-15 | Total/NA |
| Dichlorodifluoromethane | 2.25 | J | 2.47 | 0.99 | ug/m3 | 1 | | TO-15 | Total/NA |
| n-Butane | 1.20 | | 1.19 | 0.74 | ug/m3 | 1 | | TO-15 | Total/NA |
| Toluene | 0.27 | J | 0.75 | 0.26 | ug/m3 | 1 | | TO-15 | Total/NA |
| Trichlorofluoromethane | 1.15 | B | 1.12 | 0.35 | ug/m3 | 1 | | TO-15 | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichlorotrifluoroethane | 0.061 | J | 0.20 | 0.031 | ppb v/v | 1 | | TO-15 | Total/NA |
| Benzene | 0.10 | J | 0.20 | 0.071 | ppb v/v | 1 | | TO-15 | Total/NA |
| Carbon tetrachloride | 0.065 | | 0.035 | 0.024 | ppb v/v | 1 | | TO-15 | Total/NA |
| Chloromethane | 0.47 | J | 0.50 | 0.25 | ppb v/v | 1 | | TO-15 | Total/NA |
| Dichlorodifluoromethane | 0.45 | J | 0.50 | 0.20 | ppb v/v | 1 | | TO-15 | Total/NA |
| n-Butane | 0.51 | | 0.50 | 0.31 | ppb v/v | 1 | | TO-15 | Total/NA |
| Toluene | 0.073 | J | 0.20 | 0.069 | ppb v/v | 1 | | TO-15 | Total/NA |
| Trichlorofluoromethane | 0.20 | B | 0.20 | 0.062 | ppb v/v | 1 | | TO-15 | Total/NA |

This Detection Summary does not include radiochemical test results.

**Client Sample ID: IA-1-SUBSLAB**
**Date Collected: 02/13/19 11:01**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-1**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **1,1,1-Trichloroethane** | **45.2** | | 1.09 | 0.37 | ug/m3 | | | 02/15/19 18:30 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.37 | | 1.37 | 0.52 | ug/m3 | | | 02/15/19 18:30 | 1 |
| 1,1,2-Trichloroethane | 1.09 | | 1.09 | 0.43 | ug/m3 | | | 02/15/19 18:30 | 1 |
| **1,1,2-Trichlorotrifluoroethane** | **0.51** | **J** | 1.53 | 0.24 | ug/m3 | | | 02/15/19 18:30 | 1 |
| **1,1-Dichloroethane** | **3.59** | | 0.81 | 0.11 | ug/m3 | | | 02/15/19 18:30 | 1 |
| 1,1-Dichloroethene | 0.14 | | 0.14 | 0.13 | ug/m3 | | | 02/15/19 18:30 | 1 |
| 1,2,4-Trichlorobenzene | 3.71 | | 3.71 | 1.78 | ug/m3 | | | 02/15/19 18:30 | 1 |
| **1,2,4-Trimethylbenzene** | **1.51** | | 0.98 | 0.39 | ug/m3 | | | 02/15/19 18:30 | 1 |
| 1,2-Dibromoethane | 1.54 | | 1.54 | 0.53 | ug/m3 | | | 02/15/19 18:30 | 1 |
| 1,2-Dichlorobenzene | 1.20 | | 1.20 | 0.43 | ug/m3 | | | 02/15/19 18:30 | 1 |
| 1,2-Dichloroethane | 0.81 | | 0.81 | 0.25 | ug/m3 | | | 02/15/19 18:30 | 1 |
| 1,2-Dichloropropane | 0.92 | | 0.92 | 0.55 | ug/m3 | | | 02/15/19 18:30 | 1 |
| 1,2-Dichlorotetrafluoroethane | 1.40 | | 1.40 | 0.48 | ug/m3 | | | 02/15/19 18:30 | 1 |
| **1,3,5-Trimethylbenzene** | **0.75** | **J** | 0.98 | 0.29 | ug/m3 | | | 02/15/19 18:30 | 1 |
| 1,3-Butadiene | 0.44 | | 0.44 | 0.14 | ug/m3 | | | 02/15/19 18:30 | 1 |
| 1,3-Dichlorobenzene | 1.20 | | 1.20 | 0.49 | ug/m3 | | | 02/15/19 18:30 | 1 |
| 1,4-Dichlorobenzene | 1.20 | | 1.20 | 0.39 | ug/m3 | | | 02/15/19 18:30 | 1 |
| 1,4-Dioxane | 18.0 | | 18.0 | 4.68 | ug/m3 | | | 02/15/19 18:30 | 1 |
| 2,2,4-Trimethylpentane | 0.93 | | 0.93 | 0.41 | ug/m3 | | | 02/15/19 18:30 | 1 |
| 2-Chlorotoluene | 1.04 | | 1.04 | 0.37 | ug/m3 | | | 02/15/19 18:30 | 1 |
| 3-Chloropropene | 1.57 | | 1.57 | 0.85 | ug/m3 | | | 02/15/19 18:30 | 1 |
| **4-Ethyltoluene** | **0.45** | **J** | 0.98 | 0.34 | ug/m3 | | | 02/15/19 18:30 | 1 |
| **4-Isopropyltoluene** | **3.13** | | 1.10 | 0.41 | ug/m3 | | | 02/15/19 18:30 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 2.05 | | 2.05 | 1.47 | ug/m3 | | | 02/15/19 18:30 | 1 |
| **Acetone** | **16.5** | | 11.9 | 6.18 | ug/m3 | | | 02/15/19 18:30 | 1 |
| **Benzene** | **12.6** | | 0.64 | 0.23 | ug/m3 | | | 02/15/19 18:30 | 1 |
| Benzyl chloride | 1.04 | | 1.04 | 0.62 | ug/m3 | | | 02/15/19 18:30 | 1 |
| Bromodichloromethane | 1.34 | | 1.34 | 0.63 | ug/m3 | | | 02/15/19 18:30 | 1 |
| Bromoethene(Vinyl Bromide) | 0.87 | | 0.87 | 0.24 | ug/m3 | | | 02/15/19 18:30 | 1 |
| Bromoform | 2.07 | | 2.07 | 0.89 | ug/m3 | | | 02/15/19 18:30 | 1 |
| Bromomethane | 0.78 | | 0.78 | 0.24 | ug/m3 | | | 02/15/19 18:30 | 1 |
| **Carbon disulfide** | **5.54** | | 1.56 | 0.37 | ug/m3 | | | 02/15/19 18:30 | 1 |
| **Carbon tetrachloride** | **0.21** | **J** | 0.22 | 0.15 | ug/m3 | | | 02/15/19 18:30 | 1 |
| Chlorobenzene | 0.92 | | 0.92 | 0.18 | ug/m3 | | | 02/15/19 18:30 | 1 |
| Chlorodifluoromethane | 1.77 | | 1.77 | 0.92 | ug/m3 | | | 02/15/19 18:30 | 1 |
| Chloroethane | 1.32 | | 1.32 | 0.55 | ug/m3 | | | 02/15/19 18:30 | 1 |
| **Chloroform** | **2.50** | | 0.98 | 0.25 | ug/m3 | | | 02/15/19 18:30 | 1 |
| Chloromethane | 1.03 | | 1.03 | 0.52 | ug/m3 | | | 02/15/19 18:30 | 1 |
| **cis-1,2-Dichloroethene** | **9.72** | | 0.14 | 0.15 | ug/m3 | | | 02/15/19 18:30 | 1 |
| cis-1,3-Dichloropropene | 0.91 | | 0.91 | 0.44 | ug/m3 | | | 02/15/19 18:30 | 1 |
| **Cumene** | **0.71** | **J** | 0.98 | 0.29 | ug/m3 | | | 02/15/19 18:30 | 1 |
| **Cyclohexane** | **21.4** | | 0.69 | 0.22 | ug/m3 | | | 02/15/19 18:30 | 1 |
| Dibromochloromethane | 1.70 | | 1.70 | 0.60 | ug/m3 | | | 02/15/19 18:30 | 1 |
| **Dichlorodifluoromethane** | **2.22** | **J** | 2.47 | 0.99 | ug/m3 | | | 02/15/19 18:30 | 1 |
| **Ethylbenzene** | **3.08** | | 0.87 | 0.32 | ug/m3 | | | 02/15/19 18:30 | 1 |
| Hexachlorobutadiene | 2.13 | | 2.13 | 0.87 | ug/m3 | | | 02/15/19 18:30 | 1 |
| **Isopropyl alcohol** | **27.1** | | 12.3 | 4.42 | ug/m3 | | | 02/15/19 18:30 | 1 |

**Client Sample ID: IA-1-SUBSLAB**
**Date Collected: 02/13/19 11:01**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-1**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **m,p-Xylene** | **14.2** | | 2.17 | 0.30 | ug/m3 | | | 02/15/19 18:30 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 2.05 | | 2.05 | 1.72 | ug/m3 | | | 02/15/19 18:30 | 1 |
| **Methyl Ethyl Ketone (2-Butanone)** | **13.0** | | 1.47 | 0.59 | ug/m3 | | | 02/15/19 18:30 | 1 |
| Methyl methacrylate | 2.05 | | 2.05 | 0.90 | ug/m3 | | | 02/15/19 18:30 | 1 |
| Methyl tert-butyl ether | 0.72 | | 0.72 | 0.22 | ug/m3 | | | 02/15/19 18:30 | 1 |
| **Methylene Chloride** | **1.18** | **J** | 1.74 | 0.69 | ug/m3 | | | 02/15/19 18:30 | 1 |
| **Naphthalene** | **3.98** | | 2.62 | 1.63 | ug/m3 | | | 02/15/19 18:30 | 1 |
| **n-Butane** | **66.5** | | 1.19 | 0.74 | ug/m3 | | | 02/15/19 18:30 | 1 |
| n-Butylbenzene | 1.10 | | 1.10 | 0.44 | ug/m3 | | | 02/15/19 18:30 | 1 |
| **n-Heptane** | **53.0** | | 0.82 | 0.57 | ug/m3 | | | 02/15/19 18:30 | 1 |
| **n-Hexane** | **64.9** | | 0.70 | 0.56 | ug/m3 | | | 02/15/19 18:30 | 1 |
| **n-Propylbenzene** | **0.54** | **J** | 0.98 | 0.34 | ug/m3 | | | 02/15/19 18:30 | 1 |
| **o-Xylene** | **3.77** | | 0.87 | 0.31 | ug/m3 | | | 02/15/19 18:30 | 1 |
| sec-Butylbenzene | 1.10 | | 1.10 | 0.36 | ug/m3 | | | 02/15/19 18:30 | 1 |
| **Styrene** | **1.10** | | 0.85 | 0.37 | ug/m3 | | | 02/15/19 18:30 | 1 |
| tert-Butyl alcohol | 15.2 | | 15.2 | 4.55 | ug/m3 | | | 02/15/19 18:30 | 1 |
| tert-Butylbenzene | 1.10 | | 1.10 | 0.32 | ug/m3 | | | 02/15/19 18:30 | 1 |
| **Tetrachloroethene** | **0.44** | **J** | 1.36 | 0.20 | ug/m3 | | | 02/15/19 18:30 | 1 |
| Tetrahydrofuran | 14.7 | | 14.7 | 7.67 | ug/m3 | | | 02/15/19 18:30 | 1 |
| **Toluene** | **32.0** | | 0.75 | 0.26 | ug/m3 | | | 02/15/19 18:30 | 1 |
| **trans-1,2-Dichloroethene** | **0.93** | | 0.79 | 0.29 | ug/m3 | | | 02/15/19 18:30 | 1 |
| trans-1,3-Dichloropropene | 0.91 | | 0.91 | 0.54 | ug/m3 | | | 02/15/19 18:30 | 1 |
| **Trichloroethene** | **31.6** | | 0.19 | 0.16 | ug/m3 | | | 02/15/19 18:30 | 1 |
| **Trichlorofluoromethane** | **1.03** | **J** | 1.12 | 0.35 | ug/m3 | | | 02/15/19 18:30 | 1 |
| Vinyl chloride | 0.090 | | 0.090 | 0.10 | ug/m3 | | | 02/15/19 18:30 | 1 |

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **1,1,1-Trichloroethane** | **8.29** | | 0.20 | 0.068 | ppb v/v | | | 02/15/19 18:30 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.20 | | 0.20 | 0.076 | ppb v/v | | | 02/15/19 18:30 | 1 |
| 1,1,2-Trichloroethane | 0.20 | | 0.20 | 0.078 | ppb v/v | | | 02/15/19 18:30 | 1 |
| **1,1,2-Trichlorotrifluoroethane** | **0.067** | **J** | 0.20 | 0.031 | ppb v/v | | | 02/15/19 18:30 | 1 |
| **1,1-Dichloroethane** | **0.89** | | 0.20 | 0.026 | ppb v/v | | | 02/15/19 18:30 | 1 |
| 1,1-Dichloroethene | 0.035 | | 0.035 | 0.034 | ppb v/v | | | 02/15/19 18:30 | 1 |
| 1,2,4-Trichlorobenzene | 0.50 | | 0.50 | 0.24 | ppb v/v | | | 02/15/19 18:30 | 1 |
| **1,2,4-Trimethylbenzene** | **0.31** | | 0.20 | 0.080 | ppb v/v | | | 02/15/19 18:30 | 1 |
| 1,2-Dibromoethane | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/15/19 18:30 | 1 |
| 1,2-Dichlorobenzene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/15/19 18:30 | 1 |
| 1,2-Dichloroethane | 0.20 | | 0.20 | 0.063 | ppb v/v | | | 02/15/19 18:30 | 1 |
| 1,2-Dichloropropane | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/15/19 18:30 | 1 |
| 1,2-Dichlorotetrafluoroethane | 0.20 | | 0.20 | 0.068 | ppb v/v | | | 02/15/19 18:30 | 1 |
| **1,3,5-Trimethylbenzene** | **0.15** | **J** | 0.20 | 0.058 | ppb v/v | | | 02/15/19 18:30 | 1 |
| 1,3-Butadiene | 0.20 | | 0.20 | 0.065 | ppb v/v | | | 02/15/19 18:30 | 1 |
| 1,3-Dichlorobenzene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/15/19 18:30 | 1 |
| 1,4-Dichlorobenzene | 0.20 | | 0.20 | 0.065 | ppb v/v | | | 02/15/19 18:30 | 1 |
| 1,4-Dioxane | 5.00 | | 5.00 | 1.30 | ppb v/v | | | 02/15/19 18:30 | 1 |
| 2,2,4-Trimethylpentane | 0.20 | | 0.20 | 0.088 | ppb v/v | | | 02/15/19 18:30 | 1 |
| 2-Chlorotoluene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/15/19 18:30 | 1 |
| 3-Chloropropene | 0.50 | | 0.50 | 0.27 | ppb v/v | | | 02/15/19 18:30 | 1 |
| **4-Ethyltoluene** | **0.092** | **J** | 0.20 | 0.069 | ppb v/v | | | 02/15/19 18:30 | 1 |

**Client Sample ID: IA-1-SUBSLAB**
**Date Collected: 02/13/19 11:01**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-1**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **4-Isopropyltoluene** | **0.57** | | 0.20 | 0.075 | ppb v/v | | | 02/15/19 18:30 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 0.50 | | 0.50 | 0.36 | ppb v/v | | | 02/15/19 18:30 | 1 |
| **Acetone** | **6.95** | | 5.00 | 2.60 | ppb v/v | | | 02/15/19 18:30 | 1 |
| **Benzene** | **3.96** | | 0.20 | 0.071 | ppb v/v | | | 02/15/19 18:30 | 1 |
| Benzyl chloride | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/15/19 18:30 | 1 |
| Bromodichloromethane | 0.20 | | 0.20 | 0.094 | ppb v/v | | | 02/15/19 18:30 | 1 |
| Bromoethene(Vinyl Bromide) | 0.20 | | 0.20 | 0.056 | ppb v/v | | | 02/15/19 18:30 | 1 |
| Bromoform | 0.20 | | 0.20 | 0.086 | ppb v/v | | | 02/15/19 18:30 | 1 |
| Bromomethane | 0.20 | | 0.20 | 0.062 | ppb v/v | | | 02/15/19 18:30 | 1 |
| **Carbon disulfide** | **1.78** | | 0.50 | 0.12 | ppb v/v | | | 02/15/19 18:30 | 1 |
| **Carbon tetrachloride** | **0.034** | **J** | 0.035 | 0.024 | ppb v/v | | | 02/15/19 18:30 | 1 |
| Chlorobenzene | 0.20 | | 0.20 | 0.040 | ppb v/v | | | 02/15/19 18:30 | 1 |
| Chlorodifluoromethane | 0.50 | | 0.50 | 0.26 | ppb v/v | | | 02/15/19 18:30 | 1 |
| Chloroethane | 0.50 | | 0.50 | 0.21 | ppb v/v | | | 02/15/19 18:30 | 1 |
| **Chloroform** | **0.51** | | 0.20 | 0.052 | ppb v/v | | | 02/15/19 18:30 | 1 |
| Chloromethane | 0.50 | | 0.50 | 0.25 | ppb v/v | | | 02/15/19 18:30 | 1 |
| **cis-1,2-Dichloroethene** | **2.45** | | 0.035 | 0.037 | ppb v/v | | | 02/15/19 18:30 | 1 |
| cis-1,3-Dichloropropene | 0.20 | | 0.20 | 0.098 | ppb v/v | | | 02/15/19 18:30 | 1 |
| **Cumene** | **0.14** | **J** | 0.20 | 0.059 | ppb v/v | | | 02/15/19 18:30 | 1 |
| **Cyclohexane** | **6.21** | | 0.20 | 0.063 | ppb v/v | | | 02/15/19 18:30 | 1 |
| Dibromochloromethane | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/15/19 18:30 | 1 |
| **Dichlorodifluoromethane** | **0.45** | **J** | 0.50 | 0.20 | ppb v/v | | | 02/15/19 18:30 | 1 |
| **Ethylbenzene** | **0.71** | | 0.20 | 0.073 | ppb v/v | | | 02/15/19 18:30 | 1 |
| Hexachlorobutadiene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/15/19 18:30 | 1 |
| **Isopropyl alcohol** | **11.0** | | 5.00 | 1.80 | ppb v/v | | | 02/15/19 18:30 | 1 |
| **m,p-Xylene** | **3.26** | | 0.50 | 0.070 | ppb v/v | | | 02/15/19 18:30 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 0.50 | | 0.50 | 0.42 | ppb v/v | | | 02/15/19 18:30 | 1 |
| **Methyl Ethyl Ketone (2-Butanone)** | **4.40** | | 0.50 | 0.20 | ppb v/v | | | 02/15/19 18:30 | 1 |
| Methyl methacrylate | 0.50 | | 0.50 | 0.22 | ppb v/v | | | 02/15/19 18:30 | 1 |
| Methyl tert-butyl ether | 0.20 | | 0.20 | 0.061 | ppb v/v | | | 02/15/19 18:30 | 1 |
| **Methylene Chloride** | **0.34** | **J** | 0.50 | 0.20 | ppb v/v | | | 02/15/19 18:30 | 1 |
| **Naphthalene** | **0.76** | | 0.50 | 0.31 | ppb v/v | | | 02/15/19 18:30 | 1 |
| **n-Butane** | **28.0** | | 0.50 | 0.31 | ppb v/v | | | 02/15/19 18:30 | 1 |
| n-Butylbenzene | 0.20 | | 0.20 | 0.080 | ppb v/v | | | 02/15/19 18:30 | 1 |
| **n-Heptane** | **12.9** | | 0.20 | 0.14 | ppb v/v | | | 02/15/19 18:30 | 1 |
| **n-Hexane** | **18.4** | | 0.20 | 0.16 | ppb v/v | | | 02/15/19 18:30 | 1 |
| **n-Propylbenzene** | **0.11** | **J** | 0.20 | 0.069 | ppb v/v | | | 02/15/19 18:30 | 1 |
| **o-Xylene** | **0.87** | | 0.20 | 0.071 | ppb v/v | | | 02/15/19 18:30 | 1 |
| sec-Butylbenzene | 0.20 | | 0.20 | 0.066 | ppb v/v | | | 02/15/19 18:30 | 1 |
| **Styrene** | **0.26** | | 0.20 | 0.086 | ppb v/v | | | 02/15/19 18:30 | 1 |
| tert-Butyl alcohol | 5.00 | | 5.00 | 1.50 | ppb v/v | | | 02/15/19 18:30 | 1 |
| tert-Butylbenzene | 0.20 | | 0.20 | 0.058 | ppb v/v | | | 02/15/19 18:30 | 1 |
| **Tetrachloroethene** | **0.066** | **J** | 0.20 | 0.029 | ppb v/v | | | 02/15/19 18:30 | 1 |
| Tetrahydrofuran | 5.00 | | 5.00 | 2.60 | ppb v/v | | | 02/15/19 18:30 | 1 |
| **Toluene** | **8.49** | | 0.20 | 0.069 | ppb v/v | | | 02/15/19 18:30 | 1 |
| **trans-1,2-Dichloroethene** | **0.23** | | 0.20 | 0.074 | ppb v/v | | | 02/15/19 18:30 | 1 |
| trans-1,3-Dichloropropene | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/15/19 18:30 | 1 |

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

**Client Sample ID: IA-1-SUBSLAB**
**Date Collected: 02/13/19 11:01**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-1**
**Matrix: Air**

### Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Trichloroethene | 5.88 | | 0.035 | 0.030 | ppb v/v | | | 02/15/19 18:30 | 1 |
| Trichlorofluoromethane | 0.18 | J | 0.20 | 0.062 | ppb v/v | | | 02/15/19 18:30 | 1 |
| Vinyl chloride | 0.035 | | 0.035 | 0.041 | ppb v/v | | | 02/15/19 18:30 | 1 |

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

**Client Sample ID: IA-1-INDOOR AIR**
**Date Collected: 02/13/19 11:01**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-2**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.09 | | 1.09 | 0.37 | ug/m3 | | | 02/15/19 19:23 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.37 | | 1.37 | 0.52 | ug/m3 | | | 02/15/19 19:23 | 1 |
| 1,1,2-Trichloroethane | 1.09 | | 1.09 | 0.43 | ug/m3 | | | 02/15/19 19:23 | 1 |
| **1,1,2-Trichlorotrifluoroethane** | **0.52** | **J** | 1.53 | 0.24 | ug/m3 | | | 02/15/19 19:23 | 1 |
| 1,1-Dichloroethane | 0.81 | | 0.81 | 0.11 | ug/m3 | | | 02/15/19 19:23 | 1 |
| 1,1-Dichloroethene | 0.14 | | 0.14 | 0.13 | ug/m3 | | | 02/15/19 19:23 | 1 |
| 1,2,4-Trichlorobenzene | 3.71 | | 3.71 | 1.78 | ug/m3 | | | 02/15/19 19:23 | 1 |
| 1,2,4-Trimethylbenzene | 0.98 | | 0.98 | 0.39 | ug/m3 | | | 02/15/19 19:23 | 1 |
| 1,2-Dibromoethane | 1.54 | | 1.54 | 0.53 | ug/m3 | | | 02/15/19 19:23 | 1 |
| 1,2-Dichlorobenzene | 1.20 | | 1.20 | 0.43 | ug/m3 | | | 02/15/19 19:23 | 1 |
| 1,2-Dichloroethane | 0.81 | | 0.81 | 0.25 | ug/m3 | | | 02/15/19 19:23 | 1 |
| 1,2-Dichloropropane | 0.92 | | 0.92 | 0.55 | ug/m3 | | | 02/15/19 19:23 | 1 |
| 1,2-Dichlorotetrafluoroethane | 1.40 | | 1.40 | 0.48 | ug/m3 | | | 02/15/19 19:23 | 1 |
| 1,3,5-Trimethylbenzene | 0.98 | | 0.98 | 0.29 | ug/m3 | | | 02/15/19 19:23 | 1 |
| 1,3-Butadiene | 0.44 | | 0.44 | 0.14 | ug/m3 | | | 02/15/19 19:23 | 1 |
| 1,3-Dichlorobenzene | 1.20 | | 1.20 | 0.49 | ug/m3 | | | 02/15/19 19:23 | 1 |
| 1,4-Dichlorobenzene | 1.20 | | 1.20 | 0.39 | ug/m3 | | | 02/15/19 19:23 | 1 |
| 1,4-Dioxane | 18.0 | | 18.0 | 4.68 | ug/m3 | | | 02/15/19 19:23 | 1 |
| 2,2,4-Trimethylpentane | 0.93 | | 0.93 | 0.41 | ug/m3 | | | 02/15/19 19:23 | 1 |
| 2-Chlorotoluene | 1.04 | | 1.04 | 0.37 | ug/m3 | | | 02/15/19 19:23 | 1 |
| 3-Chloropropene | 1.57 | | 1.57 | 0.85 | ug/m3 | | | 02/15/19 19:23 | 1 |
| 4-Ethyltoluene | 0.98 | | 0.98 | 0.34 | ug/m3 | | | 02/15/19 19:23 | 1 |
| 4-Isopropyltoluene | 1.10 | | 1.10 | 0.41 | ug/m3 | | | 02/15/19 19:23 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 2.05 | | 2.05 | 1.47 | ug/m3 | | | 02/15/19 19:23 | 1 |
| Acetone | 11.9 | | 11.9 | 6.18 | ug/m3 | | | 02/15/19 19:23 | 1 |
| **Benzene** | **0.72** | | 0.64 | 0.23 | ug/m3 | | | 02/15/19 19:23 | 1 |
| Benzyl chloride | 1.04 | | 1.04 | 0.62 | ug/m3 | | | 02/15/19 19:23 | 1 |
| Bromodichloromethane | 1.34 | | 1.34 | 0.63 | ug/m3 | | | 02/15/19 19:23 | 1 |
| Bromoethene(Vinyl Bromide) | 0.87 | | 0.87 | 0.24 | ug/m3 | | | 02/15/19 19:23 | 1 |
| Bromoform | 2.07 | | 2.07 | 0.89 | ug/m3 | | | 02/15/19 19:23 | 1 |
| Bromomethane | 0.78 | | 0.78 | 0.24 | ug/m3 | | | 02/15/19 19:23 | 1 |
| Carbon disulfide | 1.56 | | 1.56 | 0.37 | ug/m3 | | | 02/15/19 19:23 | 1 |
| **Carbon tetrachloride** | **0.41** | | 0.22 | 0.15 | ug/m3 | | | 02/15/19 19:23 | 1 |
| Chlorobenzene | 0.92 | | 0.92 | 0.18 | ug/m3 | | | 02/15/19 19:23 | 1 |
| Chlorodifluoromethane | 1.77 | | 1.77 | 0.92 | ug/m3 | | | 02/15/19 19:23 | 1 |
| Chloroethane | 1.32 | | 1.32 | 0.55 | ug/m3 | | | 02/15/19 19:23 | 1 |
| Chloroform | 0.98 | | 0.98 | 0.25 | ug/m3 | | | 02/15/19 19:23 | 1 |
| Chloromethane | 1.03 | | 1.03 | 0.52 | ug/m3 | | | 02/15/19 19:23 | 1 |
| cis-1,2-Dichloroethene | 0.14 | | 0.14 | 0.15 | ug/m3 | | | 02/15/19 19:23 | 1 |
| cis-1,3-Dichloropropene | 0.91 | | 0.91 | 0.44 | ug/m3 | | | 02/15/19 19:23 | 1 |
| Cumene | 0.98 | | 0.98 | 0.29 | ug/m3 | | | 02/15/19 19:23 | 1 |
| Cyclohexane | 0.69 | | 0.69 | 0.22 | ug/m3 | | | 02/15/19 19:23 | 1 |
| Dibromochloromethane | 1.70 | | 1.70 | 0.60 | ug/m3 | | | 02/15/19 19:23 | 1 |
| **Dichlorodifluoromethane** | **2.12** | **J** | 2.47 | 0.99 | ug/m3 | | | 02/15/19 19:23 | 1 |
| Ethylbenzene | 0.87 | | 0.87 | 0.32 | ug/m3 | | | 02/15/19 19:23 | 1 |
| Hexachlorobutadiene | 2.13 | | 2.13 | 0.87 | ug/m3 | | | 02/15/19 19:23 | 1 |
| Isopropyl alcohol | 12.3 | | 12.3 | 4.42 | ug/m3 | | | 02/15/19 19:23 | 1 |

**Client Sample ID: IA-1-INDOOR AIR**
**Date Collected: 02/13/19 11:01**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-2**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **m,p-Xylene** | **0.49** | **J** | 2.17 | 0.30 | ug/m3 | | | 02/15/19 19:23 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 2.05 | | 2.05 | 1.72 | ug/m3 | | | 02/15/19 19:23 | 1 |
| Methyl Ethyl Ketone (2-Butanone) | 1.47 | | 1.47 | 0.59 | ug/m3 | | | 02/15/19 19:23 | 1 |
| Methyl methacrylate | 2.05 | | 2.05 | 0.90 | ug/m3 | | | 02/15/19 19:23 | 1 |
| Methyl tert-butyl ether | 0.72 | | 0.72 | 0.22 | ug/m3 | | | 02/15/19 19:23 | 1 |
| Methylene Chloride | 1.74 | | 1.74 | 0.69 | ug/m3 | | | 02/15/19 19:23 | 1 |
| Naphthalene | 2.62 | | 2.62 | 1.63 | ug/m3 | | | 02/15/19 19:23 | 1 |
| **n-Butane** | **1.69** | | 1.19 | 0.74 | ug/m3 | | | 02/15/19 19:23 | 1 |
| n-Butylbenzene | 1.10 | | 1.10 | 0.44 | ug/m3 | | | 02/15/19 19:23 | 1 |
| n-Heptane | 0.82 | | 0.82 | 0.57 | ug/m3 | | | 02/15/19 19:23 | 1 |
| **n-Hexane** | **0.60** | **J** | 0.70 | 0.56 | ug/m3 | | | 02/15/19 19:23 | 1 |
| n-Propylbenzene | 0.98 | | 0.98 | 0.34 | ug/m3 | | | 02/15/19 19:23 | 1 |
| o-Xylene | 0.87 | | 0.87 | 0.31 | ug/m3 | | | 02/15/19 19:23 | 1 |
| sec-Butylbenzene | 1.10 | | 1.10 | 0.36 | ug/m3 | | | 02/15/19 19:23 | 1 |
| Styrene | 0.85 | | 0.85 | 0.37 | ug/m3 | | | 02/15/19 19:23 | 1 |
| tert-Butyl alcohol | 15.2 | | 15.2 | 4.55 | ug/m3 | | | 02/15/19 19:23 | 1 |
| tert-Butylbenzene | 1.10 | | 1.10 | 0.32 | ug/m3 | | | 02/15/19 19:23 | 1 |
| **Tetrachloroethene** | **0.40** | **J** | 1.36 | 0.20 | ug/m3 | | | 02/15/19 19:23 | 1 |
| Tetrahydrofuran | 14.7 | | 14.7 | 7.67 | ug/m3 | | | 02/15/19 19:23 | 1 |
| **Toluene** | **0.99** | | 0.75 | 0.26 | ug/m3 | | | 02/15/19 19:23 | 1 |
| trans-1,2-Dichloroethene | 0.79 | | 0.79 | 0.29 | ug/m3 | | | 02/15/19 19:23 | 1 |
| trans-1,3-Dichloropropene | 0.91 | | 0.91 | 0.54 | ug/m3 | | | 02/15/19 19:23 | 1 |
| Trichloroethene | 0.19 | | 0.19 | 0.16 | ug/m3 | | | 02/15/19 19:23 | 1 |
| **Trichlorofluoromethane** | **1.15** | | 1.12 | 0.35 | ug/m3 | | | 02/15/19 19:23 | 1 |
| Vinyl chloride | 0.090 | | 0.090 | 0.10 | ug/m3 | | | 02/15/19 19:23 | 1 |

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.20 | | 0.20 | 0.068 | ppb v/v | | | 02/15/19 19:23 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.20 | | 0.20 | 0.076 | ppb v/v | | | 02/15/19 19:23 | 1 |
| 1,1,2-Trichloroethane | 0.20 | | 0.20 | 0.078 | ppb v/v | | | 02/15/19 19:23 | 1 |
| **1,1,2-Trichlorotrifluoroethane** | **0.068** | **J** | 0.20 | 0.031 | ppb v/v | | | 02/15/19 19:23 | 1 |
| 1,1-Dichloroethane | 0.20 | | 0.20 | 0.026 | ppb v/v | | | 02/15/19 19:23 | 1 |
| 1,1-Dichloroethene | 0.035 | | 0.035 | 0.034 | ppb v/v | | | 02/15/19 19:23 | 1 |
| 1,2,4-Trichlorobenzene | 0.50 | | 0.50 | 0.24 | ppb v/v | | | 02/15/19 19:23 | 1 |
| 1,2,4-Trimethylbenzene | 0.20 | | 0.20 | 0.080 | ppb v/v | | | 02/15/19 19:23 | 1 |
| 1,2-Dibromoethane | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/15/19 19:23 | 1 |
| 1,2-Dichlorobenzene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/15/19 19:23 | 1 |
| 1,2-Dichloroethane | 0.20 | | 0.20 | 0.063 | ppb v/v | | | 02/15/19 19:23 | 1 |
| 1,2-Dichloropropane | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/15/19 19:23 | 1 |
| 1,2-Dichlorotetrafluoroethane | 0.20 | | 0.20 | 0.068 | ppb v/v | | | 02/15/19 19:23 | 1 |
| 1,3,5-Trimethylbenzene | 0.20 | | 0.20 | 0.058 | ppb v/v | | | 02/15/19 19:23 | 1 |
| 1,3-Butadiene | 0.20 | | 0.20 | 0.065 | ppb v/v | | | 02/15/19 19:23 | 1 |
| 1,3-Dichlorobenzene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/15/19 19:23 | 1 |
| 1,4-Dichlorobenzene | 0.20 | | 0.20 | 0.065 | ppb v/v | | | 02/15/19 19:23 | 1 |
| 1,4-Dioxane | 5.00 | | 5.00 | 1.30 | ppb v/v | | | 02/15/19 19:23 | 1 |
| 2,2,4-Trimethylpentane | 0.20 | | 0.20 | 0.088 | ppb v/v | | | 02/15/19 19:23 | 1 |
| 2-Chlorotoluene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/15/19 19:23 | 1 |
| 3-Chloropropene | 0.50 | | 0.50 | 0.27 | ppb v/v | | | 02/15/19 19:23 | 1 |
| 4-Ethyltoluene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/15/19 19:23 | 1 |

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

**Client Sample ID: IA-1-INDOOR AIR**
**Date Collected: 02/13/19 11:01**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-2**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Isopropyltoluene | 0.20 | | 0.20 | 0.075 | ppb v/v | | | 02/15/19 19:23 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 0.50 | | 0.50 | 0.36 | ppb v/v | | | 02/15/19 19:23 | 1 |
| Acetone | 5.00 | | 5.00 | 2.60 | ppb v/v | | | 02/15/19 19:23 | 1 |
| **Benzene** | **0.23** | | 0.20 | 0.071 | ppb v/v | | | 02/15/19 19:23 | 1 |
| Benzyl chloride | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/15/19 19:23 | 1 |
| Bromodichloromethane | 0.20 | | 0.20 | 0.094 | ppb v/v | | | 02/15/19 19:23 | 1 |
| Bromoethene(Vinyl Bromide) | 0.20 | | 0.20 | 0.056 | ppb v/v | | | 02/15/19 19:23 | 1 |
| Bromoform | 0.20 | | 0.20 | 0.086 | ppb v/v | | | 02/15/19 19:23 | 1 |
| Bromomethane | 0.20 | | 0.20 | 0.062 | ppb v/v | | | 02/15/19 19:23 | 1 |
| Carbon disulfide | 0.50 | | 0.50 | 0.12 | ppb v/v | | | 02/15/19 19:23 | 1 |
| **Carbon tetrachloride** | **0.065** | | 0.035 | 0.024 | ppb v/v | | | 02/15/19 19:23 | 1 |
| Chlorobenzene | 0.20 | | 0.20 | 0.040 | ppb v/v | | | 02/15/19 19:23 | 1 |
| Chlorodifluoromethane | 0.50 | | 0.50 | 0.26 | ppb v/v | | | 02/15/19 19:23 | 1 |
| Chloroethane | 0.50 | | 0.50 | 0.21 | ppb v/v | | | 02/15/19 19:23 | 1 |
| Chloroform | 0.20 | | 0.20 | 0.052 | ppb v/v | | | 02/15/19 19:23 | 1 |
| Chloromethane | 0.50 | | 0.50 | 0.25 | ppb v/v | | | 02/15/19 19:23 | 1 |
| cis-1,2-Dichloroethene | 0.035 | | 0.035 | 0.037 | ppb v/v | | | 02/15/19 19:23 | 1 |
| cis-1,3-Dichloropropene | 0.20 | | 0.20 | 0.098 | ppb v/v | | | 02/15/19 19:23 | 1 |
| Cumene | 0.20 | | 0.20 | 0.059 | ppb v/v | | | 02/15/19 19:23 | 1 |
| Cyclohexane | 0.20 | | 0.20 | 0.063 | ppb v/v | | | 02/15/19 19:23 | 1 |
| Dibromochloromethane | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/15/19 19:23 | 1 |
| **Dichlorodifluoromethane** | **0.43** | **J** | 0.50 | 0.20 | ppb v/v | | | 02/15/19 19:23 | 1 |
| Ethylbenzene | 0.20 | | 0.20 | 0.073 | ppb v/v | | | 02/15/19 19:23 | 1 |
| Hexachlorobutadiene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/15/19 19:23 | 1 |
| Isopropyl alcohol | 5.00 | | 5.00 | 1.80 | ppb v/v | | | 02/15/19 19:23 | 1 |
| **m,p-Xylene** | **0.11** | **J** | 0.50 | 0.070 | ppb v/v | | | 02/15/19 19:23 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 0.50 | | 0.50 | 0.42 | ppb v/v | | | 02/15/19 19:23 | 1 |
| Methyl Ethyl Ketone (2-Butanone) | 0.50 | | 0.50 | 0.20 | ppb v/v | | | 02/15/19 19:23 | 1 |
| Methyl methacrylate | 0.50 | | 0.50 | 0.22 | ppb v/v | | | 02/15/19 19:23 | 1 |
| Methyl tert-butyl ether | 0.20 | | 0.20 | 0.061 | ppb v/v | | | 02/15/19 19:23 | 1 |
| Methylene Chloride | 0.50 | | 0.50 | 0.20 | ppb v/v | | | 02/15/19 19:23 | 1 |
| Naphthalene | 0.50 | | 0.50 | 0.31 | ppb v/v | | | 02/15/19 19:23 | 1 |
| **n-Butane** | **0.71** | | 0.50 | 0.31 | ppb v/v | | | 02/15/19 19:23 | 1 |
| n-Butylbenzene | 0.20 | | 0.20 | 0.080 | ppb v/v | | | 02/15/19 19:23 | 1 |
| n-Heptane | 0.20 | | 0.20 | 0.14 | ppb v/v | | | 02/15/19 19:23 | 1 |
| **n-Hexane** | **0.17** | **J** | 0.20 | 0.16 | ppb v/v | | | 02/15/19 19:23 | 1 |
| n-Propylbenzene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/15/19 19:23 | 1 |
| o-Xylene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/15/19 19:23 | 1 |
| sec-Butylbenzene | 0.20 | | 0.20 | 0.066 | ppb v/v | | | 02/15/19 19:23 | 1 |
| Styrene | 0.20 | | 0.20 | 0.086 | ppb v/v | | | 02/15/19 19:23 | 1 |
| tert-Butyl alcohol | 5.00 | | 5.00 | 1.50 | ppb v/v | | | 02/15/19 19:23 | 1 |
| tert-Butylbenzene | 0.20 | | 0.20 | 0.058 | ppb v/v | | | 02/15/19 19:23 | 1 |
| **Tetrachloroethene** | **0.060** | **J** | 0.20 | 0.029 | ppb v/v | | | 02/15/19 19:23 | 1 |
| Tetrahydrofuran | 5.00 | | 5.00 | 2.60 | ppb v/v | | | 02/15/19 19:23 | 1 |
| **Toluene** | **0.26** | | 0.20 | 0.069 | ppb v/v | | | 02/15/19 19:23 | 1 |
| trans-1,2-Dichloroethene | 0.20 | | 0.20 | 0.074 | ppb v/v | | | 02/15/19 19:23 | 1 |
| trans-1,3-Dichloropropene | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/15/19 19:23 | 1 |

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

**Client Sample ID: IA-1-INDOOR AIR**
**Date Collected: 02/13/19 11:01**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-2**
**Matrix: Air**

**Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Trichloroethene | 0.035 | | 0.035 | 0.030 | ppb v/v | | | 02/15/19 19:23 | 1 |
| **Trichlorofluoromethane** | **0.21** | | 0.20 | 0.062 | ppb v/v | | | 02/15/19 19:23 | 1 |
| Vinyl chloride | 0.035 | | 0.035 | 0.041 | ppb v/v | | | 02/15/19 19:23 | 1 |

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

**Client Sample ID: IA-2-SUBSLAB**
**Date Collected: 02/13/19 08:54**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-3**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.09 | | 1.09 | 0.37 | ug/m3 | | | 02/15/19 20:15 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.37 | | 1.37 | 0.52 | ug/m3 | | | 02/15/19 20:15 | 1 |
| 1,1,2-Trichloroethane | 1.09 | | 1.09 | 0.43 | ug/m3 | | | 02/15/19 20:15 | 1 |
| **1,1,2-Trichlorotrifluoroethane** | **0.55** | **J** | 1.53 | 0.24 | ug/m3 | | | 02/15/19 20:15 | 1 |
| 1,1-Dichloroethane | 0.81 | | 0.81 | 0.11 | ug/m3 | | | 02/15/19 20:15 | 1 |
| 1,1-Dichloroethene | 0.14 | | 0.14 | 0.13 | ug/m3 | | | 02/15/19 20:15 | 1 |
| 1,2,4-Trichlorobenzene | 3.71 | | 3.71 | 1.78 | ug/m3 | | | 02/15/19 20:15 | 1 |
| **1,2,4-Trimethylbenzene** | **0.45** | **J** | 0.98 | 0.39 | ug/m3 | | | 02/15/19 20:15 | 1 |
| 1,2-Dibromoethane | 1.54 | | 1.54 | 0.53 | ug/m3 | | | 02/15/19 20:15 | 1 |
| 1,2-Dichlorobenzene | 1.20 | | 1.20 | 0.43 | ug/m3 | | | 02/15/19 20:15 | 1 |
| 1,2-Dichloroethane | 0.81 | | 0.81 | 0.25 | ug/m3 | | | 02/15/19 20:15 | 1 |
| 1,2-Dichloropropane | 0.92 | | 0.92 | 0.55 | ug/m3 | | | 02/15/19 20:15 | 1 |
| 1,2-Dichlorotetrafluoroethane | 1.40 | | 1.40 | 0.48 | ug/m3 | | | 02/15/19 20:15 | 1 |
| 1,3,5-Trimethylbenzene | 0.98 | | 0.98 | 0.29 | ug/m3 | | | 02/15/19 20:15 | 1 |
| 1,3-Butadiene | 0.44 | | 0.44 | 0.14 | ug/m3 | | | 02/15/19 20:15 | 1 |
| 1,3-Dichlorobenzene | 1.20 | | 1.20 | 0.49 | ug/m3 | | | 02/15/19 20:15 | 1 |
| 1,4-Dichlorobenzene | 1.20 | | 1.20 | 0.39 | ug/m3 | | | 02/15/19 20:15 | 1 |
| 1,4-Dioxane | 18.0 | | 18.0 | 4.68 | ug/m3 | | | 02/15/19 20:15 | 1 |
| 2,2,4-Trimethylpentane | 0.93 | | 0.93 | 0.41 | ug/m3 | | | 02/15/19 20:15 | 1 |
| 2-Chlorotoluene | 1.04 | | 1.04 | 0.37 | ug/m3 | | | 02/15/19 20:15 | 1 |
| 3-Chloropropene | 1.57 | | 1.57 | 0.85 | ug/m3 | | | 02/15/19 20:15 | 1 |
| 4-Ethyltoluene | 0.98 | | 0.98 | 0.34 | ug/m3 | | | 02/15/19 20:15 | 1 |
| 4-Isopropyltoluene | 1.10 | | 1.10 | 0.41 | ug/m3 | | | 02/15/19 20:15 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 2.05 | | 2.05 | 1.47 | ug/m3 | | | 02/15/19 20:15 | 1 |
| **Acetone** | **13.6** | | 11.9 | 6.18 | ug/m3 | | | 02/15/19 20:15 | 1 |
| **Benzene** | **1.12** | | 0.64 | 0.23 | ug/m3 | | | 02/15/19 20:15 | 1 |
| Benzyl chloride | 1.04 | | 1.04 | 0.62 | ug/m3 | | | 02/15/19 20:15 | 1 |
| Bromodichloromethane | 1.34 | | 1.34 | 0.63 | ug/m3 | | | 02/15/19 20:15 | 1 |
| Bromoethene(Vinyl Bromide) | 0.87 | | 0.87 | 0.24 | ug/m3 | | | 02/15/19 20:15 | 1 |
| Bromoform | 2.07 | | 2.07 | 0.89 | ug/m3 | | | 02/15/19 20:15 | 1 |
| Bromomethane | 0.78 | | 0.78 | 0.24 | ug/m3 | | | 02/15/19 20:15 | 1 |
| Carbon disulfide | 1.56 | | 1.56 | 0.37 | ug/m3 | | | 02/15/19 20:15 | 1 |
| **Carbon tetrachloride** | **0.49** | | 0.22 | 0.15 | ug/m3 | | | 02/15/19 20:15 | 1 |
| Chlorobenzene | 0.92 | | 0.92 | 0.18 | ug/m3 | | | 02/15/19 20:15 | 1 |
| **Chlorodifluoromethane** | **0.97** | **J** | 1.77 | 0.92 | ug/m3 | | | 02/15/19 20:15 | 1 |
| Chloroethane | 1.32 | | 1.32 | 0.55 | ug/m3 | | | 02/15/19 20:15 | 1 |
| **Chloroform** | **0.47** | **J** | 0.98 | 0.25 | ug/m3 | | | 02/15/19 20:15 | 1 |
| Chloromethane | 1.03 | | 1.03 | 0.52 | ug/m3 | | | 02/15/19 20:15 | 1 |
| cis-1,2-Dichloroethene | 0.14 | | 0.14 | 0.15 | ug/m3 | | | 02/15/19 20:15 | 1 |
| cis-1,3-Dichloropropene | 0.91 | | 0.91 | 0.44 | ug/m3 | | | 02/15/19 20:15 | 1 |
| Cumene | 0.98 | | 0.98 | 0.29 | ug/m3 | | | 02/15/19 20:15 | 1 |
| **Cyclohexane** | **1.12** | | 0.69 | 0.22 | ug/m3 | | | 02/15/19 20:15 | 1 |
| Dibromochloromethane | 1.70 | | 1.70 | 0.60 | ug/m3 | | | 02/15/19 20:15 | 1 |
| **Dichlorodifluoromethane** | **2.29** | **J** | 2.47 | 0.99 | ug/m3 | | | 02/15/19 20:15 | 1 |
| **Ethylbenzene** | **0.38** | **J** | 0.87 | 0.32 | ug/m3 | | | 02/15/19 20:15 | 1 |
| Hexachlorobutadiene | 2.13 | | 2.13 | 0.87 | ug/m3 | | | 02/15/19 20:15 | 1 |
| **Isopropyl alcohol** | **10.3** | **J** | 12.3 | 4.42 | ug/m3 | | | 02/15/19 20:15 | 1 |

**Client Sample ID: IA-2-SUBSLAB**
**Date Collected: 02/13/19 08:54**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-3**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **m,p-Xylene** | **0.98** | **J** | 2.17 | 0.30 | ug/m3 | | | 02/15/19 20:15 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 2.05 | | 2.05 | 1.72 | ug/m3 | | | 02/15/19 20:15 | 1 |
| **Methyl Ethyl Ketone (2-Butanone)** | **1.66** | | 1.47 | 0.59 | ug/m3 | | | 02/15/19 20:15 | 1 |
| Methyl methacrylate | 2.05 | | 2.05 | 0.90 | ug/m3 | | | 02/15/19 20:15 | 1 |
| Methyl tert-butyl ether | 0.72 | | 0.72 | 0.22 | ug/m3 | | | 02/15/19 20:15 | 1 |
| **Methylene Chloride** | **1.14** | **J** | 1.74 | 0.69 | ug/m3 | | | 02/15/19 20:15 | 1 |
| Naphthalene | 2.62 | | 2.62 | 1.63 | ug/m3 | | | 02/15/19 20:15 | 1 |
| **n-Butane** | **6.49** | | 1.19 | 0.74 | ug/m3 | | | 02/15/19 20:15 | 1 |
| n-Butylbenzene | 1.10 | | 1.10 | 0.44 | ug/m3 | | | 02/15/19 20:15 | 1 |
| **n-Heptane** | **1.51** | | 0.82 | 0.57 | ug/m3 | | | 02/15/19 20:15 | 1 |
| **n-Hexane** | **3.05** | | 0.70 | 0.56 | ug/m3 | | | 02/15/19 20:15 | 1 |
| n-Propylbenzene | 0.98 | | 0.98 | 0.34 | ug/m3 | | | 02/15/19 20:15 | 1 |
| **o-Xylene** | **0.46** | **J** | 0.87 | 0.31 | ug/m3 | | | 02/15/19 20:15 | 1 |
| sec-Butylbenzene | 1.10 | | 1.10 | 0.36 | ug/m3 | | | 02/15/19 20:15 | 1 |
| Styrene | 0.85 | | 0.85 | 0.37 | ug/m3 | | | 02/15/19 20:15 | 1 |
| tert-Butyl alcohol | 15.2 | | 15.2 | 4.55 | ug/m3 | | | 02/15/19 20:15 | 1 |
| tert-Butylbenzene | 1.10 | | 1.10 | 0.32 | ug/m3 | | | 02/15/19 20:15 | 1 |
| **Tetrachloroethene** | **3.71** | | 1.36 | 0.20 | ug/m3 | | | 02/15/19 20:15 | 1 |
| Tetrahydrofuran | 14.7 | | 14.7 | 7.67 | ug/m3 | | | 02/15/19 20:15 | 1 |
| **Toluene** | **1.77** | | 0.75 | 0.26 | ug/m3 | | | 02/15/19 20:15 | 1 |
| trans-1,2-Dichloroethene | 0.79 | | 0.79 | 0.29 | ug/m3 | | | 02/15/19 20:15 | 1 |
| trans-1,3-Dichloropropene | 0.91 | | 0.91 | 0.54 | ug/m3 | | | 02/15/19 20:15 | 1 |
| **Trichloroethene** | **6.24** | | 0.19 | 0.16 | ug/m3 | | | 02/15/19 20:15 | 1 |
| **Trichlorofluoromethane** | **1.17** | | 1.12 | 0.35 | ug/m3 | | | 02/15/19 20:15 | 1 |
| Vinyl chloride | 0.090 | | 0.090 | 0.10 | ug/m3 | | | 02/15/19 20:15 | 1 |

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.20 | | 0.20 | 0.068 | ppb v/v | | | 02/15/19 20:15 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.20 | | 0.20 | 0.076 | ppb v/v | | | 02/15/19 20:15 | 1 |
| 1,1,2-Trichloroethane | 0.20 | | 0.20 | 0.078 | ppb v/v | | | 02/15/19 20:15 | 1 |
| **1,1,2-Trichlorotrifluoroethane** | **0.071** | **J** | 0.20 | 0.031 | ppb v/v | | | 02/15/19 20:15 | 1 |
| 1,1-Dichloroethane | 0.20 | | 0.20 | 0.026 | ppb v/v | | | 02/15/19 20:15 | 1 |
| 1,1-Dichloroethene | 0.035 | | 0.035 | 0.034 | ppb v/v | | | 02/15/19 20:15 | 1 |
| 1,2,4-Trichlorobenzene | 0.50 | | 0.50 | 0.24 | ppb v/v | | | 02/15/19 20:15 | 1 |
| **1,2,4-Trimethylbenzene** | **0.092** | **J** | 0.20 | 0.080 | ppb v/v | | | 02/15/19 20:15 | 1 |
| 1,2-Dibromoethane | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/15/19 20:15 | 1 |
| 1,2-Dichlorobenzene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/15/19 20:15 | 1 |
| 1,2-Dichloroethane | 0.20 | | 0.20 | 0.063 | ppb v/v | | | 02/15/19 20:15 | 1 |
| 1,2-Dichloropropane | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/15/19 20:15 | 1 |
| 1,2-Dichlorotetrafluoroethane | 0.20 | | 0.20 | 0.068 | ppb v/v | | | 02/15/19 20:15 | 1 |
| 1,3,5-Trimethylbenzene | 0.20 | | 0.20 | 0.058 | ppb v/v | | | 02/15/19 20:15 | 1 |
| 1,3-Butadiene | 0.20 | | 0.20 | 0.065 | ppb v/v | | | 02/15/19 20:15 | 1 |
| 1,3-Dichlorobenzene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/15/19 20:15 | 1 |
| 1,4-Dichlorobenzene | 0.20 | | 0.20 | 0.065 | ppb v/v | | | 02/15/19 20:15 | 1 |
| 1,4-Dioxane | 5.00 | | 5.00 | 1.30 | ppb v/v | | | 02/15/19 20:15 | 1 |
| 2,2,4-Trimethylpentane | 0.20 | | 0.20 | 0.088 | ppb v/v | | | 02/15/19 20:15 | 1 |
| 2-Chlorotoluene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/15/19 20:15 | 1 |
| 3-Chloropropene | 0.50 | | 0.50 | 0.27 | ppb v/v | | | 02/15/19 20:15 | 1 |
| 4-Ethyltoluene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/15/19 20:15 | 1 |

**Client Sample ID: IA-2-SUBSLAB**
**Date Collected: 02/13/19 08:54**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-3**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Isopropyltoluene | 0.20 | | 0.20 | 0.075 | ppb v/v | | | 02/15/19 20:15 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 0.50 | | 0.50 | 0.36 | ppb v/v | | | 02/15/19 20:15 | 1 |
| **Acetone** | **5.72** | | 5.00 | 2.60 | ppb v/v | | | 02/15/19 20:15 | 1 |
| **Benzene** | **0.35** | | 0.20 | 0.071 | ppb v/v | | | 02/15/19 20:15 | 1 |
| Benzyl chloride | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/15/19 20:15 | 1 |
| Bromodichloromethane | 0.20 | | 0.20 | 0.094 | ppb v/v | | | 02/15/19 20:15 | 1 |
| Bromoethene(Vinyl Bromide) | 0.20 | | 0.20 | 0.056 | ppb v/v | | | 02/15/19 20:15 | 1 |
| Bromoform | 0.20 | | 0.20 | 0.086 | ppb v/v | | | 02/15/19 20:15 | 1 |
| Bromomethane | 0.20 | | 0.20 | 0.062 | ppb v/v | | | 02/15/19 20:15 | 1 |
| Carbon disulfide | 0.50 | | 0.50 | 0.12 | ppb v/v | | | 02/15/19 20:15 | 1 |
| **Carbon tetrachloride** | **0.078** | | 0.035 | 0.024 | ppb v/v | | | 02/15/19 20:15 | 1 |
| Chlorobenzene | 0.20 | | 0.20 | 0.040 | ppb v/v | | | 02/15/19 20:15 | 1 |
| **Chlorodifluoromethane** | **0.27** | **J** | 0.50 | 0.26 | ppb v/v | | | 02/15/19 20:15 | 1 |
| Chloroethane | 0.50 | | 0.50 | 0.21 | ppb v/v | | | 02/15/19 20:15 | 1 |
| **Chloroform** | **0.097** | **J** | 0.20 | 0.052 | ppb v/v | | | 02/15/19 20:15 | 1 |
| Chloromethane | 0.50 | | 0.50 | 0.25 | ppb v/v | | | 02/15/19 20:15 | 1 |
| cis-1,2-Dichloroethene | 0.035 | | 0.035 | 0.037 | ppb v/v | | | 02/15/19 20:15 | 1 |
| cis-1,3-Dichloropropene | 0.20 | | 0.20 | 0.098 | ppb v/v | | | 02/15/19 20:15 | 1 |
| Cumene | 0.20 | | 0.20 | 0.059 | ppb v/v | | | 02/15/19 20:15 | 1 |
| **Cyclohexane** | **0.33** | | 0.20 | 0.063 | ppb v/v | | | 02/15/19 20:15 | 1 |
| Dibromochloromethane | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/15/19 20:15 | 1 |
| **Dichlorodifluoromethane** | **0.46** | **J** | 0.50 | 0.20 | ppb v/v | | | 02/15/19 20:15 | 1 |
| **Ethylbenzene** | **0.086** | **J** | 0.20 | 0.073 | ppb v/v | | | 02/15/19 20:15 | 1 |
| Hexachlorobutadiene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/15/19 20:15 | 1 |
| **Isopropyl alcohol** | **4.21** | **J** | 5.00 | 1.80 | ppb v/v | | | 02/15/19 20:15 | 1 |
| **m,p-Xylene** | **0.23** | **J** | 0.50 | 0.070 | ppb v/v | | | 02/15/19 20:15 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 0.50 | | 0.50 | 0.42 | ppb v/v | | | 02/15/19 20:15 | 1 |
| **Methyl Ethyl Ketone (2-Butanone)** | **0.56** | | 0.50 | 0.20 | ppb v/v | | | 02/15/19 20:15 | 1 |
| Methyl methacrylate | 0.50 | | 0.50 | 0.22 | ppb v/v | | | 02/15/19 20:15 | 1 |
| Methyl tert-butyl ether | 0.20 | | 0.20 | 0.061 | ppb v/v | | | 02/15/19 20:15 | 1 |
| **Methylene Chloride** | **0.33** | **J** | 0.50 | 0.20 | ppb v/v | | | 02/15/19 20:15 | 1 |
| Naphthalene | 0.50 | | 0.50 | 0.31 | ppb v/v | | | 02/15/19 20:15 | 1 |
| **n-Butane** | **2.73** | | 0.50 | 0.31 | ppb v/v | | | 02/15/19 20:15 | 1 |
| n-Butylbenzene | 0.20 | | 0.20 | 0.080 | ppb v/v | | | 02/15/19 20:15 | 1 |
| **n-Heptane** | **0.37** | | 0.20 | 0.14 | ppb v/v | | | 02/15/19 20:15 | 1 |
| **n-Hexane** | **0.86** | | 0.20 | 0.16 | ppb v/v | | | 02/15/19 20:15 | 1 |
| n-Propylbenzene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/15/19 20:15 | 1 |
| **o-Xylene** | **0.11** | **J** | 0.20 | 0.071 | ppb v/v | | | 02/15/19 20:15 | 1 |
| sec-Butylbenzene | 0.20 | | 0.20 | 0.066 | ppb v/v | | | 02/15/19 20:15 | 1 |
| Styrene | 0.20 | | 0.20 | 0.086 | ppb v/v | | | 02/15/19 20:15 | 1 |
| tert-Butyl alcohol | 5.00 | | 5.00 | 1.50 | ppb v/v | | | 02/15/19 20:15 | 1 |
| tert-Butylbenzene | 0.20 | | 0.20 | 0.058 | ppb v/v | | | 02/15/19 20:15 | 1 |
| **Tetrachloroethene** | **0.55** | | 0.20 | 0.029 | ppb v/v | | | 02/15/19 20:15 | 1 |
| Tetrahydrofuran | 5.00 | | 5.00 | 2.60 | ppb v/v | | | 02/15/19 20:15 | 1 |
| **Toluene** | **0.47** | | 0.20 | 0.069 | ppb v/v | | | 02/15/19 20:15 | 1 |
| trans-1,2-Dichloroethene | 0.20 | | 0.20 | 0.074 | ppb v/v | | | 02/15/19 20:15 | 1 |
| trans-1,3-Dichloropropene | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/15/19 20:15 | 1 |

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

**Client Sample ID: IA-2-SUBSLAB**
**Date Collected: 02/13/19 08:54**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-3**
**Matrix: Air**

### Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Trichloroethene | 1.16 | | 0.035 | 0.030 | ppb v/v | | | 02/15/19 20:15 | 1 |
| Trichlorofluoromethane | 0.21 | | 0.20 | 0.062 | ppb v/v | | | 02/15/19 20:15 | 1 |
| Vinyl chloride | 0.035 | | 0.035 | 0.041 | ppb v/v | | | 02/15/19 20:15 | 1 |

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

**Client Sample ID: IA-2-INDOOR AIR**
**Date Collected: 02/13/19 11:13**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-4**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.09 | | 1.09 | 0.37 | ug/m3 | | | 02/15/19 21:07 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.37 | | 1.37 | 0.52 | ug/m3 | | | 02/15/19 21:07 | 1 |
| 1,1,2-Trichloroethane | 1.09 | | 1.09 | 0.43 | ug/m3 | | | 02/15/19 21:07 | 1 |
| **1,1,2-Trichlorotrifluoroethane** | **0.54** | **J** | 1.53 | 0.24 | ug/m3 | | | 02/15/19 21:07 | 1 |
| 1,1-Dichloroethane | 0.81 | | 0.81 | 0.11 | ug/m3 | | | 02/15/19 21:07 | 1 |
| 1,1-Dichloroethene | 0.14 | | 0.14 | 0.13 | ug/m3 | | | 02/15/19 21:07 | 1 |
| 1,2,4-Trichlorobenzene | 3.71 | | 3.71 | 1.78 | ug/m3 | | | 02/15/19 21:07 | 1 |
| 1,2,4-Trimethylbenzene | 0.98 | | 0.98 | 0.39 | ug/m3 | | | 02/15/19 21:07 | 1 |
| 1,2-Dibromoethane | 1.54 | | 1.54 | 0.53 | ug/m3 | | | 02/15/19 21:07 | 1 |
| 1,2-Dichlorobenzene | 1.20 | | 1.20 | 0.43 | ug/m3 | | | 02/15/19 21:07 | 1 |
| 1,2-Dichloroethane | 0.81 | | 0.81 | 0.25 | ug/m3 | | | 02/15/19 21:07 | 1 |
| 1,2-Dichloropropane | 0.92 | | 0.92 | 0.55 | ug/m3 | | | 02/15/19 21:07 | 1 |
| 1,2-Dichlorotetrafluoroethane | 1.40 | | 1.40 | 0.48 | ug/m3 | | | 02/15/19 21:07 | 1 |
| 1,3,5-Trimethylbenzene | 0.98 | | 0.98 | 0.29 | ug/m3 | | | 02/15/19 21:07 | 1 |
| 1,3-Butadiene | 0.44 | | 0.44 | 0.14 | ug/m3 | | | 02/15/19 21:07 | 1 |
| 1,3-Dichlorobenzene | 1.20 | | 1.20 | 0.49 | ug/m3 | | | 02/15/19 21:07 | 1 |
| 1,4-Dichlorobenzene | 1.20 | | 1.20 | 0.39 | ug/m3 | | | 02/15/19 21:07 | 1 |
| 1,4-Dioxane | 18.0 | | 18.0 | 4.68 | ug/m3 | | | 02/15/19 21:07 | 1 |
| 2,2,4-Trimethylpentane | 0.93 | | 0.93 | 0.41 | ug/m3 | | | 02/15/19 21:07 | 1 |
| 2-Chlorotoluene | 1.04 | | 1.04 | 0.37 | ug/m3 | | | 02/15/19 21:07 | 1 |
| 3-Chloropropene | 1.57 | | 1.57 | 0.85 | ug/m3 | | | 02/15/19 21:07 | 1 |
| 4-Ethyltoluene | 0.98 | | 0.98 | 0.34 | ug/m3 | | | 02/15/19 21:07 | 1 |
| 4-Isopropyltoluene | 1.10 | | 1.10 | 0.41 | ug/m3 | | | 02/15/19 21:07 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 2.05 | | 2.05 | 1.47 | ug/m3 | | | 02/15/19 21:07 | 1 |
| **Acetone** | **15.7** | | 11.9 | 6.18 | ug/m3 | | | 02/15/19 21:07 | 1 |
| **Benzene** | **0.85** | | 0.64 | 0.23 | ug/m3 | | | 02/15/19 21:07 | 1 |
| Benzyl chloride | 1.04 | | 1.04 | 0.62 | ug/m3 | | | 02/15/19 21:07 | 1 |
| Bromodichloromethane | 1.34 | | 1.34 | 0.63 | ug/m3 | | | 02/15/19 21:07 | 1 |
| Bromoethene(Vinyl Bromide) | 0.87 | | 0.87 | 0.24 | ug/m3 | | | 02/15/19 21:07 | 1 |
| Bromoform | 2.07 | | 2.07 | 0.89 | ug/m3 | | | 02/15/19 21:07 | 1 |
| Bromomethane | 0.78 | | 0.78 | 0.24 | ug/m3 | | | 02/15/19 21:07 | 1 |
| **Carbon disulfide** | **0.77** | **J** | 1.56 | 0.37 | ug/m3 | | | 02/15/19 21:07 | 1 |
| **Carbon tetrachloride** | **0.42** | | 0.22 | 0.15 | ug/m3 | | | 02/15/19 21:07 | 1 |
| Chlorobenzene | 0.92 | | 0.92 | 0.18 | ug/m3 | | | 02/15/19 21:07 | 1 |
| Chlorodifluoromethane | 1.77 | | 1.77 | 0.92 | ug/m3 | | | 02/15/19 21:07 | 1 |
| Chloroethane | 1.32 | | 1.32 | 0.55 | ug/m3 | | | 02/15/19 21:07 | 1 |
| **Chloroform** | **0.49** | **J** | 0.98 | 0.25 | ug/m3 | | | 02/15/19 21:07 | 1 |
| **Chloromethane** | **1.09** | | 1.03 | 0.52 | ug/m3 | | | 02/15/19 21:07 | 1 |
| cis-1,2-Dichloroethene | 0.14 | | 0.14 | 0.15 | ug/m3 | | | 02/15/19 21:07 | 1 |
| cis-1,3-Dichloropropene | 0.91 | | 0.91 | 0.44 | ug/m3 | | | 02/15/19 21:07 | 1 |
| Cumene | 0.98 | | 0.98 | 0.29 | ug/m3 | | | 02/15/19 21:07 | 1 |
| Cyclohexane | 0.69 | | 0.69 | 0.22 | ug/m3 | | | 02/15/19 21:07 | 1 |
| Dibromochloromethane | 1.70 | | 1.70 | 0.60 | ug/m3 | | | 02/15/19 21:07 | 1 |
| **Dichlorodifluoromethane** | **2.20** | **J** | 2.47 | 0.99 | ug/m3 | | | 02/15/19 21:07 | 1 |
| Ethylbenzene | 0.87 | | 0.87 | 0.32 | ug/m3 | | | 02/15/19 21:07 | 1 |
| Hexachlorobutadiene | 2.13 | | 2.13 | 0.87 | ug/m3 | | | 02/15/19 21:07 | 1 |
| **Isopropyl alcohol** | **14.8** | | 12.3 | 4.42 | ug/m3 | | | 02/15/19 21:07 | 1 |

**Client Sample ID: IA-2-INDOOR AIR**
**Date Collected: 02/13/19 11:13**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-4**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **m,p-Xylene** | **0.43** | **J** | 2.17 | 0.30 | ug/m3 | | | 02/15/19 21:07 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 2.05 | | 2.05 | 1.72 | ug/m3 | | | 02/15/19 21:07 | 1 |
| Methyl Ethyl Ketone (2-Butanone) | 1.47 | | 1.47 | 0.59 | ug/m3 | | | 02/15/19 21:07 | 1 |
| Methyl methacrylate | 2.05 | | 2.05 | 0.90 | ug/m3 | | | 02/15/19 21:07 | 1 |
| Methyl tert-butyl ether | 0.72 | | 0.72 | 0.22 | ug/m3 | | | 02/15/19 21:07 | 1 |
| Methylene Chloride | 1.74 | | 1.74 | 0.69 | ug/m3 | | | 02/15/19 21:07 | 1 |
| Naphthalene | 2.62 | | 2.62 | 1.63 | ug/m3 | | | 02/15/19 21:07 | 1 |
| **n-Butane** | **4.65** | | 1.19 | 0.74 | ug/m3 | | | 02/15/19 21:07 | 1 |
| n-Butylbenzene | 1.10 | | 1.10 | 0.44 | ug/m3 | | | 02/15/19 21:07 | 1 |
| n-Heptane | 0.82 | | 0.82 | 0.57 | ug/m3 | | | 02/15/19 21:07 | 1 |
| **n-Hexane** | **0.88** | | 0.70 | 0.56 | ug/m3 | | | 02/15/19 21:07 | 1 |
| n-Propylbenzene | 0.98 | | 0.98 | 0.34 | ug/m3 | | | 02/15/19 21:07 | 1 |
| o-Xylene | 0.87 | | 0.87 | 0.31 | ug/m3 | | | 02/15/19 21:07 | 1 |
| sec-Butylbenzene | 1.10 | | 1.10 | 0.36 | ug/m3 | | | 02/15/19 21:07 | 1 |
| Styrene | 0.85 | | 0.85 | 0.37 | ug/m3 | | | 02/15/19 21:07 | 1 |
| tert-Butyl alcohol | 15.2 | | 15.2 | 4.55 | ug/m3 | | | 02/15/19 21:07 | 1 |
| tert-Butylbenzene | 1.10 | | 1.10 | 0.32 | ug/m3 | | | 02/15/19 21:07 | 1 |
| **Tetrachloroethene** | **1.13** | **J** | 1.36 | 0.20 | ug/m3 | | | 02/15/19 21:07 | 1 |
| Tetrahydrofuran | 14.7 | | 14.7 | 7.67 | ug/m3 | | | 02/15/19 21:07 | 1 |
| **Toluene** | **0.75** | | 0.75 | 0.26 | ug/m3 | | | 02/15/19 21:07 | 1 |
| trans-1,2-Dichloroethene | 0.79 | | 0.79 | 0.29 | ug/m3 | | | 02/15/19 21:07 | 1 |
| trans-1,3-Dichloropropene | 0.91 | | 0.91 | 0.54 | ug/m3 | | | 02/15/19 21:07 | 1 |
| **Trichloroethene** | **0.56** | | 0.19 | 0.16 | ug/m3 | | | 02/15/19 21:07 | 1 |
| **Trichlorofluoromethane** | **1.18** | | 1.12 | 0.35 | ug/m3 | | | 02/15/19 21:07 | 1 |
| Vinyl chloride | 0.090 | | 0.090 | 0.10 | ug/m3 | | | 02/15/19 21:07 | 1 |

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.20 | | 0.20 | 0.068 | ppb v/v | | | 02/15/19 21:07 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.20 | | 0.20 | 0.076 | ppb v/v | | | 02/15/19 21:07 | 1 |
| 1,1,2-Trichloroethane | 0.20 | | 0.20 | 0.078 | ppb v/v | | | 02/15/19 21:07 | 1 |
| **1,1,2-Trichlorotrifluoroethane** | **0.070** | **J** | 0.20 | 0.031 | ppb v/v | | | 02/15/19 21:07 | 1 |
| 1,1-Dichloroethane | 0.20 | | 0.20 | 0.026 | ppb v/v | | | 02/15/19 21:07 | 1 |
| 1,1-Dichloroethene | 0.035 | | 0.035 | 0.034 | ppb v/v | | | 02/15/19 21:07 | 1 |
| 1,2,4-Trichlorobenzene | 0.50 | | 0.50 | 0.24 | ppb v/v | | | 02/15/19 21:07 | 1 |
| 1,2,4-Trimethylbenzene | 0.20 | | 0.20 | 0.080 | ppb v/v | | | 02/15/19 21:07 | 1 |
| 1,2-Dibromoethane | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/15/19 21:07 | 1 |
| 1,2-Dichlorobenzene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/15/19 21:07 | 1 |
| 1,2-Dichloroethane | 0.20 | | 0.20 | 0.063 | ppb v/v | | | 02/15/19 21:07 | 1 |
| 1,2-Dichloropropane | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/15/19 21:07 | 1 |
| 1,2-Dichlorotetrafluoroethane | 0.20 | | 0.20 | 0.068 | ppb v/v | | | 02/15/19 21:07 | 1 |
| 1,3,5-Trimethylbenzene | 0.20 | | 0.20 | 0.058 | ppb v/v | | | 02/15/19 21:07 | 1 |
| 1,3-Butadiene | 0.20 | | 0.20 | 0.065 | ppb v/v | | | 02/15/19 21:07 | 1 |
| 1,3-Dichlorobenzene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/15/19 21:07 | 1 |
| 1,4-Dichlorobenzene | 0.20 | | 0.20 | 0.065 | ppb v/v | | | 02/15/19 21:07 | 1 |
| 1,4-Dioxane | 5.00 | | 5.00 | 1.30 | ppb v/v | | | 02/15/19 21:07 | 1 |
| 2,2,4-Trimethylpentane | 0.20 | | 0.20 | 0.088 | ppb v/v | | | 02/15/19 21:07 | 1 |
| 2-Chlorotoluene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/15/19 21:07 | 1 |
| 3-Chloropropene | 0.50 | | 0.50 | 0.27 | ppb v/v | | | 02/15/19 21:07 | 1 |
| 4-Ethyltoluene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/15/19 21:07 | 1 |

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

**Client Sample ID: IA-2-INDOOR AIR**
**Date Collected: 02/13/19 11:13**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-4**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Isopropyltoluene | 0.20 | | 0.20 | 0.075 | ppb v/v | | | 02/15/19 21:07 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 0.50 | | 0.50 | 0.36 | ppb v/v | | | 02/15/19 21:07 | 1 |
| **Acetone** | **6.62** | | 5.00 | 2.60 | ppb v/v | | | 02/15/19 21:07 | 1 |
| **Benzene** | **0.27** | | 0.20 | 0.071 | ppb v/v | | | 02/15/19 21:07 | 1 |
| Benzyl chloride | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/15/19 21:07 | 1 |
| Bromodichloromethane | 0.20 | | 0.20 | 0.094 | ppb v/v | | | 02/15/19 21:07 | 1 |
| Bromoethene(Vinyl Bromide) | 0.20 | | 0.20 | 0.056 | ppb v/v | | | 02/15/19 21:07 | 1 |
| Bromoform | 0.20 | | 0.20 | 0.086 | ppb v/v | | | 02/15/19 21:07 | 1 |
| Bromomethane | 0.20 | | 0.20 | 0.062 | ppb v/v | | | 02/15/19 21:07 | 1 |
| **Carbon disulfide** | **0.25** | **J** | 0.50 | 0.12 | ppb v/v | | | 02/15/19 21:07 | 1 |
| **Carbon tetrachloride** | **0.066** | | 0.035 | 0.024 | ppb v/v | | | 02/15/19 21:07 | 1 |
| Chlorobenzene | 0.20 | | 0.20 | 0.040 | ppb v/v | | | 02/15/19 21:07 | 1 |
| Chlorodifluoromethane | 0.50 | | 0.50 | 0.26 | ppb v/v | | | 02/15/19 21:07 | 1 |
| Chloroethane | 0.50 | | 0.50 | 0.21 | ppb v/v | | | 02/15/19 21:07 | 1 |
| **Chloroform** | **0.10** | **J** | 0.20 | 0.052 | ppb v/v | | | 02/15/19 21:07 | 1 |
| **Chloromethane** | **0.53** | | 0.50 | 0.25 | ppb v/v | | | 02/15/19 21:07 | 1 |
| cis-1,2-Dichloroethene | 0.035 | | 0.035 | 0.037 | ppb v/v | | | 02/15/19 21:07 | 1 |
| cis-1,3-Dichloropropene | 0.20 | | 0.20 | 0.098 | ppb v/v | | | 02/15/19 21:07 | 1 |
| Cumene | 0.20 | | 0.20 | 0.059 | ppb v/v | | | 02/15/19 21:07 | 1 |
| Cyclohexane | 0.20 | | 0.20 | 0.063 | ppb v/v | | | 02/15/19 21:07 | 1 |
| Dibromochloromethane | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/15/19 21:07 | 1 |
| **Dichlorodifluoromethane** | **0.44** | **J** | 0.50 | 0.20 | ppb v/v | | | 02/15/19 21:07 | 1 |
| Ethylbenzene | 0.20 | | 0.20 | 0.073 | ppb v/v | | | 02/15/19 21:07 | 1 |
| Hexachlorobutadiene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/15/19 21:07 | 1 |
| **Isopropyl alcohol** | **6.01** | | 5.00 | 1.80 | ppb v/v | | | 02/15/19 21:07 | 1 |
| **m,p-Xylene** | **0.099** | **J** | 0.50 | 0.070 | ppb v/v | | | 02/15/19 21:07 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 0.50 | | 0.50 | 0.42 | ppb v/v | | | 02/15/19 21:07 | 1 |
| Methyl Ethyl Ketone (2-Butanone) | 0.50 | | 0.50 | 0.20 | ppb v/v | | | 02/15/19 21:07 | 1 |
| Methyl methacrylate | 0.50 | | 0.50 | 0.22 | ppb v/v | | | 02/15/19 21:07 | 1 |
| Methyl tert-butyl ether | 0.20 | | 0.20 | 0.061 | ppb v/v | | | 02/15/19 21:07 | 1 |
| Methylene Chloride | 0.50 | | 0.50 | 0.20 | ppb v/v | | | 02/15/19 21:07 | 1 |
| Naphthalene | 0.50 | | 0.50 | 0.31 | ppb v/v | | | 02/15/19 21:07 | 1 |
| **n-Butane** | **1.96** | | 0.50 | 0.31 | ppb v/v | | | 02/15/19 21:07 | 1 |
| n-Butylbenzene | 0.20 | | 0.20 | 0.080 | ppb v/v | | | 02/15/19 21:07 | 1 |
| n-Heptane | 0.20 | | 0.20 | 0.14 | ppb v/v | | | 02/15/19 21:07 | 1 |
| **n-Hexane** | **0.25** | | 0.20 | 0.16 | ppb v/v | | | 02/15/19 21:07 | 1 |
| n-Propylbenzene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/15/19 21:07 | 1 |
| o-Xylene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/15/19 21:07 | 1 |
| sec-Butylbenzene | 0.20 | | 0.20 | 0.066 | ppb v/v | | | 02/15/19 21:07 | 1 |
| Styrene | 0.20 | | 0.20 | 0.086 | ppb v/v | | | 02/15/19 21:07 | 1 |
| tert-Butyl alcohol | 5.00 | | 5.00 | 1.50 | ppb v/v | | | 02/15/19 21:07 | 1 |
| tert-Butylbenzene | 0.20 | | 0.20 | 0.058 | ppb v/v | | | 02/15/19 21:07 | 1 |
| **Tetrachloroethene** | **0.17** | **J** | 0.20 | 0.029 | ppb v/v | | | 02/15/19 21:07 | 1 |
| Tetrahydrofuran | 5.00 | | 5.00 | 2.60 | ppb v/v | | | 02/15/19 21:07 | 1 |
| **Toluene** | **0.20** | | 0.20 | 0.069 | ppb v/v | | | 02/15/19 21:07 | 1 |
| trans-1,2-Dichloroethene | 0.20 | | 0.20 | 0.074 | ppb v/v | | | 02/15/19 21:07 | 1 |
| trans-1,3-Dichloropropene | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/15/19 21:07 | 1 |

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

**Client Sample ID: IA-2-INDOOR AIR**
**Date Collected: 02/13/19 11:13**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-4**
**Matrix: Air**

### Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Trichloroethene | 0.10 | | 0.035 | 0.030 | ppb v/v | | | 02/15/19 21:07 | 1 |
| Trichlorofluoromethane | 0.21 | | 0.20 | 0.062 | ppb v/v | | | 02/15/19 21:07 | 1 |
| Vinyl chloride | 0.035 | | 0.035 | 0.041 | ppb v/v | | | 02/15/19 21:07 | 1 |

## Client Sample ID: IA-3-SUBSLAB
**Lab Sample ID: 200-47424-5**

**Date Collected: 02/13/19 11:40**
**Matrix: Air**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

### Method: TO-15 - Volatile Organic Compounds in Ambient Air

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **1,1,1-Trichloroethane** | **107** | | 1.09 | 0.37 | ug/m3 | | | 02/16/19 00:05 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.37 | | 1.37 | 0.52 | ug/m3 | | | 02/16/19 00:05 | 1 |
| 1,1,2-Trichloroethane | 1.09 | | 1.09 | 0.43 | ug/m3 | | | 02/16/19 00:05 | 1 |
| **1,1,2-Trichlorotrifluoroethane** | **0.54** | **J** | 1.53 | 0.24 | ug/m3 | | | 02/16/19 00:05 | 1 |
| 1,1-Dichloroethane | 0.81 | | 0.81 | 0.11 | ug/m3 | | | 02/16/19 00:05 | 1 |
| 1,1-Dichloroethene | 0.14 | | 0.14 | 0.13 | ug/m3 | | | 02/16/19 00:05 | 1 |
| 1,2,4-Trichlorobenzene | 3.71 | | 3.71 | 1.78 | ug/m3 | | | 02/16/19 00:05 | 1 |
| **1,2,4-Trimethylbenzene** | **1.69** | | 0.98 | 0.39 | ug/m3 | | | 02/16/19 00:05 | 1 |
| 1,2-Dibromoethane | 1.54 | | 1.54 | 0.53 | ug/m3 | | | 02/16/19 00:05 | 1 |
| 1,2-Dichlorobenzene | 1.20 | | 1.20 | 0.43 | ug/m3 | | | 02/16/19 00:05 | 1 |
| 1,2-Dichloroethane | 0.81 | | 0.81 | 0.25 | ug/m3 | | | 02/16/19 00:05 | 1 |
| 1,2-Dichloropropane | 0.92 | | 0.92 | 0.55 | ug/m3 | | | 02/16/19 00:05 | 1 |
| 1,2-Dichlorotetrafluoroethane | 1.40 | | 1.40 | 0.48 | ug/m3 | | | 02/16/19 00:05 | 1 |
| **1,3,5-Trimethylbenzene** | **0.58** | **J** | 0.98 | 0.29 | ug/m3 | | | 02/16/19 00:05 | 1 |
| 1,3-Butadiene | 0.44 | | 0.44 | 0.14 | ug/m3 | | | 02/16/19 00:05 | 1 |
| 1,3-Dichlorobenzene | 1.20 | | 1.20 | 0.49 | ug/m3 | | | 02/16/19 00:05 | 1 |
| 1,4-Dichlorobenzene | 1.20 | | 1.20 | 0.39 | ug/m3 | | | 02/16/19 00:05 | 1 |
| 1,4-Dioxane | 18.0 | | 18.0 | 4.68 | ug/m3 | | | 02/16/19 00:05 | 1 |
| 2,2,4-Trimethylpentane | 0.93 | | 0.93 | 0.41 | ug/m3 | | | 02/16/19 00:05 | 1 |
| 2-Chlorotoluene | 1.04 | | 1.04 | 0.37 | ug/m3 | | | 02/16/19 00:05 | 1 |
| 3-Chloropropene | 1.57 | | 1.57 | 0.85 | ug/m3 | | | 02/16/19 00:05 | 1 |
| **4-Ethyltoluene** | **0.44** | **J** | 0.98 | 0.34 | ug/m3 | | | 02/16/19 00:05 | 1 |
| 4-Isopropyltoluene | 1.10 | | 1.10 | 0.41 | ug/m3 | | | 02/16/19 00:05 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 2.05 | | 2.05 | 1.47 | ug/m3 | | | 02/16/19 00:05 | 1 |
| **Acetone** | **15.0** | | 11.9 | 6.18 | ug/m3 | | | 02/16/19 00:05 | 1 |
| **Benzene** | **10.1** | | 0.64 | 0.23 | ug/m3 | | | 02/16/19 00:05 | 1 |
| Benzyl chloride | 1.04 | | 1.04 | 0.62 | ug/m3 | | | 02/16/19 00:05 | 1 |
| Bromodichloromethane | 1.34 | | 1.34 | 0.63 | ug/m3 | | | 02/16/19 00:05 | 1 |
| Bromoethene(Vinyl Bromide) | 0.87 | | 0.87 | 0.24 | ug/m3 | | | 02/16/19 00:05 | 1 |
| Bromoform | 2.07 | | 2.07 | 0.89 | ug/m3 | | | 02/16/19 00:05 | 1 |
| Bromomethane | 0.78 | | 0.78 | 0.24 | ug/m3 | | | 02/16/19 00:05 | 1 |
| **Carbon disulfide** | **1.41** | **J** | 1.56 | 0.37 | ug/m3 | | | 02/16/19 00:05 | 1 |
| **Carbon tetrachloride** | **2.50** | | 0.22 | 0.15 | ug/m3 | | | 02/16/19 00:05 | 1 |
| Chlorobenzene | 0.92 | | 0.92 | 0.18 | ug/m3 | | | 02/16/19 00:05 | 1 |
| **Chlorodifluoromethane** | **24.5** | | 1.77 | 0.92 | ug/m3 | | | 02/16/19 00:05 | 1 |
| Chloroethane | 1.32 | | 1.32 | 0.55 | ug/m3 | | | 02/16/19 00:05 | 1 |
| Chloroform | 0.98 | | 0.98 | 0.25 | ug/m3 | | | 02/16/19 00:05 | 1 |
| Chloromethane | 1.03 | | 1.03 | 0.52 | ug/m3 | | | 02/16/19 00:05 | 1 |
| cis-1,2-Dichloroethene | 0.14 | | 0.14 | 0.15 | ug/m3 | | | 02/16/19 00:05 | 1 |
| cis-1,3-Dichloropropene | 0.91 | | 0.91 | 0.44 | ug/m3 | | | 02/16/19 00:05 | 1 |
| **Cumene** | **0.34** | **J** | 0.98 | 0.29 | ug/m3 | | | 02/16/19 00:05 | 1 |
| **Cyclohexane** | **17.4** | | 0.69 | 0.22 | ug/m3 | | | 02/16/19 00:05 | 1 |
| Dibromochloromethane | 1.70 | | 1.70 | 0.60 | ug/m3 | | | 02/16/19 00:05 | 1 |
| **Dichlorodifluoromethane** | **2.32** | **J** | 2.47 | 0.99 | ug/m3 | | | 02/16/19 00:05 | 1 |
| **Ethylbenzene** | **1.65** | | 0.87 | 0.32 | ug/m3 | | | 02/16/19 00:05 | 1 |
| Hexachlorobutadiene | 2.13 | | 2.13 | 0.87 | ug/m3 | | | 02/16/19 00:05 | 1 |
| Isopropyl alcohol | 12.3 | | 12.3 | 4.42 | ug/m3 | | | 02/16/19 00:05 | 1 |

**Client Sample ID: IA-3-SUBSLAB**
**Date Collected: 02/13/19 11:40**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-5**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **m,p-Xylene** | **7.41** | | 2.17 | 0.30 | ug/m3 | | | 02/16/19 00:05 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 2.05 | | 2.05 | 1.72 | ug/m3 | | | 02/16/19 00:05 | 1 |
| **Methyl Ethyl Ketone (2-Butanone)** | **6.86** | | 1.47 | 0.59 | ug/m3 | | | 02/16/19 00:05 | 1 |
| Methyl methacrylate | 2.05 | | 2.05 | 0.90 | ug/m3 | | | 02/16/19 00:05 | 1 |
| Methyl tert-butyl ether | 0.72 | | 0.72 | 0.22 | ug/m3 | | | 02/16/19 00:05 | 1 |
| **Methylene Chloride** | **4.52** | | 1.74 | 0.69 | ug/m3 | | | 02/16/19 00:05 | 1 |
| **Naphthalene** | **4.72** | | 2.62 | 1.63 | ug/m3 | | | 02/16/19 00:05 | 1 |
| **n-Butane** | **41.2** | | 1.19 | 0.74 | ug/m3 | | | 02/16/19 00:05 | 1 |
| n-Butylbenzene | 1.10 | | 1.10 | 0.44 | ug/m3 | | | 02/16/19 00:05 | 1 |
| **n-Heptane** | **18.5** | | 0.82 | 0.57 | ug/m3 | | | 02/16/19 00:05 | 1 |
| **n-Hexane** | **42.0** | | 0.70 | 0.56 | ug/m3 | | | 02/16/19 00:05 | 1 |
| **n-Propylbenzene** | **0.43** | **J** | 0.98 | 0.34 | ug/m3 | | | 02/16/19 00:05 | 1 |
| **o-Xylene** | **2.39** | | 0.87 | 0.31 | ug/m3 | | | 02/16/19 00:05 | 1 |
| sec-Butylbenzene | 1.10 | | 1.10 | 0.36 | ug/m3 | | | 02/16/19 00:05 | 1 |
| **Styrene** | **1.43** | | 0.85 | 0.37 | ug/m3 | | | 02/16/19 00:05 | 1 |
| tert-Butyl alcohol | 15.2 | | 15.2 | 4.55 | ug/m3 | | | 02/16/19 00:05 | 1 |
| tert-Butylbenzene | 1.10 | | 1.10 | 0.32 | ug/m3 | | | 02/16/19 00:05 | 1 |
| **Tetrachloroethene** | **10.7** | | 1.36 | 0.20 | ug/m3 | | | 02/16/19 00:05 | 1 |
| Tetrahydrofuran | 14.7 | | 14.7 | 7.67 | ug/m3 | | | 02/16/19 00:05 | 1 |
| **Toluene** | **31.0** | | 0.75 | 0.26 | ug/m3 | | | 02/16/19 00:05 | 1 |
| trans-1,2-Dichloroethene | 0.79 | | 0.79 | 0.29 | ug/m3 | | | 02/16/19 00:05 | 1 |
| trans-1,3-Dichloropropene | 0.91 | | 0.91 | 0.54 | ug/m3 | | | 02/16/19 00:05 | 1 |
| **Trichloroethene** | **5.66** | | 0.19 | 0.16 | ug/m3 | | | 02/16/19 00:05 | 1 |
| **Trichlorofluoromethane** | **3.63** | | 1.12 | 0.35 | ug/m3 | | | 02/16/19 00:05 | 1 |
| Vinyl chloride | 0.090 | | 0.090 | 0.10 | ug/m3 | | | 02/16/19 00:05 | 1 |

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **1,1,1-Trichloroethane** | **19.7** | | 0.20 | 0.068 | ppb v/v | | | 02/16/19 00:05 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.20 | | 0.20 | 0.076 | ppb v/v | | | 02/16/19 00:05 | 1 |
| 1,1,2-Trichloroethane | 0.20 | | 0.20 | 0.078 | ppb v/v | | | 02/16/19 00:05 | 1 |
| **1,1,2-Trichlorotrifluoroethane** | **0.070** | **J** | 0.20 | 0.031 | ppb v/v | | | 02/16/19 00:05 | 1 |
| 1,1-Dichloroethane | 0.20 | | 0.20 | 0.026 | ppb v/v | | | 02/16/19 00:05 | 1 |
| 1,1-Dichloroethene | 0.035 | | 0.035 | 0.034 | ppb v/v | | | 02/16/19 00:05 | 1 |
| 1,2,4-Trichlorobenzene | 0.50 | | 0.50 | 0.24 | ppb v/v | | | 02/16/19 00:05 | 1 |
| **1,2,4-Trimethylbenzene** | **0.34** | | 0.20 | 0.080 | ppb v/v | | | 02/16/19 00:05 | 1 |
| 1,2-Dibromoethane | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/16/19 00:05 | 1 |
| 1,2-Dichlorobenzene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 00:05 | 1 |
| 1,2-Dichloroethane | 0.20 | | 0.20 | 0.063 | ppb v/v | | | 02/16/19 00:05 | 1 |
| 1,2-Dichloropropane | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/16/19 00:05 | 1 |
| 1,2-Dichlorotetrafluoroethane | 0.20 | | 0.20 | 0.068 | ppb v/v | | | 02/16/19 00:05 | 1 |
| **1,3,5-Trimethylbenzene** | **0.12** | **J** | 0.20 | 0.058 | ppb v/v | | | 02/16/19 00:05 | 1 |
| 1,3-Butadiene | 0.20 | | 0.20 | 0.065 | ppb v/v | | | 02/16/19 00:05 | 1 |
| 1,3-Dichlorobenzene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/16/19 00:05 | 1 |
| 1,4-Dichlorobenzene | 0.20 | | 0.20 | 0.065 | ppb v/v | | | 02/16/19 00:05 | 1 |
| 1,4-Dioxane | 5.00 | | 5.00 | 1.30 | ppb v/v | | | 02/16/19 00:05 | 1 |
| 2,2,4-Trimethylpentane | 0.20 | | 0.20 | 0.088 | ppb v/v | | | 02/16/19 00:05 | 1 |
| 2-Chlorotoluene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 00:05 | 1 |
| 3-Chloropropene | 0.50 | | 0.50 | 0.27 | ppb v/v | | | 02/16/19 00:05 | 1 |
| **4-Ethyltoluene** | **0.090** | **J** | 0.20 | 0.069 | ppb v/v | | | 02/16/19 00:05 | 1 |

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

**Client Sample ID: IA-3-SUBSLAB**
**Date Collected: 02/13/19 11:40**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-5**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Isopropyltoluene | 0.20 | | 0.20 | 0.075 | ppb v/v | | | 02/16/19 00:05 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 0.50 | | 0.50 | 0.36 | ppb v/v | | | 02/16/19 00:05 | 1 |
| **Acetone** | **6.30** | | 5.00 | 2.60 | ppb v/v | | | 02/16/19 00:05 | 1 |
| **Benzene** | **3.17** | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 00:05 | 1 |
| Benzyl chloride | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/16/19 00:05 | 1 |
| Bromodichloromethane | 0.20 | | 0.20 | 0.094 | ppb v/v | | | 02/16/19 00:05 | 1 |
| Bromoethene(Vinyl Bromide) | 0.20 | | 0.20 | 0.056 | ppb v/v | | | 02/16/19 00:05 | 1 |
| Bromoform | 0.20 | | 0.20 | 0.086 | ppb v/v | | | 02/16/19 00:05 | 1 |
| Bromomethane | 0.20 | | 0.20 | 0.062 | ppb v/v | | | 02/16/19 00:05 | 1 |
| **Carbon disulfide** | **0.45** | **J** | 0.50 | 0.12 | ppb v/v | | | 02/16/19 00:05 | 1 |
| **Carbon tetrachloride** | **0.40** | | 0.035 | 0.024 | ppb v/v | | | 02/16/19 00:05 | 1 |
| Chlorobenzene | 0.20 | | 0.20 | 0.040 | ppb v/v | | | 02/16/19 00:05 | 1 |
| **Chlorodifluoromethane** | **6.94** | | 0.50 | 0.26 | ppb v/v | | | 02/16/19 00:05 | 1 |
| Chloroethane | 0.50 | | 0.50 | 0.21 | ppb v/v | | | 02/16/19 00:05 | 1 |
| Chloroform | 0.20 | | 0.20 | 0.052 | ppb v/v | | | 02/16/19 00:05 | 1 |
| Chloromethane | 0.50 | | 0.50 | 0.25 | ppb v/v | | | 02/16/19 00:05 | 1 |
| cis-1,2-Dichloroethene | 0.035 | | 0.035 | 0.037 | ppb v/v | | | 02/16/19 00:05 | 1 |
| cis-1,3-Dichloropropene | 0.20 | | 0.20 | 0.098 | ppb v/v | | | 02/16/19 00:05 | 1 |
| **Cumene** | **0.068** | **J** | 0.20 | 0.059 | ppb v/v | | | 02/16/19 00:05 | 1 |
| **Cyclohexane** | **5.05** | | 0.20 | 0.063 | ppb v/v | | | 02/16/19 00:05 | 1 |
| Dibromochloromethane | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 00:05 | 1 |
| **Dichlorodifluoromethane** | **0.47** | **J** | 0.50 | 0.20 | ppb v/v | | | 02/16/19 00:05 | 1 |
| **Ethylbenzene** | **0.38** | | 0.20 | 0.073 | ppb v/v | | | 02/16/19 00:05 | 1 |
| Hexachlorobutadiene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/16/19 00:05 | 1 |
| Isopropyl alcohol | 5.00 | | 5.00 | 1.80 | ppb v/v | | | 02/16/19 00:05 | 1 |
| **m,p-Xylene** | **1.71** | | 0.50 | 0.070 | ppb v/v | | | 02/16/19 00:05 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 0.50 | | 0.50 | 0.42 | ppb v/v | | | 02/16/19 00:05 | 1 |
| **Methyl Ethyl Ketone (2-Butanone)** | **2.33** | | 0.50 | 0.20 | ppb v/v | | | 02/16/19 00:05 | 1 |
| Methyl methacrylate | 0.50 | | 0.50 | 0.22 | ppb v/v | | | 02/16/19 00:05 | 1 |
| Methyl tert-butyl ether | 0.20 | | 0.20 | 0.061 | ppb v/v | | | 02/16/19 00:05 | 1 |
| **Methylene Chloride** | **1.30** | | 0.50 | 0.20 | ppb v/v | | | 02/16/19 00:05 | 1 |
| **Naphthalene** | **0.90** | | 0.50 | 0.31 | ppb v/v | | | 02/16/19 00:05 | 1 |
| **n-Butane** | **17.3** | | 0.50 | 0.31 | ppb v/v | | | 02/16/19 00:05 | 1 |
| n-Butylbenzene | 0.20 | | 0.20 | 0.080 | ppb v/v | | | 02/16/19 00:05 | 1 |
| **n-Heptane** | **4.52** | | 0.20 | 0.14 | ppb v/v | | | 02/16/19 00:05 | 1 |
| **n-Hexane** | **11.9** | | 0.20 | 0.16 | ppb v/v | | | 02/16/19 00:05 | 1 |
| **n-Propylbenzene** | **0.088** | **J** | 0.20 | 0.069 | ppb v/v | | | 02/16/19 00:05 | 1 |
| **o-Xylene** | **0.55** | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 00:05 | 1 |
| sec-Butylbenzene | 0.20 | | 0.20 | 0.066 | ppb v/v | | | 02/16/19 00:05 | 1 |
| **Styrene** | **0.34** | | 0.20 | 0.086 | ppb v/v | | | 02/16/19 00:05 | 1 |
| tert-Butyl alcohol | 5.00 | | 5.00 | 1.50 | ppb v/v | | | 02/16/19 00:05 | 1 |
| tert-Butylbenzene | 0.20 | | 0.20 | 0.058 | ppb v/v | | | 02/16/19 00:05 | 1 |
| **Tetrachloroethene** | **1.57** | | 0.20 | 0.029 | ppb v/v | | | 02/16/19 00:05 | 1 |
| Tetrahydrofuran | 5.00 | | 5.00 | 2.60 | ppb v/v | | | 02/16/19 00:05 | 1 |
| **Toluene** | **8.21** | | 0.20 | 0.069 | ppb v/v | | | 02/16/19 00:05 | 1 |
| trans-1,2-Dichloroethene | 0.20 | | 0.20 | 0.074 | ppb v/v | | | 02/16/19 00:05 | 1 |
| trans-1,3-Dichloropropene | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/16/19 00:05 | 1 |

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

**Client Sample ID: IA-3-SUBSLAB**
**Date Collected: 02/13/19 11:40**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-5**
**Matrix: Air**

### Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Trichloroethene | 1.05 | | 0.035 | 0.030 | ppb v/v | | | 02/16/19 00:05 | 1 |
| Trichlorofluoromethane | 0.65 | | 0.20 | 0.062 | ppb v/v | | | 02/16/19 00:05 | 1 |
| Vinyl chloride | 0.035 | | 0.035 | 0.041 | ppb v/v | | | 02/16/19 00:05 | 1 |

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

**Client Sample ID: IA-3-INDOOR AIR**
**Date Collected: 02/13/19 13:02**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-6**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.09 | | 1.09 | 0.37 | ug/m3 | | | 02/16/19 00:57 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.37 | | 1.37 | 0.52 | ug/m3 | | | 02/16/19 00:57 | 1 |
| 1,1,2-Trichloroethane | 1.09 | | 1.09 | 0.43 | ug/m3 | | | 02/16/19 00:57 | 1 |
| **1,1,2-Trichlorotrifluoroethane** | **0.54** | **J** | 1.53 | 0.24 | ug/m3 | | | 02/16/19 00:57 | 1 |
| 1,1-Dichloroethane | 0.81 | | 0.81 | 0.11 | ug/m3 | | | 02/16/19 00:57 | 1 |
| 1,1-Dichloroethene | 0.14 | | 0.14 | 0.13 | ug/m3 | | | 02/16/19 00:57 | 1 |
| 1,2,4-Trichlorobenzene | 3.71 | | 3.71 | 1.78 | ug/m3 | | | 02/16/19 00:57 | 1 |
| 1,2,4-Trimethylbenzene | 0.98 | | 0.98 | 0.39 | ug/m3 | | | 02/16/19 00:57 | 1 |
| 1,2-Dibromoethane | 1.54 | | 1.54 | 0.53 | ug/m3 | | | 02/16/19 00:57 | 1 |
| 1,2-Dichlorobenzene | 1.20 | | 1.20 | 0.43 | ug/m3 | | | 02/16/19 00:57 | 1 |
| 1,2-Dichloroethane | 0.81 | | 0.81 | 0.25 | ug/m3 | | | 02/16/19 00:57 | 1 |
| 1,2-Dichloropropane | 0.92 | | 0.92 | 0.55 | ug/m3 | | | 02/16/19 00:57 | 1 |
| 1,2-Dichlorotetrafluoroethane | 1.40 | | 1.40 | 0.48 | ug/m3 | | | 02/16/19 00:57 | 1 |
| 1,3,5-Trimethylbenzene | 0.98 | | 0.98 | 0.29 | ug/m3 | | | 02/16/19 00:57 | 1 |
| 1,3-Butadiene | 0.44 | | 0.44 | 0.14 | ug/m3 | | | 02/16/19 00:57 | 1 |
| 1,3-Dichlorobenzene | 1.20 | | 1.20 | 0.49 | ug/m3 | | | 02/16/19 00:57 | 1 |
| 1,4-Dichlorobenzene | 1.20 | | 1.20 | 0.39 | ug/m3 | | | 02/16/19 00:57 | 1 |
| 1,4-Dioxane | 18.0 | | 18.0 | 4.68 | ug/m3 | | | 02/16/19 00:57 | 1 |
| 2,2,4-Trimethylpentane | 0.93 | | 0.93 | 0.41 | ug/m3 | | | 02/16/19 00:57 | 1 |
| 2-Chlorotoluene | 1.04 | | 1.04 | 0.37 | ug/m3 | | | 02/16/19 00:57 | 1 |
| 3-Chloropropene | 1.57 | | 1.57 | 0.85 | ug/m3 | | | 02/16/19 00:57 | 1 |
| 4-Ethyltoluene | 0.98 | | 0.98 | 0.34 | ug/m3 | | | 02/16/19 00:57 | 1 |
| 4-Isopropyltoluene | 1.10 | | 1.10 | 0.41 | ug/m3 | | | 02/16/19 00:57 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 2.05 | | 2.05 | 1.47 | ug/m3 | | | 02/16/19 00:57 | 1 |
| **Acetone** | **12.3** | | 11.9 | 6.18 | ug/m3 | | | 02/16/19 00:57 | 1 |
| **Benzene** | **0.87** | | 0.64 | 0.23 | ug/m3 | | | 02/16/19 00:57 | 1 |
| Benzyl chloride | 1.04 | | 1.04 | 0.62 | ug/m3 | | | 02/16/19 00:57 | 1 |
| Bromodichloromethane | 1.34 | | 1.34 | 0.63 | ug/m3 | | | 02/16/19 00:57 | 1 |
| Bromoethene(Vinyl Bromide) | 0.87 | | 0.87 | 0.24 | ug/m3 | | | 02/16/19 00:57 | 1 |
| Bromoform | 2.07 | | 2.07 | 0.89 | ug/m3 | | | 02/16/19 00:57 | 1 |
| Bromomethane | 0.78 | | 0.78 | 0.24 | ug/m3 | | | 02/16/19 00:57 | 1 |
| Carbon disulfide | 1.56 | | 1.56 | 0.37 | ug/m3 | | | 02/16/19 00:57 | 1 |
| **Carbon tetrachloride** | **0.44** | | 0.22 | 0.15 | ug/m3 | | | 02/16/19 00:57 | 1 |
| Chlorobenzene | 0.92 | | 0.92 | 0.18 | ug/m3 | | | 02/16/19 00:57 | 1 |
| Chlorodifluoromethane | 1.77 | | 1.77 | 0.92 | ug/m3 | | | 02/16/19 00:57 | 1 |
| Chloroethane | 1.32 | | 1.32 | 0.55 | ug/m3 | | | 02/16/19 00:57 | 1 |
| **Chloroform** | **0.41** | **J** | 0.98 | 0.25 | ug/m3 | | | 02/16/19 00:57 | 1 |
| **Chloromethane** | **1.07** | | 1.03 | 0.52 | ug/m3 | | | 02/16/19 00:57 | 1 |
| cis-1,2-Dichloroethene | 0.14 | | 0.14 | 0.15 | ug/m3 | | | 02/16/19 00:57 | 1 |
| cis-1,3-Dichloropropene | 0.91 | | 0.91 | 0.44 | ug/m3 | | | 02/16/19 00:57 | 1 |
| Cumene | 0.98 | | 0.98 | 0.29 | ug/m3 | | | 02/16/19 00:57 | 1 |
| Cyclohexane | 0.69 | | 0.69 | 0.22 | ug/m3 | | | 02/16/19 00:57 | 1 |
| Dibromochloromethane | 1.70 | | 1.70 | 0.60 | ug/m3 | | | 02/16/19 00:57 | 1 |
| **Dichlorodifluoromethane** | **2.21** | **J** | 2.47 | 0.99 | ug/m3 | | | 02/16/19 00:57 | 1 |
| **Ethylbenzene** | **0.36** | **J** | 0.87 | 0.32 | ug/m3 | | | 02/16/19 00:57 | 1 |
| Hexachlorobutadiene | 2.13 | | 2.13 | 0.87 | ug/m3 | | | 02/16/19 00:57 | 1 |
| **Isopropyl alcohol** | **9.69** | **J** | 12.3 | 4.42 | ug/m3 | | | 02/16/19 00:57 | 1 |

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

**Client Sample ID: IA-3-INDOOR AIR**
**Date Collected: 02/13/19 13:02**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-6**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **m,p-Xylene** | **0.67** | **J** | 2.17 | 0.30 | ug/m3 | | | 02/16/19 00:57 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 2.05 | | 2.05 | 1.72 | ug/m3 | | | 02/16/19 00:57 | 1 |
| Methyl Ethyl Ketone (2-Butanone) | 1.47 | | 1.47 | 0.59 | ug/m3 | | | 02/16/19 00:57 | 1 |
| Methyl methacrylate | 2.05 | | 2.05 | 0.90 | ug/m3 | | | 02/16/19 00:57 | 1 |
| Methyl tert-butyl ether | 0.72 | | 0.72 | 0.22 | ug/m3 | | | 02/16/19 00:57 | 1 |
| **Methylene Chloride** | **1.45** | **J** | 1.74 | 0.69 | ug/m3 | | | 02/16/19 00:57 | 1 |
| Naphthalene | 2.62 | | 2.62 | 1.63 | ug/m3 | | | 02/16/19 00:57 | 1 |
| **n-Butane** | **4.84** | | 1.19 | 0.74 | ug/m3 | | | 02/16/19 00:57 | 1 |
| n-Butylbenzene | 1.10 | | 1.10 | 0.44 | ug/m3 | | | 02/16/19 00:57 | 1 |
| n-Heptane | 0.82 | | 0.82 | 0.57 | ug/m3 | | | 02/16/19 00:57 | 1 |
| **n-Hexane** | **1.04** | | 0.70 | 0.56 | ug/m3 | | | 02/16/19 00:57 | 1 |
| n-Propylbenzene | 0.98 | | 0.98 | 0.34 | ug/m3 | | | 02/16/19 00:57 | 1 |
| **o-Xylene** | **0.33** | **J** | 0.87 | 0.31 | ug/m3 | | | 02/16/19 00:57 | 1 |
| sec-Butylbenzene | 1.10 | | 1.10 | 0.36 | ug/m3 | | | 02/16/19 00:57 | 1 |
| Styrene | 0.85 | | 0.85 | 0.37 | ug/m3 | | | 02/16/19 00:57 | 1 |
| tert-Butyl alcohol | 15.2 | | 15.2 | 4.55 | ug/m3 | | | 02/16/19 00:57 | 1 |
| tert-Butylbenzene | 1.10 | | 1.10 | 0.32 | ug/m3 | | | 02/16/19 00:57 | 1 |
| **Tetrachloroethene** | **1.14** | **J** | 1.36 | 0.20 | ug/m3 | | | 02/16/19 00:57 | 1 |
| Tetrahydrofuran | 14.7 | | 14.7 | 7.67 | ug/m3 | | | 02/16/19 00:57 | 1 |
| **Toluene** | **1.30** | | 0.75 | 0.26 | ug/m3 | | | 02/16/19 00:57 | 1 |
| trans-1,2-Dichloroethene | 0.79 | | 0.79 | 0.29 | ug/m3 | | | 02/16/19 00:57 | 1 |
| trans-1,3-Dichloropropene | 0.91 | | 0.91 | 0.54 | ug/m3 | | | 02/16/19 00:57 | 1 |
| **Trichloroethene** | **0.79** | | 0.19 | 0.16 | ug/m3 | | | 02/16/19 00:57 | 1 |
| **Trichlorofluoromethane** | **1.25** | | 1.12 | 0.35 | ug/m3 | | | 02/16/19 00:57 | 1 |
| Vinyl chloride | 0.090 | | 0.090 | 0.10 | ug/m3 | | | 02/16/19 00:57 | 1 |

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.20 | | 0.20 | 0.068 | ppb v/v | | | 02/16/19 00:57 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.20 | | 0.20 | 0.076 | ppb v/v | | | 02/16/19 00:57 | 1 |
| 1,1,2-Trichloroethane | 0.20 | | 0.20 | 0.078 | ppb v/v | | | 02/16/19 00:57 | 1 |
| **1,1,2-Trichlorotrifluoroethane** | **0.070** | **J** | 0.20 | 0.031 | ppb v/v | | | 02/16/19 00:57 | 1 |
| 1,1-Dichloroethane | 0.20 | | 0.20 | 0.026 | ppb v/v | | | 02/16/19 00:57 | 1 |
| 1,1-Dichloroethene | 0.035 | | 0.035 | 0.034 | ppb v/v | | | 02/16/19 00:57 | 1 |
| 1,2,4-Trichlorobenzene | 0.50 | | 0.50 | 0.24 | ppb v/v | | | 02/16/19 00:57 | 1 |
| 1,2,4-Trimethylbenzene | 0.20 | | 0.20 | 0.080 | ppb v/v | | | 02/16/19 00:57 | 1 |
| 1,2-Dibromoethane | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/16/19 00:57 | 1 |
| 1,2-Dichlorobenzene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 00:57 | 1 |
| 1,2-Dichloroethane | 0.20 | | 0.20 | 0.063 | ppb v/v | | | 02/16/19 00:57 | 1 |
| 1,2-Dichloropropane | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/16/19 00:57 | 1 |
| 1,2-Dichlorotetrafluoroethane | 0.20 | | 0.20 | 0.068 | ppb v/v | | | 02/16/19 00:57 | 1 |
| 1,3,5-Trimethylbenzene | 0.20 | | 0.20 | 0.058 | ppb v/v | | | 02/16/19 00:57 | 1 |
| 1,3-Butadiene | 0.20 | | 0.20 | 0.065 | ppb v/v | | | 02/16/19 00:57 | 1 |
| 1,3-Dichlorobenzene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/16/19 00:57 | 1 |
| 1,4-Dichlorobenzene | 0.20 | | 0.20 | 0.065 | ppb v/v | | | 02/16/19 00:57 | 1 |
| 1,4-Dioxane | 5.00 | | 5.00 | 1.30 | ppb v/v | | | 02/16/19 00:57 | 1 |
| 2,2,4-Trimethylpentane | 0.20 | | 0.20 | 0.088 | ppb v/v | | | 02/16/19 00:57 | 1 |
| 2-Chlorotoluene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 00:57 | 1 |
| 3-Chloropropene | 0.50 | | 0.50 | 0.27 | ppb v/v | | | 02/16/19 00:57 | 1 |
| 4-Ethyltoluene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/16/19 00:57 | 1 |

**Client Sample ID: IA-3-INDOOR AIR**
**Date Collected: 02/13/19 13:02**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-6**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Isopropyltoluene | 0.20 | | 0.20 | 0.075 | ppb v/v | | | 02/16/19 00:57 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 0.50 | | 0.50 | 0.36 | ppb v/v | | | 02/16/19 00:57 | 1 |
| **Acetone** | **5.16** | | 5.00 | 2.60 | ppb v/v | | | 02/16/19 00:57 | 1 |
| **Benzene** | **0.27** | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 00:57 | 1 |
| Benzyl chloride | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/16/19 00:57 | 1 |
| Bromodichloromethane | 0.20 | | 0.20 | 0.094 | ppb v/v | | | 02/16/19 00:57 | 1 |
| Bromoethene(Vinyl Bromide) | 0.20 | | 0.20 | 0.056 | ppb v/v | | | 02/16/19 00:57 | 1 |
| Bromoform | 0.20 | | 0.20 | 0.086 | ppb v/v | | | 02/16/19 00:57 | 1 |
| Bromomethane | 0.20 | | 0.20 | 0.062 | ppb v/v | | | 02/16/19 00:57 | 1 |
| Carbon disulfide | 0.50 | | 0.50 | 0.12 | ppb v/v | | | 02/16/19 00:57 | 1 |
| **Carbon tetrachloride** | **0.070** | | 0.035 | 0.024 | ppb v/v | | | 02/16/19 00:57 | 1 |
| Chlorobenzene | 0.20 | | 0.20 | 0.040 | ppb v/v | | | 02/16/19 00:57 | 1 |
| Chlorodifluoromethane | 0.50 | | 0.50 | 0.26 | ppb v/v | | | 02/16/19 00:57 | 1 |
| Chloroethane | 0.50 | | 0.50 | 0.21 | ppb v/v | | | 02/16/19 00:57 | 1 |
| **Chloroform** | **0.085** | **J** | 0.20 | 0.052 | ppb v/v | | | 02/16/19 00:57 | 1 |
| **Chloromethane** | **0.52** | | 0.50 | 0.25 | ppb v/v | | | 02/16/19 00:57 | 1 |
| cis-1,2-Dichloroethene | 0.035 | | 0.035 | 0.037 | ppb v/v | | | 02/16/19 00:57 | 1 |
| cis-1,3-Dichloropropene | 0.20 | | 0.20 | 0.098 | ppb v/v | | | 02/16/19 00:57 | 1 |
| Cumene | 0.20 | | 0.20 | 0.059 | ppb v/v | | | 02/16/19 00:57 | 1 |
| Cyclohexane | 0.20 | | 0.20 | 0.063 | ppb v/v | | | 02/16/19 00:57 | 1 |
| Dibromochloromethane | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 00:57 | 1 |
| **Dichlorodifluoromethane** | **0.45** | **J** | 0.50 | 0.20 | ppb v/v | | | 02/16/19 00:57 | 1 |
| **Ethylbenzene** | **0.083** | **J** | 0.20 | 0.073 | ppb v/v | | | 02/16/19 00:57 | 1 |
| Hexachlorobutadiene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/16/19 00:57 | 1 |
| **Isopropyl alcohol** | **3.94** | **J** | 5.00 | 1.80 | ppb v/v | | | 02/16/19 00:57 | 1 |
| **m,p-Xylene** | **0.15** | **J** | 0.50 | 0.070 | ppb v/v | | | 02/16/19 00:57 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 0.50 | | 0.50 | 0.42 | ppb v/v | | | 02/16/19 00:57 | 1 |
| Methyl Ethyl Ketone (2-Butanone) | 0.50 | | 0.50 | 0.20 | ppb v/v | | | 02/16/19 00:57 | 1 |
| Methyl methacrylate | 0.50 | | 0.50 | 0.22 | ppb v/v | | | 02/16/19 00:57 | 1 |
| Methyl tert-butyl ether | 0.20 | | 0.20 | 0.061 | ppb v/v | | | 02/16/19 00:57 | 1 |
| **Methylene Chloride** | **0.42** | **J** | 0.50 | 0.20 | ppb v/v | | | 02/16/19 00:57 | 1 |
| Naphthalene | 0.50 | | 0.50 | 0.31 | ppb v/v | | | 02/16/19 00:57 | 1 |
| **n-Butane** | **2.03** | | 0.50 | 0.31 | ppb v/v | | | 02/16/19 00:57 | 1 |
| n-Butylbenzene | 0.20 | | 0.20 | 0.080 | ppb v/v | | | 02/16/19 00:57 | 1 |
| n-Heptane | 0.20 | | 0.20 | 0.14 | ppb v/v | | | 02/16/19 00:57 | 1 |
| **n-Hexane** | **0.30** | | 0.20 | 0.16 | ppb v/v | | | 02/16/19 00:57 | 1 |
| n-Propylbenzene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/16/19 00:57 | 1 |
| **o-Xylene** | **0.075** | **J** | 0.20 | 0.071 | ppb v/v | | | 02/16/19 00:57 | 1 |
| sec-Butylbenzene | 0.20 | | 0.20 | 0.066 | ppb v/v | | | 02/16/19 00:57 | 1 |
| Styrene | 0.20 | | 0.20 | 0.086 | ppb v/v | | | 02/16/19 00:57 | 1 |
| tert-Butyl alcohol | 5.00 | | 5.00 | 1.50 | ppb v/v | | | 02/16/19 00:57 | 1 |
| tert-Butylbenzene | 0.20 | | 0.20 | 0.058 | ppb v/v | | | 02/16/19 00:57 | 1 |
| **Tetrachloroethene** | **0.17** | **J** | 0.20 | 0.029 | ppb v/v | | | 02/16/19 00:57 | 1 |
| Tetrahydrofuran | 5.00 | | 5.00 | 2.60 | ppb v/v | | | 02/16/19 00:57 | 1 |
| **Toluene** | **0.35** | | 0.20 | 0.069 | ppb v/v | | | 02/16/19 00:57 | 1 |
| trans-1,2-Dichloroethene | 0.20 | | 0.20 | 0.074 | ppb v/v | | | 02/16/19 00:57 | 1 |
| trans-1,3-Dichloropropene | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/16/19 00:57 | 1 |

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

**Client Sample ID: IA-3-INDOOR AIR**
**Lab Sample ID: 200-47424-6**
**Date Collected: 02/13/19 13:02**
**Matrix: Air**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

### Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Trichloroethene | 0.15 | | 0.035 | 0.030 | ppb v/v | | | 02/16/19 00:57 | 1 |
| Trichlorofluoromethane | 0.22 | | 0.20 | 0.062 | ppb v/v | | | 02/16/19 00:57 | 1 |
| Vinyl chloride | 0.035 | | 0.035 | 0.041 | ppb v/v | | | 02/16/19 00:57 | 1 |

**Client Sample ID: IA-4-SUBSLAB**
**Date Collected: 02/13/19 13:06**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-7**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 3.27 | | 3.27 | 1.11 | ug/m3 | | | 02/20/19 18:16 | 3 |
| 1,1,2,2-Tetrachloroethane | 4.12 | | 4.12 | 1.57 | ug/m3 | | | 02/20/19 18:16 | 3 |
| 1,1,2-Trichloroethane | 3.27 | | 3.27 | 1.28 | ug/m3 | | | 02/20/19 18:16 | 3 |
| 1,1,2-Trichlorotrifluoroethane | 4.60 | | 4.60 | 0.71 | ug/m3 | | | 02/20/19 18:16 | 3 |
| **1,1-Dichloroethane** | **1.47** | **J** | 2.43 | 0.32 | ug/m3 | | | 02/20/19 18:16 | 3 |
| 1,1-Dichloroethene | 0.42 | | 0.42 | 0.40 | ug/m3 | | | 02/20/19 18:16 | 3 |
| 1,2,4-Trichlorobenzene | 11.1 | | 11.1 | 5.34 | ug/m3 | | | 02/20/19 18:16 | 3 |
| **1,2,4-Trimethylbenzene** | **2.33** | **J** | 2.95 | 1.18 | ug/m3 | | | 02/20/19 18:16 | 3 |
| 1,2-Dibromoethane | 4.61 | | 4.61 | 1.59 | ug/m3 | | | 02/20/19 18:16 | 3 |
| 1,2-Dichlorobenzene | 3.61 | | 3.61 | 1.28 | ug/m3 | | | 02/20/19 18:16 | 3 |
| 1,2-Dichloroethane | 2.43 | | 2.43 | 0.76 | ug/m3 | | | 02/20/19 18:16 | 3 |
| 1,2-Dichloropropane | 2.77 | | 2.77 | 1.66 | ug/m3 | | | 02/20/19 18:16 | 3 |
| 1,2-Dichlorotetrafluoroethane | 4.19 | | 4.19 | 1.43 | ug/m3 | | | 02/20/19 18:16 | 3 |
| **1,3,5-Trimethylbenzene** | **2.13** | **J** | 2.95 | 0.86 | ug/m3 | | | 02/20/19 18:16 | 3 |
| **1,3-Butadiene** | **1.69** | | 1.33 | 0.43 | ug/m3 | | | 02/20/19 18:16 | 3 |
| 1,3-Dichlorobenzene | 3.61 | | 3.61 | 1.48 | ug/m3 | | | 02/20/19 18:16 | 3 |
| 1,4-Dichlorobenzene | 3.61 | | 3.61 | 1.17 | ug/m3 | | | 02/20/19 18:16 | 3 |
| 1,4-Dioxane | 54.1 | | 54.1 | 14.1 | ug/m3 | | | 02/20/19 18:16 | 3 |
| 2,2,4-Trimethylpentane | 2.80 | | 2.80 | 1.23 | ug/m3 | | | 02/20/19 18:16 | 3 |
| 2-Chlorotoluene | 3.11 | | 3.11 | 1.10 | ug/m3 | | | 02/20/19 18:16 | 3 |
| 3-Chloropropene | 4.70 | | 4.70 | 2.54 | ug/m3 | | | 02/20/19 18:16 | 3 |
| 4-Ethyltoluene | 2.95 | | 2.95 | 1.02 | ug/m3 | | | 02/20/19 18:16 | 3 |
| 4-Isopropyltoluene | 3.29 | | 3.29 | 1.24 | ug/m3 | | | 02/20/19 18:16 | 3 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 6.14 | | 6.14 | 4.42 | ug/m3 | | | 02/20/19 18:16 | 3 |
| **Acetone** | **147** | | 35.6 | 18.5 | ug/m3 | | | 02/20/19 18:16 | 3 |
| **Benzene** | **41.0** | | 1.92 | 0.68 | ug/m3 | | | 02/20/19 18:16 | 3 |
| Benzyl chloride | 3.11 | | 3.11 | 1.86 | ug/m3 | | | 02/20/19 18:16 | 3 |
| Bromodichloromethane | 4.02 | | 4.02 | 1.89 | ug/m3 | | | 02/20/19 18:16 | 3 |
| Bromoethene(Vinyl Bromide) | 2.62 | | 2.62 | 0.73 | ug/m3 | | | 02/20/19 18:16 | 3 |
| Bromoform | 6.20 | | 6.20 | 2.67 | ug/m3 | | | 02/20/19 18:16 | 3 |
| Bromomethane | 2.33 | | 2.33 | 0.72 | ug/m3 | | | 02/20/19 18:16 | 3 |
| **Carbon disulfide** | **41.6** | | 4.67 | 1.12 | ug/m3 | | | 02/20/19 18:16 | 3 |
| Carbon tetrachloride | 0.66 | | 0.66 | 0.45 | ug/m3 | | | 02/20/19 18:16 | 3 |
| Chlorobenzene | 2.76 | | 2.76 | 0.55 | ug/m3 | | | 02/20/19 18:16 | 3 |
| Chlorodifluoromethane | 5.30 | | 5.30 | 2.76 | ug/m3 | | | 02/20/19 18:16 | 3 |
| Chloroethane | 3.96 | | 3.96 | 1.66 | ug/m3 | | | 02/20/19 18:16 | 3 |
| **Chloroform** | **7.90** | | 2.93 | 0.76 | ug/m3 | | | 02/20/19 18:16 | 3 |
| Chloromethane | 3.10 | | 3.10 | 1.55 | ug/m3 | | | 02/20/19 18:16 | 3 |
| **cis-1,2-Dichloroethene** | **1.88** | | 0.42 | 0.44 | ug/m3 | | | 02/20/19 18:16 | 3 |
| cis-1,3-Dichloropropene | 2.72 | | 2.72 | 1.33 | ug/m3 | | | 02/20/19 18:16 | 3 |
| **Cumene** | **2.53** | **J** | 2.95 | 0.87 | ug/m3 | | | 02/20/19 18:16 | 3 |
| **Cyclohexane** | **46.5** | | 2.07 | 0.65 | ug/m3 | | | 02/20/19 18:16 | 3 |
| Dibromochloromethane | 5.11 | | 5.11 | 1.81 | ug/m3 | | | 02/20/19 18:16 | 3 |
| Dichlorodifluoromethane | 7.42 | | 7.42 | 2.97 | ug/m3 | | | 02/20/19 18:16 | 3 |
| **Ethylbenzene** | **6.26** | | 2.61 | 0.95 | ug/m3 | | | 02/20/19 18:16 | 3 |
| Hexachlorobutadiene | 6.40 | | 6.40 | 2.62 | ug/m3 | | | 02/20/19 18:16 | 3 |
| Isopropyl alcohol | 36.9 | | 36.9 | 13.3 | ug/m3 | | | 02/20/19 18:16 | 3 |

**Client Sample ID: IA-4-SUBSLAB**
**Date Collected: 02/13/19 13:06**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-7**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **m,p-Xylene** | **26.4** | | 6.51 | 0.91 | ug/m3 | | | 02/20/19 18:16 | 3 |
| Methyl Butyl Ketone (2-Hexanone) | 6.15 | | 6.15 | 5.16 | ug/m3 | | | 02/20/19 18:16 | 3 |
| **Methyl Ethyl Ketone (2-Butanone)** | **25.3** | | 4.42 | 1.77 | ug/m3 | | | 02/20/19 18:16 | 3 |
| Methyl methacrylate | 6.14 | | 6.14 | 2.70 | ug/m3 | | | 02/20/19 18:16 | 3 |
| Methyl tert-butyl ether | 2.16 | | 2.16 | 0.66 | ug/m3 | | | 02/20/19 18:16 | 3 |
| **Methylene Chloride** | **2.74** | **J** | 5.21 | 2.08 | ug/m3 | | | 02/20/19 18:16 | 3 |
| Naphthalene | 7.86 | * | 7.86 | 4.88 | ug/m3 | | | 02/20/19 18:16 | 3 |
| **n-Butane** | **146** | | 3.57 | 2.21 | ug/m3 | | | 02/20/19 18:16 | 3 |
| n-Butylbenzene | 3.29 | | 3.29 | 1.32 | ug/m3 | | | 02/20/19 18:16 | 3 |
| **n-Heptane** | **65.8** | | 2.46 | 1.72 | ug/m3 | | | 02/20/19 18:16 | 3 |
| **n-Hexane** | **143** | | 2.11 | 1.69 | ug/m3 | | | 02/20/19 18:16 | 3 |
| **n-Propylbenzene** | **3.18** | | 2.95 | 1.02 | ug/m3 | | | 02/20/19 18:16 | 3 |
| **o-Xylene** | **7.37** | | 2.61 | 0.92 | ug/m3 | | | 02/20/19 18:16 | 3 |
| **sec-Butylbenzene** | **2.89** | **J** | 3.29 | 1.09 | ug/m3 | | | 02/20/19 18:16 | 3 |
| Styrene | 2.56 | | 2.56 | 1.10 | ug/m3 | | | 02/20/19 18:16 | 3 |
| tert-Butyl alcohol | 45.5 | | 45.5 | 13.6 | ug/m3 | | | 02/20/19 18:16 | 3 |
| tert-Butylbenzene | 3.29 | | 3.29 | 0.96 | ug/m3 | | | 02/20/19 18:16 | 3 |
| Tetrachloroethene | 4.07 | | 4.07 | 0.59 | ug/m3 | | | 02/20/19 18:16 | 3 |
| Tetrahydrofuran | 44.2 | | 44.2 | 23.0 | ug/m3 | | | 02/20/19 18:16 | 3 |
| **Toluene** | **127** | | 2.26 | 0.78 | ug/m3 | | | 02/20/19 18:16 | 3 |
| trans-1,2-Dichloroethene | 2.38 | | 2.38 | 0.88 | ug/m3 | | | 02/20/19 18:16 | 3 |
| trans-1,3-Dichloropropene | 2.72 | | 2.72 | 1.63 | ug/m3 | | | 02/20/19 18:16 | 3 |
| **Trichloroethene** | **29.6** | | 0.56 | 0.48 | ug/m3 | | | 02/20/19 18:16 | 3 |
| Trichlorofluoromethane | 3.37 | | 3.37 | 1.05 | ug/m3 | | | 02/20/19 18:16 | 3 |
| Vinyl chloride | 0.27 | | 0.27 | 0.31 | ug/m3 | | | 02/20/19 18:16 | 3 |

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.60 | | 0.60 | 0.20 | ppb v/v | | | 02/20/19 18:16 | 3 |
| 1,1,2,2-Tetrachloroethane | 0.60 | | 0.60 | 0.23 | ppb v/v | | | 02/20/19 18:16 | 3 |
| 1,1,2-Trichloroethane | 0.60 | | 0.60 | 0.23 | ppb v/v | | | 02/20/19 18:16 | 3 |
| 1,1,2-Trichlorotrifluoroethane | 0.60 | | 0.60 | 0.093 | ppb v/v | | | 02/20/19 18:16 | 3 |
| **1,1-Dichloroethane** | **0.36** | **J** | 0.60 | 0.078 | ppb v/v | | | 02/20/19 18:16 | 3 |
| 1,1-Dichloroethene | 0.11 | | 0.11 | 0.10 | ppb v/v | | | 02/20/19 18:16 | 3 |
| 1,2,4-Trichlorobenzene | 1.50 | | 1.50 | 0.72 | ppb v/v | | | 02/20/19 18:16 | 3 |
| **1,2,4-Trimethylbenzene** | **0.47** | **J** | 0.60 | 0.24 | ppb v/v | | | 02/20/19 18:16 | 3 |
| 1,2-Dibromoethane | 0.60 | | 0.60 | 0.21 | ppb v/v | | | 02/20/19 18:16 | 3 |
| 1,2-Dichlorobenzene | 0.60 | | 0.60 | 0.21 | ppb v/v | | | 02/20/19 18:16 | 3 |
| 1,2-Dichloroethane | 0.60 | | 0.60 | 0.19 | ppb v/v | | | 02/20/19 18:16 | 3 |
| 1,2-Dichloropropane | 0.60 | | 0.60 | 0.36 | ppb v/v | | | 02/20/19 18:16 | 3 |
| 1,2-Dichlorotetrafluoroethane | 0.60 | | 0.60 | 0.20 | ppb v/v | | | 02/20/19 18:16 | 3 |
| **1,3,5-Trimethylbenzene** | **0.43** | **J** | 0.60 | 0.17 | ppb v/v | | | 02/20/19 18:16 | 3 |
| **1,3-Butadiene** | **0.77** | | 0.60 | 0.20 | ppb v/v | | | 02/20/19 18:16 | 3 |
| 1,3-Dichlorobenzene | 0.60 | | 0.60 | 0.25 | ppb v/v | | | 02/20/19 18:16 | 3 |
| 1,4-Dichlorobenzene | 0.60 | | 0.60 | 0.20 | ppb v/v | | | 02/20/19 18:16 | 3 |
| 1,4-Dioxane | 15.0 | | 15.0 | 3.90 | ppb v/v | | | 02/20/19 18:16 | 3 |
| 2,2,4-Trimethylpentane | 0.60 | | 0.60 | 0.26 | ppb v/v | | | 02/20/19 18:16 | 3 |
| 2-Chlorotoluene | 0.60 | | 0.60 | 0.21 | ppb v/v | | | 02/20/19 18:16 | 3 |
| 3-Chloropropene | 1.50 | | 1.50 | 0.81 | ppb v/v | | | 02/20/19 18:16 | 3 |
| 4-Ethyltoluene | 0.60 | | 0.60 | 0.21 | ppb v/v | | | 02/20/19 18:16 | 3 |

**Client Sample ID: IA-4-SUBSLAB**
**Date Collected: 02/13/19 13:06**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-7**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Isopropyltoluene | 0.60 | | 0.60 | 0.23 | ppb v/v | | | 02/20/19 18:16 | 3 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 1.50 | | 1.50 | 1.08 | ppb v/v | | | 02/20/19 18:16 | 3 |
| **Acetone** | **62.0** | | 15.0 | 7.80 | ppb v/v | | | 02/20/19 18:16 | 3 |
| **Benzene** | **12.8** | | 0.60 | 0.21 | ppb v/v | | | 02/20/19 18:16 | 3 |
| Benzyl chloride | 0.60 | | 0.60 | 0.36 | ppb v/v | | | 02/20/19 18:16 | 3 |
| Bromodichloromethane | 0.60 | | 0.60 | 0.28 | ppb v/v | | | 02/20/19 18:16 | 3 |
| Bromoethene(Vinyl Bromide) | 0.60 | | 0.60 | 0.17 | ppb v/v | | | 02/20/19 18:16 | 3 |
| Bromoform | 0.60 | | 0.60 | 0.26 | ppb v/v | | | 02/20/19 18:16 | 3 |
| Bromomethane | 0.60 | | 0.60 | 0.19 | ppb v/v | | | 02/20/19 18:16 | 3 |
| **Carbon disulfide** | **13.4** | | 1.50 | 0.36 | ppb v/v | | | 02/20/19 18:16 | 3 |
| Carbon tetrachloride | 0.10 | | 0.10 | 0.072 | ppb v/v | | | 02/20/19 18:16 | 3 |
| Chlorobenzene | 0.60 | | 0.60 | 0.12 | ppb v/v | | | 02/20/19 18:16 | 3 |
| Chlorodifluoromethane | 1.50 | | 1.50 | 0.78 | ppb v/v | | | 02/20/19 18:16 | 3 |
| Chloroethane | 1.50 | | 1.50 | 0.63 | ppb v/v | | | 02/20/19 18:16 | 3 |
| **Chloroform** | **1.62** | | 0.60 | 0.16 | ppb v/v | | | 02/20/19 18:16 | 3 |
| Chloromethane | 1.50 | | 1.50 | 0.75 | ppb v/v | | | 02/20/19 18:16 | 3 |
| **cis-1,2-Dichloroethene** | **0.47** | | 0.11 | 0.11 | ppb v/v | | | 02/20/19 18:16 | 3 |
| cis-1,3-Dichloropropene | 0.60 | | 0.60 | 0.29 | ppb v/v | | | 02/20/19 18:16 | 3 |
| **Cumene** | **0.51** | **J** | 0.60 | 0.18 | ppb v/v | | | 02/20/19 18:16 | 3 |
| **Cyclohexane** | **13.5** | | 0.60 | 0.19 | ppb v/v | | | 02/20/19 18:16 | 3 |
| Dibromochloromethane | 0.60 | | 0.60 | 0.21 | ppb v/v | | | 02/20/19 18:16 | 3 |
| Dichlorodifluoromethane | 1.50 | | 1.50 | 0.60 | ppb v/v | | | 02/20/19 18:16 | 3 |
| **Ethylbenzene** | **1.44** | | 0.60 | 0.22 | ppb v/v | | | 02/20/19 18:16 | 3 |
| Hexachlorobutadiene | 0.60 | | 0.60 | 0.25 | ppb v/v | | | 02/20/19 18:16 | 3 |
| Isopropyl alcohol | 15.0 | | 15.0 | 5.40 | ppb v/v | | | 02/20/19 18:16 | 3 |
| **m,p-Xylene** | **6.08** | | 1.50 | 0.21 | ppb v/v | | | 02/20/19 18:16 | 3 |
| Methyl Butyl Ketone (2-Hexanone) | 1.50 | | 1.50 | 1.26 | ppb v/v | | | 02/20/19 18:16 | 3 |
| **Methyl Ethyl Ketone (2-Butanone)** | **8.59** | | 1.50 | 0.60 | ppb v/v | | | 02/20/19 18:16 | 3 |
| Methyl methacrylate | 1.50 | | 1.50 | 0.66 | ppb v/v | | | 02/20/19 18:16 | 3 |
| Methyl tert-butyl ether | 0.60 | | 0.60 | 0.18 | ppb v/v | | | 02/20/19 18:16 | 3 |
| **Methylene Chloride** | **0.79** | **J** | 1.50 | 0.60 | ppb v/v | | | 02/20/19 18:16 | 3 |
| Naphthalene | 1.50 | * | 1.50 | 0.93 | ppb v/v | | | 02/20/19 18:16 | 3 |
| **n-Butane** | **61.2** | | 1.50 | 0.93 | ppb v/v | | | 02/20/19 18:16 | 3 |
| n-Butylbenzene | 0.60 | | 0.60 | 0.24 | ppb v/v | | | 02/20/19 18:16 | 3 |
| **n-Heptane** | **16.1** | | 0.60 | 0.42 | ppb v/v | | | 02/20/19 18:16 | 3 |
| **n-Hexane** | **40.6** | | 0.60 | 0.48 | ppb v/v | | | 02/20/19 18:16 | 3 |
| **n-Propylbenzene** | **0.65** | | 0.60 | 0.21 | ppb v/v | | | 02/20/19 18:16 | 3 |
| **o-Xylene** | **1.70** | | 0.60 | 0.21 | ppb v/v | | | 02/20/19 18:16 | 3 |
| **sec-Butylbenzene** | **0.53** | **J** | 0.60 | 0.20 | ppb v/v | | | 02/20/19 18:16 | 3 |
| Styrene | 0.60 | | 0.60 | 0.26 | ppb v/v | | | 02/20/19 18:16 | 3 |
| tert-Butyl alcohol | 15.0 | | 15.0 | 4.50 | ppb v/v | | | 02/20/19 18:16 | 3 |
| tert-Butylbenzene | 0.60 | | 0.60 | 0.17 | ppb v/v | | | 02/20/19 18:16 | 3 |
| Tetrachloroethene | 0.60 | | 0.60 | 0.087 | ppb v/v | | | 02/20/19 18:16 | 3 |
| Tetrahydrofuran | 15.0 | | 15.0 | 7.80 | ppb v/v | | | 02/20/19 18:16 | 3 |
| **Toluene** | **33.8** | | 0.60 | 0.21 | ppb v/v | | | 02/20/19 18:16 | 3 |
| trans-1,2-Dichloroethene | 0.60 | | 0.60 | 0.22 | ppb v/v | | | 02/20/19 18:16 | 3 |
| trans-1,3-Dichloropropene | 0.60 | | 0.60 | 0.36 | ppb v/v | | | 02/20/19 18:16 | 3 |

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

**Client Sample ID: IA-4-SUBSLAB**
**Date Collected: 02/13/19 13:06**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-7**
**Matrix: Air**

**Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Trichloroethene | 5.52 | | 0.10 | 0.090 | ppb v/v | | | 02/20/19 18:16 | 3 |
| Trichlorofluoromethane | 0.60 | | 0.60 | 0.19 | ppb v/v | | | 02/20/19 18:16 | 3 |
| Vinyl chloride | 0.11 | | 0.11 | 0.12 | ppb v/v | | | 02/20/19 18:16 | 3 |

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

**Client Sample ID: IA-4-INDOOR AIR**
**Date Collected: 02/13/19 12:13**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-8**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.09 | | 1.09 | 0.37 | ug/m3 | | | 02/16/19 02:41 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.37 | | 1.37 | 0.52 | ug/m3 | | | 02/16/19 02:41 | 1 |
| 1,1,2-Trichloroethane | 1.09 | | 1.09 | 0.43 | ug/m3 | | | 02/16/19 02:41 | 1 |
| **1,1,2-Trichlorotrifluoroethane** | **0.53** | **J** | 1.53 | 0.24 | ug/m3 | | | 02/16/19 02:41 | 1 |
| 1,1-Dichloroethane | 0.81 | | 0.81 | 0.11 | ug/m3 | | | 02/16/19 02:41 | 1 |
| 1,1-Dichloroethene | 0.14 | | 0.14 | 0.13 | ug/m3 | | | 02/16/19 02:41 | 1 |
| 1,2,4-Trichlorobenzene | 3.71 | | 3.71 | 1.78 | ug/m3 | | | 02/16/19 02:41 | 1 |
| 1,2,4-Trimethylbenzene | 0.98 | | 0.98 | 0.39 | ug/m3 | | | 02/16/19 02:41 | 1 |
| 1,2-Dibromoethane | 1.54 | | 1.54 | 0.53 | ug/m3 | | | 02/16/19 02:41 | 1 |
| 1,2-Dichlorobenzene | 1.20 | | 1.20 | 0.43 | ug/m3 | | | 02/16/19 02:41 | 1 |
| 1,2-Dichloroethane | 0.81 | | 0.81 | 0.25 | ug/m3 | | | 02/16/19 02:41 | 1 |
| 1,2-Dichloropropane | 0.92 | | 0.92 | 0.55 | ug/m3 | | | 02/16/19 02:41 | 1 |
| 1,2-Dichlorotetrafluoroethane | 1.40 | | 1.40 | 0.48 | ug/m3 | | | 02/16/19 02:41 | 1 |
| 1,3,5-Trimethylbenzene | 0.98 | | 0.98 | 0.29 | ug/m3 | | | 02/16/19 02:41 | 1 |
| 1,3-Butadiene | 0.44 | | 0.44 | 0.14 | ug/m3 | | | 02/16/19 02:41 | 1 |
| 1,3-Dichlorobenzene | 1.20 | | 1.20 | 0.49 | ug/m3 | | | 02/16/19 02:41 | 1 |
| 1,4-Dichlorobenzene | 1.20 | | 1.20 | 0.39 | ug/m3 | | | 02/16/19 02:41 | 1 |
| 1,4-Dioxane | 18.0 | | 18.0 | 4.68 | ug/m3 | | | 02/16/19 02:41 | 1 |
| 2,2,4-Trimethylpentane | 0.93 | | 0.93 | 0.41 | ug/m3 | | | 02/16/19 02:41 | 1 |
| 2-Chlorotoluene | 1.04 | | 1.04 | 0.37 | ug/m3 | | | 02/16/19 02:41 | 1 |
| 3-Chloropropene | 1.57 | | 1.57 | 0.85 | ug/m3 | | | 02/16/19 02:41 | 1 |
| 4-Ethyltoluene | 0.98 | | 0.98 | 0.34 | ug/m3 | | | 02/16/19 02:41 | 1 |
| 4-Isopropyltoluene | 1.10 | | 1.10 | 0.41 | ug/m3 | | | 02/16/19 02:41 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 2.05 | | 2.05 | 1.47 | ug/m3 | | | 02/16/19 02:41 | 1 |
| **Acetone** | **27.3** | | 11.9 | 6.18 | ug/m3 | | | 02/16/19 02:41 | 1 |
| **Benzene** | **0.93** | | 0.64 | 0.23 | ug/m3 | | | 02/16/19 02:41 | 1 |
| Benzyl chloride | 1.04 | | 1.04 | 0.62 | ug/m3 | | | 02/16/19 02:41 | 1 |
| Bromodichloromethane | 1.34 | | 1.34 | 0.63 | ug/m3 | | | 02/16/19 02:41 | 1 |
| Bromoethene(Vinyl Bromide) | 0.87 | | 0.87 | 0.24 | ug/m3 | | | 02/16/19 02:41 | 1 |
| Bromoform | 2.07 | | 2.07 | 0.89 | ug/m3 | | | 02/16/19 02:41 | 1 |
| Bromomethane | 0.78 | | 0.78 | 0.24 | ug/m3 | | | 02/16/19 02:41 | 1 |
| **Carbon disulfide** | **1.04** | **J** | 1.56 | 0.37 | ug/m3 | | | 02/16/19 02:41 | 1 |
| **Carbon tetrachloride** | **0.44** | | 0.22 | 0.15 | ug/m3 | | | 02/16/19 02:41 | 1 |
| Chlorobenzene | 0.92 | | 0.92 | 0.18 | ug/m3 | | | 02/16/19 02:41 | 1 |
| **Chlorodifluoromethane** | **0.97** | **J** | 1.77 | 0.92 | ug/m3 | | | 02/16/19 02:41 | 1 |
| Chloroethane | 1.32 | | 1.32 | 0.55 | ug/m3 | | | 02/16/19 02:41 | 1 |
| Chloroform | 0.98 | | 0.98 | 0.25 | ug/m3 | | | 02/16/19 02:41 | 1 |
| **Chloromethane** | **1.21** | | 1.03 | 0.52 | ug/m3 | | | 02/16/19 02:41 | 1 |
| **cis-1,2-Dichloroethene** | **0.93** | | 0.14 | 0.15 | ug/m3 | | | 02/16/19 02:41 | 1 |
| cis-1,3-Dichloropropene | 0.91 | | 0.91 | 0.44 | ug/m3 | | | 02/16/19 02:41 | 1 |
| Cumene | 0.98 | | 0.98 | 0.29 | ug/m3 | | | 02/16/19 02:41 | 1 |
| Cyclohexane | 0.69 | | 0.69 | 0.22 | ug/m3 | | | 02/16/19 02:41 | 1 |
| Dibromochloromethane | 1.70 | | 1.70 | 0.60 | ug/m3 | | | 02/16/19 02:41 | 1 |
| **Dichlorodifluoromethane** | **2.41** | **J** | 2.47 | 0.99 | ug/m3 | | | 02/16/19 02:41 | 1 |
| **Ethylbenzene** | **0.62** | **J** | 0.87 | 0.32 | ug/m3 | | | 02/16/19 02:41 | 1 |
| Hexachlorobutadiene | 2.13 | | 2.13 | 0.87 | ug/m3 | | | 02/16/19 02:41 | 1 |
| **Isopropyl alcohol** | **20.3** | | 12.3 | 4.42 | ug/m3 | | | 02/16/19 02:41 | 1 |

**Client Sample ID: IA-4-INDOOR AIR**
**Date Collected: 02/13/19 12:13**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-8**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **m,p-Xylene** | **1.75** | **J** | 2.17 | 0.30 | ug/m3 | | | 02/16/19 02:41 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 2.05 | | 2.05 | 1.72 | ug/m3 | | | 02/16/19 02:41 | 1 |
| **Methyl Ethyl Ketone (2-Butanone)** | **1.52** | | 1.47 | 0.59 | ug/m3 | | | 02/16/19 02:41 | 1 |
| Methyl methacrylate | 2.05 | | 2.05 | 0.90 | ug/m3 | | | 02/16/19 02:41 | 1 |
| Methyl tert-butyl ether | 0.72 | | 0.72 | 0.22 | ug/m3 | | | 02/16/19 02:41 | 1 |
| **Methylene Chloride** | **0.72** | **J** | 1.74 | 0.69 | ug/m3 | | | 02/16/19 02:41 | 1 |
| Naphthalene | 2.62 | | 2.62 | 1.63 | ug/m3 | | | 02/16/19 02:41 | 1 |
| **n-Butane** | **4.88** | | 1.19 | 0.74 | ug/m3 | | | 02/16/19 02:41 | 1 |
| n-Butylbenzene | 1.10 | | 1.10 | 0.44 | ug/m3 | | | 02/16/19 02:41 | 1 |
| n-Heptane | 0.82 | | 0.82 | 0.57 | ug/m3 | | | 02/16/19 02:41 | 1 |
| **n-Hexane** | **0.95** | | 0.70 | 0.56 | ug/m3 | | | 02/16/19 02:41 | 1 |
| n-Propylbenzene | 0.98 | | 0.98 | 0.34 | ug/m3 | | | 02/16/19 02:41 | 1 |
| **o-Xylene** | **0.66** | **J** | 0.87 | 0.31 | ug/m3 | | | 02/16/19 02:41 | 1 |
| sec-Butylbenzene | 1.10 | | 1.10 | 0.36 | ug/m3 | | | 02/16/19 02:41 | 1 |
| Styrene | 0.85 | | 0.85 | 0.37 | ug/m3 | | | 02/16/19 02:41 | 1 |
| tert-Butyl alcohol | 15.2 | | 15.2 | 4.55 | ug/m3 | | | 02/16/19 02:41 | 1 |
| tert-Butylbenzene | 1.10 | | 1.10 | 0.32 | ug/m3 | | | 02/16/19 02:41 | 1 |
| **Tetrachloroethene** | **0.93** | **J** | 1.36 | 0.20 | ug/m3 | | | 02/16/19 02:41 | 1 |
| Tetrahydrofuran | 14.7 | | 14.7 | 7.67 | ug/m3 | | | 02/16/19 02:41 | 1 |
| **Toluene** | **0.95** | | 0.75 | 0.26 | ug/m3 | | | 02/16/19 02:41 | 1 |
| trans-1,2-Dichloroethene | 0.79 | | 0.79 | 0.29 | ug/m3 | | | 02/16/19 02:41 | 1 |
| trans-1,3-Dichloropropene | 0.91 | | 0.91 | 0.54 | ug/m3 | | | 02/16/19 02:41 | 1 |
| **Trichloroethene** | **0.85** | | 0.19 | 0.16 | ug/m3 | | | 02/16/19 02:41 | 1 |
| **Trichlorofluoromethane** | **1.30** | | 1.12 | 0.35 | ug/m3 | | | 02/16/19 02:41 | 1 |
| Vinyl chloride | 0.090 | | 0.090 | 0.10 | ug/m3 | | | 02/16/19 02:41 | 1 |

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.20 | | 0.20 | 0.068 | ppb v/v | | | 02/16/19 02:41 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.20 | | 0.20 | 0.076 | ppb v/v | | | 02/16/19 02:41 | 1 |
| 1,1,2-Trichloroethane | 0.20 | | 0.20 | 0.078 | ppb v/v | | | 02/16/19 02:41 | 1 |
| **1,1,2-Trichlorotrifluoroethane** | **0.069** | **J** | 0.20 | 0.031 | ppb v/v | | | 02/16/19 02:41 | 1 |
| 1,1-Dichloroethane | 0.20 | | 0.20 | 0.026 | ppb v/v | | | 02/16/19 02:41 | 1 |
| 1,1-Dichloroethene | 0.035 | | 0.035 | 0.034 | ppb v/v | | | 02/16/19 02:41 | 1 |
| 1,2,4-Trichlorobenzene | 0.50 | | 0.50 | 0.24 | ppb v/v | | | 02/16/19 02:41 | 1 |
| 1,2,4-Trimethylbenzene | 0.20 | | 0.20 | 0.080 | ppb v/v | | | 02/16/19 02:41 | 1 |
| 1,2-Dibromoethane | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/16/19 02:41 | 1 |
| 1,2-Dichlorobenzene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 02:41 | 1 |
| 1,2-Dichloroethane | 0.20 | | 0.20 | 0.063 | ppb v/v | | | 02/16/19 02:41 | 1 |
| 1,2-Dichloropropane | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/16/19 02:41 | 1 |
| 1,2-Dichlorotetrafluoroethane | 0.20 | | 0.20 | 0.068 | ppb v/v | | | 02/16/19 02:41 | 1 |
| 1,3,5-Trimethylbenzene | 0.20 | | 0.20 | 0.058 | ppb v/v | | | 02/16/19 02:41 | 1 |
| 1,3-Butadiene | 0.20 | | 0.20 | 0.065 | ppb v/v | | | 02/16/19 02:41 | 1 |
| 1,3-Dichlorobenzene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/16/19 02:41 | 1 |
| 1,4-Dichlorobenzene | 0.20 | | 0.20 | 0.065 | ppb v/v | | | 02/16/19 02:41 | 1 |
| 1,4-Dioxane | 5.00 | | 5.00 | 1.30 | ppb v/v | | | 02/16/19 02:41 | 1 |
| 2,2,4-Trimethylpentane | 0.20 | | 0.20 | 0.088 | ppb v/v | | | 02/16/19 02:41 | 1 |
| 2-Chlorotoluene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 02:41 | 1 |
| 3-Chloropropene | 0.50 | | 0.50 | 0.27 | ppb v/v | | | 02/16/19 02:41 | 1 |
| 4-Ethyltoluene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/16/19 02:41 | 1 |

## Client Sample ID: IA-4-INDOOR AIR

**Lab Sample ID: 200-47424-8**

**Date Collected: 02/13/19 12:13**
**Matrix: Air**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

### Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Isopropyltoluene | 0.20 | | 0.20 | 0.075 | ppb v/v | | | 02/16/19 02:41 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 0.50 | | 0.50 | 0.36 | ppb v/v | | | 02/16/19 02:41 | 1 |
| **Acetone** | **11.5** | | 5.00 | 2.60 | ppb v/v | | | 02/16/19 02:41 | 1 |
| **Benzene** | **0.29** | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 02:41 | 1 |
| Benzyl chloride | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/16/19 02:41 | 1 |
| Bromodichloromethane | 0.20 | | 0.20 | 0.094 | ppb v/v | | | 02/16/19 02:41 | 1 |
| Bromoethene(Vinyl Bromide) | 0.20 | | 0.20 | 0.056 | ppb v/v | | | 02/16/19 02:41 | 1 |
| Bromoform | 0.20 | | 0.20 | 0.086 | ppb v/v | | | 02/16/19 02:41 | 1 |
| Bromomethane | 0.20 | | 0.20 | 0.062 | ppb v/v | | | 02/16/19 02:41 | 1 |
| **Carbon disulfide** | **0.33** | **J** | 0.50 | 0.12 | ppb v/v | | | 02/16/19 02:41 | 1 |
| **Carbon tetrachloride** | **0.070** | | 0.035 | 0.024 | ppb v/v | | | 02/16/19 02:41 | 1 |
| Chlorobenzene | 0.20 | | 0.20 | 0.040 | ppb v/v | | | 02/16/19 02:41 | 1 |
| **Chlorodifluoromethane** | **0.27** | **J** | 0.50 | 0.26 | ppb v/v | | | 02/16/19 02:41 | 1 |
| Chloroethane | 0.50 | | 0.50 | 0.21 | ppb v/v | | | 02/16/19 02:41 | 1 |
| Chloroform | 0.20 | | 0.20 | 0.052 | ppb v/v | | | 02/16/19 02:41 | 1 |
| **Chloromethane** | **0.59** | | 0.50 | 0.25 | ppb v/v | | | 02/16/19 02:41 | 1 |
| **cis-1,2-Dichloroethene** | **0.23** | | 0.035 | 0.037 | ppb v/v | | | 02/16/19 02:41 | 1 |
| cis-1,3-Dichloropropene | 0.20 | | 0.20 | 0.098 | ppb v/v | | | 02/16/19 02:41 | 1 |
| Cumene | 0.20 | | 0.20 | 0.059 | ppb v/v | | | 02/16/19 02:41 | 1 |
| Cyclohexane | 0.20 | | 0.20 | 0.063 | ppb v/v | | | 02/16/19 02:41 | 1 |
| Dibromochloromethane | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 02:41 | 1 |
| **Dichlorodifluoromethane** | **0.49** | **J** | 0.50 | 0.20 | ppb v/v | | | 02/16/19 02:41 | 1 |
| **Ethylbenzene** | **0.14** | **J** | 0.20 | 0.073 | ppb v/v | | | 02/16/19 02:41 | 1 |
| Hexachlorobutadiene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/16/19 02:41 | 1 |
| **Isopropyl alcohol** | **8.25** | | 5.00 | 1.80 | ppb v/v | | | 02/16/19 02:41 | 1 |
| **m,p-Xylene** | **0.40** | **J** | 0.50 | 0.070 | ppb v/v | | | 02/16/19 02:41 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 0.50 | | 0.50 | 0.42 | ppb v/v | | | 02/16/19 02:41 | 1 |
| **Methyl Ethyl Ketone (2-Butanone)** | **0.51** | | 0.50 | 0.20 | ppb v/v | | | 02/16/19 02:41 | 1 |
| Methyl methacrylate | 0.50 | | 0.50 | 0.22 | ppb v/v | | | 02/16/19 02:41 | 1 |
| Methyl tert-butyl ether | 0.20 | | 0.20 | 0.061 | ppb v/v | | | 02/16/19 02:41 | 1 |
| **Methylene Chloride** | **0.21** | **J** | 0.50 | 0.20 | ppb v/v | | | 02/16/19 02:41 | 1 |
| Naphthalene | 0.50 | | 0.50 | 0.31 | ppb v/v | | | 02/16/19 02:41 | 1 |
| **n-Butane** | **2.05** | | 0.50 | 0.31 | ppb v/v | | | 02/16/19 02:41 | 1 |
| n-Butylbenzene | 0.20 | | 0.20 | 0.080 | ppb v/v | | | 02/16/19 02:41 | 1 |
| n-Heptane | 0.20 | | 0.20 | 0.14 | ppb v/v | | | 02/16/19 02:41 | 1 |
| **n-Hexane** | **0.27** | | 0.20 | 0.16 | ppb v/v | | | 02/16/19 02:41 | 1 |
| n-Propylbenzene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/16/19 02:41 | 1 |
| **o-Xylene** | **0.15** | **J** | 0.20 | 0.071 | ppb v/v | | | 02/16/19 02:41 | 1 |
| sec-Butylbenzene | 0.20 | | 0.20 | 0.066 | ppb v/v | | | 02/16/19 02:41 | 1 |
| Styrene | 0.20 | | 0.20 | 0.086 | ppb v/v | | | 02/16/19 02:41 | 1 |
| tert-Butyl alcohol | 5.00 | | 5.00 | 1.50 | ppb v/v | | | 02/16/19 02:41 | 1 |
| tert-Butylbenzene | 0.20 | | 0.20 | 0.058 | ppb v/v | | | 02/16/19 02:41 | 1 |
| **Tetrachloroethene** | **0.14** | **J** | 0.20 | 0.029 | ppb v/v | | | 02/16/19 02:41 | 1 |
| Tetrahydrofuran | 5.00 | | 5.00 | 2.60 | ppb v/v | | | 02/16/19 02:41 | 1 |
| **Toluene** | **0.25** | | 0.20 | 0.069 | ppb v/v | | | 02/16/19 02:41 | 1 |
| trans-1,2-Dichloroethene | 0.20 | | 0.20 | 0.074 | ppb v/v | | | 02/16/19 02:41 | 1 |
| trans-1,3-Dichloropropene | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/16/19 02:41 | 1 |

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

**Client Sample ID: IA-4-INDOOR AIR**
**Lab Sample ID: 200-47424-8**
**Date Collected: 02/13/19 12:13**
**Matrix: Air**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

### Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Trichloroethene | 0.16 | | 0.035 | 0.030 | ppb v/v | | | 02/16/19 02:41 | 1 |
| Trichlorofluoromethane | 0.23 | | 0.20 | 0.062 | ppb v/v | | | 02/16/19 02:41 | 1 |
| Vinyl chloride | 0.035 | | 0.035 | 0.041 | ppb v/v | | | 02/16/19 02:41 | 1 |

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

**Client Sample ID: IA-5-SUBSLAB**
**Date Collected: 02/13/19 10:55**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-9**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **1,1,1-Trichloroethane** | **1.37** | | 1.09 | 0.37 | ug/m3 | | | 02/16/19 17:28 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.37 | | 1.37 | 0.52 | ug/m3 | | | 02/16/19 17:28 | 1 |
| 1,1,2-Trichloroethane | 1.09 | | 1.09 | 0.43 | ug/m3 | | | 02/16/19 17:28 | 1 |
| **1,1,2-Trichlorotrifluoroethane** | **0.51** | **J** | 1.53 | 0.24 | ug/m3 | | | 02/16/19 17:28 | 1 |
| 1,1-Dichloroethane | 0.81 | | 0.81 | 0.11 | ug/m3 | | | 02/16/19 17:28 | 1 |
| 1,1-Dichloroethene | 0.14 | | 0.14 | 0.13 | ug/m3 | | | 02/16/19 17:28 | 1 |
| 1,2,4-Trichlorobenzene | 3.71 | | 3.71 | 1.78 | ug/m3 | | | 02/16/19 17:28 | 1 |
| **1,2,4-Trimethylbenzene** | **0.64** | **J** | 0.98 | 0.39 | ug/m3 | | | 02/16/19 17:28 | 1 |
| 1,2-Dibromoethane | 1.54 | | 1.54 | 0.53 | ug/m3 | | | 02/16/19 17:28 | 1 |
| 1,2-Dichlorobenzene | 1.20 | | 1.20 | 0.43 | ug/m3 | | | 02/16/19 17:28 | 1 |
| 1,2-Dichloroethane | 0.81 | | 0.81 | 0.25 | ug/m3 | | | 02/16/19 17:28 | 1 |
| 1,2-Dichloropropane | 0.92 | | 0.92 | 0.55 | ug/m3 | | | 02/16/19 17:28 | 1 |
| 1,2-Dichlorotetrafluoroethane | 1.40 | | 1.40 | 0.48 | ug/m3 | | | 02/16/19 17:28 | 1 |
| 1,3,5-Trimethylbenzene | 0.98 | | 0.98 | 0.29 | ug/m3 | | | 02/16/19 17:28 | 1 |
| 1,3-Butadiene | 0.44 | | 0.44 | 0.14 | ug/m3 | | | 02/16/19 17:28 | 1 |
| 1,3-Dichlorobenzene | 1.20 | | 1.20 | 0.49 | ug/m3 | | | 02/16/19 17:28 | 1 |
| 1,4-Dichlorobenzene | 1.20 | | 1.20 | 0.39 | ug/m3 | | | 02/16/19 17:28 | 1 |
| 1,4-Dioxane | 18.0 | | 18.0 | 4.68 | ug/m3 | | | 02/16/19 17:28 | 1 |
| 2,2,4-Trimethylpentane | 0.93 | | 0.93 | 0.41 | ug/m3 | | | 02/16/19 17:28 | 1 |
| 2-Chlorotoluene | 1.04 | | 1.04 | 0.37 | ug/m3 | | | 02/16/19 17:28 | 1 |
| 3-Chloropropene | 1.57 | | 1.57 | 0.85 | ug/m3 | | | 02/16/19 17:28 | 1 |
| 4-Ethyltoluene | 0.98 | | 0.98 | 0.34 | ug/m3 | | | 02/16/19 17:28 | 1 |
| 4-Isopropyltoluene | 1.10 | | 1.10 | 0.41 | ug/m3 | | | 02/16/19 17:28 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 2.05 | | 2.05 | 1.47 | ug/m3 | | | 02/16/19 17:28 | 1 |
| **Acetone** | **19.5** | | 11.9 | 6.18 | ug/m3 | | | 02/16/19 17:28 | 1 |
| **Benzene** | **1.27** | | 0.64 | 0.23 | ug/m3 | | | 02/16/19 17:28 | 1 |
| Benzyl chloride | 1.04 | | 1.04 | 0.62 | ug/m3 | | | 02/16/19 17:28 | 1 |
| Bromodichloromethane | 1.34 | | 1.34 | 0.63 | ug/m3 | | | 02/16/19 17:28 | 1 |
| Bromoethene(Vinyl Bromide) | 0.87 | | 0.87 | 0.24 | ug/m3 | | | 02/16/19 17:28 | 1 |
| Bromoform | 2.07 | | 2.07 | 0.89 | ug/m3 | | | 02/16/19 17:28 | 1 |
| Bromomethane | 0.78 | | 0.78 | 0.24 | ug/m3 | | | 02/16/19 17:28 | 1 |
| **Carbon disulfide** | **0.99** | **J** | 1.56 | 0.37 | ug/m3 | | | 02/16/19 17:28 | 1 |
| **Carbon tetrachloride** | **0.36** | | 0.22 | 0.15 | ug/m3 | | | 02/16/19 17:28 | 1 |
| Chlorobenzene | 0.92 | | 0.92 | 0.18 | ug/m3 | | | 02/16/19 17:28 | 1 |
| Chlorodifluoromethane | 1.77 | | 1.77 | 0.92 | ug/m3 | | | 02/16/19 17:28 | 1 |
| Chloroethane | 1.32 | | 1.32 | 0.55 | ug/m3 | | | 02/16/19 17:28 | 1 |
| Chloroform | 0.98 | | 0.98 | 0.25 | ug/m3 | | | 02/16/19 17:28 | 1 |
| Chloromethane | 1.03 | | 1.03 | 0.52 | ug/m3 | | | 02/16/19 17:28 | 1 |
| cis-1,2-Dichloroethene | 0.14 | | 0.14 | 0.15 | ug/m3 | | | 02/16/19 17:28 | 1 |
| cis-1,3-Dichloropropene | 0.91 | | 0.91 | 0.44 | ug/m3 | | | 02/16/19 17:28 | 1 |
| Cumene | 0.98 | | 0.98 | 0.29 | ug/m3 | | | 02/16/19 17:28 | 1 |
| **Cyclohexane** | **2.24** | | 0.69 | 0.22 | ug/m3 | | | 02/16/19 17:28 | 1 |
| Dibromochloromethane | 1.70 | | 1.70 | 0.60 | ug/m3 | | | 02/16/19 17:28 | 1 |
| **Dichlorodifluoromethane** | **2.37** | **J** | 2.47 | 0.99 | ug/m3 | | | 02/16/19 17:28 | 1 |
| **Ethylbenzene** | **0.58** | **J** | 0.87 | 0.32 | ug/m3 | | | 02/16/19 17:28 | 1 |
| Hexachlorobutadiene | 2.13 | | 2.13 | 0.87 | ug/m3 | | | 02/16/19 17:28 | 1 |
| Isopropyl alcohol | 12.3 | | 12.3 | 4.42 | ug/m3 | | | 02/16/19 17:28 | 1 |

**Client Sample ID: IA-5-SUBSLAB**
**Date Collected: 02/13/19 10:55**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-9**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **m,p-Xylene** | **1.92** | **J** | 2.17 | 0.30 | ug/m3 | | | 02/16/19 17:28 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 2.05 | | 2.05 | 1.72 | ug/m3 | | | 02/16/19 17:28 | 1 |
| **Methyl Ethyl Ketone (2-Butanone)** | **1.67** | | 1.47 | 0.59 | ug/m3 | | | 02/16/19 17:28 | 1 |
| Methyl methacrylate | 2.05 | | 2.05 | 0.90 | ug/m3 | | | 02/16/19 17:28 | 1 |
| Methyl tert-butyl ether | 0.72 | | 0.72 | 0.22 | ug/m3 | | | 02/16/19 17:28 | 1 |
| **Methylene Chloride** | **1.40** | **J** | 1.74 | 0.69 | ug/m3 | | | 02/16/19 17:28 | 1 |
| Naphthalene | 2.62 | | 2.62 | 1.63 | ug/m3 | | | 02/16/19 17:28 | 1 |
| **n-Butane** | **10.3** | | 1.19 | 0.74 | ug/m3 | | | 02/16/19 17:28 | 1 |
| n-Butylbenzene | 1.10 | | 1.10 | 0.44 | ug/m3 | | | 02/16/19 17:28 | 1 |
| **n-Heptane** | **3.45** | | 0.82 | 0.57 | ug/m3 | | | 02/16/19 17:28 | 1 |
| **n-Hexane** | **6.09** | | 0.70 | 0.56 | ug/m3 | | | 02/16/19 17:28 | 1 |
| n-Propylbenzene | 0.98 | | 0.98 | 0.34 | ug/m3 | | | 02/16/19 17:28 | 1 |
| **o-Xylene** | **0.81** | **J** | 0.87 | 0.31 | ug/m3 | | | 02/16/19 17:28 | 1 |
| sec-Butylbenzene | 1.10 | | 1.10 | 0.36 | ug/m3 | | | 02/16/19 17:28 | 1 |
| **Styrene** | **0.61** | **J** | 0.85 | 0.37 | ug/m3 | | | 02/16/19 17:28 | 1 |
| tert-Butyl alcohol | 15.2 | | 15.2 | 4.55 | ug/m3 | | | 02/16/19 17:28 | 1 |
| tert-Butylbenzene | 1.10 | | 1.10 | 0.32 | ug/m3 | | | 02/16/19 17:28 | 1 |
| **Tetrachloroethene** | **2.89** | | 1.36 | 0.20 | ug/m3 | | | 02/16/19 17:28 | 1 |
| Tetrahydrofuran | 14.7 | | 14.7 | 7.67 | ug/m3 | | | 02/16/19 17:28 | 1 |
| **Toluene** | **3.71** | | 0.75 | 0.26 | ug/m3 | | | 02/16/19 17:28 | 1 |
| trans-1,2-Dichloroethene | 0.79 | | 0.79 | 0.29 | ug/m3 | | | 02/16/19 17:28 | 1 |
| trans-1,3-Dichloropropene | 0.91 | | 0.91 | 0.54 | ug/m3 | | | 02/16/19 17:28 | 1 |
| **Trichloroethene** | **1.59** | | 0.19 | 0.16 | ug/m3 | | | 02/16/19 17:28 | 1 |
| **Trichlorofluoromethane** | **1.14** | | 1.12 | 0.35 | ug/m3 | | | 02/16/19 17:28 | 1 |
| Vinyl chloride | 0.090 | | 0.090 | 0.10 | ug/m3 | | | 02/16/19 17:28 | 1 |

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **1,1,1-Trichloroethane** | **0.25** | | 0.20 | 0.068 | ppb v/v | | | 02/16/19 17:28 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.20 | | 0.20 | 0.076 | ppb v/v | | | 02/16/19 17:28 | 1 |
| 1,1,2-Trichloroethane | 0.20 | | 0.20 | 0.078 | ppb v/v | | | 02/16/19 17:28 | 1 |
| **1,1,2-Trichlorotrifluoroethane** | **0.067** | **J** | 0.20 | 0.031 | ppb v/v | | | 02/16/19 17:28 | 1 |
| 1,1-Dichloroethane | 0.20 | | 0.20 | 0.026 | ppb v/v | | | 02/16/19 17:28 | 1 |
| 1,1-Dichloroethene | 0.035 | | 0.035 | 0.034 | ppb v/v | | | 02/16/19 17:28 | 1 |
| 1,2,4-Trichlorobenzene | 0.50 | | 0.50 | 0.24 | ppb v/v | | | 02/16/19 17:28 | 1 |
| **1,2,4-Trimethylbenzene** | **0.13** | **J** | 0.20 | 0.080 | ppb v/v | | | 02/16/19 17:28 | 1 |
| 1,2-Dibromoethane | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/16/19 17:28 | 1 |
| 1,2-Dichlorobenzene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 17:28 | 1 |
| 1,2-Dichloroethane | 0.20 | | 0.20 | 0.063 | ppb v/v | | | 02/16/19 17:28 | 1 |
| 1,2-Dichloropropane | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/16/19 17:28 | 1 |
| 1,2-Dichlorotetrafluoroethane | 0.20 | | 0.20 | 0.068 | ppb v/v | | | 02/16/19 17:28 | 1 |
| 1,3,5-Trimethylbenzene | 0.20 | | 0.20 | 0.058 | ppb v/v | | | 02/16/19 17:28 | 1 |
| 1,3-Butadiene | 0.20 | | 0.20 | 0.065 | ppb v/v | | | 02/16/19 17:28 | 1 |
| 1,3-Dichlorobenzene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/16/19 17:28 | 1 |
| 1,4-Dichlorobenzene | 0.20 | | 0.20 | 0.065 | ppb v/v | | | 02/16/19 17:28 | 1 |
| 1,4-Dioxane | 5.00 | | 5.00 | 1.30 | ppb v/v | | | 02/16/19 17:28 | 1 |
| 2,2,4-Trimethylpentane | 0.20 | | 0.20 | 0.088 | ppb v/v | | | 02/16/19 17:28 | 1 |
| 2-Chlorotoluene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 17:28 | 1 |
| 3-Chloropropene | 0.50 | | 0.50 | 0.27 | ppb v/v | | | 02/16/19 17:28 | 1 |
| 4-Ethyltoluene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/16/19 17:28 | 1 |

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

**Client Sample ID: IA-5-SUBSLAB**
**Date Collected: 02/13/19 10:55**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-9**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Isopropyltoluene | 0.20 | | 0.20 | 0.075 | ppb v/v | | | 02/16/19 17:28 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 0.50 | | 0.50 | 0.36 | ppb v/v | | | 02/16/19 17:28 | 1 |
| **Acetone** | **8.20** | | 5.00 | 2.60 | ppb v/v | | | 02/16/19 17:28 | 1 |
| **Benzene** | **0.40** | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 17:28 | 1 |
| Benzyl chloride | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/16/19 17:28 | 1 |
| Bromodichloromethane | 0.20 | | 0.20 | 0.094 | ppb v/v | | | 02/16/19 17:28 | 1 |
| Bromoethene(Vinyl Bromide) | 0.20 | | 0.20 | 0.056 | ppb v/v | | | 02/16/19 17:28 | 1 |
| Bromoform | 0.20 | | 0.20 | 0.086 | ppb v/v | | | 02/16/19 17:28 | 1 |
| Bromomethane | 0.20 | | 0.20 | 0.062 | ppb v/v | | | 02/16/19 17:28 | 1 |
| **Carbon disulfide** | **0.32** | **J** | 0.50 | 0.12 | ppb v/v | | | 02/16/19 17:28 | 1 |
| **Carbon tetrachloride** | **0.057** | | 0.035 | 0.024 | ppb v/v | | | 02/16/19 17:28 | 1 |
| Chlorobenzene | 0.20 | | 0.20 | 0.040 | ppb v/v | | | 02/16/19 17:28 | 1 |
| Chlorodifluoromethane | 0.50 | | 0.50 | 0.26 | ppb v/v | | | 02/16/19 17:28 | 1 |
| Chloroethane | 0.50 | | 0.50 | 0.21 | ppb v/v | | | 02/16/19 17:28 | 1 |
| Chloroform | 0.20 | | 0.20 | 0.052 | ppb v/v | | | 02/16/19 17:28 | 1 |
| Chloromethane | 0.50 | | 0.50 | 0.25 | ppb v/v | | | 02/16/19 17:28 | 1 |
| cis-1,2-Dichloroethene | 0.035 | | 0.035 | 0.037 | ppb v/v | | | 02/16/19 17:28 | 1 |
| cis-1,3-Dichloropropene | 0.20 | | 0.20 | 0.098 | ppb v/v | | | 02/16/19 17:28 | 1 |
| Cumene | 0.20 | | 0.20 | 0.059 | ppb v/v | | | 02/16/19 17:28 | 1 |
| **Cyclohexane** | **0.65** | | 0.20 | 0.063 | ppb v/v | | | 02/16/19 17:28 | 1 |
| Dibromochloromethane | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 17:28 | 1 |
| **Dichlorodifluoromethane** | **0.48** | **J** | 0.50 | 0.20 | ppb v/v | | | 02/16/19 17:28 | 1 |
| **Ethylbenzene** | **0.13** | **J** | 0.20 | 0.073 | ppb v/v | | | 02/16/19 17:28 | 1 |
| Hexachlorobutadiene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/16/19 17:28 | 1 |
| Isopropyl alcohol | 5.00 | | 5.00 | 1.80 | ppb v/v | | | 02/16/19 17:28 | 1 |
| **m,p-Xylene** | **0.44** | **J** | 0.50 | 0.070 | ppb v/v | | | 02/16/19 17:28 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 0.50 | | 0.50 | 0.42 | ppb v/v | | | 02/16/19 17:28 | 1 |
| **Methyl Ethyl Ketone (2-Butanone)** | **0.57** | | 0.50 | 0.20 | ppb v/v | | | 02/16/19 17:28 | 1 |
| Methyl methacrylate | 0.50 | | 0.50 | 0.22 | ppb v/v | | | 02/16/19 17:28 | 1 |
| Methyl tert-butyl ether | 0.20 | | 0.20 | 0.061 | ppb v/v | | | 02/16/19 17:28 | 1 |
| **Methylene Chloride** | **0.40** | **J** | 0.50 | 0.20 | ppb v/v | | | 02/16/19 17:28 | 1 |
| Naphthalene | 0.50 | | 0.50 | 0.31 | ppb v/v | | | 02/16/19 17:28 | 1 |
| **n-Butane** | **4.33** | | 0.50 | 0.31 | ppb v/v | | | 02/16/19 17:28 | 1 |
| n-Butylbenzene | 0.20 | | 0.20 | 0.080 | ppb v/v | | | 02/16/19 17:28 | 1 |
| **n-Heptane** | **0.84** | | 0.20 | 0.14 | ppb v/v | | | 02/16/19 17:28 | 1 |
| **n-Hexane** | **1.73** | | 0.20 | 0.16 | ppb v/v | | | 02/16/19 17:28 | 1 |
| n-Propylbenzene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/16/19 17:28 | 1 |
| **o-Xylene** | **0.19** | **J** | 0.20 | 0.071 | ppb v/v | | | 02/16/19 17:28 | 1 |
| sec-Butylbenzene | 0.20 | | 0.20 | 0.066 | ppb v/v | | | 02/16/19 17:28 | 1 |
| **Styrene** | **0.14** | **J** | 0.20 | 0.086 | ppb v/v | | | 02/16/19 17:28 | 1 |
| tert-Butyl alcohol | 5.00 | | 5.00 | 1.50 | ppb v/v | | | 02/16/19 17:28 | 1 |
| tert-Butylbenzene | 0.20 | | 0.20 | 0.058 | ppb v/v | | | 02/16/19 17:28 | 1 |
| **Tetrachloroethene** | **0.43** | | 0.20 | 0.029 | ppb v/v | | | 02/16/19 17:28 | 1 |
| Tetrahydrofuran | 5.00 | | 5.00 | 2.60 | ppb v/v | | | 02/16/19 17:28 | 1 |
| **Toluene** | **0.98** | | 0.20 | 0.069 | ppb v/v | | | 02/16/19 17:28 | 1 |
| trans-1,2-Dichloroethene | 0.20 | | 0.20 | 0.074 | ppb v/v | | | 02/16/19 17:28 | 1 |
| trans-1,3-Dichloropropene | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/16/19 17:28 | 1 |

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

**Client Sample ID: IA-5-SUBSLAB**
**Date Collected: 02/13/19 10:55**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-9**
**Matrix: Air**

### Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Trichloroethene | 0.30 | | 0.035 | 0.030 | ppb v/v | | | 02/16/19 17:28 | 1 |
| Trichlorofluoromethane | 0.20 | | 0.20 | 0.062 | ppb v/v | | | 02/16/19 17:28 | 1 |
| Vinyl chloride | 0.035 | | 0.035 | 0.041 | ppb v/v | | | 02/16/19 17:28 | 1 |

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

**Client Sample ID: IA-5-INDOOR AIR**
**Date Collected: 02/13/19 09:46**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-10**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.09 | | 1.09 | 0.37 | ug/m3 | | | 02/16/19 18:20 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.37 | | 1.37 | 0.52 | ug/m3 | | | 02/16/19 18:20 | 1 |
| 1,1,2-Trichloroethane | 1.09 | | 1.09 | 0.43 | ug/m3 | | | 02/16/19 18:20 | 1 |
| **1,1,2-Trichlorotrifluoroethane** | **0.49** | **J** | 1.53 | 0.24 | ug/m3 | | | 02/16/19 18:20 | 1 |
| 1,1-Dichloroethane | 0.81 | | 0.81 | 0.11 | ug/m3 | | | 02/16/19 18:20 | 1 |
| 1,1-Dichloroethene | 0.14 | | 0.14 | 0.13 | ug/m3 | | | 02/16/19 18:20 | 1 |
| 1,2,4-Trichlorobenzene | 3.71 | | 3.71 | 1.78 | ug/m3 | | | 02/16/19 18:20 | 1 |
| 1,2,4-Trimethylbenzene | 0.98 | | 0.98 | 0.39 | ug/m3 | | | 02/16/19 18:20 | 1 |
| 1,2-Dibromoethane | 1.54 | | 1.54 | 0.53 | ug/m3 | | | 02/16/19 18:20 | 1 |
| 1,2-Dichlorobenzene | 1.20 | | 1.20 | 0.43 | ug/m3 | | | 02/16/19 18:20 | 1 |
| 1,2-Dichloroethane | 0.81 | | 0.81 | 0.25 | ug/m3 | | | 02/16/19 18:20 | 1 |
| 1,2-Dichloropropane | 0.92 | | 0.92 | 0.55 | ug/m3 | | | 02/16/19 18:20 | 1 |
| 1,2-Dichlorotetrafluoroethane | 1.40 | | 1.40 | 0.48 | ug/m3 | | | 02/16/19 18:20 | 1 |
| 1,3,5-Trimethylbenzene | 0.98 | | 0.98 | 0.29 | ug/m3 | | | 02/16/19 18:20 | 1 |
| 1,3-Butadiene | 0.44 | | 0.44 | 0.14 | ug/m3 | | | 02/16/19 18:20 | 1 |
| 1,3-Dichlorobenzene | 1.20 | | 1.20 | 0.49 | ug/m3 | | | 02/16/19 18:20 | 1 |
| 1,4-Dichlorobenzene | 1.20 | | 1.20 | 0.39 | ug/m3 | | | 02/16/19 18:20 | 1 |
| 1,4-Dioxane | 18.0 | | 18.0 | 4.68 | ug/m3 | | | 02/16/19 18:20 | 1 |
| 2,2,4-Trimethylpentane | 0.93 | | 0.93 | 0.41 | ug/m3 | | | 02/16/19 18:20 | 1 |
| 2-Chlorotoluene | 1.04 | | 1.04 | 0.37 | ug/m3 | | | 02/16/19 18:20 | 1 |
| 3-Chloropropene | 1.57 | | 1.57 | 0.85 | ug/m3 | | | 02/16/19 18:20 | 1 |
| 4-Ethyltoluene | 0.98 | | 0.98 | 0.34 | ug/m3 | | | 02/16/19 18:20 | 1 |
| 4-Isopropyltoluene | 1.10 | | 1.10 | 0.41 | ug/m3 | | | 02/16/19 18:20 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 2.05 | | 2.05 | 1.47 | ug/m3 | | | 02/16/19 18:20 | 1 |
| **Acetone** | **6.38** | **J** | 11.9 | 6.18 | ug/m3 | | | 02/16/19 18:20 | 1 |
| **Benzene** | **0.68** | | 0.64 | 0.23 | ug/m3 | | | 02/16/19 18:20 | 1 |
| Benzyl chloride | 1.04 | | 1.04 | 0.62 | ug/m3 | | | 02/16/19 18:20 | 1 |
| Bromodichloromethane | 1.34 | | 1.34 | 0.63 | ug/m3 | | | 02/16/19 18:20 | 1 |
| Bromoethene(Vinyl Bromide) | 0.87 | | 0.87 | 0.24 | ug/m3 | | | 02/16/19 18:20 | 1 |
| Bromoform | 2.07 | | 2.07 | 0.89 | ug/m3 | | | 02/16/19 18:20 | 1 |
| Bromomethane | 0.78 | | 0.78 | 0.24 | ug/m3 | | | 02/16/19 18:20 | 1 |
| Carbon disulfide | 1.56 | | 1.56 | 0.37 | ug/m3 | | | 02/16/19 18:20 | 1 |
| **Carbon tetrachloride** | **0.41** | | 0.22 | 0.15 | ug/m3 | | | 02/16/19 18:20 | 1 |
| Chlorobenzene | 0.92 | | 0.92 | 0.18 | ug/m3 | | | 02/16/19 18:20 | 1 |
| **Chlorodifluoromethane** | **1.04** | **J** | 1.77 | 0.92 | ug/m3 | | | 02/16/19 18:20 | 1 |
| Chloroethane | 1.32 | | 1.32 | 0.55 | ug/m3 | | | 02/16/19 18:20 | 1 |
| Chloroform | 0.98 | | 0.98 | 0.25 | ug/m3 | | | 02/16/19 18:20 | 1 |
| **Chloromethane** | **1.10** | | 1.03 | 0.52 | ug/m3 | | | 02/16/19 18:20 | 1 |
| cis-1,2-Dichloroethene | 0.14 | | 0.14 | 0.15 | ug/m3 | | | 02/16/19 18:20 | 1 |
| cis-1,3-Dichloropropene | 0.91 | | 0.91 | 0.44 | ug/m3 | | | 02/16/19 18:20 | 1 |
| Cumene | 0.98 | | 0.98 | 0.29 | ug/m3 | | | 02/16/19 18:20 | 1 |
| Cyclohexane | 0.69 | | 0.69 | 0.22 | ug/m3 | | | 02/16/19 18:20 | 1 |
| Dibromochloromethane | 1.70 | | 1.70 | 0.60 | ug/m3 | | | 02/16/19 18:20 | 1 |
| **Dichlorodifluoromethane** | **2.32** | **J** | 2.47 | 0.99 | ug/m3 | | | 02/16/19 18:20 | 1 |
| Ethylbenzene | 0.87 | | 0.87 | 0.32 | ug/m3 | | | 02/16/19 18:20 | 1 |
| Hexachlorobutadiene | 2.13 | | 2.13 | 0.87 | ug/m3 | | | 02/16/19 18:20 | 1 |
| Isopropyl alcohol | 12.3 | | 12.3 | 4.42 | ug/m3 | | | 02/16/19 18:20 | 1 |

**Client Sample ID: IA-5-INDOOR AIR**
**Date Collected: 02/13/19 09:46**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-10**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **m,p-Xylene** | **0.44** | **J** | 2.17 | 0.30 | ug/m3 | | | 02/16/19 18:20 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 2.05 | | 2.05 | 1.72 | ug/m3 | | | 02/16/19 18:20 | 1 |
| Methyl Ethyl Ketone (2-Butanone) | 1.47 | | 1.47 | 0.59 | ug/m3 | | | 02/16/19 18:20 | 1 |
| Methyl methacrylate | 2.05 | | 2.05 | 0.90 | ug/m3 | | | 02/16/19 18:20 | 1 |
| Methyl tert-butyl ether | 0.72 | | 0.72 | 0.22 | ug/m3 | | | 02/16/19 18:20 | 1 |
| Methylene Chloride | 1.74 | | 1.74 | 0.69 | ug/m3 | | | 02/16/19 18:20 | 1 |
| Naphthalene | 2.62 | | 2.62 | 1.63 | ug/m3 | | | 02/16/19 18:20 | 1 |
| **n-Butane** | **3.79** | | 1.19 | 0.74 | ug/m3 | | | 02/16/19 18:20 | 1 |
| n-Butylbenzene | 1.10 | | 1.10 | 0.44 | ug/m3 | | | 02/16/19 18:20 | 1 |
| n-Heptane | 0.82 | | 0.82 | 0.57 | ug/m3 | | | 02/16/19 18:20 | 1 |
| **n-Hexane** | **0.79** | | 0.70 | 0.56 | ug/m3 | | | 02/16/19 18:20 | 1 |
| n-Propylbenzene | 0.98 | | 0.98 | 0.34 | ug/m3 | | | 02/16/19 18:20 | 1 |
| o-Xylene | 0.87 | | 0.87 | 0.31 | ug/m3 | | | 02/16/19 18:20 | 1 |
| sec-Butylbenzene | 1.10 | | 1.10 | 0.36 | ug/m3 | | | 02/16/19 18:20 | 1 |
| Styrene | 0.85 | | 0.85 | 0.37 | ug/m3 | | | 02/16/19 18:20 | 1 |
| tert-Butyl alcohol | 15.2 | | 15.2 | 4.55 | ug/m3 | | | 02/16/19 18:20 | 1 |
| tert-Butylbenzene | 1.10 | | 1.10 | 0.32 | ug/m3 | | | 02/16/19 18:20 | 1 |
| **Tetrachloroethene** | **4.26** | | 1.36 | 0.20 | ug/m3 | | | 02/16/19 18:20 | 1 |
| Tetrahydrofuran | 14.7 | | 14.7 | 7.67 | ug/m3 | | | 02/16/19 18:20 | 1 |
| **Toluene** | **0.77** | | 0.75 | 0.26 | ug/m3 | | | 02/16/19 18:20 | 1 |
| trans-1,2-Dichloroethene | 0.79 | | 0.79 | 0.29 | ug/m3 | | | 02/16/19 18:20 | 1 |
| trans-1,3-Dichloropropene | 0.91 | | 0.91 | 0.54 | ug/m3 | | | 02/16/19 18:20 | 1 |
| **Trichloroethene** | **1.52** | | 0.19 | 0.16 | ug/m3 | | | 02/16/19 18:20 | 1 |
| **Trichlorofluoromethane** | **1.18** | | 1.12 | 0.35 | ug/m3 | | | 02/16/19 18:20 | 1 |
| Vinyl chloride | 0.090 | | 0.090 | 0.10 | ug/m3 | | | 02/16/19 18:20 | 1 |

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.20 | | 0.20 | 0.068 | ppb v/v | | | 02/16/19 18:20 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.20 | | 0.20 | 0.076 | ppb v/v | | | 02/16/19 18:20 | 1 |
| 1,1,2-Trichloroethane | 0.20 | | 0.20 | 0.078 | ppb v/v | | | 02/16/19 18:20 | 1 |
| **1,1,2-Trichlorotrifluoroethane** | **0.064** | **J** | 0.20 | 0.031 | ppb v/v | | | 02/16/19 18:20 | 1 |
| 1,1-Dichloroethane | 0.20 | | 0.20 | 0.026 | ppb v/v | | | 02/16/19 18:20 | 1 |
| 1,1-Dichloroethene | 0.035 | | 0.035 | 0.034 | ppb v/v | | | 02/16/19 18:20 | 1 |
| 1,2,4-Trichlorobenzene | 0.50 | | 0.50 | 0.24 | ppb v/v | | | 02/16/19 18:20 | 1 |
| 1,2,4-Trimethylbenzene | 0.20 | | 0.20 | 0.080 | ppb v/v | | | 02/16/19 18:20 | 1 |
| 1,2-Dibromoethane | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/16/19 18:20 | 1 |
| 1,2-Dichlorobenzene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 18:20 | 1 |
| 1,2-Dichloroethane | 0.20 | | 0.20 | 0.063 | ppb v/v | | | 02/16/19 18:20 | 1 |
| 1,2-Dichloropropane | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/16/19 18:20 | 1 |
| 1,2-Dichlorotetrafluoroethane | 0.20 | | 0.20 | 0.068 | ppb v/v | | | 02/16/19 18:20 | 1 |
| 1,3,5-Trimethylbenzene | 0.20 | | 0.20 | 0.058 | ppb v/v | | | 02/16/19 18:20 | 1 |
| 1,3-Butadiene | 0.20 | | 0.20 | 0.065 | ppb v/v | | | 02/16/19 18:20 | 1 |
| 1,3-Dichlorobenzene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/16/19 18:20 | 1 |
| 1,4-Dichlorobenzene | 0.20 | | 0.20 | 0.065 | ppb v/v | | | 02/16/19 18:20 | 1 |
| 1,4-Dioxane | 5.00 | | 5.00 | 1.30 | ppb v/v | | | 02/16/19 18:20 | 1 |
| 2,2,4-Trimethylpentane | 0.20 | | 0.20 | 0.088 | ppb v/v | | | 02/16/19 18:20 | 1 |
| 2-Chlorotoluene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 18:20 | 1 |
| 3-Chloropropene | 0.50 | | 0.50 | 0.27 | ppb v/v | | | 02/16/19 18:20 | 1 |
| 4-Ethyltoluene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/16/19 18:20 | 1 |

## Client Sample ID: IA-5-INDOOR AIR

**Date Collected: 02/13/19 09:46**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

## Lab Sample ID: 200-47424-10

**Matrix: Air**

### Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Isopropyltoluene | 0.20 | | 0.20 | 0.075 | ppb v/v | | | 02/16/19 18:20 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 0.50 | | 0.50 | 0.36 | ppb v/v | | | 02/16/19 18:20 | 1 |
| **Acetone** | **2.69** | **J** | 5.00 | 2.60 | ppb v/v | | | 02/16/19 18:20 | 1 |
| **Benzene** | **0.21** | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 18:20 | 1 |
| Benzyl chloride | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/16/19 18:20 | 1 |
| Bromodichloromethane | 0.20 | | 0.20 | 0.094 | ppb v/v | | | 02/16/19 18:20 | 1 |
| Bromoethene(Vinyl Bromide) | 0.20 | | 0.20 | 0.056 | ppb v/v | | | 02/16/19 18:20 | 1 |
| Bromoform | 0.20 | | 0.20 | 0.086 | ppb v/v | | | 02/16/19 18:20 | 1 |
| Bromomethane | 0.20 | | 0.20 | 0.062 | ppb v/v | | | 02/16/19 18:20 | 1 |
| Carbon disulfide | 0.50 | | 0.50 | 0.12 | ppb v/v | | | 02/16/19 18:20 | 1 |
| **Carbon tetrachloride** | **0.064** | | 0.035 | 0.024 | ppb v/v | | | 02/16/19 18:20 | 1 |
| Chlorobenzene | 0.20 | | 0.20 | 0.040 | ppb v/v | | | 02/16/19 18:20 | 1 |
| **Chlorodifluoromethane** | **0.29** | **J** | 0.50 | 0.26 | ppb v/v | | | 02/16/19 18:20 | 1 |
| Chloroethane | 0.50 | | 0.50 | 0.21 | ppb v/v | | | 02/16/19 18:20 | 1 |
| Chloroform | 0.20 | | 0.20 | 0.052 | ppb v/v | | | 02/16/19 18:20 | 1 |
| **Chloromethane** | **0.53** | | 0.50 | 0.25 | ppb v/v | | | 02/16/19 18:20 | 1 |
| cis-1,2-Dichloroethene | 0.035 | | 0.035 | 0.037 | ppb v/v | | | 02/16/19 18:20 | 1 |
| cis-1,3-Dichloropropene | 0.20 | | 0.20 | 0.098 | ppb v/v | | | 02/16/19 18:20 | 1 |
| Cumene | 0.20 | | 0.20 | 0.059 | ppb v/v | | | 02/16/19 18:20 | 1 |
| Cyclohexane | 0.20 | | 0.20 | 0.063 | ppb v/v | | | 02/16/19 18:20 | 1 |
| Dibromochloromethane | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 18:20 | 1 |
| **Dichlorodifluoromethane** | **0.47** | **J** | 0.50 | 0.20 | ppb v/v | | | 02/16/19 18:20 | 1 |
| Ethylbenzene | 0.20 | | 0.20 | 0.073 | ppb v/v | | | 02/16/19 18:20 | 1 |
| Hexachlorobutadiene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/16/19 18:20 | 1 |
| Isopropyl alcohol | 5.00 | | 5.00 | 1.80 | ppb v/v | | | 02/16/19 18:20 | 1 |
| **m,p-Xylene** | **0.10** | **J** | 0.50 | 0.070 | ppb v/v | | | 02/16/19 18:20 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 0.50 | | 0.50 | 0.42 | ppb v/v | | | 02/16/19 18:20 | 1 |
| Methyl Ethyl Ketone (2-Butanone) | 0.50 | | 0.50 | 0.20 | ppb v/v | | | 02/16/19 18:20 | 1 |
| Methyl methacrylate | 0.50 | | 0.50 | 0.22 | ppb v/v | | | 02/16/19 18:20 | 1 |
| Methyl tert-butyl ether | 0.20 | | 0.20 | 0.061 | ppb v/v | | | 02/16/19 18:20 | 1 |
| Methylene Chloride | 0.50 | | 0.50 | 0.20 | ppb v/v | | | 02/16/19 18:20 | 1 |
| Naphthalene | 0.50 | | 0.50 | 0.31 | ppb v/v | | | 02/16/19 18:20 | 1 |
| **n-Butane** | **1.59** | | 0.50 | 0.31 | ppb v/v | | | 02/16/19 18:20 | 1 |
| n-Butylbenzene | 0.20 | | 0.20 | 0.080 | ppb v/v | | | 02/16/19 18:20 | 1 |
| n-Heptane | 0.20 | | 0.20 | 0.14 | ppb v/v | | | 02/16/19 18:20 | 1 |
| **n-Hexane** | **0.22** | | 0.20 | 0.16 | ppb v/v | | | 02/16/19 18:20 | 1 |
| n-Propylbenzene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/16/19 18:20 | 1 |
| o-Xylene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 18:20 | 1 |
| sec-Butylbenzene | 0.20 | | 0.20 | 0.066 | ppb v/v | | | 02/16/19 18:20 | 1 |
| Styrene | 0.20 | | 0.20 | 0.086 | ppb v/v | | | 02/16/19 18:20 | 1 |
| tert-Butyl alcohol | 5.00 | | 5.00 | 1.50 | ppb v/v | | | 02/16/19 18:20 | 1 |
| tert-Butylbenzene | 0.20 | | 0.20 | 0.058 | ppb v/v | | | 02/16/19 18:20 | 1 |
| **Tetrachloroethene** | **0.63** | | 0.20 | 0.029 | ppb v/v | | | 02/16/19 18:20 | 1 |
| Tetrahydrofuran | 5.00 | | 5.00 | 2.60 | ppb v/v | | | 02/16/19 18:20 | 1 |
| **Toluene** | **0.20** | | 0.20 | 0.069 | ppb v/v | | | 02/16/19 18:20 | 1 |
| trans-1,2-Dichloroethene | 0.20 | | 0.20 | 0.074 | ppb v/v | | | 02/16/19 18:20 | 1 |
| trans-1,3-Dichloropropene | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/16/19 18:20 | 1 |

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

**Client Sample ID: IA-5-INDOOR AIR**
**Lab Sample ID: 200-47424-10**
**Date Collected: 02/13/19 09:46**
**Matrix: Air**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

### Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Trichloroethene | 0.28 | | 0.035 | 0.030 | ppb v/v | | | 02/16/19 18:20 | 1 |
| Trichlorofluoromethane | 0.21 | | 0.20 | 0.062 | ppb v/v | | | 02/16/19 18:20 | 1 |
| Vinyl chloride | 0.035 | | 0.035 | 0.041 | ppb v/v | | | 02/16/19 18:20 | 1 |

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

**Client Sample ID: IA-6-SUBSLAB**
**Date Collected: 02/13/19 11:06**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-11**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.09 | | 1.09 | 0.37 | ug/m3 | | | 02/16/19 05:06 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.37 | | 1.37 | 0.52 | ug/m3 | | | 02/16/19 05:06 | 1 |
| 1,1,2-Trichloroethane | 1.09 | | 1.09 | 0.43 | ug/m3 | | | 02/16/19 05:06 | 1 |
| **1,1,2-Trichlorotrifluoroethane** | **0.48** | **J** | 1.53 | 0.24 | ug/m3 | | | 02/16/19 05:06 | 1 |
| 1,1-Dichloroethane | 0.81 | | 0.81 | 0.11 | ug/m3 | | | 02/16/19 05:06 | 1 |
| 1,1-Dichloroethene | 0.14 | | 0.14 | 0.13 | ug/m3 | | | 02/16/19 05:06 | 1 |
| 1,2,4-Trichlorobenzene | 3.71 | * | 3.71 | 1.78 | ug/m3 | | | 02/16/19 05:06 | 1 |
| 1,2,4-Trimethylbenzene | 0.98 | | 0.98 | 0.39 | ug/m3 | | | 02/16/19 05:06 | 1 |
| 1,2-Dibromoethane | 1.54 | | 1.54 | 0.53 | ug/m3 | | | 02/16/19 05:06 | 1 |
| 1,2-Dichlorobenzene | 1.20 | | 1.20 | 0.43 | ug/m3 | | | 02/16/19 05:06 | 1 |
| 1,2-Dichloroethane | 0.81 | | 0.81 | 0.25 | ug/m3 | | | 02/16/19 05:06 | 1 |
| 1,2-Dichloropropane | 0.92 | | 0.92 | 0.55 | ug/m3 | | | 02/16/19 05:06 | 1 |
| 1,2-Dichlorotetrafluoroethane | 1.40 | | 1.40 | 0.48 | ug/m3 | | | 02/16/19 05:06 | 1 |
| 1,3,5-Trimethylbenzene | 0.98 | | 0.98 | 0.29 | ug/m3 | | | 02/16/19 05:06 | 1 |
| 1,3-Butadiene | 0.44 | | 0.44 | 0.14 | ug/m3 | | | 02/16/19 05:06 | 1 |
| 1,3-Dichlorobenzene | 1.20 | | 1.20 | 0.49 | ug/m3 | | | 02/16/19 05:06 | 1 |
| 1,4-Dichlorobenzene | 1.20 | | 1.20 | 0.39 | ug/m3 | | | 02/16/19 05:06 | 1 |
| 1,4-Dioxane | 18.0 | | 18.0 | 4.68 | ug/m3 | | | 02/16/19 05:06 | 1 |
| 2,2,4-Trimethylpentane | 0.93 | | 0.93 | 0.41 | ug/m3 | | | 02/16/19 05:06 | 1 |
| 2-Chlorotoluene | 1.04 | | 1.04 | 0.37 | ug/m3 | | | 02/16/19 05:06 | 1 |
| 3-Chloropropene | 1.57 | | 1.57 | 0.85 | ug/m3 | | | 02/16/19 05:06 | 1 |
| 4-Ethyltoluene | 0.98 | | 0.98 | 0.34 | ug/m3 | | | 02/16/19 05:06 | 1 |
| 4-Isopropyltoluene | 1.10 | | 1.10 | 0.41 | ug/m3 | | | 02/16/19 05:06 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 2.05 | | 2.05 | 1.47 | ug/m3 | | | 02/16/19 05:06 | 1 |
| Acetone | 11.9 | | 11.9 | 6.18 | ug/m3 | | | 02/16/19 05:06 | 1 |
| **Benzene** | **0.56** | **J** | 0.64 | 0.23 | ug/m3 | | | 02/16/19 05:06 | 1 |
| Benzyl chloride | 1.04 | | 1.04 | 0.62 | ug/m3 | | | 02/16/19 05:06 | 1 |
| Bromodichloromethane | 1.34 | | 1.34 | 0.63 | ug/m3 | | | 02/16/19 05:06 | 1 |
| Bromoethene(Vinyl Bromide) | 0.87 | | 0.87 | 0.24 | ug/m3 | | | 02/16/19 05:06 | 1 |
| Bromoform | 2.07 | | 2.07 | 0.89 | ug/m3 | | | 02/16/19 05:06 | 1 |
| Bromomethane | 0.78 | | 0.78 | 0.24 | ug/m3 | | | 02/16/19 05:06 | 1 |
| Carbon disulfide | 1.56 | | 1.56 | 0.37 | ug/m3 | | | 02/16/19 05:06 | 1 |
| **Carbon tetrachloride** | **0.38** | | 0.22 | 0.15 | ug/m3 | | | 02/16/19 05:06 | 1 |
| Chlorobenzene | 0.92 | | 0.92 | 0.18 | ug/m3 | | | 02/16/19 05:06 | 1 |
| Chlorodifluoromethane | 1.77 | | 1.77 | 0.92 | ug/m3 | | | 02/16/19 05:06 | 1 |
| Chloroethane | 1.32 | | 1.32 | 0.55 | ug/m3 | | | 02/16/19 05:06 | 1 |
| Chloroform | 0.98 | | 0.98 | 0.25 | ug/m3 | | | 02/16/19 05:06 | 1 |
| **Chloromethane** | **1.0** | **J** | 1.03 | 0.52 | ug/m3 | | | 02/16/19 05:06 | 1 |
| cis-1,2-Dichloroethene | 0.14 | | 0.14 | 0.15 | ug/m3 | | | 02/16/19 05:06 | 1 |
| cis-1,3-Dichloropropene | 0.91 | | 0.91 | 0.44 | ug/m3 | | | 02/16/19 05:06 | 1 |
| Cumene | 0.98 | | 0.98 | 0.29 | ug/m3 | | | 02/16/19 05:06 | 1 |
| **Cyclohexane** | **0.39** | **J** | 0.69 | 0.22 | ug/m3 | | | 02/16/19 05:06 | 1 |
| Dibromochloromethane | 1.70 | | 1.70 | 0.60 | ug/m3 | | | 02/16/19 05:06 | 1 |
| **Dichlorodifluoromethane** | **2.21** | **J** | 2.47 | 0.99 | ug/m3 | | | 02/16/19 05:06 | 1 |
| Ethylbenzene | 0.87 | | 0.87 | 0.32 | ug/m3 | | | 02/16/19 05:06 | 1 |
| Hexachlorobutadiene | 2.13 | | 2.13 | 0.87 | ug/m3 | | | 02/16/19 05:06 | 1 |
| Isopropyl alcohol | 12.3 | | 12.3 | 4.42 | ug/m3 | | | 02/16/19 05:06 | 1 |

**Client Sample ID: IA-6-SUBSLAB**
**Date Collected: 02/13/19 11:06**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-11**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **m,p-Xylene** | **0.48** | **J** | 2.17 | 0.30 | ug/m3 | | | 02/16/19 05:06 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 2.05 | | 2.05 | 1.72 | ug/m3 | | | 02/16/19 05:06 | 1 |
| **Methyl Ethyl Ketone (2-Butanone)** | **0.88** | **J** | 1.47 | 0.59 | ug/m3 | | | 02/16/19 05:06 | 1 |
| Methyl methacrylate | 2.05 | | 2.05 | 0.90 | ug/m3 | | | 02/16/19 05:06 | 1 |
| Methyl tert-butyl ether | 0.72 | | 0.72 | 0.22 | ug/m3 | | | 02/16/19 05:06 | 1 |
| **Methylene Chloride** | **0.91** | **J** | 1.74 | 0.69 | ug/m3 | | | 02/16/19 05:06 | 1 |
| Naphthalene | 2.62 | * | 2.62 | 1.63 | ug/m3 | | | 02/16/19 05:06 | 1 |
| **n-Butane** | **36.6** | | 1.19 | 0.74 | ug/m3 | | | 02/16/19 05:06 | 1 |
| n-Butylbenzene | 1.10 | | 1.10 | 0.44 | ug/m3 | | | 02/16/19 05:06 | 1 |
| n-Heptane | 0.82 | | 0.82 | 0.57 | ug/m3 | | | 02/16/19 05:06 | 1 |
| **n-Hexane** | **1.37** | | 0.70 | 0.56 | ug/m3 | | | 02/16/19 05:06 | 1 |
| n-Propylbenzene | 0.98 | | 0.98 | 0.34 | ug/m3 | | | 02/16/19 05:06 | 1 |
| o-Xylene | 0.87 | | 0.87 | 0.31 | ug/m3 | | | 02/16/19 05:06 | 1 |
| sec-Butylbenzene | 1.10 | | 1.10 | 0.36 | ug/m3 | | | 02/16/19 05:06 | 1 |
| Styrene | 0.85 | | 0.85 | 0.37 | ug/m3 | | | 02/16/19 05:06 | 1 |
| tert-Butyl alcohol | 15.2 | | 15.2 | 4.55 | ug/m3 | | | 02/16/19 05:06 | 1 |
| tert-Butylbenzene | 1.10 | | 1.10 | 0.32 | ug/m3 | | | 02/16/19 05:06 | 1 |
| Tetrachloroethene | 1.36 | | 1.36 | 0.20 | ug/m3 | | | 02/16/19 05:06 | 1 |
| Tetrahydrofuran | 14.7 | | 14.7 | 7.67 | ug/m3 | | | 02/16/19 05:06 | 1 |
| **Toluene** | **0.74** | **J** | 0.75 | 0.26 | ug/m3 | | | 02/16/19 05:06 | 1 |
| trans-1,2-Dichloroethene | 0.79 | | 0.79 | 0.29 | ug/m3 | | | 02/16/19 05:06 | 1 |
| trans-1,3-Dichloropropene | 0.91 | | 0.91 | 0.54 | ug/m3 | | | 02/16/19 05:06 | 1 |
| Trichloroethene | 0.19 | | 0.19 | 0.16 | ug/m3 | | | 02/16/19 05:06 | 1 |
| **Trichlorofluoromethane** | **1.15** | **B** | 1.12 | 0.35 | ug/m3 | | | 02/16/19 05:06 | 1 |
| Vinyl chloride | 0.090 | | 0.090 | 0.10 | ug/m3 | | | 02/16/19 05:06 | 1 |

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.20 | | 0.20 | 0.068 | ppb v/v | | | 02/16/19 05:06 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.20 | | 0.20 | 0.076 | ppb v/v | | | 02/16/19 05:06 | 1 |
| 1,1,2-Trichloroethane | 0.20 | | 0.20 | 0.078 | ppb v/v | | | 02/16/19 05:06 | 1 |
| **1,1,2-Trichlorotrifluoroethane** | **0.063** | **J** | 0.20 | 0.031 | ppb v/v | | | 02/16/19 05:06 | 1 |
| 1,1-Dichloroethane | 0.20 | | 0.20 | 0.026 | ppb v/v | | | 02/16/19 05:06 | 1 |
| 1,1-Dichloroethene | 0.035 | | 0.035 | 0.034 | ppb v/v | | | 02/16/19 05:06 | 1 |
| 1,2,4-Trichlorobenzene | 0.50 | * | 0.50 | 0.24 | ppb v/v | | | 02/16/19 05:06 | 1 |
| 1,2,4-Trimethylbenzene | 0.20 | | 0.20 | 0.080 | ppb v/v | | | 02/16/19 05:06 | 1 |
| 1,2-Dibromoethane | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/16/19 05:06 | 1 |
| 1,2-Dichlorobenzene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 05:06 | 1 |
| 1,2-Dichloroethane | 0.20 | | 0.20 | 0.063 | ppb v/v | | | 02/16/19 05:06 | 1 |
| 1,2-Dichloropropane | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/16/19 05:06 | 1 |
| 1,2-Dichlorotetrafluoroethane | 0.20 | | 0.20 | 0.068 | ppb v/v | | | 02/16/19 05:06 | 1 |
| 1,3,5-Trimethylbenzene | 0.20 | | 0.20 | 0.058 | ppb v/v | | | 02/16/19 05:06 | 1 |
| 1,3-Butadiene | 0.20 | | 0.20 | 0.065 | ppb v/v | | | 02/16/19 05:06 | 1 |
| 1,3-Dichlorobenzene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/16/19 05:06 | 1 |
| 1,4-Dichlorobenzene | 0.20 | | 0.20 | 0.065 | ppb v/v | | | 02/16/19 05:06 | 1 |
| 1,4-Dioxane | 5.00 | | 5.00 | 1.30 | ppb v/v | | | 02/16/19 05:06 | 1 |
| 2,2,4-Trimethylpentane | 0.20 | | 0.20 | 0.088 | ppb v/v | | | 02/16/19 05:06 | 1 |
| 2-Chlorotoluene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 05:06 | 1 |
| 3-Chloropropene | 0.50 | | 0.50 | 0.27 | ppb v/v | | | 02/16/19 05:06 | 1 |
| 4-Ethyltoluene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/16/19 05:06 | 1 |

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

**Client Sample ID: IA-6-SUBSLAB**
**Date Collected: 02/13/19 11:06**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-11**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Isopropyltoluene | 0.20 | | 0.20 | 0.075 | ppb v/v | | | 02/16/19 05:06 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 0.50 | | 0.50 | 0.36 | ppb v/v | | | 02/16/19 05:06 | 1 |
| Acetone | 5.00 | | 5.00 | 2.60 | ppb v/v | | | 02/16/19 05:06 | 1 |
| **Benzene** | **0.17** | **J** | 0.20 | 0.071 | ppb v/v | | | 02/16/19 05:06 | 1 |
| Benzyl chloride | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/16/19 05:06 | 1 |
| Bromodichloromethane | 0.20 | | 0.20 | 0.094 | ppb v/v | | | 02/16/19 05:06 | 1 |
| Bromoethene(Vinyl Bromide) | 0.20 | | 0.20 | 0.056 | ppb v/v | | | 02/16/19 05:06 | 1 |
| Bromoform | 0.20 | | 0.20 | 0.086 | ppb v/v | | | 02/16/19 05:06 | 1 |
| Bromomethane | 0.20 | | 0.20 | 0.062 | ppb v/v | | | 02/16/19 05:06 | 1 |
| Carbon disulfide | 0.50 | | 0.50 | 0.12 | ppb v/v | | | 02/16/19 05:06 | 1 |
| **Carbon tetrachloride** | **0.061** | | 0.035 | 0.024 | ppb v/v | | | 02/16/19 05:06 | 1 |
| Chlorobenzene | 0.20 | | 0.20 | 0.040 | ppb v/v | | | 02/16/19 05:06 | 1 |
| Chlorodifluoromethane | 0.50 | | 0.50 | 0.26 | ppb v/v | | | 02/16/19 05:06 | 1 |
| Chloroethane | 0.50 | | 0.50 | 0.21 | ppb v/v | | | 02/16/19 05:06 | 1 |
| Chloroform | 0.20 | | 0.20 | 0.052 | ppb v/v | | | 02/16/19 05:06 | 1 |
| **Chloromethane** | **0.48** | **J** | 0.50 | 0.25 | ppb v/v | | | 02/16/19 05:06 | 1 |
| cis-1,2-Dichloroethene | 0.035 | | 0.035 | 0.037 | ppb v/v | | | 02/16/19 05:06 | 1 |
| cis-1,3-Dichloropropene | 0.20 | | 0.20 | 0.098 | ppb v/v | | | 02/16/19 05:06 | 1 |
| Cumene | 0.20 | | 0.20 | 0.059 | ppb v/v | | | 02/16/19 05:06 | 1 |
| **Cyclohexane** | **0.11** | **J** | 0.20 | 0.063 | ppb v/v | | | 02/16/19 05:06 | 1 |
| Dibromochloromethane | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 05:06 | 1 |
| **Dichlorodifluoromethane** | **0.45** | **J** | 0.50 | 0.20 | ppb v/v | | | 02/16/19 05:06 | 1 |
| Ethylbenzene | 0.20 | | 0.20 | 0.073 | ppb v/v | | | 02/16/19 05:06 | 1 |
| Hexachlorobutadiene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/16/19 05:06 | 1 |
| Isopropyl alcohol | 5.00 | | 5.00 | 1.80 | ppb v/v | | | 02/16/19 05:06 | 1 |
| **m,p-Xylene** | **0.11** | **J** | 0.50 | 0.070 | ppb v/v | | | 02/16/19 05:06 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 0.50 | | 0.50 | 0.42 | ppb v/v | | | 02/16/19 05:06 | 1 |
| **Methyl Ethyl Ketone (2-Butanone)** | **0.30** | **J** | 0.50 | 0.20 | ppb v/v | | | 02/16/19 05:06 | 1 |
| Methyl methacrylate | 0.50 | | 0.50 | 0.22 | ppb v/v | | | 02/16/19 05:06 | 1 |
| Methyl tert-butyl ether | 0.20 | | 0.20 | 0.061 | ppb v/v | | | 02/16/19 05:06 | 1 |
| **Methylene Chloride** | **0.26** | **J** | 0.50 | 0.20 | ppb v/v | | | 02/16/19 05:06 | 1 |
| Naphthalene | 0.50 | * | 0.50 | 0.31 | ppb v/v | | | 02/16/19 05:06 | 1 |
| **n-Butane** | **15.4** | | 0.50 | 0.31 | ppb v/v | | | 02/16/19 05:06 | 1 |
| n-Butylbenzene | 0.20 | | 0.20 | 0.080 | ppb v/v | | | 02/16/19 05:06 | 1 |
| n-Heptane | 0.20 | | 0.20 | 0.14 | ppb v/v | | | 02/16/19 05:06 | 1 |
| **n-Hexane** | **0.39** | | 0.20 | 0.16 | ppb v/v | | | 02/16/19 05:06 | 1 |
| n-Propylbenzene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/16/19 05:06 | 1 |
| o-Xylene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 05:06 | 1 |
| sec-Butylbenzene | 0.20 | | 0.20 | 0.066 | ppb v/v | | | 02/16/19 05:06 | 1 |
| Styrene | 0.20 | | 0.20 | 0.086 | ppb v/v | | | 02/16/19 05:06 | 1 |
| tert-Butyl alcohol | 5.00 | | 5.00 | 1.50 | ppb v/v | | | 02/16/19 05:06 | 1 |
| tert-Butylbenzene | 0.20 | | 0.20 | 0.058 | ppb v/v | | | 02/16/19 05:06 | 1 |
| Tetrachloroethene | 0.20 | | 0.20 | 0.029 | ppb v/v | | | 02/16/19 05:06 | 1 |
| Tetrahydrofuran | 5.00 | | 5.00 | 2.60 | ppb v/v | | | 02/16/19 05:06 | 1 |
| **Toluene** | **0.20** | **J** | 0.20 | 0.069 | ppb v/v | | | 02/16/19 05:06 | 1 |
| trans-1,2-Dichloroethene | 0.20 | | 0.20 | 0.074 | ppb v/v | | | 02/16/19 05:06 | 1 |
| trans-1,3-Dichloropropene | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/16/19 05:06 | 1 |

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

**Client Sample ID: IA-6-SUBSLAB**
**Date Collected: 02/13/19 11:06**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-11**
**Matrix: Air**

### Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Trichloroethene | 0.035 | | 0.035 | 0.030 | ppb v/v | | | 02/16/19 05:06 | 1 |
| **Trichlorofluoromethane** | **0.20** | **B** | 0.20 | 0.062 | ppb v/v | | | 02/16/19 05:06 | 1 |
| Vinyl chloride | 0.035 | | 0.035 | 0.041 | ppb v/v | | | 02/16/19 05:06 | 1 |

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

**Client Sample ID: IA-6-INDOOR AIR**
**Date Collected: 02/13/19 09:32**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-12**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.09 | | 1.09 | 0.37 | ug/m3 | | | 02/16/19 06:00 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.37 | | 1.37 | 0.52 | ug/m3 | | | 02/16/19 06:00 | 1 |
| 1,1,2-Trichloroethane | 1.09 | | 1.09 | 0.43 | ug/m3 | | | 02/16/19 06:00 | 1 |
| **1,1,2-Trichlorotrifluoroethane** | **0.47** | **J** | 1.53 | 0.24 | ug/m3 | | | 02/16/19 06:00 | 1 |
| 1,1-Dichloroethane | 0.81 | | 0.81 | 0.11 | ug/m3 | | | 02/16/19 06:00 | 1 |
| 1,1-Dichloroethene | 0.14 | | 0.14 | 0.13 | ug/m3 | | | 02/16/19 06:00 | 1 |
| 1,2,4-Trichlorobenzene | 3.71 | * | 3.71 | 1.78 | ug/m3 | | | 02/16/19 06:00 | 1 |
| 1,2,4-Trimethylbenzene | 0.98 | | 0.98 | 0.39 | ug/m3 | | | 02/16/19 06:00 | 1 |
| 1,2-Dibromoethane | 1.54 | | 1.54 | 0.53 | ug/m3 | | | 02/16/19 06:00 | 1 |
| 1,2-Dichlorobenzene | 1.20 | | 1.20 | 0.43 | ug/m3 | | | 02/16/19 06:00 | 1 |
| 1,2-Dichloroethane | 0.81 | | 0.81 | 0.25 | ug/m3 | | | 02/16/19 06:00 | 1 |
| 1,2-Dichloropropane | 0.92 | | 0.92 | 0.55 | ug/m3 | | | 02/16/19 06:00 | 1 |
| 1,2-Dichlorotetrafluoroethane | 1.40 | | 1.40 | 0.48 | ug/m3 | | | 02/16/19 06:00 | 1 |
| 1,3,5-Trimethylbenzene | 0.98 | | 0.98 | 0.29 | ug/m3 | | | 02/16/19 06:00 | 1 |
| 1,3-Butadiene | 0.44 | | 0.44 | 0.14 | ug/m3 | | | 02/16/19 06:00 | 1 |
| 1,3-Dichlorobenzene | 1.20 | | 1.20 | 0.49 | ug/m3 | | | 02/16/19 06:00 | 1 |
| 1,4-Dichlorobenzene | 1.20 | | 1.20 | 0.39 | ug/m3 | | | 02/16/19 06:00 | 1 |
| 1,4-Dioxane | 18.0 | | 18.0 | 4.68 | ug/m3 | | | 02/16/19 06:00 | 1 |
| 2,2,4-Trimethylpentane | 0.93 | | 0.93 | 0.41 | ug/m3 | | | 02/16/19 06:00 | 1 |
| 2-Chlorotoluene | 1.04 | | 1.04 | 0.37 | ug/m3 | | | 02/16/19 06:00 | 1 |
| 3-Chloropropene | 1.57 | | 1.57 | 0.85 | ug/m3 | | | 02/16/19 06:00 | 1 |
| 4-Ethyltoluene | 0.98 | | 0.98 | 0.34 | ug/m3 | | | 02/16/19 06:00 | 1 |
| 4-Isopropyltoluene | 1.10 | | 1.10 | 0.41 | ug/m3 | | | 02/16/19 06:00 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 2.05 | | 2.05 | 1.47 | ug/m3 | | | 02/16/19 06:00 | 1 |
| Acetone | 11.9 | | 11.9 | 6.18 | ug/m3 | | | 02/16/19 06:00 | 1 |
| **Benzene** | **0.55** | **J** | 0.64 | 0.23 | ug/m3 | | | 02/16/19 06:00 | 1 |
| Benzyl chloride | 1.04 | | 1.04 | 0.62 | ug/m3 | | | 02/16/19 06:00 | 1 |
| Bromodichloromethane | 1.34 | | 1.34 | 0.63 | ug/m3 | | | 02/16/19 06:00 | 1 |
| Bromoethene(Vinyl Bromide) | 0.87 | | 0.87 | 0.24 | ug/m3 | | | 02/16/19 06:00 | 1 |
| Bromoform | 2.07 | | 2.07 | 0.89 | ug/m3 | | | 02/16/19 06:00 | 1 |
| Bromomethane | 0.78 | | 0.78 | 0.24 | ug/m3 | | | 02/16/19 06:00 | 1 |
| Carbon disulfide | 1.56 | | 1.56 | 0.37 | ug/m3 | | | 02/16/19 06:00 | 1 |
| **Carbon tetrachloride** | **0.38** | | 0.22 | 0.15 | ug/m3 | | | 02/16/19 06:00 | 1 |
| Chlorobenzene | 0.92 | | 0.92 | 0.18 | ug/m3 | | | 02/16/19 06:00 | 1 |
| Chlorodifluoromethane | 1.77 | | 1.77 | 0.92 | ug/m3 | | | 02/16/19 06:00 | 1 |
| Chloroethane | 1.32 | | 1.32 | 0.55 | ug/m3 | | | 02/16/19 06:00 | 1 |
| Chloroform | 0.98 | | 0.98 | 0.25 | ug/m3 | | | 02/16/19 06:00 | 1 |
| **Chloromethane** | **1.01** | **J** | 1.03 | 0.52 | ug/m3 | | | 02/16/19 06:00 | 1 |
| cis-1,2-Dichloroethene | 0.14 | | 0.14 | 0.15 | ug/m3 | | | 02/16/19 06:00 | 1 |
| cis-1,3-Dichloropropene | 0.91 | | 0.91 | 0.44 | ug/m3 | | | 02/16/19 06:00 | 1 |
| Cumene | 0.98 | | 0.98 | 0.29 | ug/m3 | | | 02/16/19 06:00 | 1 |
| Cyclohexane | 0.69 | | 0.69 | 0.22 | ug/m3 | | | 02/16/19 06:00 | 1 |
| Dibromochloromethane | 1.70 | | 1.70 | 0.60 | ug/m3 | | | 02/16/19 06:00 | 1 |
| **Dichlorodifluoromethane** | **2.20** | **J** | 2.47 | 0.99 | ug/m3 | | | 02/16/19 06:00 | 1 |
| Ethylbenzene | 0.87 | | 0.87 | 0.32 | ug/m3 | | | 02/16/19 06:00 | 1 |
| Hexachlorobutadiene | 2.13 | | 2.13 | 0.87 | ug/m3 | | | 02/16/19 06:00 | 1 |
| Isopropyl alcohol | 12.3 | | 12.3 | 4.42 | ug/m3 | | | 02/16/19 06:00 | 1 |

**Client Sample ID: IA-6-INDOOR AIR**
**Date Collected: 02/13/19 09:32**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-12**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **m,p-Xylene** | **0.67** | **J** | 2.17 | 0.30 | ug/m3 | | | 02/16/19 06:00 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 2.05 | | 2.05 | 1.72 | ug/m3 | | | 02/16/19 06:00 | 1 |
| **Methyl Ethyl Ketone (2-Butanone)** | **0.76** | **J** | 1.47 | 0.59 | ug/m3 | | | 02/16/19 06:00 | 1 |
| Methyl methacrylate | 2.05 | | 2.05 | 0.90 | ug/m3 | | | 02/16/19 06:00 | 1 |
| Methyl tert-butyl ether | 0.72 | | 0.72 | 0.22 | ug/m3 | | | 02/16/19 06:00 | 1 |
| **Methylene Chloride** | **0.81** | **J** | 1.74 | 0.69 | ug/m3 | | | 02/16/19 06:00 | 1 |
| Naphthalene | 2.62 | * | 2.62 | 1.63 | ug/m3 | | | 02/16/19 06:00 | 1 |
| **n-Butane** | **2.14** | | 1.19 | 0.74 | ug/m3 | | | 02/16/19 06:00 | 1 |
| n-Butylbenzene | 1.10 | | 1.10 | 0.44 | ug/m3 | | | 02/16/19 06:00 | 1 |
| n-Heptane | 0.82 | | 0.82 | 0.57 | ug/m3 | | | 02/16/19 06:00 | 1 |
| n-Hexane | 0.70 | | 0.70 | 0.56 | ug/m3 | | | 02/16/19 06:00 | 1 |
| n-Propylbenzene | 0.98 | | 0.98 | 0.34 | ug/m3 | | | 02/16/19 06:00 | 1 |
| o-Xylene | 0.87 | | 0.87 | 0.31 | ug/m3 | | | 02/16/19 06:00 | 1 |
| sec-Butylbenzene | 1.10 | | 1.10 | 0.36 | ug/m3 | | | 02/16/19 06:00 | 1 |
| Styrene | 0.85 | | 0.85 | 0.37 | ug/m3 | | | 02/16/19 06:00 | 1 |
| tert-Butyl alcohol | 15.2 | | 15.2 | 4.55 | ug/m3 | | | 02/16/19 06:00 | 1 |
| tert-Butylbenzene | 1.10 | | 1.10 | 0.32 | ug/m3 | | | 02/16/19 06:00 | 1 |
| Tetrachloroethene | 1.36 | | 1.36 | 0.20 | ug/m3 | | | 02/16/19 06:00 | 1 |
| Tetrahydrofuran | 14.7 | | 14.7 | 7.67 | ug/m3 | | | 02/16/19 06:00 | 1 |
| **Toluene** | **0.65** | **J** | 0.75 | 0.26 | ug/m3 | | | 02/16/19 06:00 | 1 |
| trans-1,2-Dichloroethene | 0.79 | | 0.79 | 0.29 | ug/m3 | | | 02/16/19 06:00 | 1 |
| trans-1,3-Dichloropropene | 0.91 | | 0.91 | 0.54 | ug/m3 | | | 02/16/19 06:00 | 1 |
| Trichloroethene | 0.19 | | 0.19 | 0.16 | ug/m3 | | | 02/16/19 06:00 | 1 |
| **Trichlorofluoromethane** | **1.15** | **B** | 1.12 | 0.35 | ug/m3 | | | 02/16/19 06:00 | 1 |
| Vinyl chloride | 0.090 | | 0.090 | 0.10 | ug/m3 | | | 02/16/19 06:00 | 1 |

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.20 | | 0.20 | 0.068 | ppb v/v | | | 02/16/19 06:00 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.20 | | 0.20 | 0.076 | ppb v/v | | | 02/16/19 06:00 | 1 |
| 1,1,2-Trichloroethane | 0.20 | | 0.20 | 0.078 | ppb v/v | | | 02/16/19 06:00 | 1 |
| **1,1,2-Trichlorotrifluoroethane** | **0.061** | **J** | 0.20 | 0.031 | ppb v/v | | | 02/16/19 06:00 | 1 |
| 1,1-Dichloroethane | 0.20 | | 0.20 | 0.026 | ppb v/v | | | 02/16/19 06:00 | 1 |
| 1,1-Dichloroethene | 0.035 | | 0.035 | 0.034 | ppb v/v | | | 02/16/19 06:00 | 1 |
| 1,2,4-Trichlorobenzene | 0.50 | * | 0.50 | 0.24 | ppb v/v | | | 02/16/19 06:00 | 1 |
| 1,2,4-Trimethylbenzene | 0.20 | | 0.20 | 0.080 | ppb v/v | | | 02/16/19 06:00 | 1 |
| 1,2-Dibromoethane | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/16/19 06:00 | 1 |
| 1,2-Dichlorobenzene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 06:00 | 1 |
| 1,2-Dichloroethane | 0.20 | | 0.20 | 0.063 | ppb v/v | | | 02/16/19 06:00 | 1 |
| 1,2-Dichloropropane | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/16/19 06:00 | 1 |
| 1,2-Dichlorotetrafluoroethane | 0.20 | | 0.20 | 0.068 | ppb v/v | | | 02/16/19 06:00 | 1 |
| 1,3,5-Trimethylbenzene | 0.20 | | 0.20 | 0.058 | ppb v/v | | | 02/16/19 06:00 | 1 |
| 1,3-Butadiene | 0.20 | | 0.20 | 0.065 | ppb v/v | | | 02/16/19 06:00 | 1 |
| 1,3-Dichlorobenzene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/16/19 06:00 | 1 |
| 1,4-Dichlorobenzene | 0.20 | | 0.20 | 0.065 | ppb v/v | | | 02/16/19 06:00 | 1 |
| 1,4-Dioxane | 5.00 | | 5.00 | 1.30 | ppb v/v | | | 02/16/19 06:00 | 1 |
| 2,2,4-Trimethylpentane | 0.20 | | 0.20 | 0.088 | ppb v/v | | | 02/16/19 06:00 | 1 |
| 2-Chlorotoluene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 06:00 | 1 |
| 3-Chloropropene | 0.50 | | 0.50 | 0.27 | ppb v/v | | | 02/16/19 06:00 | 1 |
| 4-Ethyltoluene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/16/19 06:00 | 1 |

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

**Client Sample ID: IA-6-INDOOR AIR**
**Date Collected: 02/13/19 09:32**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-12**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Isopropyltoluene | 0.20 | | 0.20 | 0.075 | ppb v/v | | | 02/16/19 06:00 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 0.50 | | 0.50 | 0.36 | ppb v/v | | | 02/16/19 06:00 | 1 |
| Acetone | 5.00 | | 5.00 | 2.60 | ppb v/v | | | 02/16/19 06:00 | 1 |
| **Benzene** | **0.17** | **J** | 0.20 | 0.071 | ppb v/v | | | 02/16/19 06:00 | 1 |
| Benzyl chloride | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/16/19 06:00 | 1 |
| Bromodichloromethane | 0.20 | | 0.20 | 0.094 | ppb v/v | | | 02/16/19 06:00 | 1 |
| Bromoethene(Vinyl Bromide) | 0.20 | | 0.20 | 0.056 | ppb v/v | | | 02/16/19 06:00 | 1 |
| Bromoform | 0.20 | | 0.20 | 0.086 | ppb v/v | | | 02/16/19 06:00 | 1 |
| Bromomethane | 0.20 | | 0.20 | 0.062 | ppb v/v | | | 02/16/19 06:00 | 1 |
| Carbon disulfide | 0.50 | | 0.50 | 0.12 | ppb v/v | | | 02/16/19 06:00 | 1 |
| **Carbon tetrachloride** | **0.061** | | 0.035 | 0.024 | ppb v/v | | | 02/16/19 06:00 | 1 |
| Chlorobenzene | 0.20 | | 0.20 | 0.040 | ppb v/v | | | 02/16/19 06:00 | 1 |
| Chlorodifluoromethane | 0.50 | | 0.50 | 0.26 | ppb v/v | | | 02/16/19 06:00 | 1 |
| Chloroethane | 0.50 | | 0.50 | 0.21 | ppb v/v | | | 02/16/19 06:00 | 1 |
| Chloroform | 0.20 | | 0.20 | 0.052 | ppb v/v | | | 02/16/19 06:00 | 1 |
| **Chloromethane** | **0.49** | **J** | 0.50 | 0.25 | ppb v/v | | | 02/16/19 06:00 | 1 |
| cis-1,2-Dichloroethene | 0.035 | | 0.035 | 0.037 | ppb v/v | | | 02/16/19 06:00 | 1 |
| cis-1,3-Dichloropropene | 0.20 | | 0.20 | 0.098 | ppb v/v | | | 02/16/19 06:00 | 1 |
| Cumene | 0.20 | | 0.20 | 0.059 | ppb v/v | | | 02/16/19 06:00 | 1 |
| Cyclohexane | 0.20 | | 0.20 | 0.063 | ppb v/v | | | 02/16/19 06:00 | 1 |
| Dibromochloromethane | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 06:00 | 1 |
| **Dichlorodifluoromethane** | **0.44** | **J** | 0.50 | 0.20 | ppb v/v | | | 02/16/19 06:00 | 1 |
| Ethylbenzene | 0.20 | | 0.20 | 0.073 | ppb v/v | | | 02/16/19 06:00 | 1 |
| Hexachlorobutadiene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/16/19 06:00 | 1 |
| Isopropyl alcohol | 5.00 | | 5.00 | 1.80 | ppb v/v | | | 02/16/19 06:00 | 1 |
| **m,p-Xylene** | **0.16** | **J** | 0.50 | 0.070 | ppb v/v | | | 02/16/19 06:00 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 0.50 | | 0.50 | 0.42 | ppb v/v | | | 02/16/19 06:00 | 1 |
| **Methyl Ethyl Ketone (2-Butanone)** | **0.26** | **J** | 0.50 | 0.20 | ppb v/v | | | 02/16/19 06:00 | 1 |
| Methyl methacrylate | 0.50 | | 0.50 | 0.22 | ppb v/v | | | 02/16/19 06:00 | 1 |
| Methyl tert-butyl ether | 0.20 | | 0.20 | 0.061 | ppb v/v | | | 02/16/19 06:00 | 1 |
| **Methylene Chloride** | **0.23** | **J** | 0.50 | 0.20 | ppb v/v | | | 02/16/19 06:00 | 1 |
| Naphthalene | 0.50 | * | 0.50 | 0.31 | ppb v/v | | | 02/16/19 06:00 | 1 |
| **n-Butane** | **0.90** | | 0.50 | 0.31 | ppb v/v | | | 02/16/19 06:00 | 1 |
| n-Butylbenzene | 0.20 | | 0.20 | 0.080 | ppb v/v | | | 02/16/19 06:00 | 1 |
| n-Heptane | 0.20 | | 0.20 | 0.14 | ppb v/v | | | 02/16/19 06:00 | 1 |
| n-Hexane | 0.20 | | 0.20 | 0.16 | ppb v/v | | | 02/16/19 06:00 | 1 |
| n-Propylbenzene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/16/19 06:00 | 1 |
| o-Xylene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 06:00 | 1 |
| sec-Butylbenzene | 0.20 | | 0.20 | 0.066 | ppb v/v | | | 02/16/19 06:00 | 1 |
| Styrene | 0.20 | | 0.20 | 0.086 | ppb v/v | | | 02/16/19 06:00 | 1 |
| tert-Butyl alcohol | 5.00 | | 5.00 | 1.50 | ppb v/v | | | 02/16/19 06:00 | 1 |
| tert-Butylbenzene | 0.20 | | 0.20 | 0.058 | ppb v/v | | | 02/16/19 06:00 | 1 |
| Tetrachloroethene | 0.20 | | 0.20 | 0.029 | ppb v/v | | | 02/16/19 06:00 | 1 |
| Tetrahydrofuran | 5.00 | | 5.00 | 2.60 | ppb v/v | | | 02/16/19 06:00 | 1 |
| **Toluene** | **0.17** | **J** | 0.20 | 0.069 | ppb v/v | | | 02/16/19 06:00 | 1 |
| trans-1,2-Dichloroethene | 0.20 | | 0.20 | 0.074 | ppb v/v | | | 02/16/19 06:00 | 1 |
| trans-1,3-Dichloropropene | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/16/19 06:00 | 1 |

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

**Client Sample ID: IA-6-INDOOR AIR**
**Date Collected: 02/13/19 09:32**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-12**
**Matrix: Air**

**Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Trichloroethene | 0.035 | | 0.035 | 0.030 | ppb v/v | | | 02/16/19 06:00 | 1 |
| **Trichlorofluoromethane** | **0.20** | **B** | 0.20 | 0.062 | ppb v/v | | | 02/16/19 06:00 | 1 |
| Vinyl chloride | 0.035 | | 0.035 | 0.041 | ppb v/v | | | 02/16/19 06:00 | 1 |

## Client Sample ID: IA-7-INDOOR AIR

**Date Collected: 02/13/19 09:53**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

## Lab Sample ID: 200-47424-14

**Matrix: Air**

### Method: TO-15 - Volatile Organic Compounds in Ambient Air

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.09 | | 1.09 | 0.37 | ug/m3 | | | 02/16/19 06:53 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.37 | | 1.37 | 0.52 | ug/m3 | | | 02/16/19 06:53 | 1 |
| 1,1,2-Trichloroethane | 1.09 | | 1.09 | 0.43 | ug/m3 | | | 02/16/19 06:53 | 1 |
| **1,1,2-Trichlorotrifluoroethane** | **0.50** | **J** | 1.53 | 0.24 | ug/m3 | | | 02/16/19 06:53 | 1 |
| 1,1-Dichloroethane | 0.81 | | 0.81 | 0.11 | ug/m3 | | | 02/16/19 06:53 | 1 |
| 1,1-Dichloroethene | 0.14 | | 0.14 | 0.13 | ug/m3 | | | 02/16/19 06:53 | 1 |
| 1,2,4-Trichlorobenzene | 3.71 | * | 3.71 | 1.78 | ug/m3 | | | 02/16/19 06:53 | 1 |
| 1,2,4-Trimethylbenzene | 0.98 | | 0.98 | 0.39 | ug/m3 | | | 02/16/19 06:53 | 1 |
| 1,2-Dibromoethane | 1.54 | | 1.54 | 0.53 | ug/m3 | | | 02/16/19 06:53 | 1 |
| 1,2-Dichlorobenzene | 1.20 | | 1.20 | 0.43 | ug/m3 | | | 02/16/19 06:53 | 1 |
| 1,2-Dichloroethane | 0.81 | | 0.81 | 0.25 | ug/m3 | | | 02/16/19 06:53 | 1 |
| 1,2-Dichloropropane | 0.92 | | 0.92 | 0.55 | ug/m3 | | | 02/16/19 06:53 | 1 |
| 1,2-Dichlorotetrafluoroethane | 1.40 | | 1.40 | 0.48 | ug/m3 | | | 02/16/19 06:53 | 1 |
| 1,3,5-Trimethylbenzene | 0.98 | | 0.98 | 0.29 | ug/m3 | | | 02/16/19 06:53 | 1 |
| 1,3-Butadiene | 0.44 | | 0.44 | 0.14 | ug/m3 | | | 02/16/19 06:53 | 1 |
| 1,3-Dichlorobenzene | 1.20 | | 1.20 | 0.49 | ug/m3 | | | 02/16/19 06:53 | 1 |
| 1,4-Dichlorobenzene | 1.20 | | 1.20 | 0.39 | ug/m3 | | | 02/16/19 06:53 | 1 |
| 1,4-Dioxane | 18.0 | | 18.0 | 4.68 | ug/m3 | | | 02/16/19 06:53 | 1 |
| 2,2,4-Trimethylpentane | 0.93 | | 0.93 | 0.41 | ug/m3 | | | 02/16/19 06:53 | 1 |
| 2-Chlorotoluene | 1.04 | | 1.04 | 0.37 | ug/m3 | | | 02/16/19 06:53 | 1 |
| 3-Chloropropene | 1.57 | | 1.57 | 0.85 | ug/m3 | | | 02/16/19 06:53 | 1 |
| 4-Ethyltoluene | 0.98 | | 0.98 | 0.34 | ug/m3 | | | 02/16/19 06:53 | 1 |
| 4-Isopropyltoluene | 1.10 | | 1.10 | 0.41 | ug/m3 | | | 02/16/19 06:53 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 2.05 | | 2.05 | 1.47 | ug/m3 | | | 02/16/19 06:53 | 1 |
| **Acetone** | **12.3** | | 11.9 | 6.18 | ug/m3 | | | 02/16/19 06:53 | 1 |
| **Benzene** | **0.58** | **J** | 0.64 | 0.23 | ug/m3 | | | 02/16/19 06:53 | 1 |
| Benzyl chloride | 1.04 | | 1.04 | 0.62 | ug/m3 | | | 02/16/19 06:53 | 1 |
| Bromodichloromethane | 1.34 | | 1.34 | 0.63 | ug/m3 | | | 02/16/19 06:53 | 1 |
| Bromoethene(Vinyl Bromide) | 0.87 | | 0.87 | 0.24 | ug/m3 | | | 02/16/19 06:53 | 1 |
| Bromoform | 2.07 | | 2.07 | 0.89 | ug/m3 | | | 02/16/19 06:53 | 1 |
| Bromomethane | 0.78 | | 0.78 | 0.24 | ug/m3 | | | 02/16/19 06:53 | 1 |
| Carbon disulfide | 1.56 | | 1.56 | 0.37 | ug/m3 | | | 02/16/19 06:53 | 1 |
| **Carbon tetrachloride** | **0.43** | | 0.22 | 0.15 | ug/m3 | | | 02/16/19 06:53 | 1 |
| Chlorobenzene | 0.92 | | 0.92 | 0.18 | ug/m3 | | | 02/16/19 06:53 | 1 |
| Chlorodifluoromethane | 1.77 | | 1.77 | 0.92 | ug/m3 | | | 02/16/19 06:53 | 1 |
| Chloroethane | 1.32 | | 1.32 | 0.55 | ug/m3 | | | 02/16/19 06:53 | 1 |
| **Chloroform** | **0.25** | **J** | 0.98 | 0.25 | ug/m3 | | | 02/16/19 06:53 | 1 |
| **Chloromethane** | **1.01** | **J** | 1.03 | 0.52 | ug/m3 | | | 02/16/19 06:53 | 1 |
| **cis-1,2-Dichloroethene** | **0.47** | | 0.14 | 0.15 | ug/m3 | | | 02/16/19 06:53 | 1 |
| cis-1,3-Dichloropropene | 0.91 | | 0.91 | 0.44 | ug/m3 | | | 02/16/19 06:53 | 1 |
| Cumene | 0.98 | | 0.98 | 0.29 | ug/m3 | | | 02/16/19 06:53 | 1 |
| Cyclohexane | 0.69 | | 0.69 | 0.22 | ug/m3 | | | 02/16/19 06:53 | 1 |
| Dibromochloromethane | 1.70 | | 1.70 | 0.60 | ug/m3 | | | 02/16/19 06:53 | 1 |
| **Dichlorodifluoromethane** | **2.23** | **J** | 2.47 | 0.99 | ug/m3 | | | 02/16/19 06:53 | 1 |
| Ethylbenzene | 0.87 | | 0.87 | 0.32 | ug/m3 | | | 02/16/19 06:53 | 1 |
| Hexachlorobutadiene | 2.13 | | 2.13 | 0.87 | ug/m3 | | | 02/16/19 06:53 | 1 |
| **Isopropyl alcohol** | **6.30** | **J** | 12.3 | 4.42 | ug/m3 | | | 02/16/19 06:53 | 1 |

## Client Sample ID: IA-7-INDOOR AIR

**Date Collected: 02/13/19 09:53**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

## Lab Sample ID: 200-47424-14

**Matrix: Air**

### Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **m,p-Xylene** | **0.43** | **J** | 2.17 | 0.30 | ug/m3 | | | 02/16/19 06:53 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 2.05 | | 2.05 | 1.72 | ug/m3 | | | 02/16/19 06:53 | 1 |
| Methyl Ethyl Ketone (2-Butanone) | 1.47 | | 1.47 | 0.59 | ug/m3 | | | 02/16/19 06:53 | 1 |
| Methyl methacrylate | 2.05 | | 2.05 | 0.90 | ug/m3 | | | 02/16/19 06:53 | 1 |
| Methyl tert-butyl ether | 0.72 | | 0.72 | 0.22 | ug/m3 | | | 02/16/19 06:53 | 1 |
| Methylene Chloride | 1.74 | | 1.74 | 0.69 | ug/m3 | | | 02/16/19 06:53 | 1 |
| Naphthalene | 2.62 | * | 2.62 | 1.63 | ug/m3 | | | 02/16/19 06:53 | 1 |
| **n-Butane** | **2.00** | | 1.19 | 0.74 | ug/m3 | | | 02/16/19 06:53 | 1 |
| n-Butylbenzene | 1.10 | | 1.10 | 0.44 | ug/m3 | | | 02/16/19 06:53 | 1 |
| n-Heptane | 0.82 | | 0.82 | 0.57 | ug/m3 | | | 02/16/19 06:53 | 1 |
| n-Hexane | 0.70 | | 0.70 | 0.56 | ug/m3 | | | 02/16/19 06:53 | 1 |
| n-Propylbenzene | 0.98 | | 0.98 | 0.34 | ug/m3 | | | 02/16/19 06:53 | 1 |
| o-Xylene | 0.87 | | 0.87 | 0.31 | ug/m3 | | | 02/16/19 06:53 | 1 |
| sec-Butylbenzene | 1.10 | | 1.10 | 0.36 | ug/m3 | | | 02/16/19 06:53 | 1 |
| Styrene | 0.85 | | 0.85 | 0.37 | ug/m3 | | | 02/16/19 06:53 | 1 |
| tert-Butyl alcohol | 15.2 | | 15.2 | 4.55 | ug/m3 | | | 02/16/19 06:53 | 1 |
| tert-Butylbenzene | 1.10 | | 1.10 | 0.32 | ug/m3 | | | 02/16/19 06:53 | 1 |
| **Tetrachloroethene** | **0.22** | **J** | 1.36 | 0.20 | ug/m3 | | | 02/16/19 06:53 | 1 |
| Tetrahydrofuran | 14.7 | | 14.7 | 7.67 | ug/m3 | | | 02/16/19 06:53 | 1 |
| **Toluene** | **0.44** | **J** | 0.75 | 0.26 | ug/m3 | | | 02/16/19 06:53 | 1 |
| trans-1,2-Dichloroethene | 0.79 | | 0.79 | 0.29 | ug/m3 | | | 02/16/19 06:53 | 1 |
| trans-1,3-Dichloropropene | 0.91 | | 0.91 | 0.54 | ug/m3 | | | 02/16/19 06:53 | 1 |
| **Trichloroethene** | **0.26** | | 0.19 | 0.16 | ug/m3 | | | 02/16/19 06:53 | 1 |
| **Trichlorofluoromethane** | **1.14** | **B** | 1.12 | 0.35 | ug/m3 | | | 02/16/19 06:53 | 1 |
| Vinyl chloride | 0.090 | | 0.090 | 0.10 | ug/m3 | | | 02/16/19 06:53 | 1 |

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.20 | | 0.20 | 0.068 | ppb v/v | | | 02/16/19 06:53 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.20 | | 0.20 | 0.076 | ppb v/v | | | 02/16/19 06:53 | 1 |
| 1,1,2-Trichloroethane | 0.20 | | 0.20 | 0.078 | ppb v/v | | | 02/16/19 06:53 | 1 |
| **1,1,2-Trichlorotrifluoroethane** | **0.065** | **J** | 0.20 | 0.031 | ppb v/v | | | 02/16/19 06:53 | 1 |
| 1,1-Dichloroethane | 0.20 | | 0.20 | 0.026 | ppb v/v | | | 02/16/19 06:53 | 1 |
| 1,1-Dichloroethene | 0.035 | | 0.035 | 0.034 | ppb v/v | | | 02/16/19 06:53 | 1 |
| 1,2,4-Trichlorobenzene | 0.50 | * | 0.50 | 0.24 | ppb v/v | | | 02/16/19 06:53 | 1 |
| 1,2,4-Trimethylbenzene | 0.20 | | 0.20 | 0.080 | ppb v/v | | | 02/16/19 06:53 | 1 |
| 1,2-Dibromoethane | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/16/19 06:53 | 1 |
| 1,2-Dichlorobenzene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 06:53 | 1 |
| 1,2-Dichloroethane | 0.20 | | 0.20 | 0.063 | ppb v/v | | | 02/16/19 06:53 | 1 |
| 1,2-Dichloropropane | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/16/19 06:53 | 1 |
| 1,2-Dichlorotetrafluoroethane | 0.20 | | 0.20 | 0.068 | ppb v/v | | | 02/16/19 06:53 | 1 |
| 1,3,5-Trimethylbenzene | 0.20 | | 0.20 | 0.058 | ppb v/v | | | 02/16/19 06:53 | 1 |
| 1,3-Butadiene | 0.20 | | 0.20 | 0.065 | ppb v/v | | | 02/16/19 06:53 | 1 |
| 1,3-Dichlorobenzene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/16/19 06:53 | 1 |
| 1,4-Dichlorobenzene | 0.20 | | 0.20 | 0.065 | ppb v/v | | | 02/16/19 06:53 | 1 |
| 1,4-Dioxane | 5.00 | | 5.00 | 1.30 | ppb v/v | | | 02/16/19 06:53 | 1 |
| 2,2,4-Trimethylpentane | 0.20 | | 0.20 | 0.088 | ppb v/v | | | 02/16/19 06:53 | 1 |
| 2-Chlorotoluene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 06:53 | 1 |
| 3-Chloropropene | 0.50 | | 0.50 | 0.27 | ppb v/v | | | 02/16/19 06:53 | 1 |
| 4-Ethyltoluene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/16/19 06:53 | 1 |

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

**Client Sample ID: IA-7-INDOOR AIR**
**Date Collected: 02/13/19 09:53**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-14**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Isopropyltoluene | 0.20 | | 0.20 | 0.075 | ppb v/v | | | 02/16/19 06:53 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 0.50 | | 0.50 | 0.36 | ppb v/v | | | 02/16/19 06:53 | 1 |
| **Acetone** | **5.18** | | 5.00 | 2.60 | ppb v/v | | | 02/16/19 06:53 | 1 |
| **Benzene** | **0.18** | **J** | 0.20 | 0.071 | ppb v/v | | | 02/16/19 06:53 | 1 |
| Benzyl chloride | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/16/19 06:53 | 1 |
| Bromodichloromethane | 0.20 | | 0.20 | 0.094 | ppb v/v | | | 02/16/19 06:53 | 1 |
| Bromoethene(Vinyl Bromide) | 0.20 | | 0.20 | 0.056 | ppb v/v | | | 02/16/19 06:53 | 1 |
| Bromoform | 0.20 | | 0.20 | 0.086 | ppb v/v | | | 02/16/19 06:53 | 1 |
| Bromomethane | 0.20 | | 0.20 | 0.062 | ppb v/v | | | 02/16/19 06:53 | 1 |
| Carbon disulfide | 0.50 | | 0.50 | 0.12 | ppb v/v | | | 02/16/19 06:53 | 1 |
| **Carbon tetrachloride** | **0.068** | | 0.035 | 0.024 | ppb v/v | | | 02/16/19 06:53 | 1 |
| Chlorobenzene | 0.20 | | 0.20 | 0.040 | ppb v/v | | | 02/16/19 06:53 | 1 |
| Chlorodifluoromethane | 0.50 | | 0.50 | 0.26 | ppb v/v | | | 02/16/19 06:53 | 1 |
| Chloroethane | 0.50 | | 0.50 | 0.21 | ppb v/v | | | 02/16/19 06:53 | 1 |
| **Chloroform** | **0.052** | **J** | 0.20 | 0.052 | ppb v/v | | | 02/16/19 06:53 | 1 |
| **Chloromethane** | **0.49** | **J** | 0.50 | 0.25 | ppb v/v | | | 02/16/19 06:53 | 1 |
| **cis-1,2-Dichloroethene** | **0.12** | | 0.035 | 0.037 | ppb v/v | | | 02/16/19 06:53 | 1 |
| cis-1,3-Dichloropropene | 0.20 | | 0.20 | 0.098 | ppb v/v | | | 02/16/19 06:53 | 1 |
| Cumene | 0.20 | | 0.20 | 0.059 | ppb v/v | | | 02/16/19 06:53 | 1 |
| Cyclohexane | 0.20 | | 0.20 | 0.063 | ppb v/v | | | 02/16/19 06:53 | 1 |
| Dibromochloromethane | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 06:53 | 1 |
| **Dichlorodifluoromethane** | **0.45** | **J** | 0.50 | 0.20 | ppb v/v | | | 02/16/19 06:53 | 1 |
| Ethylbenzene | 0.20 | | 0.20 | 0.073 | ppb v/v | | | 02/16/19 06:53 | 1 |
| Hexachlorobutadiene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/16/19 06:53 | 1 |
| **Isopropyl alcohol** | **2.56** | **J** | 5.00 | 1.80 | ppb v/v | | | 02/16/19 06:53 | 1 |
| **m,p-Xylene** | **0.099** | **J** | 0.50 | 0.070 | ppb v/v | | | 02/16/19 06:53 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 0.50 | | 0.50 | 0.42 | ppb v/v | | | 02/16/19 06:53 | 1 |
| Methyl Ethyl Ketone (2-Butanone) | 0.50 | | 0.50 | 0.20 | ppb v/v | | | 02/16/19 06:53 | 1 |
| Methyl methacrylate | 0.50 | | 0.50 | 0.22 | ppb v/v | | | 02/16/19 06:53 | 1 |
| Methyl tert-butyl ether | 0.20 | | 0.20 | 0.061 | ppb v/v | | | 02/16/19 06:53 | 1 |
| Methylene Chloride | 0.50 | | 0.50 | 0.20 | ppb v/v | | | 02/16/19 06:53 | 1 |
| Naphthalene | 0.50 | * | 0.50 | 0.31 | ppb v/v | | | 02/16/19 06:53 | 1 |
| **n-Butane** | **0.84** | | 0.50 | 0.31 | ppb v/v | | | 02/16/19 06:53 | 1 |
| n-Butylbenzene | 0.20 | | 0.20 | 0.080 | ppb v/v | | | 02/16/19 06:53 | 1 |
| n-Heptane | 0.20 | | 0.20 | 0.14 | ppb v/v | | | 02/16/19 06:53 | 1 |
| n-Hexane | 0.20 | | 0.20 | 0.16 | ppb v/v | | | 02/16/19 06:53 | 1 |
| n-Propylbenzene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/16/19 06:53 | 1 |
| o-Xylene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 06:53 | 1 |
| sec-Butylbenzene | 0.20 | | 0.20 | 0.066 | ppb v/v | | | 02/16/19 06:53 | 1 |
| Styrene | 0.20 | | 0.20 | 0.086 | ppb v/v | | | 02/16/19 06:53 | 1 |
| tert-Butyl alcohol | 5.00 | | 5.00 | 1.50 | ppb v/v | | | 02/16/19 06:53 | 1 |
| tert-Butylbenzene | 0.20 | | 0.20 | 0.058 | ppb v/v | | | 02/16/19 06:53 | 1 |
| **Tetrachloroethene** | **0.033** | **J** | 0.20 | 0.029 | ppb v/v | | | 02/16/19 06:53 | 1 |
| Tetrahydrofuran | 5.00 | | 5.00 | 2.60 | ppb v/v | | | 02/16/19 06:53 | 1 |
| **Toluene** | **0.12** | **J** | 0.20 | 0.069 | ppb v/v | | | 02/16/19 06:53 | 1 |
| trans-1,2-Dichloroethene | 0.20 | | 0.20 | 0.074 | ppb v/v | | | 02/16/19 06:53 | 1 |
| trans-1,3-Dichloropropene | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/16/19 06:53 | 1 |

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

**Client Sample ID: IA-7-INDOOR AIR**
**Date Collected: 02/13/19 09:53**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-14**
**Matrix: Air**

### Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Trichloroethene | 0.048 | | 0.035 | 0.030 | ppb v/v | | | 02/16/19 06:53 | 1 |
| Trichlorofluoromethane | 0.20 | B | 0.20 | 0.062 | ppb v/v | | | 02/16/19 06:53 | 1 |
| Vinyl chloride | 0.035 | | 0.035 | 0.041 | ppb v/v | | | 02/16/19 06:53 | 1 |

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

**Client Sample ID: OUTDOOR AIR**
**Date Collected: 02/13/19 10:13**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-15**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.09 | | 1.09 | 0.37 | ug/m3 | | | 02/16/19 07:47 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.37 | | 1.37 | 0.52 | ug/m3 | | | 02/16/19 07:47 | 1 |
| 1,1,2-Trichloroethane | 1.09 | | 1.09 | 0.43 | ug/m3 | | | 02/16/19 07:47 | 1 |
| **1,1,2-Trichlorotrifluoroethane** | **0.47** | **J** | 1.53 | 0.24 | ug/m3 | | | 02/16/19 07:47 | 1 |
| 1,1-Dichloroethane | 0.81 | | 0.81 | 0.11 | ug/m3 | | | 02/16/19 07:47 | 1 |
| 1,1-Dichloroethene | 0.14 | | 0.14 | 0.13 | ug/m3 | | | 02/16/19 07:47 | 1 |
| 1,2,4-Trichlorobenzene | 3.71 | * | 3.71 | 1.78 | ug/m3 | | | 02/16/19 07:47 | 1 |
| 1,2,4-Trimethylbenzene | 0.98 | | 0.98 | 0.39 | ug/m3 | | | 02/16/19 07:47 | 1 |
| 1,2-Dibromoethane | 1.54 | | 1.54 | 0.53 | ug/m3 | | | 02/16/19 07:47 | 1 |
| 1,2-Dichlorobenzene | 1.20 | | 1.20 | 0.43 | ug/m3 | | | 02/16/19 07:47 | 1 |
| 1,2-Dichloroethane | 0.81 | | 0.81 | 0.25 | ug/m3 | | | 02/16/19 07:47 | 1 |
| 1,2-Dichloropropane | 0.92 | | 0.92 | 0.55 | ug/m3 | | | 02/16/19 07:47 | 1 |
| 1,2-Dichlorotetrafluoroethane | 1.40 | | 1.40 | 0.48 | ug/m3 | | | 02/16/19 07:47 | 1 |
| 1,3,5-Trimethylbenzene | 0.98 | | 0.98 | 0.29 | ug/m3 | | | 02/16/19 07:47 | 1 |
| 1,3-Butadiene | 0.44 | | 0.44 | 0.14 | ug/m3 | | | 02/16/19 07:47 | 1 |
| 1,3-Dichlorobenzene | 1.20 | | 1.20 | 0.49 | ug/m3 | | | 02/16/19 07:47 | 1 |
| 1,4-Dichlorobenzene | 1.20 | | 1.20 | 0.39 | ug/m3 | | | 02/16/19 07:47 | 1 |
| 1,4-Dioxane | 18.0 | | 18.0 | 4.68 | ug/m3 | | | 02/16/19 07:47 | 1 |
| 2,2,4-Trimethylpentane | 0.93 | | 0.93 | 0.41 | ug/m3 | | | 02/16/19 07:47 | 1 |
| 2-Chlorotoluene | 1.04 | | 1.04 | 0.37 | ug/m3 | | | 02/16/19 07:47 | 1 |
| 3-Chloropropene | 1.57 | | 1.57 | 0.85 | ug/m3 | | | 02/16/19 07:47 | 1 |
| 4-Ethyltoluene | 0.98 | | 0.98 | 0.34 | ug/m3 | | | 02/16/19 07:47 | 1 |
| 4-Isopropyltoluene | 1.10 | | 1.10 | 0.41 | ug/m3 | | | 02/16/19 07:47 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 2.05 | | 2.05 | 1.47 | ug/m3 | | | 02/16/19 07:47 | 1 |
| Acetone | 11.9 | | 11.9 | 6.18 | ug/m3 | | | 02/16/19 07:47 | 1 |
| **Benzene** | **0.32** | **J** | 0.64 | 0.23 | ug/m3 | | | 02/16/19 07:47 | 1 |
| Benzyl chloride | 1.04 | | 1.04 | 0.62 | ug/m3 | | | 02/16/19 07:47 | 1 |
| Bromodichloromethane | 1.34 | | 1.34 | 0.63 | ug/m3 | | | 02/16/19 07:47 | 1 |
| Bromoethene(Vinyl Bromide) | 0.87 | | 0.87 | 0.24 | ug/m3 | | | 02/16/19 07:47 | 1 |
| Bromoform | 2.07 | | 2.07 | 0.89 | ug/m3 | | | 02/16/19 07:47 | 1 |
| Bromomethane | 0.78 | | 0.78 | 0.24 | ug/m3 | | | 02/16/19 07:47 | 1 |
| Carbon disulfide | 1.56 | | 1.56 | 0.37 | ug/m3 | | | 02/16/19 07:47 | 1 |
| **Carbon tetrachloride** | **0.41** | | 0.22 | 0.15 | ug/m3 | | | 02/16/19 07:47 | 1 |
| Chlorobenzene | 0.92 | | 0.92 | 0.18 | ug/m3 | | | 02/16/19 07:47 | 1 |
| Chlorodifluoromethane | 1.77 | | 1.77 | 0.92 | ug/m3 | | | 02/16/19 07:47 | 1 |
| Chloroethane | 1.32 | | 1.32 | 0.55 | ug/m3 | | | 02/16/19 07:47 | 1 |
| Chloroform | 0.98 | | 0.98 | 0.25 | ug/m3 | | | 02/16/19 07:47 | 1 |
| **Chloromethane** | **0.96** | **J** | 1.03 | 0.52 | ug/m3 | | | 02/16/19 07:47 | 1 |
| cis-1,2-Dichloroethene | 0.14 | | 0.14 | 0.15 | ug/m3 | | | 02/16/19 07:47 | 1 |
| cis-1,3-Dichloropropene | 0.91 | | 0.91 | 0.44 | ug/m3 | | | 02/16/19 07:47 | 1 |
| Cumene | 0.98 | | 0.98 | 0.29 | ug/m3 | | | 02/16/19 07:47 | 1 |
| Cyclohexane | 0.69 | | 0.69 | 0.22 | ug/m3 | | | 02/16/19 07:47 | 1 |
| Dibromochloromethane | 1.70 | | 1.70 | 0.60 | ug/m3 | | | 02/16/19 07:47 | 1 |
| **Dichlorodifluoromethane** | **2.25** | **J** | 2.47 | 0.99 | ug/m3 | | | 02/16/19 07:47 | 1 |
| Ethylbenzene | 0.87 | | 0.87 | 0.32 | ug/m3 | | | 02/16/19 07:47 | 1 |
| Hexachlorobutadiene | 2.13 | | 2.13 | 0.87 | ug/m3 | | | 02/16/19 07:47 | 1 |
| Isopropyl alcohol | 12.3 | | 12.3 | 4.42 | ug/m3 | | | 02/16/19 07:47 | 1 |

## Client Sample ID: OUTDOOR AIR

**Lab Sample ID: 200-47424-15**

**Date Collected: 02/13/19 10:13**
**Matrix: Air**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

### Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| m,p-Xylene | 2.17 | | 2.17 | 0.30 | ug/m3 | | | 02/16/19 07:47 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 2.05 | | 2.05 | 1.72 | ug/m3 | | | 02/16/19 07:47 | 1 |
| Methyl Ethyl Ketone (2-Butanone) | 1.47 | | 1.47 | 0.59 | ug/m3 | | | 02/16/19 07:47 | 1 |
| Methyl methacrylate | 2.05 | | 2.05 | 0.90 | ug/m3 | | | 02/16/19 07:47 | 1 |
| Methyl tert-butyl ether | 0.72 | | 0.72 | 0.22 | ug/m3 | | | 02/16/19 07:47 | 1 |
| Methylene Chloride | 1.74 | | 1.74 | 0.69 | ug/m3 | | | 02/16/19 07:47 | 1 |
| Naphthalene | 2.62 | * | 2.62 | 1.63 | ug/m3 | | | 02/16/19 07:47 | 1 |
| **n-Butane** | **1.20** | | 1.19 | 0.74 | ug/m3 | | | 02/16/19 07:47 | 1 |
| n-Butylbenzene | 1.10 | | 1.10 | 0.44 | ug/m3 | | | 02/16/19 07:47 | 1 |
| n-Heptane | 0.82 | | 0.82 | 0.57 | ug/m3 | | | 02/16/19 07:47 | 1 |
| n-Hexane | 0.70 | | 0.70 | 0.56 | ug/m3 | | | 02/16/19 07:47 | 1 |
| n-Propylbenzene | 0.98 | | 0.98 | 0.34 | ug/m3 | | | 02/16/19 07:47 | 1 |
| o-Xylene | 0.87 | | 0.87 | 0.31 | ug/m3 | | | 02/16/19 07:47 | 1 |
| sec-Butylbenzene | 1.10 | | 1.10 | 0.36 | ug/m3 | | | 02/16/19 07:47 | 1 |
| Styrene | 0.85 | | 0.85 | 0.37 | ug/m3 | | | 02/16/19 07:47 | 1 |
| tert-Butyl alcohol | 15.2 | | 15.2 | 4.55 | ug/m3 | | | 02/16/19 07:47 | 1 |
| tert-Butylbenzene | 1.10 | | 1.10 | 0.32 | ug/m3 | | | 02/16/19 07:47 | 1 |
| Tetrachloroethene | 1.36 | | 1.36 | 0.20 | ug/m3 | | | 02/16/19 07:47 | 1 |
| Tetrahydrofuran | 14.7 | | 14.7 | 7.67 | ug/m3 | | | 02/16/19 07:47 | 1 |
| **Toluene** | **0.27** | **J** | 0.75 | 0.26 | ug/m3 | | | 02/16/19 07:47 | 1 |
| trans-1,2-Dichloroethene | 0.79 | | 0.79 | 0.29 | ug/m3 | | | 02/16/19 07:47 | 1 |
| trans-1,3-Dichloropropene | 0.91 | | 0.91 | 0.54 | ug/m3 | | | 02/16/19 07:47 | 1 |
| Trichloroethene | 0.19 | | 0.19 | 0.16 | ug/m3 | | | 02/16/19 07:47 | 1 |
| **Trichlorofluoromethane** | **1.15** | **B** | 1.12 | 0.35 | ug/m3 | | | 02/16/19 07:47 | 1 |
| Vinyl chloride | 0.090 | | 0.090 | 0.10 | ug/m3 | | | 02/16/19 07:47 | 1 |

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.20 | | 0.20 | 0.068 | ppb v/v | | | 02/16/19 07:47 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.20 | | 0.20 | 0.076 | ppb v/v | | | 02/16/19 07:47 | 1 |
| 1,1,2-Trichloroethane | 0.20 | | 0.20 | 0.078 | ppb v/v | | | 02/16/19 07:47 | 1 |
| **1,1,2-Trichlorotrifluoroethane** | **0.061** | **J** | 0.20 | 0.031 | ppb v/v | | | 02/16/19 07:47 | 1 |
| 1,1-Dichloroethane | 0.20 | | 0.20 | 0.026 | ppb v/v | | | 02/16/19 07:47 | 1 |
| 1,1-Dichloroethene | 0.035 | | 0.035 | 0.034 | ppb v/v | | | 02/16/19 07:47 | 1 |
| 1,2,4-Trichlorobenzene | 0.50 | * | 0.50 | 0.24 | ppb v/v | | | 02/16/19 07:47 | 1 |
| 1,2,4-Trimethylbenzene | 0.20 | | 0.20 | 0.080 | ppb v/v | | | 02/16/19 07:47 | 1 |
| 1,2-Dibromoethane | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/16/19 07:47 | 1 |
| 1,2-Dichlorobenzene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 07:47 | 1 |
| 1,2-Dichloroethane | 0.20 | | 0.20 | 0.063 | ppb v/v | | | 02/16/19 07:47 | 1 |
| 1,2-Dichloropropane | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/16/19 07:47 | 1 |
| 1,2-Dichlorotetrafluoroethane | 0.20 | | 0.20 | 0.068 | ppb v/v | | | 02/16/19 07:47 | 1 |
| 1,3,5-Trimethylbenzene | 0.20 | | 0.20 | 0.058 | ppb v/v | | | 02/16/19 07:47 | 1 |
| 1,3-Butadiene | 0.20 | | 0.20 | 0.065 | ppb v/v | | | 02/16/19 07:47 | 1 |
| 1,3-Dichlorobenzene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/16/19 07:47 | 1 |
| 1,4-Dichlorobenzene | 0.20 | | 0.20 | 0.065 | ppb v/v | | | 02/16/19 07:47 | 1 |
| 1,4-Dioxane | 5.00 | | 5.00 | 1.30 | ppb v/v | | | 02/16/19 07:47 | 1 |
| 2,2,4-Trimethylpentane | 0.20 | | 0.20 | 0.088 | ppb v/v | | | 02/16/19 07:47 | 1 |
| 2-Chlorotoluene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 07:47 | 1 |
| 3-Chloropropene | 0.50 | | 0.50 | 0.27 | ppb v/v | | | 02/16/19 07:47 | 1 |
| 4-Ethyltoluene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/16/19 07:47 | 1 |

**Client Sample ID: OUTDOOR AIR**
**Date Collected: 02/13/19 10:13**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-15**
**Matrix: Air**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Isopropyltoluene | 0.20 | | 0.20 | 0.075 | ppb v/v | | | 02/16/19 07:47 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 0.50 | | 0.50 | 0.36 | ppb v/v | | | 02/16/19 07:47 | 1 |
| Acetone | 5.00 | | 5.00 | 2.60 | ppb v/v | | | 02/16/19 07:47 | 1 |
| **Benzene** | **0.10** | **J** | 0.20 | 0.071 | ppb v/v | | | 02/16/19 07:47 | 1 |
| Benzyl chloride | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/16/19 07:47 | 1 |
| Bromodichloromethane | 0.20 | | 0.20 | 0.094 | ppb v/v | | | 02/16/19 07:47 | 1 |
| Bromoethene(Vinyl Bromide) | 0.20 | | 0.20 | 0.056 | ppb v/v | | | 02/16/19 07:47 | 1 |
| Bromoform | 0.20 | | 0.20 | 0.086 | ppb v/v | | | 02/16/19 07:47 | 1 |
| Bromomethane | 0.20 | | 0.20 | 0.062 | ppb v/v | | | 02/16/19 07:47 | 1 |
| Carbon disulfide | 0.50 | | 0.50 | 0.12 | ppb v/v | | | 02/16/19 07:47 | 1 |
| **Carbon tetrachloride** | **0.065** | | 0.035 | 0.024 | ppb v/v | | | 02/16/19 07:47 | 1 |
| Chlorobenzene | 0.20 | | 0.20 | 0.040 | ppb v/v | | | 02/16/19 07:47 | 1 |
| Chlorodifluoromethane | 0.50 | | 0.50 | 0.26 | ppb v/v | | | 02/16/19 07:47 | 1 |
| Chloroethane | 0.50 | | 0.50 | 0.21 | ppb v/v | | | 02/16/19 07:47 | 1 |
| Chloroform | 0.20 | | 0.20 | 0.052 | ppb v/v | | | 02/16/19 07:47 | 1 |
| **Chloromethane** | **0.47** | **J** | 0.50 | 0.25 | ppb v/v | | | 02/16/19 07:47 | 1 |
| cis-1,2-Dichloroethene | 0.035 | | 0.035 | 0.037 | ppb v/v | | | 02/16/19 07:47 | 1 |
| cis-1,3-Dichloropropene | 0.20 | | 0.20 | 0.098 | ppb v/v | | | 02/16/19 07:47 | 1 |
| Cumene | 0.20 | | 0.20 | 0.059 | ppb v/v | | | 02/16/19 07:47 | 1 |
| Cyclohexane | 0.20 | | 0.20 | 0.063 | ppb v/v | | | 02/16/19 07:47 | 1 |
| Dibromochloromethane | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 07:47 | 1 |
| **Dichlorodifluoromethane** | **0.45** | **J** | 0.50 | 0.20 | ppb v/v | | | 02/16/19 07:47 | 1 |
| Ethylbenzene | 0.20 | | 0.20 | 0.073 | ppb v/v | | | 02/16/19 07:47 | 1 |
| Hexachlorobutadiene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/16/19 07:47 | 1 |
| Isopropyl alcohol | 5.00 | | 5.00 | 1.80 | ppb v/v | | | 02/16/19 07:47 | 1 |
| m,p-Xylene | 0.50 | | 0.50 | 0.070 | ppb v/v | | | 02/16/19 07:47 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 0.50 | | 0.50 | 0.42 | ppb v/v | | | 02/16/19 07:47 | 1 |
| Methyl Ethyl Ketone (2-Butanone) | 0.50 | | 0.50 | 0.20 | ppb v/v | | | 02/16/19 07:47 | 1 |
| Methyl methacrylate | 0.50 | | 0.50 | 0.22 | ppb v/v | | | 02/16/19 07:47 | 1 |
| Methyl tert-butyl ether | 0.20 | | 0.20 | 0.061 | ppb v/v | | | 02/16/19 07:47 | 1 |
| Methylene Chloride | 0.50 | | 0.50 | 0.20 | ppb v/v | | | 02/16/19 07:47 | 1 |
| Naphthalene | 0.50 | * | 0.50 | 0.31 | ppb v/v | | | 02/16/19 07:47 | 1 |
| **n-Butane** | **0.51** | | 0.50 | 0.31 | ppb v/v | | | 02/16/19 07:47 | 1 |
| n-Butylbenzene | 0.20 | | 0.20 | 0.080 | ppb v/v | | | 02/16/19 07:47 | 1 |
| n-Heptane | 0.20 | | 0.20 | 0.14 | ppb v/v | | | 02/16/19 07:47 | 1 |
| n-Hexane | 0.20 | | 0.20 | 0.16 | ppb v/v | | | 02/16/19 07:47 | 1 |
| n-Propylbenzene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/16/19 07:47 | 1 |
| o-Xylene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 07:47 | 1 |
| sec-Butylbenzene | 0.20 | | 0.20 | 0.066 | ppb v/v | | | 02/16/19 07:47 | 1 |
| Styrene | 0.20 | | 0.20 | 0.086 | ppb v/v | | | 02/16/19 07:47 | 1 |
| tert-Butyl alcohol | 5.00 | | 5.00 | 1.50 | ppb v/v | | | 02/16/19 07:47 | 1 |
| tert-Butylbenzene | 0.20 | | 0.20 | 0.058 | ppb v/v | | | 02/16/19 07:47 | 1 |
| Tetrachloroethene | 0.20 | | 0.20 | 0.029 | ppb v/v | | | 02/16/19 07:47 | 1 |
| Tetrahydrofuran | 5.00 | | 5.00 | 2.60 | ppb v/v | | | 02/16/19 07:47 | 1 |
| **Toluene** | **0.073** | **J** | 0.20 | 0.069 | ppb v/v | | | 02/16/19 07:47 | 1 |
| trans-1,2-Dichloroethene | 0.20 | | 0.20 | 0.074 | ppb v/v | | | 02/16/19 07:47 | 1 |
| trans-1,3-Dichloropropene | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/16/19 07:47 | 1 |

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

**Client Sample ID: OUTDOOR AIR**
**Date Collected: 02/13/19 10:13**
**Date Received: 02/15/19 10:30**
**Sample Container: Summa Canister 6L**

**Lab Sample ID: 200-47424-15**
**Matrix: Air**

**Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Trichloroethene | 0.035 | | 0.035 | 0.030 | ppb v/v | | | 02/16/19 07:47 | 1 |
| **Trichlorofluoromethane** | **0.20** | **B** | 0.20 | 0.062 | ppb v/v | | | 02/16/19 07:47 | 1 |
| Vinyl chloride | 0.035 | | 0.035 | 0.041 | ppb v/v | | | 02/16/19 07:47 | 1 |

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

## Method: TO-15 - Volatile Organic Compounds in Ambient Air

**Lab Sample ID: MB 200-140028/5**
**Matrix: Air**
**Analysis Batch: 140028**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.09 | | 1.09 | 0.37 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.37 | | 1.37 | 0.52 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 1,1,2-Trichloroethane | 1.09 | | 1.09 | 0.43 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 1,1,2-Trichlorotrifluoroethane | 1.53 | | 1.53 | 0.24 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 1,1-Dichloroethane | 0.81 | | 0.81 | 0.11 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 1,1-Dichloroethene | 0.14 | | 0.14 | 0.13 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 1,2,4-Trichlorobenzene | 3.71 | | 3.71 | 1.78 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 1,2,4-Trimethylbenzene | 0.98 | | 0.98 | 0.39 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 1,2-Dibromoethane | 1.54 | | 1.54 | 0.53 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 1,2-Dichlorobenzene | 1.20 | | 1.20 | 0.43 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 1,2-Dichloroethane | 0.81 | | 0.81 | 0.25 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 1,2-Dichloropropane | 0.92 | | 0.92 | 0.55 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 1,2-Dichlorotetrafluoroethane | 1.40 | | 1.40 | 0.48 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 1,3,5-Trimethylbenzene | 0.98 | | 0.98 | 0.29 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 1,3-Butadiene | 0.44 | | 0.44 | 0.14 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 1,3-Dichlorobenzene | 1.20 | | 1.20 | 0.49 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 1,4-Dichlorobenzene | 0.409 | J | 1.20 | 0.39 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 1,4-Dioxane | 18.0 | | 18.0 | 4.68 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 2,2,4-Trimethylpentane | 0.93 | | 0.93 | 0.41 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 2-Chlorotoluene | 1.04 | | 1.04 | 0.37 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 3-Chloropropene | 1.57 | | 1.57 | 0.85 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 4-Ethyltoluene | 0.98 | | 0.98 | 0.34 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 4-Isopropyltoluene | 1.10 | | 1.10 | 0.41 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 2.05 | | 2.05 | 1.47 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Acetone | 11.9 | | 11.9 | 6.18 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Benzene | 0.64 | | 0.64 | 0.23 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Benzyl chloride | 1.04 | | 1.04 | 0.62 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Bromodichloromethane | 1.34 | | 1.34 | 0.63 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Bromoethene(Vinyl Bromide) | 0.87 | | 0.87 | 0.24 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Bromoform | 2.07 | | 2.07 | 0.89 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Bromomethane | 0.78 | | 0.78 | 0.24 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Carbon disulfide | 1.56 | | 1.56 | 0.37 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Carbon tetrachloride | 0.22 | | 0.22 | 0.15 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Chlorobenzene | 0.92 | | 0.92 | 0.18 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Chlorodifluoromethane | 1.77 | | 1.77 | 0.92 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Chloroethane | 1.32 | | 1.32 | 0.55 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Chloroform | 0.98 | | 0.98 | 0.25 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Chloromethane | 1.03 | | 1.03 | 0.52 | ug/m3 | | | 02/15/19 16:42 | 1 |
| cis-1,2-Dichloroethene | 0.14 | | 0.14 | 0.15 | ug/m3 | | | 02/15/19 16:42 | 1 |
| cis-1,3-Dichloropropene | 0.91 | | 0.91 | 0.44 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Cumene | 0.98 | | 0.98 | 0.29 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Cyclohexane | 0.69 | | 0.69 | 0.22 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Dibromochloromethane | 1.70 | | 1.70 | 0.60 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Dichlorodifluoromethane | 2.47 | | 2.47 | 0.99 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Ethylbenzene | 0.87 | | 0.87 | 0.32 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Hexachlorobutadiene | 2.13 | | 2.13 | 0.87 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Isopropyl alcohol | 12.3 | | 12.3 | 4.42 | ug/m3 | | | 02/15/19 16:42 | 1 |

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

**Lab Sample ID: MB 200-140028/5**
**Matrix: Air**
**Analysis Batch: 140028**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| m,p-Xylene | 2.17 | | 2.17 | 0.30 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 2.05 | | 2.05 | 1.72 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Methyl Ethyl Ketone (2-Butanone) | 1.47 | | 1.47 | 0.59 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Methyl methacrylate | 2.05 | | 2.05 | 0.90 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Methyl tert-butyl ether | 0.72 | | 0.72 | 0.22 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Methylene Chloride | 1.74 | | 1.74 | 0.69 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Naphthalene | 2.62 | | 2.62 | 1.63 | ug/m3 | | | 02/15/19 16:42 | 1 |
| n-Butane | 1.19 | | 1.19 | 0.74 | ug/m3 | | | 02/15/19 16:42 | 1 |
| n-Butylbenzene | 1.10 | | 1.10 | 0.44 | ug/m3 | | | 02/15/19 16:42 | 1 |
| n-Heptane | 0.82 | | 0.82 | 0.57 | ug/m3 | | | 02/15/19 16:42 | 1 |
| n-Hexane | 0.70 | | 0.70 | 0.56 | ug/m3 | | | 02/15/19 16:42 | 1 |
| n-Propylbenzene | 0.98 | | 0.98 | 0.34 | ug/m3 | | | 02/15/19 16:42 | 1 |
| o-Xylene | 0.87 | | 0.87 | 0.31 | ug/m3 | | | 02/15/19 16:42 | 1 |
| sec-Butylbenzene | 1.10 | | 1.10 | 0.36 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Styrene | 0.85 | | 0.85 | 0.37 | ug/m3 | | | 02/15/19 16:42 | 1 |
| tert-Butyl alcohol | 15.2 | | 15.2 | 4.55 | ug/m3 | | | 02/15/19 16:42 | 1 |
| tert-Butylbenzene | 1.10 | | 1.10 | 0.32 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Tetrachloroethene | 1.36 | | 1.36 | 0.20 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Tetrahydrofuran | 14.7 | | 14.7 | 7.67 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Toluene | 0.75 | | 0.75 | 0.26 | ug/m3 | | | 02/15/19 16:42 | 1 |
| trans-1,2-Dichloroethene | 0.79 | | 0.79 | 0.29 | ug/m3 | | | 02/15/19 16:42 | 1 |
| trans-1,3-Dichloropropene | 0.91 | | 0.91 | 0.54 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Trichloroethene | 0.19 | | 0.19 | 0.16 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Trichlorofluoromethane | 0.741 | J | 1.12 | 0.35 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Vinyl chloride | 0.090 | | 0.090 | 0.10 | ug/m3 | | | 02/15/19 16:42 | 1 |

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.20 | | 0.20 | 0.068 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.20 | | 0.20 | 0.076 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 1,1,2-Trichloroethane | 0.20 | | 0.20 | 0.078 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 1,1,2-Trichlorotrifluoroethane | 0.20 | | 0.20 | 0.031 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 1,1-Dichloroethane | 0.20 | | 0.20 | 0.026 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 1,1-Dichloroethene | 0.035 | | 0.035 | 0.034 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 1,2,4-Trichlorobenzene | 0.50 | | 0.50 | 0.24 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 1,2,4-Trimethylbenzene | 0.20 | | 0.20 | 0.080 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 1,2-Dibromoethane | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 1,2-Dichlorobenzene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 1,2-Dichloroethane | 0.20 | | 0.20 | 0.063 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 1,2-Dichloropropane | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 1,2-Dichlorotetrafluoroethane | 0.20 | | 0.20 | 0.068 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 1,3,5-Trimethylbenzene | 0.20 | | 0.20 | 0.058 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 1,3-Butadiene | 0.20 | | 0.20 | 0.065 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 1,3-Dichlorobenzene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 1,4-Dichlorobenzene | 0.0680 | J | 0.20 | 0.065 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 1,4-Dioxane | 5.00 | | 5.00 | 1.30 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 2,2,4-Trimethylpentane | 0.20 | | 0.20 | 0.088 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 2-Chlorotoluene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 3-Chloropropene | 0.50 | | 0.50 | 0.27 | ppb v/v | | | 02/15/19 16:42 | 1 |

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

**Lab Sample ID: MB 200-140028/5**
**Matrix: Air**
**Analysis Batch: 140028**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Ethyltoluene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 4-Isopropyltoluene | 0.20 | | 0.20 | 0.075 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 0.50 | | 0.50 | 0.36 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Acetone | 5.00 | | 5.00 | 2.60 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Benzene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Benzyl chloride | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Bromodichloromethane | 0.20 | | 0.20 | 0.094 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Bromoethene(Vinyl Bromide) | 0.20 | | 0.20 | 0.056 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Bromoform | 0.20 | | 0.20 | 0.086 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Bromomethane | 0.20 | | 0.20 | 0.062 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Carbon disulfide | 0.50 | | 0.50 | 0.12 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Carbon tetrachloride | 0.035 | | 0.035 | 0.024 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Chlorobenzene | 0.20 | | 0.20 | 0.040 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Chlorodifluoromethane | 0.50 | | 0.50 | 0.26 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Chloroethane | 0.50 | | 0.50 | 0.21 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Chloroform | 0.20 | | 0.20 | 0.052 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Chloromethane | 0.50 | | 0.50 | 0.25 | ppb v/v | | | 02/15/19 16:42 | 1 |
| cis-1,2-Dichloroethene | 0.035 | | 0.035 | 0.037 | ppb v/v | | | 02/15/19 16:42 | 1 |
| cis-1,3-Dichloropropene | 0.20 | | 0.20 | 0.098 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Cumene | 0.20 | | 0.20 | 0.059 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Cyclohexane | 0.20 | | 0.20 | 0.063 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Dibromochloromethane | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Dichlorodifluoromethane | 0.50 | | 0.50 | 0.20 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Ethylbenzene | 0.20 | | 0.20 | 0.073 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Hexachlorobutadiene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Isopropyl alcohol | 5.00 | | 5.00 | 1.80 | ppb v/v | | | 02/15/19 16:42 | 1 |
| m,p-Xylene | 0.50 | | 0.50 | 0.070 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 0.50 | | 0.50 | 0.42 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Methyl Ethyl Ketone (2-Butanone) | 0.50 | | 0.50 | 0.20 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Methyl methacrylate | 0.50 | | 0.50 | 0.22 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Methyl tert-butyl ether | 0.20 | | 0.20 | 0.061 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Methylene Chloride | 0.50 | | 0.50 | 0.20 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Naphthalene | 0.50 | | 0.50 | 0.31 | ppb v/v | | | 02/15/19 16:42 | 1 |
| n-Butane | 0.50 | | 0.50 | 0.31 | ppb v/v | | | 02/15/19 16:42 | 1 |
| n-Butylbenzene | 0.20 | | 0.20 | 0.080 | ppb v/v | | | 02/15/19 16:42 | 1 |
| n-Heptane | 0.20 | | 0.20 | 0.14 | ppb v/v | | | 02/15/19 16:42 | 1 |
| n-Hexane | 0.20 | | 0.20 | 0.16 | ppb v/v | | | 02/15/19 16:42 | 1 |
| n-Propylbenzene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/15/19 16:42 | 1 |
| o-Xylene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/15/19 16:42 | 1 |
| sec-Butylbenzene | 0.20 | | 0.20 | 0.066 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Styrene | 0.20 | | 0.20 | 0.086 | ppb v/v | | | 02/15/19 16:42 | 1 |
| tert-Butyl alcohol | 5.00 | | 5.00 | 1.50 | ppb v/v | | | 02/15/19 16:42 | 1 |
| tert-Butylbenzene | 0.20 | | 0.20 | 0.058 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Tetrachloroethene | 0.20 | | 0.20 | 0.029 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Tetrahydrofuran | 5.00 | | 5.00 | 2.60 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Toluene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/15/19 16:42 | 1 |
| trans-1,2-Dichloroethene | 0.20 | | 0.20 | 0.074 | ppb v/v | | | 02/15/19 16:42 | 1 |

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

**Lab Sample ID: MB 200-140028/5**
**Matrix: Air**
**Analysis Batch: 140028**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| trans-1,3-Dichloropropene | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Trichloroethene | 0.035 | | 0.035 | 0.030 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Trichlorofluoromethane | 0.132 | J | 0.20 | 0.062 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Vinyl chloride | 0.035 | | 0.035 | 0.041 | ppb v/v | | | 02/15/19 16:42 | 1 |

**Lab Sample ID: LCS 200-140028/4**
**Matrix: Air**
**Analysis Batch: 140028**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 54.6 | 57.61 | | ug/m3 | | 106 | 70 - 130 |
| 1,1,2,2-Tetrachloroethane | 68.6 | 65.88 | | ug/m3 | | 96 | 69 - 129 |
| 1,1,2-Trichloroethane | 54.6 | 52.37 | | ug/m3 | | 96 | 69 - 129 |
| 1,1,2-Trichlorotrifluoroethane | 76.6 | 74.32 | | ug/m3 | | 97 | 68 - 128 |
| 1,1-Dichloroethane | 40.5 | 34.08 | | ug/m3 | | 84 | 66 - 126 |
| 1,1-Dichloroethene | 39.6 | 35.91 | | ug/m3 | | 91 | 67 - 127 |
| 1,2,4-Trichlorobenzene | 74.2 | 100.2 | * | ug/m3 | | 135 | 59 - 126 |
| 1,2,4-Trimethylbenzene | 49.2 | 57.62 | | ug/m3 | | 117 | 65 - 125 |
| 1,2-Dibromoethane | 76.8 | 81.02 | | ug/m3 | | 105 | 70 - 130 |
| 1,2-Dichlorobenzene | 60.1 | 69.86 | | ug/m3 | | 116 | 67 - 127 |
| 1,2-Dichloroethane | 40.5 | 39.69 | | ug/m3 | | 98 | 67 - 132 |
| 1,2-Dichloropropane | 46.2 | 41.64 | | ug/m3 | | 90 | 67 - 127 |
| 1,2-Dichlorotetrafluoroethane | 69.9 | 70.26 | | ug/m3 | | 101 | 78 - 138 |
| 1,3,5-Trimethylbenzene | 49.2 | 55.94 | | ug/m3 | | 114 | 65 - 125 |
| 1,3-Butadiene | 22.1 | 23.36 | | ug/m3 | | 106 | 59 - 125 |
| 1,3-Dichlorobenzene | 60.1 | 69.24 | | ug/m3 | | 115 | 67 - 127 |
| 1,4-Dichlorobenzene | 60.1 | 70.64 | | ug/m3 | | 118 | 66 - 126 |
| 1,4-Dioxane | 36.0 | 32.45 | | ug/m3 | | 90 | 66 - 132 |
| 2,2,4-Trimethylpentane | 46.7 | 42.78 | | ug/m3 | | 92 | 67 - 127 |
| 2-Chlorotoluene | 51.8 | 56.04 | | ug/m3 | | 108 | 67 - 127 |
| 3-Chloropropene | 31.3 | 36.82 | | ug/m3 | | 118 | 53 - 133 |
| 4-Ethyltoluene | 49.2 | 57.37 | | ug/m3 | | 117 | 69 - 129 |
| 4-Isopropyltoluene | 54.9 | 65.97 | | ug/m3 | | 120 | 67 - 129 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 41.0 | 37.86 | | ug/m3 | | 92 | 62 - 130 |
| Acetone | 23.7 | 19.83 | | ug/m3 | | 83 | 64 - 136 |
| Benzene | 31.9 | 29.77 | | ug/m3 | | 93 | 67 - 127 |
| Benzyl chloride | 51.8 | 63.59 | | ug/m3 | | 123 | 54 - 135 |
| Bromodichloromethane | 67.0 | 68.76 | | ug/m3 | | 103 | 69 - 129 |
| Bromoethene(Vinyl Bromide) | 43.7 | 43.83 | | ug/m3 | | 100 | 67 - 127 |
| Bromoform | 103 | 100.2 | | ug/m3 | | 97 | 34 - 170 |
| Bromomethane | 38.8 | 38.07 | | ug/m3 | | 98 | 68 - 128 |
| Carbon disulfide | 31.1 | 28.62 | | ug/m3 | | 92 | 81 - 141 |
| Carbon tetrachloride | 62.9 | 66.61 | | ug/m3 | | 106 | 62 - 143 |
| Chlorobenzene | 46.0 | 46.25 | | ug/m3 | | 100 | 68 - 128 |
| Chlorodifluoromethane | 35.4 | 32.92 | | ug/m3 | | 93 | 64 - 128 |
| Chloroethane | 26.4 | 24.09 | | ug/m3 | | 91 | 65 - 125 |
| Chloroform | 48.8 | 46.33 | | ug/m3 | | 95 | 69 - 129 |
| Chloromethane | 20.6 | 19.50 | | ug/m3 | | 94 | 57 - 126 |

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

**Lab Sample ID: LCS 200-140028/4**
**Matrix: Air**
**Analysis Batch: 140028**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| cis-1,2-Dichloroethene | 39.6 | 35.70 | | ug/m3 | | 90 | 67 - 127 |
| cis-1,3-Dichloropropene | 45.4 | 45.29 | | ug/m3 | | 100 | 70 - 130 |
| Cumene | 49.1 | 54.98 | | ug/m3 | | 112 | 67 - 127 |
| Cyclohexane | 34.4 | 33.95 | | ug/m3 | | 99 | 69 - 129 |
| Dibromochloromethane | 85.2 | 91.22 | | ug/m3 | | 107 | 66 - 130 |
| Dichlorodifluoromethane | 49.4 | 49.90 | | ug/m3 | | 101 | 68 - 128 |
| Ethylbenzene | 43.4 | 44.18 | | ug/m3 | | 102 | 68 - 128 |
| Hexachlorobutadiene | 107 | 131.6 | | ug/m3 | | 123 | 62 - 130 |
| Isopropyl alcohol | 24.6 | 18.87 | | ug/m3 | | 77 | 55 - 124 |
| m,p-Xylene | 86.8 | 91.86 | | ug/m3 | | 106 | 68 - 128 |
| Methyl Butyl Ketone (2-Hexanone) | 41.0 | 37.88 | | ug/m3 | | 92 | 61 - 127 |
| Methyl Ethyl Ketone (2-Butanone) | 29.5 | 26.15 | | ug/m3 | | 89 | 62 - 122 |
| Methyl methacrylate | 40.9 | 41.46 | | ug/m3 | | 101 | 70 - 130 |
| Methyl tert-butyl ether | 36.0 | 33.64 | | ug/m3 | | 93 | 67 - 127 |
| Methylene Chloride | 34.7 | 29.31 | | ug/m3 | | 84 | 62 - 122 |
| Naphthalene | 52.4 | 70.94 | * | ug/m3 | | 135 | 50 - 121 |
| n-Butane | 23.8 | 22.30 | | ug/m3 | | 94 | 56 - 130 |
| n-Butylbenzene | 54.9 | 68.29 | | ug/m3 | | 124 | 67 - 127 |
| n-Heptane | 41.0 | 35.90 | | ug/m3 | | 88 | 62 - 130 |
| n-Hexane | 35.2 | 30.41 | | ug/m3 | | 86 | 71 - 131 |
| n-Propylbenzene | 49.1 | 55.06 | | ug/m3 | | 112 | 67 - 127 |
| o-Xylene | 43.4 | 46.85 | | ug/m3 | | 108 | 67 - 127 |
| sec-Butylbenzene | 54.9 | 62.68 | | ug/m3 | | 114 | 66 - 126 |
| Styrene | 42.6 | 47.73 | | ug/m3 | | 112 | 68 - 128 |
| tert-Butyl alcohol | 30.3 | 26.21 | | ug/m3 | | 86 | 64 - 124 |
| tert-Butylbenzene | 54.9 | 62.54 | | ug/m3 | | 114 | 63 - 125 |
| Tetrachloroethene | 67.8 | 71.64 | | ug/m3 | | 106 | 70 - 130 |
| Tetrahydrofuran | 29.5 | 24.64 | | ug/m3 | | 84 | 61 - 136 |
| Toluene | 37.7 | 37.16 | | ug/m3 | | 99 | 67 - 127 |
| trans-1,2-Dichloroethene | 39.6 | 35.12 | | ug/m3 | | 89 | 72 - 132 |
| trans-1,3-Dichloropropene | 45.4 | 47.95 | | ug/m3 | | 106 | 69 - 129 |
| Trichloroethene | 53.7 | 54.51 | | ug/m3 | | 101 | 68 - 128 |
| Trichlorofluoromethane | 56.2 | 57.95 | | ug/m3 | | 103 | 67 - 127 |
| Vinyl chloride | 25.6 | 27.42 | | ug/m3 | | 107 | 62 - 125 |

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 10.0 | 10.56 | | ppb v/v | | 106 | 70 - 130 |
| 1,1,2,2-Tetrachloroethane | 10.0 | 9.596 | | ppb v/v | | 96 | 69 - 129 |
| 1,1,2-Trichloroethane | 10.0 | 9.598 | | ppb v/v | | 96 | 69 - 129 |
| 1,1,2-Trichlorotrifluoroethane | 10.0 | 9.698 | | ppb v/v | | 97 | 68 - 128 |
| 1,1-Dichloroethane | 10.0 | 8.420 | | ppb v/v | | 84 | 66 - 126 |
| 1,1-Dichloroethene | 10.0 | 9.058 | | ppb v/v | | 91 | 67 - 127 |
| 1,2,4-Trichlorobenzene | 10.0 | 13.50 | * | ppb v/v | | 135 | 59 - 126 |
| 1,2,4-Trimethylbenzene | 10.0 | 11.72 | | ppb v/v | | 117 | 65 - 125 |
| 1,2-Dibromoethane | 10.0 | 10.54 | | ppb v/v | | 105 | 70 - 130 |
| 1,2-Dichlorobenzene | 10.0 | 11.62 | | ppb v/v | | 116 | 67 - 127 |
| 1,2-Dichloroethane | 10.0 | 9.807 | | ppb v/v | | 98 | 67 - 132 |

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

**Lab Sample ID: LCS 200-140028/4**
**Matrix: Air**
**Analysis Batch: 140028**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,2-Dichloropropane | 10.0 | 9.011 | | ppb v/v | | 90 | 67 - 127 |
| 1,2-Dichlorotetrafluoroethane | 10.0 | 10.05 | | ppb v/v | | 101 | 78 - 138 |
| 1,3,5-Trimethylbenzene | 10.0 | 11.38 | | ppb v/v | | 114 | 65 - 125 |
| 1,3-Butadiene | 10.0 | 10.56 | | ppb v/v | | 106 | 59 - 125 |
| 1,3-Dichlorobenzene | 10.0 | 11.52 | | ppb v/v | | 115 | 67 - 127 |
| 1,4-Dichlorobenzene | 10.0 | 11.75 | | ppb v/v | | 118 | 66 - 126 |
| 1,4-Dioxane | 10.0 | 9.005 | | ppb v/v | | 90 | 66 - 132 |
| 2,2,4-Trimethylpentane | 10.0 | 9.156 | | ppb v/v | | 92 | 67 - 127 |
| 2-Chlorotoluene | 10.0 | 10.82 | | ppb v/v | | 108 | 67 - 127 |
| 3-Chloropropene | 10.0 | 11.76 | | ppb v/v | | 118 | 53 - 133 |
| 4-Ethyltoluene | 10.0 | 11.67 | | ppb v/v | | 117 | 69 - 129 |
| 4-Isopropyltoluene | 10.0 | 12.02 | | ppb v/v | | 120 | 67 - 129 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 10.0 | 9.242 | | ppb v/v | | 92 | 62 - 130 |
| Acetone | 10.0 | 8.348 | | ppb v/v | | 83 | 64 - 136 |
| Benzene | 10.0 | 9.318 | | ppb v/v | | 93 | 67 - 127 |
| Benzyl chloride | 10.0 | 12.28 | | ppb v/v | | 123 | 54 - 135 |
| Bromodichloromethane | 10.0 | 10.26 | | ppb v/v | | 103 | 69 - 129 |
| Bromoethene(Vinyl Bromide) | 10.0 | 10.02 | | ppb v/v | | 100 | 67 - 127 |
| Bromoform | 10.0 | 9.693 | | ppb v/v | | 97 | 34 - 170 |
| Bromomethane | 10.0 | 9.804 | | ppb v/v | | 98 | 68 - 128 |
| Carbon disulfide | 10.0 | 9.191 | | ppb v/v | | 92 | 81 - 141 |
| Carbon tetrachloride | 10.0 | 10.59 | | ppb v/v | | 106 | 62 - 143 |
| Chlorobenzene | 10.0 | 10.05 | | ppb v/v | | 100 | 68 - 128 |
| Chlorodifluoromethane | 10.0 | 9.308 | | ppb v/v | | 93 | 64 - 128 |
| Chloroethane | 10.0 | 9.129 | | ppb v/v | | 91 | 65 - 125 |
| Chloroform | 10.0 | 9.489 | | ppb v/v | | 95 | 69 - 129 |
| Chloromethane | 10.0 | 9.442 | | ppb v/v | | 94 | 57 - 126 |
| cis-1,2-Dichloroethene | 10.0 | 9.004 | | ppb v/v | | 90 | 67 - 127 |
| cis-1,3-Dichloropropene | 10.0 | 9.978 | | ppb v/v | | 100 | 70 - 130 |
| Cumene | 10.0 | 11.18 | | ppb v/v | | 112 | 67 - 127 |
| Cyclohexane | 10.0 | 9.864 | | ppb v/v | | 99 | 69 - 129 |
| Dibromochloromethane | 10.0 | 10.71 | | ppb v/v | | 107 | 66 - 130 |
| Dichlorodifluoromethane | 10.0 | 10.09 | | ppb v/v | | 101 | 68 - 128 |
| Ethylbenzene | 10.0 | 10.18 | | ppb v/v | | 102 | 68 - 128 |
| Hexachlorobutadiene | 10.0 | 12.34 | | ppb v/v | | 123 | 62 - 130 |
| Isopropyl alcohol | 10.0 | 7.676 | | ppb v/v | | 77 | 55 - 124 |
| m,p-Xylene | 20.0 | 21.15 | | ppb v/v | | 106 | 68 - 128 |
| Methyl Butyl Ketone (2-Hexanone) | 10.0 | 9.243 | | ppb v/v | | 92 | 61 - 127 |
| Methyl Ethyl Ketone (2-Butanone) | 10.0 | 8.867 | | ppb v/v | | 89 | 62 - 122 |
| Methyl methacrylate | 10.0 | 10.13 | | ppb v/v | | 101 | 70 - 130 |
| Methyl tert-butyl ether | 10.0 | 9.331 | | ppb v/v | | 93 | 67 - 127 |
| Methylene Chloride | 10.0 | 8.438 | | ppb v/v | | 84 | 62 - 122 |
| Naphthalene | 10.0 | 13.53 | * | ppb v/v | | 135 | 50 - 121 |
| n-Butane | 10.0 | 9.382 | | ppb v/v | | 94 | 56 - 130 |
| n-Butylbenzene | 10.0 | 12.44 | | ppb v/v | | 124 | 67 - 127 |
| n-Heptane | 10.0 | 8.759 | | ppb v/v | | 88 | 62 - 130 |

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

**Lab Sample ID: LCS 200-140028/4**
**Matrix: Air**
**Analysis Batch: 140028**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| n-Hexane | 10.0 | 8.628 | | ppb v/v | | 86 | 71 - 131 |
| n-Propylbenzene | 10.0 | 11.20 | | ppb v/v | | 112 | 67 - 127 |
| o-Xylene | 10.0 | 10.79 | | ppb v/v | | 108 | 67 - 127 |
| sec-Butylbenzene | 10.0 | 11.42 | | ppb v/v | | 114 | 66 - 126 |
| Styrene | 10.0 | 11.21 | | ppb v/v | | 112 | 68 - 128 |
| tert-Butyl alcohol | 10.0 | 8.646 | | ppb v/v | | 86 | 64 - 124 |
| tert-Butylbenzene | 10.0 | 11.39 | | ppb v/v | | 114 | 63 - 125 |
| Tetrachloroethene | 10.0 | 10.56 | | ppb v/v | | 106 | 70 - 130 |
| Tetrahydrofuran | 10.0 | 8.356 | | ppb v/v | | 84 | 61 - 136 |
| Toluene | 10.0 | 9.861 | | ppb v/v | | 99 | 67 - 127 |
| trans-1,2-Dichloroethene | 10.0 | 8.858 | | ppb v/v | | 89 | 72 - 132 |
| trans-1,3-Dichloropropene | 10.0 | 10.56 | | ppb v/v | | 106 | 69 - 129 |
| Trichloroethene | 10.0 | 10.14 | | ppb v/v | | 101 | 68 - 128 |
| Trichlorofluoromethane | 10.0 | 10.31 | | ppb v/v | | 103 | 67 - 127 |
| Vinyl chloride | 10.0 | 10.73 | | ppb v/v | | 107 | 62 - 125 |

**Lab Sample ID: MB 200-140031/5**
**Matrix: Air**
**Analysis Batch: 140031**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.09 | | 1.09 | 0.37 | ug/m3 | | | 02/15/19 15:33 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.37 | | 1.37 | 0.52 | ug/m3 | | | 02/15/19 15:33 | 1 |
| 1,1,2-Trichloroethane | 1.09 | | 1.09 | 0.43 | ug/m3 | | | 02/15/19 15:33 | 1 |
| 1,1,2-Trichlorotrifluoroethane | 1.53 | | 1.53 | 0.24 | ug/m3 | | | 02/15/19 15:33 | 1 |
| 1,1-Dichloroethane | 0.81 | | 0.81 | 0.11 | ug/m3 | | | 02/15/19 15:33 | 1 |
| 1,1-Dichloroethene | 0.14 | | 0.14 | 0.13 | ug/m3 | | | 02/15/19 15:33 | 1 |
| 1,2,4-Trichlorobenzene | 3.71 | | 3.71 | 1.78 | ug/m3 | | | 02/15/19 15:33 | 1 |
| 1,2,4-Trimethylbenzene | 0.98 | | 0.98 | 0.39 | ug/m3 | | | 02/15/19 15:33 | 1 |
| 1,2-Dibromoethane | 1.54 | | 1.54 | 0.53 | ug/m3 | | | 02/15/19 15:33 | 1 |
| 1,2-Dichlorobenzene | 1.20 | | 1.20 | 0.43 | ug/m3 | | | 02/15/19 15:33 | 1 |
| 1,2-Dichloroethane | 0.81 | | 0.81 | 0.25 | ug/m3 | | | 02/15/19 15:33 | 1 |
| 1,2-Dichloropropane | 0.92 | | 0.92 | 0.55 | ug/m3 | | | 02/15/19 15:33 | 1 |
| 1,2-Dichlorotetrafluoroethane | 1.40 | | 1.40 | 0.48 | ug/m3 | | | 02/15/19 15:33 | 1 |
| 1,3,5-Trimethylbenzene | 0.98 | | 0.98 | 0.29 | ug/m3 | | | 02/15/19 15:33 | 1 |
| 1,3-Butadiene | 0.44 | | 0.44 | 0.14 | ug/m3 | | | 02/15/19 15:33 | 1 |
| 1,3-Dichlorobenzene | 1.20 | | 1.20 | 0.49 | ug/m3 | | | 02/15/19 15:33 | 1 |
| 1,4-Dichlorobenzene | 1.20 | | 1.20 | 0.39 | ug/m3 | | | 02/15/19 15:33 | 1 |
| 1,4-Dioxane | 18.0 | | 18.0 | 4.68 | ug/m3 | | | 02/15/19 15:33 | 1 |
| 2,2,4-Trimethylpentane | 0.93 | | 0.93 | 0.41 | ug/m3 | | | 02/15/19 15:33 | 1 |
| 2-Chlorotoluene | 1.04 | | 1.04 | 0.37 | ug/m3 | | | 02/15/19 15:33 | 1 |
| 3-Chloropropene | 1.57 | | 1.57 | 0.85 | ug/m3 | | | 02/15/19 15:33 | 1 |
| 4-Ethyltoluene | 0.98 | | 0.98 | 0.34 | ug/m3 | | | 02/15/19 15:33 | 1 |
| 4-Isopropyltoluene | 1.10 | | 1.10 | 0.41 | ug/m3 | | | 02/15/19 15:33 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 2.05 | | 2.05 | 1.47 | ug/m3 | | | 02/15/19 15:33 | 1 |
| Acetone | 11.9 | | 11.9 | 6.18 | ug/m3 | | | 02/15/19 15:33 | 1 |
| Benzene | 0.64 | | 0.64 | 0.23 | ug/m3 | | | 02/15/19 15:33 | 1 |
| Benzyl chloride | 1.04 | | 1.04 | 0.62 | ug/m3 | | | 02/15/19 15:33 | 1 |

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

**Lab Sample ID: MB 200-140031/5**
**Matrix: Air**
**Analysis Batch: 140031**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Bromodichloromethane | 1.34 | | 1.34 | 0.63 | ug/m3 | | | 02/15/19 15:33 | 1 |
| Bromoethene(Vinyl Bromide) | 0.87 | | 0.87 | 0.24 | ug/m3 | | | 02/15/19 15:33 | 1 |
| Bromoform | 2.07 | | 2.07 | 0.89 | ug/m3 | | | 02/15/19 15:33 | 1 |
| Bromomethane | 0.78 | | 0.78 | 0.24 | ug/m3 | | | 02/15/19 15:33 | 1 |
| Carbon disulfide | 1.56 | | 1.56 | 0.37 | ug/m3 | | | 02/15/19 15:33 | 1 |
| Carbon tetrachloride | 0.22 | | 0.22 | 0.15 | ug/m3 | | | 02/15/19 15:33 | 1 |
| Chlorobenzene | 0.92 | | 0.92 | 0.18 | ug/m3 | | | 02/15/19 15:33 | 1 |
| Chlorodifluoromethane | 1.77 | | 1.77 | 0.92 | ug/m3 | | | 02/15/19 15:33 | 1 |
| Chloroethane | 1.32 | | 1.32 | 0.55 | ug/m3 | | | 02/15/19 15:33 | 1 |
| Chloroform | 0.98 | | 0.98 | 0.25 | ug/m3 | | | 02/15/19 15:33 | 1 |
| Chloromethane | 1.03 | | 1.03 | 0.52 | ug/m3 | | | 02/15/19 15:33 | 1 |
| cis-1,2-Dichloroethene | 0.14 | | 0.14 | 0.15 | ug/m3 | | | 02/15/19 15:33 | 1 |
| cis-1,3-Dichloropropene | 0.91 | | 0.91 | 0.44 | ug/m3 | | | 02/15/19 15:33 | 1 |
| Cumene | 0.98 | | 0.98 | 0.29 | ug/m3 | | | 02/15/19 15:33 | 1 |
| Cyclohexane | 0.69 | | 0.69 | 0.22 | ug/m3 | | | 02/15/19 15:33 | 1 |
| Dibromochloromethane | 1.70 | | 1.70 | 0.60 | ug/m3 | | | 02/15/19 15:33 | 1 |
| Dichlorodifluoromethane | 2.47 | | 2.47 | 0.99 | ug/m3 | | | 02/15/19 15:33 | 1 |
| Ethylbenzene | 0.87 | | 0.87 | 0.32 | ug/m3 | | | 02/15/19 15:33 | 1 |
| Hexachlorobutadiene | 2.13 | | 2.13 | 0.87 | ug/m3 | | | 02/15/19 15:33 | 1 |
| Isopropyl alcohol | 12.3 | | 12.3 | 4.42 | ug/m3 | | | 02/15/19 15:33 | 1 |
| m,p-Xylene | 2.17 | | 2.17 | 0.30 | ug/m3 | | | 02/15/19 15:33 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 2.05 | | 2.05 | 1.72 | ug/m3 | | | 02/15/19 15:33 | 1 |
| Methyl Ethyl Ketone (2-Butanone) | 1.47 | | 1.47 | 0.59 | ug/m3 | | | 02/15/19 15:33 | 1 |
| Methyl methacrylate | 2.05 | | 2.05 | 0.90 | ug/m3 | | | 02/15/19 15:33 | 1 |
| Methyl tert-butyl ether | 0.72 | | 0.72 | 0.22 | ug/m3 | | | 02/15/19 15:33 | 1 |
| Methylene Chloride | 1.74 | | 1.74 | 0.69 | ug/m3 | | | 02/15/19 15:33 | 1 |
| Naphthalene | 2.62 | | 2.62 | 1.63 | ug/m3 | | | 02/15/19 15:33 | 1 |
| n-Butane | 1.19 | | 1.19 | 0.74 | ug/m3 | | | 02/15/19 15:33 | 1 |
| n-Butylbenzene | 1.10 | | 1.10 | 0.44 | ug/m3 | | | 02/15/19 15:33 | 1 |
| n-Heptane | 0.82 | | 0.82 | 0.57 | ug/m3 | | | 02/15/19 15:33 | 1 |
| n-Hexane | 0.70 | | 0.70 | 0.56 | ug/m3 | | | 02/15/19 15:33 | 1 |
| n-Propylbenzene | 0.98 | | 0.98 | 0.34 | ug/m3 | | | 02/15/19 15:33 | 1 |
| o-Xylene | 0.87 | | 0.87 | 0.31 | ug/m3 | | | 02/15/19 15:33 | 1 |
| sec-Butylbenzene | 1.10 | | 1.10 | 0.36 | ug/m3 | | | 02/15/19 15:33 | 1 |
| Styrene | 0.85 | | 0.85 | 0.37 | ug/m3 | | | 02/15/19 15:33 | 1 |
| tert-Butyl alcohol | 15.2 | | 15.2 | 4.55 | ug/m3 | | | 02/15/19 15:33 | 1 |
| tert-Butylbenzene | 1.10 | | 1.10 | 0.32 | ug/m3 | | | 02/15/19 15:33 | 1 |
| Tetrachloroethene | 1.36 | | 1.36 | 0.20 | ug/m3 | | | 02/15/19 15:33 | 1 |
| Tetrahydrofuran | 14.7 | | 14.7 | 7.67 | ug/m3 | | | 02/15/19 15:33 | 1 |
| Toluene | 0.75 | | 0.75 | 0.26 | ug/m3 | | | 02/15/19 15:33 | 1 |
| trans-1,2-Dichloroethene | 0.79 | | 0.79 | 0.29 | ug/m3 | | | 02/15/19 15:33 | 1 |
| trans-1,3-Dichloropropene | 0.91 | | 0.91 | 0.54 | ug/m3 | | | 02/15/19 15:33 | 1 |
| Trichloroethene | 0.19 | | 0.19 | 0.16 | ug/m3 | | | 02/15/19 15:33 | 1 |
| Trichlorofluoromethane | 1.12 | | 1.12 | 0.35 | ug/m3 | | | 02/15/19 15:33 | 1 |
| Vinyl chloride | 0.090 | | 0.090 | 0.10 | ug/m3 | | | 02/15/19 15:33 | 1 |

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.20 | | 0.20 | 0.068 | ppb v/v | | | 02/15/19 15:33 | 1 |

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

**Lab Sample ID: MB 200-140031/5**
**Matrix: Air**
**Analysis Batch: 140031**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,2,2-Tetrachloroethane | 0.20 | | 0.20 | 0.076 | ppb v/v | | | 02/15/19 15:33 | 1 |
| 1,1,2-Trichloroethane | 0.20 | | 0.20 | 0.078 | ppb v/v | | | 02/15/19 15:33 | 1 |
| 1,1,2-Trichlorotrifluoroethane | 0.20 | | 0.20 | 0.031 | ppb v/v | | | 02/15/19 15:33 | 1 |
| 1,1-Dichloroethane | 0.20 | | 0.20 | 0.026 | ppb v/v | | | 02/15/19 15:33 | 1 |
| 1,1-Dichloroethene | 0.035 | | 0.035 | 0.034 | ppb v/v | | | 02/15/19 15:33 | 1 |
| 1,2,4-Trichlorobenzene | 0.50 | | 0.50 | 0.24 | ppb v/v | | | 02/15/19 15:33 | 1 |
| 1,2,4-Trimethylbenzene | 0.20 | | 0.20 | 0.080 | ppb v/v | | | 02/15/19 15:33 | 1 |
| 1,2-Dibromoethane | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/15/19 15:33 | 1 |
| 1,2-Dichlorobenzene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/15/19 15:33 | 1 |
| 1,2-Dichloroethane | 0.20 | | 0.20 | 0.063 | ppb v/v | | | 02/15/19 15:33 | 1 |
| 1,2-Dichloropropane | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/15/19 15:33 | 1 |
| 1,2-Dichlorotetrafluoroethane | 0.20 | | 0.20 | 0.068 | ppb v/v | | | 02/15/19 15:33 | 1 |
| 1,3,5-Trimethylbenzene | 0.20 | | 0.20 | 0.058 | ppb v/v | | | 02/15/19 15:33 | 1 |
| 1,3-Butadiene | 0.20 | | 0.20 | 0.065 | ppb v/v | | | 02/15/19 15:33 | 1 |
| 1,3-Dichlorobenzene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/15/19 15:33 | 1 |
| 1,4-Dichlorobenzene | 0.20 | | 0.20 | 0.065 | ppb v/v | | | 02/15/19 15:33 | 1 |
| 1,4-Dioxane | 5.00 | | 5.00 | 1.30 | ppb v/v | | | 02/15/19 15:33 | 1 |
| 2,2,4-Trimethylpentane | 0.20 | | 0.20 | 0.088 | ppb v/v | | | 02/15/19 15:33 | 1 |
| 2-Chlorotoluene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/15/19 15:33 | 1 |
| 3-Chloropropene | 0.50 | | 0.50 | 0.27 | ppb v/v | | | 02/15/19 15:33 | 1 |
| 4-Ethyltoluene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/15/19 15:33 | 1 |
| 4-Isopropyltoluene | 0.20 | | 0.20 | 0.075 | ppb v/v | | | 02/15/19 15:33 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 0.50 | | 0.50 | 0.36 | ppb v/v | | | 02/15/19 15:33 | 1 |
| Acetone | 5.00 | | 5.00 | 2.60 | ppb v/v | | | 02/15/19 15:33 | 1 |
| Benzene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/15/19 15:33 | 1 |
| Benzyl chloride | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/15/19 15:33 | 1 |
| Bromodichloromethane | 0.20 | | 0.20 | 0.094 | ppb v/v | | | 02/15/19 15:33 | 1 |
| Bromoethene(Vinyl Bromide) | 0.20 | | 0.20 | 0.056 | ppb v/v | | | 02/15/19 15:33 | 1 |
| Bromoform | 0.20 | | 0.20 | 0.086 | ppb v/v | | | 02/15/19 15:33 | 1 |
| Bromomethane | 0.20 | | 0.20 | 0.062 | ppb v/v | | | 02/15/19 15:33 | 1 |
| Carbon disulfide | 0.50 | | 0.50 | 0.12 | ppb v/v | | | 02/15/19 15:33 | 1 |
| Carbon tetrachloride | 0.035 | | 0.035 | 0.024 | ppb v/v | | | 02/15/19 15:33 | 1 |
| Chlorobenzene | 0.20 | | 0.20 | 0.040 | ppb v/v | | | 02/15/19 15:33 | 1 |
| Chlorodifluoromethane | 0.50 | | 0.50 | 0.26 | ppb v/v | | | 02/15/19 15:33 | 1 |
| Chloroethane | 0.50 | | 0.50 | 0.21 | ppb v/v | | | 02/15/19 15:33 | 1 |
| Chloroform | 0.20 | | 0.20 | 0.052 | ppb v/v | | | 02/15/19 15:33 | 1 |
| Chloromethane | 0.50 | | 0.50 | 0.25 | ppb v/v | | | 02/15/19 15:33 | 1 |
| cis-1,2-Dichloroethene | 0.035 | | 0.035 | 0.037 | ppb v/v | | | 02/15/19 15:33 | 1 |
| cis-1,3-Dichloropropene | 0.20 | | 0.20 | 0.098 | ppb v/v | | | 02/15/19 15:33 | 1 |
| Cumene | 0.20 | | 0.20 | 0.059 | ppb v/v | | | 02/15/19 15:33 | 1 |
| Cyclohexane | 0.20 | | 0.20 | 0.063 | ppb v/v | | | 02/15/19 15:33 | 1 |
| Dibromochloromethane | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/15/19 15:33 | 1 |
| Dichlorodifluoromethane | 0.50 | | 0.50 | 0.20 | ppb v/v | | | 02/15/19 15:33 | 1 |
| Ethylbenzene | 0.20 | | 0.20 | 0.073 | ppb v/v | | | 02/15/19 15:33 | 1 |
| Hexachlorobutadiene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/15/19 15:33 | 1 |
| Isopropyl alcohol | 5.00 | | 5.00 | 1.80 | ppb v/v | | | 02/15/19 15:33 | 1 |
| m,p-Xylene | 0.50 | | 0.50 | 0.070 | ppb v/v | | | 02/15/19 15:33 | 1 |

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

**Lab Sample ID: MB 200-140031/5**
**Matrix: Air**
**Analysis Batch: 140031**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Methyl Butyl Ketone (2-Hexanone) | 0.50 | | 0.50 | 0.42 | ppb v/v | | | 02/15/19 15:33 | 1 |
| Methyl Ethyl Ketone (2-Butanone) | 0.50 | | 0.50 | 0.20 | ppb v/v | | | 02/15/19 15:33 | 1 |
| Methyl methacrylate | 0.50 | | 0.50 | 0.22 | ppb v/v | | | 02/15/19 15:33 | 1 |
| Methyl tert-butyl ether | 0.20 | | 0.20 | 0.061 | ppb v/v | | | 02/15/19 15:33 | 1 |
| Methylene Chloride | 0.50 | | 0.50 | 0.20 | ppb v/v | | | 02/15/19 15:33 | 1 |
| Naphthalene | 0.50 | | 0.50 | 0.31 | ppb v/v | | | 02/15/19 15:33 | 1 |
| n-Butane | 0.50 | | 0.50 | 0.31 | ppb v/v | | | 02/15/19 15:33 | 1 |
| n-Butylbenzene | 0.20 | | 0.20 | 0.080 | ppb v/v | | | 02/15/19 15:33 | 1 |
| n-Heptane | 0.20 | | 0.20 | 0.14 | ppb v/v | | | 02/15/19 15:33 | 1 |
| n-Hexane | 0.20 | | 0.20 | 0.16 | ppb v/v | | | 02/15/19 15:33 | 1 |
| n-Propylbenzene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/15/19 15:33 | 1 |
| o-Xylene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/15/19 15:33 | 1 |
| sec-Butylbenzene | 0.20 | | 0.20 | 0.066 | ppb v/v | | | 02/15/19 15:33 | 1 |
| Styrene | 0.20 | | 0.20 | 0.086 | ppb v/v | | | 02/15/19 15:33 | 1 |
| tert-Butyl alcohol | 5.00 | | 5.00 | 1.50 | ppb v/v | | | 02/15/19 15:33 | 1 |
| tert-Butylbenzene | 0.20 | | 0.20 | 0.058 | ppb v/v | | | 02/15/19 15:33 | 1 |
| Tetrachloroethene | 0.20 | | 0.20 | 0.029 | ppb v/v | | | 02/15/19 15:33 | 1 |
| Tetrahydrofuran | 5.00 | | 5.00 | 2.60 | ppb v/v | | | 02/15/19 15:33 | 1 |
| Toluene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/15/19 15:33 | 1 |
| trans-1,2-Dichloroethene | 0.20 | | 0.20 | 0.074 | ppb v/v | | | 02/15/19 15:33 | 1 |
| trans-1,3-Dichloropropene | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/15/19 15:33 | 1 |
| Trichloroethene | 0.035 | | 0.035 | 0.030 | ppb v/v | | | 02/15/19 15:33 | 1 |
| Trichlorofluoromethane | 0.20 | | 0.20 | 0.062 | ppb v/v | | | 02/15/19 15:33 | 1 |
| Vinyl chloride | 0.035 | | 0.035 | 0.041 | ppb v/v | | | 02/15/19 15:33 | 1 |

**Lab Sample ID: LCS 200-140031/3**
**Matrix: Air**
**Analysis Batch: 140031**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 54.6 | 48.40 | | ug/m3 | | 89 | 70 - 130 |
| 1,1,2,2-Tetrachloroethane | 68.6 | 64.31 | | ug/m3 | | 94 | 69 - 129 |
| 1,1,2-Trichloroethane | 54.6 | 51.33 | | ug/m3 | | 94 | 69 - 129 |
| 1,1,2-Trichlorotrifluoroethane | 76.6 | 70.11 | | ug/m3 | | 91 | 68 - 128 |
| 1,1-Dichloroethane | 40.5 | 33.61 | | ug/m3 | | 83 | 66 - 126 |
| 1,1-Dichloroethene | 39.6 | 36.73 | | ug/m3 | | 93 | 67 - 127 |
| 1,2,4-Trichlorobenzene | 74.2 | 76.90 | | ug/m3 | | 104 | 59 - 126 |
| 1,2,4-Trimethylbenzene | 49.2 | 46.06 | | ug/m3 | | 94 | 65 - 125 |
| 1,2-Dibromoethane | 76.8 | 73.89 | | ug/m3 | | 96 | 70 - 130 |
| 1,2-Dichlorobenzene | 60.1 | 55.33 | | ug/m3 | | 92 | 67 - 127 |
| 1,2-Dichloroethane | 40.5 | 32.94 | | ug/m3 | | 81 | 67 - 132 |
| 1,2-Dichloropropane | 46.2 | 41.58 | | ug/m3 | | 90 | 67 - 127 |
| 1,2-Dichlorotetrafluoroethane | 69.9 | 59.26 | | ug/m3 | | 85 | 78 - 138 |
| 1,3,5-Trimethylbenzene | 49.2 | 45.80 | | ug/m3 | | 93 | 65 - 125 |
| 1,3-Butadiene | 22.1 | 18.69 | | ug/m3 | | 85 | 59 - 125 |
| 1,3-Dichlorobenzene | 60.1 | 58.02 | | ug/m3 | | 97 | 67 - 127 |
| 1,4-Dichlorobenzene | 60.1 | 57.53 | | ug/m3 | | 96 | 66 - 126 |
| 1,4-Dioxane | 36.0 | 38.37 | | ug/m3 | | 106 | 66 - 132 |

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

**Lab Sample ID: LCS 200-140031/3**
**Matrix: Air**
**Analysis Batch: 140031**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 2,2,4-Trimethylpentane | 46.7 | 41.41 | | ug/m3 | | 89 | 67 - 127 |
| 2-Chlorotoluene | 51.8 | 47.86 | | ug/m3 | | 92 | 67 - 127 |
| 3-Chloropropene | 31.3 | 21.37 | | ug/m3 | | 68 | 53 - 133 |
| 4-Ethyltoluene | 49.2 | 47.91 | | ug/m3 | | 97 | 69 - 129 |
| 4-Isopropyltoluene | 54.9 | 50.80 | | ug/m3 | | 93 | 67 - 129 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 41.0 | 35.34 | | ug/m3 | | 86 | 62 - 130 |
| Acetone | 23.7 | 20.55 | | ug/m3 | | 87 | 64 - 136 |
| Benzene | 31.9 | 28.80 | | ug/m3 | | 90 | 67 - 127 |
| Benzyl chloride | 51.8 | 45.76 | | ug/m3 | | 88 | 54 - 135 |
| Bromodichloromethane | 67.0 | 60.13 | | ug/m3 | | 90 | 69 - 129 |
| Bromoethene(Vinyl Bromide) | 43.7 | 43.06 | | ug/m3 | | 98 | 67 - 127 |
| Bromoform | 103 | 105.5 | | ug/m3 | | 102 | 34 - 170 |
| Bromomethane | 38.8 | 35.98 | | ug/m3 | | 93 | 68 - 128 |
| Carbon disulfide | 31.1 | 29.40 | | ug/m3 | | 94 | 81 - 141 |
| Carbon tetrachloride | 62.9 | 55.24 | | ug/m3 | | 88 | 62 - 143 |
| Chlorobenzene | 46.0 | 44.58 | | ug/m3 | | 97 | 68 - 128 |
| Chlorodifluoromethane | 35.4 | 27.60 | | ug/m3 | | 78 | 64 - 128 |
| Chloroethane | 26.4 | 24.03 | | ug/m3 | | 91 | 65 - 125 |
| Chloroform | 48.8 | 42.90 | | ug/m3 | | 88 | 69 - 129 |
| Chloromethane | 20.6 | 16.34 | | ug/m3 | | 79 | 57 - 126 |
| cis-1,2-Dichloroethene | 39.6 | 36.06 | | ug/m3 | | 91 | 67 - 127 |
| cis-1,3-Dichloropropene | 45.4 | 41.42 | | ug/m3 | | 91 | 70 - 130 |
| Cumene | 49.1 | 47.03 | | ug/m3 | | 96 | 67 - 127 |
| Cyclohexane | 34.4 | 33.03 | | ug/m3 | | 96 | 69 - 129 |
| Dibromochloromethane | 85.2 | 81.92 | | ug/m3 | | 96 | 66 - 130 |
| Dichlorodifluoromethane | 49.4 | 41.41 | | ug/m3 | | 84 | 68 - 128 |
| Ethylbenzene | 43.4 | 39.65 | | ug/m3 | | 91 | 68 - 128 |
| Hexachlorobutadiene | 107 | 99.16 | | ug/m3 | | 93 | 62 - 130 |
| Isopropyl alcohol | 24.6 | 21.90 | | ug/m3 | | 89 | 55 - 124 |
| m,p-Xylene | 86.8 | 83.85 | | ug/m3 | | 97 | 68 - 128 |
| Methyl Butyl Ketone (2-Hexanone) | 41.0 | 36.06 | | ug/m3 | | 88 | 61 - 127 |
| Methyl Ethyl Ketone (2-Butanone) | 29.5 | 27.90 | | ug/m3 | | 95 | 62 - 122 |
| Methyl methacrylate | 40.9 | 40.16 | | ug/m3 | | 98 | 70 - 130 |
| Methyl tert-butyl ether | 36.0 | 32.80 | | ug/m3 | | 91 | 67 - 127 |
| Methylene Chloride | 34.7 | 28.10 | | ug/m3 | | 81 | 62 - 122 |
| Naphthalene | 52.4 | 47.78 | | ug/m3 | | 91 | 50 - 121 |
| n-Butane | 23.8 | 18.23 | | ug/m3 | | 77 | 56 - 130 |
| n-Butylbenzene | 54.9 | 49.72 | | ug/m3 | | 91 | 67 - 127 |
| n-Heptane | 41.0 | 33.87 | | ug/m3 | | 83 | 62 - 130 |
| n-Hexane | 35.2 | 27.04 | | ug/m3 | | 77 | 71 - 131 |
| n-Propylbenzene | 49.1 | 46.71 | | ug/m3 | | 95 | 67 - 127 |
| o-Xylene | 43.4 | 41.67 | | ug/m3 | | 96 | 67 - 127 |
| sec-Butylbenzene | 54.9 | 49.76 | | ug/m3 | | 91 | 66 - 126 |
| Styrene | 42.6 | 42.30 | | ug/m3 | | 99 | 68 - 128 |
| tert-Butyl alcohol | 30.3 | 28.35 | | ug/m3 | | 94 | 64 - 124 |
| tert-Butylbenzene | 54.9 | 51.81 | | ug/m3 | | 94 | 63 - 125 |

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

**Lab Sample ID: LCS 200-140031/3**
**Matrix: Air**
**Analysis Batch: 140031**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Tetrachloroethene | 67.8 | 64.53 | | ug/m3 | | 95 | 70 - 130 |
| Tetrahydrofuran | 29.5 | 26.23 | | ug/m3 | | 89 | 61 - 136 |
| Toluene | 37.7 | 35.07 | | ug/m3 | | 93 | 67 - 127 |
| trans-1,2-Dichloroethene | 39.6 | 33.45 | | ug/m3 | | 84 | 72 - 132 |
| trans-1,3-Dichloropropene | 45.4 | 41.64 | | ug/m3 | | 92 | 69 - 129 |
| Trichloroethene | 53.7 | 48.77 | | ug/m3 | | 91 | 68 - 128 |
| Trichlorofluoromethane | 56.2 | 49.51 | | ug/m3 | | 88 | 67 - 127 |
| Vinyl chloride | 25.6 | 20.85 | | ug/m3 | | 82 | 62 - 125 |

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 10.0 | 8.870 | | ppb v/v | | 89 | 70 - 130 |
| 1,1,2,2-Tetrachloroethane | 10.0 | 9.368 | | ppb v/v | | 94 | 69 - 129 |
| 1,1,2-Trichloroethane | 10.0 | 9.406 | | ppb v/v | | 94 | 69 - 129 |
| 1,1,2-Trichlorotrifluoroethane | 10.0 | 9.148 | | ppb v/v | | 91 | 68 - 128 |
| 1,1-Dichloroethane | 10.0 | 8.303 | | ppb v/v | | 83 | 66 - 126 |
| 1,1-Dichloroethene | 10.0 | 9.265 | | ppb v/v | | 93 | 67 - 127 |
| 1,2,4-Trichlorobenzene | 10.0 | 10.36 | | ppb v/v | | 104 | 59 - 126 |
| 1,2,4-Trimethylbenzene | 10.0 | 9.369 | | ppb v/v | | 94 | 65 - 125 |
| 1,2-Dibromoethane | 10.0 | 9.616 | | ppb v/v | | 96 | 70 - 130 |
| 1,2-Dichlorobenzene | 10.0 | 9.202 | | ppb v/v | | 92 | 67 - 127 |
| 1,2-Dichloroethane | 10.0 | 8.137 | | ppb v/v | | 81 | 67 - 132 |
| 1,2-Dichloropropane | 10.0 | 8.998 | | ppb v/v | | 90 | 67 - 127 |
| 1,2-Dichlorotetrafluoroethane | 10.0 | 8.477 | | ppb v/v | | 85 | 78 - 138 |
| 1,3,5-Trimethylbenzene | 10.0 | 9.316 | | ppb v/v | | 93 | 65 - 125 |
| 1,3-Butadiene | 10.0 | 8.449 | | ppb v/v | | 85 | 59 - 125 |
| 1,3-Dichlorobenzene | 10.0 | 9.650 | | ppb v/v | | 97 | 67 - 127 |
| 1,4-Dichlorobenzene | 10.0 | 9.569 | | ppb v/v | | 96 | 66 - 126 |
| 1,4-Dioxane | 10.0 | 10.65 | | ppb v/v | | 106 | 66 - 132 |
| 2,2,4-Trimethylpentane | 10.0 | 8.863 | | ppb v/v | | 89 | 67 - 127 |
| 2-Chlorotoluene | 10.0 | 9.243 | | ppb v/v | | 92 | 67 - 127 |
| 3-Chloropropene | 10.0 | 6.826 | | ppb v/v | | 68 | 53 - 133 |
| 4-Ethyltoluene | 10.0 | 9.746 | | ppb v/v | | 97 | 69 - 129 |
| 4-Isopropyltoluene | 10.0 | 9.253 | | ppb v/v | | 93 | 67 - 129 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 10.0 | 8.627 | | ppb v/v | | 86 | 62 - 130 |
| Acetone | 10.0 | 8.650 | | ppb v/v | | 87 | 64 - 136 |
| Benzene | 10.0 | 9.016 | | ppb v/v | | 90 | 67 - 127 |
| Benzyl chloride | 10.0 | 8.839 | | ppb v/v | | 88 | 54 - 135 |
| Bromodichloromethane | 10.0 | 8.974 | | ppb v/v | | 90 | 69 - 129 |
| Bromoethene(Vinyl Bromide) | 10.0 | 9.843 | | ppb v/v | | 98 | 67 - 127 |
| Bromoform | 10.0 | 10.20 | | ppb v/v | | 102 | 34 - 170 |
| Bromomethane | 10.0 | 9.265 | | ppb v/v | | 93 | 68 - 128 |
| Carbon disulfide | 10.0 | 9.440 | | ppb v/v | | 94 | 81 - 141 |
| Carbon tetrachloride | 10.0 | 8.781 | | ppb v/v | | 88 | 62 - 143 |
| Chlorobenzene | 10.0 | 9.684 | | ppb v/v | | 97 | 68 - 128 |
| Chlorodifluoromethane | 10.0 | 7.803 | | ppb v/v | | 78 | 64 - 128 |
| Chloroethane | 10.0 | 9.107 | | ppb v/v | | 91 | 65 - 125 |
| Chloroform | 10.0 | 8.786 | | ppb v/v | | 88 | 69 - 129 |

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

**Lab Sample ID: LCS 200-140031/3**
**Matrix: Air**
**Analysis Batch: 140031**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chloromethane | 10.0 | 7.912 | | ppb v/v | | 79 | 57 - 126 |
| cis-1,2-Dichloroethene | 10.0 | 9.095 | | ppb v/v | | 91 | 67 - 127 |
| cis-1,3-Dichloropropene | 10.0 | 9.126 | | ppb v/v | | 91 | 70 - 130 |
| Cumene | 10.0 | 9.568 | | ppb v/v | | 96 | 67 - 127 |
| Cyclohexane | 10.0 | 9.596 | | ppb v/v | | 96 | 69 - 129 |
| Dibromochloromethane | 10.0 | 9.616 | | ppb v/v | | 96 | 66 - 130 |
| Dichlorodifluoromethane | 10.0 | 8.373 | | ppb v/v | | 84 | 68 - 128 |
| Ethylbenzene | 10.0 | 9.130 | | ppb v/v | | 91 | 68 - 128 |
| Hexachlorobutadiene | 10.0 | 9.297 | | ppb v/v | | 93 | 62 - 130 |
| Isopropyl alcohol | 10.0 | 8.908 | | ppb v/v | | 89 | 55 - 124 |
| m,p-Xylene | 20.0 | 19.31 | | ppb v/v | | 97 | 68 - 128 |
| Methyl Butyl Ketone (2-Hexanone) | 10.0 | 8.799 | | ppb v/v | | 88 | 61 - 127 |
| Methyl Ethyl Ketone (2-Butanone) | 10.0 | 9.459 | | ppb v/v | | 95 | 62 - 122 |
| Methyl methacrylate | 10.0 | 9.808 | | ppb v/v | | 98 | 70 - 130 |
| Methyl tert-butyl ether | 10.0 | 9.099 | | ppb v/v | | 91 | 67 - 127 |
| Methylene Chloride | 10.0 | 8.089 | | ppb v/v | | 81 | 62 - 122 |
| Naphthalene | 10.0 | 9.115 | | ppb v/v | | 91 | 50 - 121 |
| n-Butane | 10.0 | 7.668 | | ppb v/v | | 77 | 56 - 130 |
| n-Butylbenzene | 10.0 | 9.056 | | ppb v/v | | 91 | 67 - 127 |
| n-Heptane | 10.0 | 8.263 | | ppb v/v | | 83 | 62 - 130 |
| n-Hexane | 10.0 | 7.671 | | ppb v/v | | 77 | 71 - 131 |
| n-Propylbenzene | 10.0 | 9.502 | | ppb v/v | | 95 | 67 - 127 |
| o-Xylene | 10.0 | 9.597 | | ppb v/v | | 96 | 67 - 127 |
| sec-Butylbenzene | 10.0 | 9.065 | | ppb v/v | | 91 | 66 - 126 |
| Styrene | 10.0 | 9.930 | | ppb v/v | | 99 | 68 - 128 |
| tert-Butyl alcohol | 10.0 | 9.350 | | ppb v/v | | 94 | 64 - 124 |
| tert-Butylbenzene | 10.0 | 9.438 | | ppb v/v | | 94 | 63 - 125 |
| Tetrachloroethene | 10.0 | 9.515 | | ppb v/v | | 95 | 70 - 130 |
| Tetrahydrofuran | 10.0 | 8.894 | | ppb v/v | | 89 | 61 - 136 |
| Toluene | 10.0 | 9.306 | | ppb v/v | | 93 | 67 - 127 |
| trans-1,2-Dichloroethene | 10.0 | 8.438 | | ppb v/v | | 84 | 72 - 132 |
| trans-1,3-Dichloropropene | 10.0 | 9.174 | | ppb v/v | | 92 | 69 - 129 |
| Trichloroethene | 10.0 | 9.075 | | ppb v/v | | 91 | 68 - 128 |
| Trichlorofluoromethane | 10.0 | 8.812 | | ppb v/v | | 88 | 67 - 127 |
| Vinyl chloride | 10.0 | 8.158 | | ppb v/v | | 82 | 62 - 125 |

**Lab Sample ID: MB 200-140047/5**
**Matrix: Air**
**Analysis Batch: 140047**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.09 | | 1.09 | 0.37 | ug/m3 | | | 02/16/19 15:44 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.37 | | 1.37 | 0.52 | ug/m3 | | | 02/16/19 15:44 | 1 |
| 1,1,2-Trichloroethane | 1.09 | | 1.09 | 0.43 | ug/m3 | | | 02/16/19 15:44 | 1 |
| 1,1,2-Trichlorotrifluoroethane | 1.53 | | 1.53 | 0.24 | ug/m3 | | | 02/16/19 15:44 | 1 |
| 1,1-Dichloroethane | 0.81 | | 0.81 | 0.11 | ug/m3 | | | 02/16/19 15:44 | 1 |
| 1,1-Dichloroethene | 0.14 | | 0.14 | 0.13 | ug/m3 | | | 02/16/19 15:44 | 1 |

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

**Lab Sample ID: MB 200-140047/5**
**Matrix: Air**
**Analysis Batch: 140047**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 3.71 | | 3.71 | 1.78 | ug/m3 | | | 02/16/19 15:44 | 1 |
| 1,2,4-Trimethylbenzene | 0.98 | | 0.98 | 0.39 | ug/m3 | | | 02/16/19 15:44 | 1 |
| 1,2-Dibromoethane | 1.54 | | 1.54 | 0.53 | ug/m3 | | | 02/16/19 15:44 | 1 |
| 1,2-Dichlorobenzene | 1.20 | | 1.20 | 0.43 | ug/m3 | | | 02/16/19 15:44 | 1 |
| 1,2-Dichloroethane | 0.81 | | 0.81 | 0.25 | ug/m3 | | | 02/16/19 15:44 | 1 |
| 1,2-Dichloropropane | 0.92 | | 0.92 | 0.55 | ug/m3 | | | 02/16/19 15:44 | 1 |
| 1,2-Dichlorotetrafluoroethane | 1.40 | | 1.40 | 0.48 | ug/m3 | | | 02/16/19 15:44 | 1 |
| 1,3,5-Trimethylbenzene | 0.98 | | 0.98 | 0.29 | ug/m3 | | | 02/16/19 15:44 | 1 |
| 1,3-Butadiene | 0.44 | | 0.44 | 0.14 | ug/m3 | | | 02/16/19 15:44 | 1 |
| 1,3-Dichlorobenzene | 1.20 | | 1.20 | 0.49 | ug/m3 | | | 02/16/19 15:44 | 1 |
| 1,4-Dichlorobenzene | 1.20 | | 1.20 | 0.39 | ug/m3 | | | 02/16/19 15:44 | 1 |
| 1,4-Dioxane | 18.0 | | 18.0 | 4.68 | ug/m3 | | | 02/16/19 15:44 | 1 |
| 2,2,4-Trimethylpentane | 0.93 | | 0.93 | 0.41 | ug/m3 | | | 02/16/19 15:44 | 1 |
| 2-Chlorotoluene | 1.04 | | 1.04 | 0.37 | ug/m3 | | | 02/16/19 15:44 | 1 |
| 3-Chloropropene | 1.57 | | 1.57 | 0.85 | ug/m3 | | | 02/16/19 15:44 | 1 |
| 4-Ethyltoluene | 0.98 | | 0.98 | 0.34 | ug/m3 | | | 02/16/19 15:44 | 1 |
| 4-Isopropyltoluene | 1.10 | | 1.10 | 0.41 | ug/m3 | | | 02/16/19 15:44 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 2.05 | | 2.05 | 1.47 | ug/m3 | | | 02/16/19 15:44 | 1 |
| Acetone | 11.9 | | 11.9 | 6.18 | ug/m3 | | | 02/16/19 15:44 | 1 |
| Benzene | 0.64 | | 0.64 | 0.23 | ug/m3 | | | 02/16/19 15:44 | 1 |
| Benzyl chloride | 1.04 | | 1.04 | 0.62 | ug/m3 | | | 02/16/19 15:44 | 1 |
| Bromodichloromethane | 1.34 | | 1.34 | 0.63 | ug/m3 | | | 02/16/19 15:44 | 1 |
| Bromoethene(Vinyl Bromide) | 0.87 | | 0.87 | 0.24 | ug/m3 | | | 02/16/19 15:44 | 1 |
| Bromoform | 2.07 | | 2.07 | 0.89 | ug/m3 | | | 02/16/19 15:44 | 1 |
| Bromomethane | 0.78 | | 0.78 | 0.24 | ug/m3 | | | 02/16/19 15:44 | 1 |
| Carbon disulfide | 1.56 | | 1.56 | 0.37 | ug/m3 | | | 02/16/19 15:44 | 1 |
| Carbon tetrachloride | 0.22 | | 0.22 | 0.15 | ug/m3 | | | 02/16/19 15:44 | 1 |
| Chlorobenzene | 0.92 | | 0.92 | 0.18 | ug/m3 | | | 02/16/19 15:44 | 1 |
| Chlorodifluoromethane | 1.77 | | 1.77 | 0.92 | ug/m3 | | | 02/16/19 15:44 | 1 |
| Chloroethane | 1.32 | | 1.32 | 0.55 | ug/m3 | | | 02/16/19 15:44 | 1 |
| Chloroform | 0.98 | | 0.98 | 0.25 | ug/m3 | | | 02/16/19 15:44 | 1 |
| Chloromethane | 1.03 | | 1.03 | 0.52 | ug/m3 | | | 02/16/19 15:44 | 1 |
| cis-1,2-Dichloroethene | 0.14 | | 0.14 | 0.15 | ug/m3 | | | 02/16/19 15:44 | 1 |
| cis-1,3-Dichloropropene | 0.91 | | 0.91 | 0.44 | ug/m3 | | | 02/16/19 15:44 | 1 |
| Cumene | 0.98 | | 0.98 | 0.29 | ug/m3 | | | 02/16/19 15:44 | 1 |
| Cyclohexane | 0.69 | | 0.69 | 0.22 | ug/m3 | | | 02/16/19 15:44 | 1 |
| Dibromochloromethane | 1.70 | | 1.70 | 0.60 | ug/m3 | | | 02/16/19 15:44 | 1 |
| Dichlorodifluoromethane | 2.47 | | 2.47 | 0.99 | ug/m3 | | | 02/16/19 15:44 | 1 |
| Ethylbenzene | 0.87 | | 0.87 | 0.32 | ug/m3 | | | 02/16/19 15:44 | 1 |
| Hexachlorobutadiene | 2.13 | | 2.13 | 0.87 | ug/m3 | | | 02/16/19 15:44 | 1 |
| Isopropyl alcohol | 12.3 | | 12.3 | 4.42 | ug/m3 | | | 02/16/19 15:44 | 1 |
| m,p-Xylene | 2.17 | | 2.17 | 0.30 | ug/m3 | | | 02/16/19 15:44 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 2.05 | | 2.05 | 1.72 | ug/m3 | | | 02/16/19 15:44 | 1 |
| Methyl Ethyl Ketone (2-Butanone) | 1.47 | | 1.47 | 0.59 | ug/m3 | | | 02/16/19 15:44 | 1 |
| Methyl methacrylate | 2.05 | | 2.05 | 0.90 | ug/m3 | | | 02/16/19 15:44 | 1 |
| Methyl tert-butyl ether | 0.72 | | 0.72 | 0.22 | ug/m3 | | | 02/16/19 15:44 | 1 |
| Methylene Chloride | 1.74 | | 1.74 | 0.69 | ug/m3 | | | 02/16/19 15:44 | 1 |

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

**Lab Sample ID: MB 200-140047/5**
**Matrix: Air**
**Analysis Batch: 140047**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Naphthalene | 2.62 | | 2.62 | 1.63 | ug/m3 | | | 02/16/19 15:44 | 1 |
| n-Butane | 1.19 | | 1.19 | 0.74 | ug/m3 | | | 02/16/19 15:44 | 1 |
| n-Butylbenzene | 1.10 | | 1.10 | 0.44 | ug/m3 | | | 02/16/19 15:44 | 1 |
| n-Heptane | 0.82 | | 0.82 | 0.57 | ug/m3 | | | 02/16/19 15:44 | 1 |
| n-Hexane | 0.70 | | 0.70 | 0.56 | ug/m3 | | | 02/16/19 15:44 | 1 |
| n-Propylbenzene | 0.98 | | 0.98 | 0.34 | ug/m3 | | | 02/16/19 15:44 | 1 |
| o-Xylene | 0.87 | | 0.87 | 0.31 | ug/m3 | | | 02/16/19 15:44 | 1 |
| sec-Butylbenzene | 1.10 | | 1.10 | 0.36 | ug/m3 | | | 02/16/19 15:44 | 1 |
| Styrene | 0.85 | | 0.85 | 0.37 | ug/m3 | | | 02/16/19 15:44 | 1 |
| tert-Butyl alcohol | 15.2 | | 15.2 | 4.55 | ug/m3 | | | 02/16/19 15:44 | 1 |
| tert-Butylbenzene | 1.10 | | 1.10 | 0.32 | ug/m3 | | | 02/16/19 15:44 | 1 |
| Tetrachloroethene | 1.36 | | 1.36 | 0.20 | ug/m3 | | | 02/16/19 15:44 | 1 |
| Tetrahydrofuran | 14.7 | | 14.7 | 7.67 | ug/m3 | | | 02/16/19 15:44 | 1 |
| Toluene | 0.75 | | 0.75 | 0.26 | ug/m3 | | | 02/16/19 15:44 | 1 |
| trans-1,2-Dichloroethene | 0.79 | | 0.79 | 0.29 | ug/m3 | | | 02/16/19 15:44 | 1 |
| trans-1,3-Dichloropropene | 0.91 | | 0.91 | 0.54 | ug/m3 | | | 02/16/19 15:44 | 1 |
| Trichloroethene | 0.19 | | 0.19 | 0.16 | ug/m3 | | | 02/16/19 15:44 | 1 |
| Trichlorofluoromethane | 1.12 | | 1.12 | 0.35 | ug/m3 | | | 02/16/19 15:44 | 1 |
| Vinyl chloride | 0.090 | | 0.090 | 0.10 | ug/m3 | | | 02/16/19 15:44 | 1 |

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.20 | | 0.20 | 0.068 | ppb v/v | | | 02/16/19 15:44 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.20 | | 0.20 | 0.076 | ppb v/v | | | 02/16/19 15:44 | 1 |
| 1,1,2-Trichloroethane | 0.20 | | 0.20 | 0.078 | ppb v/v | | | 02/16/19 15:44 | 1 |
| 1,1,2-Trichlorotrifluoroethane | 0.20 | | 0.20 | 0.031 | ppb v/v | | | 02/16/19 15:44 | 1 |
| 1,1-Dichloroethane | 0.20 | | 0.20 | 0.026 | ppb v/v | | | 02/16/19 15:44 | 1 |
| 1,1-Dichloroethene | 0.035 | | 0.035 | 0.034 | ppb v/v | | | 02/16/19 15:44 | 1 |
| 1,2,4-Trichlorobenzene | 0.50 | | 0.50 | 0.24 | ppb v/v | | | 02/16/19 15:44 | 1 |
| 1,2,4-Trimethylbenzene | 0.20 | | 0.20 | 0.080 | ppb v/v | | | 02/16/19 15:44 | 1 |
| 1,2-Dibromoethane | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/16/19 15:44 | 1 |
| 1,2-Dichlorobenzene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 15:44 | 1 |
| 1,2-Dichloroethane | 0.20 | | 0.20 | 0.063 | ppb v/v | | | 02/16/19 15:44 | 1 |
| 1,2-Dichloropropane | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/16/19 15:44 | 1 |
| 1,2-Dichlorotetrafluoroethane | 0.20 | | 0.20 | 0.068 | ppb v/v | | | 02/16/19 15:44 | 1 |
| 1,3,5-Trimethylbenzene | 0.20 | | 0.20 | 0.058 | ppb v/v | | | 02/16/19 15:44 | 1 |
| 1,3-Butadiene | 0.20 | | 0.20 | 0.065 | ppb v/v | | | 02/16/19 15:44 | 1 |
| 1,3-Dichlorobenzene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/16/19 15:44 | 1 |
| 1,4-Dichlorobenzene | 0.20 | | 0.20 | 0.065 | ppb v/v | | | 02/16/19 15:44 | 1 |
| 1,4-Dioxane | 5.00 | | 5.00 | 1.30 | ppb v/v | | | 02/16/19 15:44 | 1 |
| 2,2,4-Trimethylpentane | 0.20 | | 0.20 | 0.088 | ppb v/v | | | 02/16/19 15:44 | 1 |
| 2-Chlorotoluene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 15:44 | 1 |
| 3-Chloropropene | 0.50 | | 0.50 | 0.27 | ppb v/v | | | 02/16/19 15:44 | 1 |
| 4-Ethyltoluene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/16/19 15:44 | 1 |
| 4-Isopropyltoluene | 0.20 | | 0.20 | 0.075 | ppb v/v | | | 02/16/19 15:44 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 0.50 | | 0.50 | 0.36 | ppb v/v | | | 02/16/19 15:44 | 1 |
| Acetone | 5.00 | | 5.00 | 2.60 | ppb v/v | | | 02/16/19 15:44 | 1 |
| Benzene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 15:44 | 1 |

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

**Lab Sample ID: MB 200-140047/5**
**Matrix: Air**
**Analysis Batch: 140047**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzyl chloride | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/16/19 15:44 | 1 |
| Bromodichloromethane | 0.20 | | 0.20 | 0.094 | ppb v/v | | | 02/16/19 15:44 | 1 |
| Bromoethene(Vinyl Bromide) | 0.20 | | 0.20 | 0.056 | ppb v/v | | | 02/16/19 15:44 | 1 |
| Bromoform | 0.20 | | 0.20 | 0.086 | ppb v/v | | | 02/16/19 15:44 | 1 |
| Bromomethane | 0.20 | | 0.20 | 0.062 | ppb v/v | | | 02/16/19 15:44 | 1 |
| Carbon disulfide | 0.50 | | 0.50 | 0.12 | ppb v/v | | | 02/16/19 15:44 | 1 |
| Carbon tetrachloride | 0.035 | | 0.035 | 0.024 | ppb v/v | | | 02/16/19 15:44 | 1 |
| Chlorobenzene | 0.20 | | 0.20 | 0.040 | ppb v/v | | | 02/16/19 15:44 | 1 |
| Chlorodifluoromethane | 0.50 | | 0.50 | 0.26 | ppb v/v | | | 02/16/19 15:44 | 1 |
| Chloroethane | 0.50 | | 0.50 | 0.21 | ppb v/v | | | 02/16/19 15:44 | 1 |
| Chloroform | 0.20 | | 0.20 | 0.052 | ppb v/v | | | 02/16/19 15:44 | 1 |
| Chloromethane | 0.50 | | 0.50 | 0.25 | ppb v/v | | | 02/16/19 15:44 | 1 |
| cis-1,2-Dichloroethene | 0.035 | | 0.035 | 0.037 | ppb v/v | | | 02/16/19 15:44 | 1 |
| cis-1,3-Dichloropropene | 0.20 | | 0.20 | 0.098 | ppb v/v | | | 02/16/19 15:44 | 1 |
| Cumene | 0.20 | | 0.20 | 0.059 | ppb v/v | | | 02/16/19 15:44 | 1 |
| Cyclohexane | 0.20 | | 0.20 | 0.063 | ppb v/v | | | 02/16/19 15:44 | 1 |
| Dibromochloromethane | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 15:44 | 1 |
| Dichlorodifluoromethane | 0.50 | | 0.50 | 0.20 | ppb v/v | | | 02/16/19 15:44 | 1 |
| Ethylbenzene | 0.20 | | 0.20 | 0.073 | ppb v/v | | | 02/16/19 15:44 | 1 |
| Hexachlorobutadiene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/16/19 15:44 | 1 |
| Isopropyl alcohol | 5.00 | | 5.00 | 1.80 | ppb v/v | | | 02/16/19 15:44 | 1 |
| m,p-Xylene | 0.50 | | 0.50 | 0.070 | ppb v/v | | | 02/16/19 15:44 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 0.50 | | 0.50 | 0.42 | ppb v/v | | | 02/16/19 15:44 | 1 |
| Methyl Ethyl Ketone (2-Butanone) | 0.50 | | 0.50 | 0.20 | ppb v/v | | | 02/16/19 15:44 | 1 |
| Methyl methacrylate | 0.50 | | 0.50 | 0.22 | ppb v/v | | | 02/16/19 15:44 | 1 |
| Methyl tert-butyl ether | 0.20 | | 0.20 | 0.061 | ppb v/v | | | 02/16/19 15:44 | 1 |
| Methylene Chloride | 0.50 | | 0.50 | 0.20 | ppb v/v | | | 02/16/19 15:44 | 1 |
| Naphthalene | 0.50 | | 0.50 | 0.31 | ppb v/v | | | 02/16/19 15:44 | 1 |
| n-Butane | 0.50 | | 0.50 | 0.31 | ppb v/v | | | 02/16/19 15:44 | 1 |
| n-Butylbenzene | 0.20 | | 0.20 | 0.080 | ppb v/v | | | 02/16/19 15:44 | 1 |
| n-Heptane | 0.20 | | 0.20 | 0.14 | ppb v/v | | | 02/16/19 15:44 | 1 |
| n-Hexane | 0.20 | | 0.20 | 0.16 | ppb v/v | | | 02/16/19 15:44 | 1 |
| n-Propylbenzene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/16/19 15:44 | 1 |
| o-Xylene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/16/19 15:44 | 1 |
| sec-Butylbenzene | 0.20 | | 0.20 | 0.066 | ppb v/v | | | 02/16/19 15:44 | 1 |
| Styrene | 0.20 | | 0.20 | 0.086 | ppb v/v | | | 02/16/19 15:44 | 1 |
| tert-Butyl alcohol | 5.00 | | 5.00 | 1.50 | ppb v/v | | | 02/16/19 15:44 | 1 |
| tert-Butylbenzene | 0.20 | | 0.20 | 0.058 | ppb v/v | | | 02/16/19 15:44 | 1 |
| Tetrachloroethene | 0.20 | | 0.20 | 0.029 | ppb v/v | | | 02/16/19 15:44 | 1 |
| Tetrahydrofuran | 5.00 | | 5.00 | 2.60 | ppb v/v | | | 02/16/19 15:44 | 1 |
| Toluene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/16/19 15:44 | 1 |
| trans-1,2-Dichloroethene | 0.20 | | 0.20 | 0.074 | ppb v/v | | | 02/16/19 15:44 | 1 |
| trans-1,3-Dichloropropene | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/16/19 15:44 | 1 |
| Trichloroethene | 0.035 | | 0.035 | 0.030 | ppb v/v | | | 02/16/19 15:44 | 1 |
| Trichlorofluoromethane | 0.20 | | 0.20 | 0.062 | ppb v/v | | | 02/16/19 15:44 | 1 |
| Vinyl chloride | 0.035 | | 0.035 | 0.041 | ppb v/v | | | 02/16/19 15:44 | 1 |

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

**Lab Sample ID: LCS 200-140047/3**
**Matrix: Air**
**Analysis Batch: 140047**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 54.6 | 54.43 | | ug/m3 | | 100 | 70 - 130 |
| 1,1,2,2-Tetrachloroethane | 68.6 | 70.46 | | ug/m3 | | 103 | 69 - 129 |
| 1,1,2-Trichloroethane | 54.6 | 55.20 | | ug/m3 | | 101 | 69 - 129 |
| 1,1,2-Trichlorotrifluoroethane | 76.6 | 75.66 | | ug/m3 | | 99 | 68 - 128 |
| 1,1-Dichloroethane | 40.5 | 37.47 | | ug/m3 | | 93 | 66 - 126 |
| 1,1-Dichloroethene | 39.6 | 39.30 | | ug/m3 | | 99 | 67 - 127 |
| 1,2,4-Trichlorobenzene | 74.2 | 90.74 | | ug/m3 | | 122 | 59 - 126 |
| 1,2,4-Trimethylbenzene | 49.2 | 50.88 | | ug/m3 | | 104 | 65 - 125 |
| 1,2-Dibromoethane | 76.8 | 78.71 | | ug/m3 | | 102 | 70 - 130 |
| 1,2-Dichlorobenzene | 60.1 | 61.55 | | ug/m3 | | 102 | 67 - 127 |
| 1,2-Dichloroethane | 40.5 | 39.17 | | ug/m3 | | 97 | 67 - 132 |
| 1,2-Dichloropropane | 46.2 | 45.63 | | ug/m3 | | 99 | 67 - 127 |
| 1,2-Dichlorotetrafluoroethane | 69.9 | 68.81 | | ug/m3 | | 98 | 78 - 138 |
| 1,3,5-Trimethylbenzene | 49.2 | 50.66 | | ug/m3 | | 103 | 65 - 125 |
| 1,3-Butadiene | 22.1 | 21.92 | | ug/m3 | | 99 | 59 - 125 |
| 1,3-Dichlorobenzene | 60.1 | 64.61 | | ug/m3 | | 107 | 67 - 127 |
| 1,4-Dichlorobenzene | 60.1 | 64.30 | | ug/m3 | | 107 | 66 - 126 |
| 1,4-Dioxane | 36.0 | 36.78 | | ug/m3 | | 102 | 66 - 132 |
| 2,2,4-Trimethylpentane | 46.7 | 46.18 | | ug/m3 | | 99 | 67 - 127 |
| 2-Chlorotoluene | 51.8 | 51.83 | | ug/m3 | | 100 | 67 - 127 |
| 3-Chloropropene | 31.3 | 38.57 | | ug/m3 | | 123 | 53 - 133 |
| 4-Ethyltoluene | 49.2 | 51.42 | | ug/m3 | | 105 | 69 - 129 |
| 4-Isopropyltoluene | 54.9 | 55.05 | | ug/m3 | | 100 | 67 - 129 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 41.0 | 41.54 | | ug/m3 | | 101 | 62 - 130 |
| Acetone | 23.7 | 23.72 | | ug/m3 | | 100 | 64 - 136 |
| Benzene | 31.9 | 31.02 | | ug/m3 | | 97 | 67 - 127 |
| Benzyl chloride | 51.8 | 54.85 | | ug/m3 | | 106 | 54 - 135 |
| Bromodichloromethane | 67.0 | 67.56 | | ug/m3 | | 101 | 69 - 129 |
| Bromoethene(Vinyl Bromide) | 43.7 | 46.30 | | ug/m3 | | 106 | 67 - 127 |
| Bromoform | 103 | 121.0 | | ug/m3 | | 117 | 34 - 170 |
| Bromomethane | 38.8 | 39.51 | | ug/m3 | | 102 | 68 - 128 |
| Carbon disulfide | 31.1 | 31.94 | | ug/m3 | | 103 | 81 - 141 |
| Carbon tetrachloride | 62.9 | 62.69 | | ug/m3 | | 100 | 62 - 143 |
| Chlorobenzene | 46.0 | 46.92 | | ug/m3 | | 102 | 68 - 128 |
| Chlorodifluoromethane | 35.4 | 33.90 | | ug/m3 | | 96 | 64 - 128 |
| Chloroethane | 26.4 | 26.72 | | ug/m3 | | 101 | 65 - 125 |
| Chloroform | 48.8 | 48.01 | | ug/m3 | | 98 | 69 - 129 |
| Chloromethane | 20.6 | 19.95 | | ug/m3 | | 97 | 57 - 126 |
| cis-1,2-Dichloroethene | 39.6 | 38.53 | | ug/m3 | | 97 | 67 - 127 |
| cis-1,3-Dichloropropene | 45.4 | 45.65 | | ug/m3 | | 101 | 70 - 130 |
| Cumene | 49.1 | 50.30 | | ug/m3 | | 102 | 67 - 127 |
| Cyclohexane | 34.4 | 35.10 | | ug/m3 | | 102 | 69 - 129 |
| Dibromochloromethane | 85.2 | 90.67 | | ug/m3 | | 106 | 66 - 130 |
| Dichlorodifluoromethane | 49.4 | 49.83 | | ug/m3 | | 101 | 68 - 128 |
| Ethylbenzene | 43.4 | 42.13 | | ug/m3 | | 97 | 68 - 128 |
| Hexachlorobutadiene | 107 | 118.7 | | ug/m3 | | 111 | 62 - 130 |
| Isopropyl alcohol | 24.6 | 24.04 | | ug/m3 | | 98 | 55 - 124 |

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

**Lab Sample ID: LCS 200-140047/3**
**Matrix: Air**
**Analysis Batch: 140047**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| m,p-Xylene | 86.8 | 88.85 | | ug/m3 | | 102 | 68 - 128 |
| Methyl Butyl Ketone (2-Hexanone) | 41.0 | 41.99 | | ug/m3 | | 102 | 61 - 127 |
| Methyl Ethyl Ketone (2-Butanone) | 29.5 | 29.40 | | ug/m3 | | 100 | 62 - 122 |
| Methyl methacrylate | 40.9 | 43.88 | | ug/m3 | | 107 | 70 - 130 |
| Methyl tert-butyl ether | 36.0 | 35.94 | | ug/m3 | | 100 | 67 - 127 |
| Methylene Chloride | 34.7 | 32.85 | | ug/m3 | | 95 | 62 - 122 |
| Naphthalene | 52.4 | 61.97 | | ug/m3 | | 118 | 50 - 121 |
| n-Butane | 23.8 | 22.35 | | ug/m3 | | 94 | 56 - 130 |
| n-Butylbenzene | 54.9 | 53.86 | | ug/m3 | | 98 | 67 - 127 |
| n-Heptane | 41.0 | 39.56 | | ug/m3 | | 97 | 62 - 130 |
| n-Hexane | 35.2 | 29.79 | | ug/m3 | | 85 | 71 - 131 |
| n-Propylbenzene | 49.1 | 50.70 | | ug/m3 | | 103 | 67 - 127 |
| o-Xylene | 43.4 | 44.39 | | ug/m3 | | 102 | 67 - 127 |
| sec-Butylbenzene | 54.9 | 55.38 | | ug/m3 | | 101 | 66 - 126 |
| Styrene | 42.6 | 44.29 | | ug/m3 | | 104 | 68 - 128 |
| tert-Butyl alcohol | 30.3 | 30.20 | | ug/m3 | | 100 | 64 - 124 |
| tert-Butylbenzene | 54.9 | 57.19 | | ug/m3 | | 104 | 63 - 125 |
| Tetrachloroethene | 67.8 | 67.39 | | ug/m3 | | 99 | 70 - 130 |
| Tetrahydrofuran | 29.5 | 30.91 | | ug/m3 | | 105 | 61 - 136 |
| Toluene | 37.7 | 36.75 | | ug/m3 | | 98 | 67 - 127 |
| trans-1,2-Dichloroethene | 39.6 | 37.23 | | ug/m3 | | 94 | 72 - 132 |
| trans-1,3-Dichloropropene | 45.4 | 47.70 | | ug/m3 | | 105 | 69 - 129 |
| Trichloroethene | 53.7 | 52.42 | | ug/m3 | | 98 | 68 - 128 |
| Trichlorofluoromethane | 56.2 | 56.30 | | ug/m3 | | 100 | 67 - 127 |
| Vinyl chloride | 25.6 | 24.23 | | ug/m3 | | 95 | 62 - 125 |

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 10.0 | 9.975 | | ppb v/v | | 100 | 70 - 130 |
| 1,1,2,2-Tetrachloroethane | 10.0 | 10.26 | | ppb v/v | | 103 | 69 - 129 |
| 1,1,2-Trichloroethane | 10.0 | 10.12 | | ppb v/v | | 101 | 69 - 129 |
| 1,1,2-Trichlorotrifluoroethane | 10.0 | 9.872 | | ppb v/v | | 99 | 68 - 128 |
| 1,1-Dichloroethane | 10.0 | 9.259 | | ppb v/v | | 93 | 66 - 126 |
| 1,1-Dichloroethene | 10.0 | 9.913 | | ppb v/v | | 99 | 67 - 127 |
| 1,2,4-Trichlorobenzene | 10.0 | 12.23 | | ppb v/v | | 122 | 59 - 126 |
| 1,2,4-Trimethylbenzene | 10.0 | 10.35 | | ppb v/v | | 104 | 65 - 125 |
| 1,2-Dibromoethane | 10.0 | 10.24 | | ppb v/v | | 102 | 70 - 130 |
| 1,2-Dichlorobenzene | 10.0 | 10.24 | | ppb v/v | | 102 | 67 - 127 |
| 1,2-Dichloroethane | 10.0 | 9.677 | | ppb v/v | | 97 | 67 - 132 |
| 1,2-Dichloropropane | 10.0 | 9.874 | | ppb v/v | | 99 | 67 - 127 |
| 1,2-Dichlorotetrafluoroethane | 10.0 | 9.843 | | ppb v/v | | 98 | 78 - 138 |
| 1,3,5-Trimethylbenzene | 10.0 | 10.31 | | ppb v/v | | 103 | 65 - 125 |
| 1,3-Butadiene | 10.0 | 9.907 | | ppb v/v | | 99 | 59 - 125 |
| 1,3-Dichlorobenzene | 10.0 | 10.75 | | ppb v/v | | 107 | 67 - 127 |
| 1,4-Dichlorobenzene | 10.0 | 10.69 | | ppb v/v | | 107 | 66 - 126 |
| 1,4-Dioxane | 10.0 | 10.21 | | ppb v/v | | 102 | 66 - 132 |
| 2,2,4-Trimethylpentane | 10.0 | 9.884 | | ppb v/v | | 99 | 67 - 127 |
| 2-Chlorotoluene | 10.0 | 10.01 | | ppb v/v | | 100 | 67 - 127 |

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

**Lab Sample ID: LCS 200-140047/3**
**Matrix: Air**
**Analysis Batch: 140047**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 3-Chloropropene | 10.0 | 12.32 | | ppb v/v | | 123 | 53 - 133 |
| 4-Ethyltoluene | 10.0 | 10.46 | | ppb v/v | | 105 | 69 - 129 |
| 4-Isopropyltoluene | 10.0 | 10.03 | | ppb v/v | | 100 | 67 - 129 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 10.0 | 10.14 | | ppb v/v | | 101 | 62 - 130 |
| Acetone | 10.0 | 9.984 | | ppb v/v | | 100 | 64 - 136 |
| Benzene | 10.0 | 9.709 | | ppb v/v | | 97 | 67 - 127 |
| Benzyl chloride | 10.0 | 10.60 | | ppb v/v | | 106 | 54 - 135 |
| Bromodichloromethane | 10.0 | 10.08 | | ppb v/v | | 101 | 69 - 129 |
| Bromoethene(Vinyl Bromide) | 10.0 | 10.58 | | ppb v/v | | 106 | 67 - 127 |
| Bromoform | 10.0 | 11.71 | | ppb v/v | | 117 | 34 - 170 |
| Bromomethane | 10.0 | 10.17 | | ppb v/v | | 102 | 68 - 128 |
| Carbon disulfide | 10.0 | 10.26 | | ppb v/v | | 103 | 81 - 141 |
| Carbon tetrachloride | 10.0 | 9.966 | | ppb v/v | | 100 | 62 - 143 |
| Chlorobenzene | 10.0 | 10.19 | | ppb v/v | | 102 | 68 - 128 |
| Chlorodifluoromethane | 10.0 | 9.585 | | ppb v/v | | 96 | 64 - 128 |
| Chloroethane | 10.0 | 10.13 | | ppb v/v | | 101 | 65 - 125 |
| Chloroform | 10.0 | 9.832 | | ppb v/v | | 98 | 69 - 129 |
| Chloromethane | 10.0 | 9.661 | | ppb v/v | | 97 | 57 - 126 |
| cis-1,2-Dichloroethene | 10.0 | 9.718 | | ppb v/v | | 97 | 67 - 127 |
| cis-1,3-Dichloropropene | 10.0 | 10.06 | | ppb v/v | | 101 | 70 - 130 |
| Cumene | 10.0 | 10.23 | | ppb v/v | | 102 | 67 - 127 |
| Cyclohexane | 10.0 | 10.20 | | ppb v/v | | 102 | 69 - 129 |
| Dibromochloromethane | 10.0 | 10.64 | | ppb v/v | | 106 | 66 - 130 |
| Dichlorodifluoromethane | 10.0 | 10.08 | | ppb v/v | | 101 | 68 - 128 |
| Ethylbenzene | 10.0 | 9.702 | | ppb v/v | | 97 | 68 - 128 |
| Hexachlorobutadiene | 10.0 | 11.13 | | ppb v/v | | 111 | 62 - 130 |
| Isopropyl alcohol | 10.0 | 9.778 | | ppb v/v | | 98 | 55 - 124 |
| m,p-Xylene | 20.0 | 20.46 | | ppb v/v | | 102 | 68 - 128 |
| Methyl Butyl Ketone (2-Hexanone) | 10.0 | 10.25 | | ppb v/v | | 102 | 61 - 127 |
| Methyl Ethyl Ketone (2-Butanone) | 10.0 | 9.970 | | ppb v/v | | 100 | 62 - 122 |
| Methyl methacrylate | 10.0 | 10.72 | | ppb v/v | | 107 | 70 - 130 |
| Methyl tert-butyl ether | 10.0 | 9.969 | | ppb v/v | | 100 | 67 - 127 |
| Methylene Chloride | 10.0 | 9.456 | | ppb v/v | | 95 | 62 - 122 |
| Naphthalene | 10.0 | 11.82 | | ppb v/v | | 118 | 50 - 121 |
| n-Butane | 10.0 | 9.403 | | ppb v/v | | 94 | 56 - 130 |
| n-Butylbenzene | 10.0 | 9.811 | | ppb v/v | | 98 | 67 - 127 |
| n-Heptane | 10.0 | 9.651 | | ppb v/v | | 97 | 62 - 130 |
| n-Hexane | 10.0 | 8.454 | | ppb v/v | | 85 | 71 - 131 |
| n-Propylbenzene | 10.0 | 10.31 | | ppb v/v | | 103 | 67 - 127 |
| o-Xylene | 10.0 | 10.22 | | ppb v/v | | 102 | 67 - 127 |
| sec-Butylbenzene | 10.0 | 10.09 | | ppb v/v | | 101 | 66 - 126 |
| Styrene | 10.0 | 10.40 | | ppb v/v | | 104 | 68 - 128 |
| tert-Butyl alcohol | 10.0 | 9.961 | | ppb v/v | | 100 | 64 - 124 |
| tert-Butylbenzene | 10.0 | 10.42 | | ppb v/v | | 104 | 63 - 125 |
| Tetrachloroethene | 10.0 | 9.936 | | ppb v/v | | 99 | 70 - 130 |
| Tetrahydrofuran | 10.0 | 10.48 | | ppb v/v | | 105 | 61 - 136 |

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

**Lab Sample ID: LCS 200-140047/3**
**Matrix: Air**
**Analysis Batch: 140047**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Toluene | 10.0 | 9.752 | | ppb v/v | | 98 | 67 - 127 |
| trans-1,2-Dichloroethene | 10.0 | 9.391 | | ppb v/v | | 94 | 72 - 132 |
| trans-1,3-Dichloropropene | 10.0 | 10.51 | | ppb v/v | | 105 | 69 - 129 |
| Trichloroethene | 10.0 | 9.754 | | ppb v/v | | 98 | 68 - 128 |
| Trichlorofluoromethane | 10.0 | 10.02 | | ppb v/v | | 100 | 67 - 127 |
| Vinyl chloride | 10.0 | 9.477 | | ppb v/v | | 95 | 62 - 125 |

**Lab Sample ID: MB 200-140147/4**
**Matrix: Air**
**Analysis Batch: 140147**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.09 | | 1.09 | 0.37 | ug/m3 | | | 02/20/19 13:49 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.37 | | 1.37 | 0.52 | ug/m3 | | | 02/20/19 13:49 | 1 |
| 1,1,2-Trichloroethane | 1.09 | | 1.09 | 0.43 | ug/m3 | | | 02/20/19 13:49 | 1 |
| 1,1,2-Trichlorotrifluoroethane | 1.53 | | 1.53 | 0.24 | ug/m3 | | | 02/20/19 13:49 | 1 |
| 1,1-Dichloroethane | 0.81 | | 0.81 | 0.11 | ug/m3 | | | 02/20/19 13:49 | 1 |
| 1,1-Dichloroethene | 0.14 | | 0.14 | 0.13 | ug/m3 | | | 02/20/19 13:49 | 1 |
| 1,2,4-Trichlorobenzene | 3.71 | | 3.71 | 1.78 | ug/m3 | | | 02/20/19 13:49 | 1 |
| 1,2,4-Trimethylbenzene | 0.98 | | 0.98 | 0.39 | ug/m3 | | | 02/20/19 13:49 | 1 |
| 1,2-Dibromoethane | 1.54 | | 1.54 | 0.53 | ug/m3 | | | 02/20/19 13:49 | 1 |
| 1,2-Dichlorobenzene | 1.20 | | 1.20 | 0.43 | ug/m3 | | | 02/20/19 13:49 | 1 |
| 1,2-Dichloroethane | 0.81 | | 0.81 | 0.25 | ug/m3 | | | 02/20/19 13:49 | 1 |
| 1,2-Dichloropropane | 0.92 | | 0.92 | 0.55 | ug/m3 | | | 02/20/19 13:49 | 1 |
| 1,2-Dichlorotetrafluoroethane | 1.40 | | 1.40 | 0.48 | ug/m3 | | | 02/20/19 13:49 | 1 |
| 1,3,5-Trimethylbenzene | 0.98 | | 0.98 | 0.29 | ug/m3 | | | 02/20/19 13:49 | 1 |
| 1,3-Butadiene | 0.44 | | 0.44 | 0.14 | ug/m3 | | | 02/20/19 13:49 | 1 |
| 1,3-Dichlorobenzene | 1.20 | | 1.20 | 0.49 | ug/m3 | | | 02/20/19 13:49 | 1 |
| 1,4-Dichlorobenzene | 1.20 | | 1.20 | 0.39 | ug/m3 | | | 02/20/19 13:49 | 1 |
| 1,4-Dioxane | 18.0 | | 18.0 | 4.68 | ug/m3 | | | 02/20/19 13:49 | 1 |
| 2,2,4-Trimethylpentane | 0.93 | | 0.93 | 0.41 | ug/m3 | | | 02/20/19 13:49 | 1 |
| 2-Chlorotoluene | 1.04 | | 1.04 | 0.37 | ug/m3 | | | 02/20/19 13:49 | 1 |
| 3-Chloropropene | 1.57 | | 1.57 | 0.85 | ug/m3 | | | 02/20/19 13:49 | 1 |
| 4-Ethyltoluene | 0.98 | | 0.98 | 0.34 | ug/m3 | | | 02/20/19 13:49 | 1 |
| 4-Isopropyltoluene | 1.10 | | 1.10 | 0.41 | ug/m3 | | | 02/20/19 13:49 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 2.05 | | 2.05 | 1.47 | ug/m3 | | | 02/20/19 13:49 | 1 |
| Acetone | 11.9 | | 11.9 | 6.18 | ug/m3 | | | 02/20/19 13:49 | 1 |
| Benzene | 0.64 | | 0.64 | 0.23 | ug/m3 | | | 02/20/19 13:49 | 1 |
| Benzyl chloride | 1.04 | | 1.04 | 0.62 | ug/m3 | | | 02/20/19 13:49 | 1 |
| Bromodichloromethane | 1.34 | | 1.34 | 0.63 | ug/m3 | | | 02/20/19 13:49 | 1 |
| Bromoethene(Vinyl Bromide) | 0.87 | | 0.87 | 0.24 | ug/m3 | | | 02/20/19 13:49 | 1 |
| Bromoform | 2.07 | | 2.07 | 0.89 | ug/m3 | | | 02/20/19 13:49 | 1 |
| Bromomethane | 0.78 | | 0.78 | 0.24 | ug/m3 | | | 02/20/19 13:49 | 1 |
| Carbon disulfide | 1.56 | | 1.56 | 0.37 | ug/m3 | | | 02/20/19 13:49 | 1 |
| Carbon tetrachloride | 0.22 | | 0.22 | 0.15 | ug/m3 | | | 02/20/19 13:49 | 1 |
| Chlorobenzene | 0.92 | | 0.92 | 0.18 | ug/m3 | | | 02/20/19 13:49 | 1 |
| Chlorodifluoromethane | 1.77 | | 1.77 | 0.92 | ug/m3 | | | 02/20/19 13:49 | 1 |
| Chloroethane | 1.32 | | 1.32 | 0.55 | ug/m3 | | | 02/20/19 13:49 | 1 |

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

**Lab Sample ID: MB 200-140147/4**
**Matrix: Air**
**Analysis Batch: 140147**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloroform | 0.98 | | 0.98 | 0.25 | ug/m3 | | | 02/20/19 13:49 | 1 |
| Chloromethane | 1.03 | | 1.03 | 0.52 | ug/m3 | | | 02/20/19 13:49 | 1 |
| cis-1,2-Dichloroethene | 0.14 | | 0.14 | 0.15 | ug/m3 | | | 02/20/19 13:49 | 1 |
| cis-1,3-Dichloropropene | 0.91 | | 0.91 | 0.44 | ug/m3 | | | 02/20/19 13:49 | 1 |
| Cumene | 0.98 | | 0.98 | 0.29 | ug/m3 | | | 02/20/19 13:49 | 1 |
| Cyclohexane | 0.69 | | 0.69 | 0.22 | ug/m3 | | | 02/20/19 13:49 | 1 |
| Dibromochloromethane | 1.70 | | 1.70 | 0.60 | ug/m3 | | | 02/20/19 13:49 | 1 |
| Dichlorodifluoromethane | 2.47 | | 2.47 | 0.99 | ug/m3 | | | 02/20/19 13:49 | 1 |
| Ethylbenzene | 0.87 | | 0.87 | 0.32 | ug/m3 | | | 02/20/19 13:49 | 1 |
| Hexachlorobutadiene | 2.13 | | 2.13 | 0.87 | ug/m3 | | | 02/20/19 13:49 | 1 |
| Isopropyl alcohol | 12.3 | | 12.3 | 4.42 | ug/m3 | | | 02/20/19 13:49 | 1 |
| m,p-Xylene | 2.17 | | 2.17 | 0.30 | ug/m3 | | | 02/20/19 13:49 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 2.05 | | 2.05 | 1.72 | ug/m3 | | | 02/20/19 13:49 | 1 |
| Methyl Ethyl Ketone (2-Butanone) | 1.47 | | 1.47 | 0.59 | ug/m3 | | | 02/20/19 13:49 | 1 |
| Methyl methacrylate | 2.05 | | 2.05 | 0.90 | ug/m3 | | | 02/20/19 13:49 | 1 |
| Methyl tert-butyl ether | 0.72 | | 0.72 | 0.22 | ug/m3 | | | 02/20/19 13:49 | 1 |
| Methylene Chloride | 1.74 | | 1.74 | 0.69 | ug/m3 | | | 02/20/19 13:49 | 1 |
| Naphthalene | 2.62 | | 2.62 | 1.63 | ug/m3 | | | 02/20/19 13:49 | 1 |
| n-Butane | 1.19 | | 1.19 | 0.74 | ug/m3 | | | 02/20/19 13:49 | 1 |
| n-Butylbenzene | 1.10 | | 1.10 | 0.44 | ug/m3 | | | 02/20/19 13:49 | 1 |
| n-Heptane | 0.82 | | 0.82 | 0.57 | ug/m3 | | | 02/20/19 13:49 | 1 |
| n-Hexane | 0.70 | | 0.70 | 0.56 | ug/m3 | | | 02/20/19 13:49 | 1 |
| n-Propylbenzene | 0.98 | | 0.98 | 0.34 | ug/m3 | | | 02/20/19 13:49 | 1 |
| o-Xylene | 0.87 | | 0.87 | 0.31 | ug/m3 | | | 02/20/19 13:49 | 1 |
| sec-Butylbenzene | 1.10 | | 1.10 | 0.36 | ug/m3 | | | 02/20/19 13:49 | 1 |
| Styrene | 0.85 | | 0.85 | 0.37 | ug/m3 | | | 02/20/19 13:49 | 1 |
| tert-Butyl alcohol | 15.2 | | 15.2 | 4.55 | ug/m3 | | | 02/20/19 13:49 | 1 |
| tert-Butylbenzene | 1.10 | | 1.10 | 0.32 | ug/m3 | | | 02/20/19 13:49 | 1 |
| Tetrachloroethene | 1.36 | | 1.36 | 0.20 | ug/m3 | | | 02/20/19 13:49 | 1 |
| Tetrahydrofuran | 14.7 | | 14.7 | 7.67 | ug/m3 | | | 02/20/19 13:49 | 1 |
| Toluene | 0.75 | | 0.75 | 0.26 | ug/m3 | | | 02/20/19 13:49 | 1 |
| trans-1,2-Dichloroethene | 0.79 | | 0.79 | 0.29 | ug/m3 | | | 02/20/19 13:49 | 1 |
| trans-1,3-Dichloropropene | 0.91 | | 0.91 | 0.54 | ug/m3 | | | 02/20/19 13:49 | 1 |
| Trichloroethene | 0.19 | | 0.19 | 0.16 | ug/m3 | | | 02/20/19 13:49 | 1 |
| Trichlorofluoromethane | 1.12 | | 1.12 | 0.35 | ug/m3 | | | 02/20/19 13:49 | 1 |
| Vinyl chloride | 0.090 | | 0.090 | 0.10 | ug/m3 | | | 02/20/19 13:49 | 1 |

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.20 | | 0.20 | 0.068 | ppb v/v | | | 02/20/19 13:49 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.20 | | 0.20 | 0.076 | ppb v/v | | | 02/20/19 13:49 | 1 |
| 1,1,2-Trichloroethane | 0.20 | | 0.20 | 0.078 | ppb v/v | | | 02/20/19 13:49 | 1 |
| 1,1,2-Trichlorotrifluoroethane | 0.20 | | 0.20 | 0.031 | ppb v/v | | | 02/20/19 13:49 | 1 |
| 1,1-Dichloroethane | 0.20 | | 0.20 | 0.026 | ppb v/v | | | 02/20/19 13:49 | 1 |
| 1,1-Dichloroethene | 0.035 | | 0.035 | 0.034 | ppb v/v | | | 02/20/19 13:49 | 1 |
| 1,2,4-Trichlorobenzene | 0.50 | | 0.50 | 0.24 | ppb v/v | | | 02/20/19 13:49 | 1 |
| 1,2,4-Trimethylbenzene | 0.20 | | 0.20 | 0.080 | ppb v/v | | | 02/20/19 13:49 | 1 |
| 1,2-Dibromoethane | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/20/19 13:49 | 1 |
| 1,2-Dichlorobenzene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/20/19 13:49 | 1 |

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

**Lab Sample ID: MB 200-140147/4**
**Matrix: Air**
**Analysis Batch: 140147**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichloroethane | 0.20 | | 0.20 | 0.063 | ppb v/v | | | 02/20/19 13:49 | 1 |
| 1,2-Dichloropropane | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/20/19 13:49 | 1 |
| 1,2-Dichlorotetrafluoroethane | 0.20 | | 0.20 | 0.068 | ppb v/v | | | 02/20/19 13:49 | 1 |
| 1,3,5-Trimethylbenzene | 0.20 | | 0.20 | 0.058 | ppb v/v | | | 02/20/19 13:49 | 1 |
| 1,3-Butadiene | 0.20 | | 0.20 | 0.065 | ppb v/v | | | 02/20/19 13:49 | 1 |
| 1,3-Dichlorobenzene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/20/19 13:49 | 1 |
| 1,4-Dichlorobenzene | 0.20 | | 0.20 | 0.065 | ppb v/v | | | 02/20/19 13:49 | 1 |
| 1,4-Dioxane | 5.00 | | 5.00 | 1.30 | ppb v/v | | | 02/20/19 13:49 | 1 |
| 2,2,4-Trimethylpentane | 0.20 | | 0.20 | 0.088 | ppb v/v | | | 02/20/19 13:49 | 1 |
| 2-Chlorotoluene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/20/19 13:49 | 1 |
| 3-Chloropropene | 0.50 | | 0.50 | 0.27 | ppb v/v | | | 02/20/19 13:49 | 1 |
| 4-Ethyltoluene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/20/19 13:49 | 1 |
| 4-Isopropyltoluene | 0.20 | | 0.20 | 0.075 | ppb v/v | | | 02/20/19 13:49 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 0.50 | | 0.50 | 0.36 | ppb v/v | | | 02/20/19 13:49 | 1 |
| Acetone | 5.00 | | 5.00 | 2.60 | ppb v/v | | | 02/20/19 13:49 | 1 |
| Benzene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/20/19 13:49 | 1 |
| Benzyl chloride | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/20/19 13:49 | 1 |
| Bromodichloromethane | 0.20 | | 0.20 | 0.094 | ppb v/v | | | 02/20/19 13:49 | 1 |
| Bromoethene(Vinyl Bromide) | 0.20 | | 0.20 | 0.056 | ppb v/v | | | 02/20/19 13:49 | 1 |
| Bromoform | 0.20 | | 0.20 | 0.086 | ppb v/v | | | 02/20/19 13:49 | 1 |
| Bromomethane | 0.20 | | 0.20 | 0.062 | ppb v/v | | | 02/20/19 13:49 | 1 |
| Carbon disulfide | 0.50 | | 0.50 | 0.12 | ppb v/v | | | 02/20/19 13:49 | 1 |
| Carbon tetrachloride | 0.035 | | 0.035 | 0.024 | ppb v/v | | | 02/20/19 13:49 | 1 |
| Chlorobenzene | 0.20 | | 0.20 | 0.040 | ppb v/v | | | 02/20/19 13:49 | 1 |
| Chlorodifluoromethane | 0.50 | | 0.50 | 0.26 | ppb v/v | | | 02/20/19 13:49 | 1 |
| Chloroethane | 0.50 | | 0.50 | 0.21 | ppb v/v | | | 02/20/19 13:49 | 1 |
| Chloroform | 0.20 | | 0.20 | 0.052 | ppb v/v | | | 02/20/19 13:49 | 1 |
| Chloromethane | 0.50 | | 0.50 | 0.25 | ppb v/v | | | 02/20/19 13:49 | 1 |
| cis-1,2-Dichloroethene | 0.035 | | 0.035 | 0.037 | ppb v/v | | | 02/20/19 13:49 | 1 |
| cis-1,3-Dichloropropene | 0.20 | | 0.20 | 0.098 | ppb v/v | | | 02/20/19 13:49 | 1 |
| Cumene | 0.20 | | 0.20 | 0.059 | ppb v/v | | | 02/20/19 13:49 | 1 |
| Cyclohexane | 0.20 | | 0.20 | 0.063 | ppb v/v | | | 02/20/19 13:49 | 1 |
| Dibromochloromethane | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/20/19 13:49 | 1 |
| Dichlorodifluoromethane | 0.50 | | 0.50 | 0.20 | ppb v/v | | | 02/20/19 13:49 | 1 |
| Ethylbenzene | 0.20 | | 0.20 | 0.073 | ppb v/v | | | 02/20/19 13:49 | 1 |
| Hexachlorobutadiene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/20/19 13:49 | 1 |
| Isopropyl alcohol | 5.00 | | 5.00 | 1.80 | ppb v/v | | | 02/20/19 13:49 | 1 |
| m,p-Xylene | 0.50 | | 0.50 | 0.070 | ppb v/v | | | 02/20/19 13:49 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 0.50 | | 0.50 | 0.42 | ppb v/v | | | 02/20/19 13:49 | 1 |
| Methyl Ethyl Ketone (2-Butanone) | 0.50 | | 0.50 | 0.20 | ppb v/v | | | 02/20/19 13:49 | 1 |
| Methyl methacrylate | 0.50 | | 0.50 | 0.22 | ppb v/v | | | 02/20/19 13:49 | 1 |
| Methyl tert-butyl ether | 0.20 | | 0.20 | 0.061 | ppb v/v | | | 02/20/19 13:49 | 1 |
| Methylene Chloride | 0.50 | | 0.50 | 0.20 | ppb v/v | | | 02/20/19 13:49 | 1 |
| Naphthalene | 0.50 | | 0.50 | 0.31 | ppb v/v | | | 02/20/19 13:49 | 1 |
| n-Butane | 0.50 | | 0.50 | 0.31 | ppb v/v | | | 02/20/19 13:49 | 1 |
| n-Butylbenzene | 0.20 | | 0.20 | 0.080 | ppb v/v | | | 02/20/19 13:49 | 1 |
| n-Heptane | 0.20 | | 0.20 | 0.14 | ppb v/v | | | 02/20/19 13:49 | 1 |

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

**Lab Sample ID: MB 200-140147/4**
**Matrix: Air**
**Analysis Batch: 140147**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| n-Hexane | 0.20 | | 0.20 | 0.16 | ppb v/v | | | 02/20/19 13:49 | 1 |
| n-Propylbenzene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/20/19 13:49 | 1 |
| o-Xylene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/20/19 13:49 | 1 |
| sec-Butylbenzene | 0.20 | | 0.20 | 0.066 | ppb v/v | | | 02/20/19 13:49 | 1 |
| Styrene | 0.20 | | 0.20 | 0.086 | ppb v/v | | | 02/20/19 13:49 | 1 |
| tert-Butyl alcohol | 5.00 | | 5.00 | 1.50 | ppb v/v | | | 02/20/19 13:49 | 1 |
| tert-Butylbenzene | 0.20 | | 0.20 | 0.058 | ppb v/v | | | 02/20/19 13:49 | 1 |
| Tetrachloroethene | 0.20 | | 0.20 | 0.029 | ppb v/v | | | 02/20/19 13:49 | 1 |
| Tetrahydrofuran | 5.00 | | 5.00 | 2.60 | ppb v/v | | | 02/20/19 13:49 | 1 |
| Toluene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/20/19 13:49 | 1 |
| trans-1,2-Dichloroethene | 0.20 | | 0.20 | 0.074 | ppb v/v | | | 02/20/19 13:49 | 1 |
| trans-1,3-Dichloropropene | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/20/19 13:49 | 1 |
| Trichloroethene | 0.035 | | 0.035 | 0.030 | ppb v/v | | | 02/20/19 13:49 | 1 |
| Trichlorofluoromethane | 0.20 | | 0.20 | 0.062 | ppb v/v | | | 02/20/19 13:49 | 1 |
| Vinyl chloride | 0.035 | | 0.035 | 0.041 | ppb v/v | | | 02/20/19 13:49 | 1 |

**Lab Sample ID: LCS 200-140147/3**
**Matrix: Air**
**Analysis Batch: 140147**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 54.6 | 57.88 | | ug/m3 | | 106 | 70 - 130 |
| 1,1,2,2-Tetrachloroethane | 68.6 | 77.95 | | ug/m3 | | 114 | 69 - 129 |
| 1,1,2-Trichloroethane | 54.6 | 61.53 | | ug/m3 | | 113 | 69 - 129 |
| 1,1,2-Trichlorotrifluoroethane | 76.6 | 76.27 | | ug/m3 | | 100 | 68 - 128 |
| 1,1-Dichloroethane | 40.5 | 45.07 | | ug/m3 | | 111 | 66 - 126 |
| 1,1-Dichloroethene | 39.6 | 35.82 | | ug/m3 | | 90 | 67 - 127 |
| 1,2,4-Trichlorobenzene | 74.2 | 82.71 | | ug/m3 | | 111 | 59 - 126 |
| 1,2,4-Trimethylbenzene | 49.2 | 55.27 | | ug/m3 | | 112 | 65 - 125 |
| 1,2-Dibromoethane | 76.8 | 84.27 | | ug/m3 | | 110 | 70 - 130 |
| 1,2-Dichlorobenzene | 60.1 | 63.35 | | ug/m3 | | 105 | 67 - 127 |
| 1,2-Dichloroethane | 40.5 | 47.81 | | ug/m3 | | 118 | 67 - 132 |
| 1,2-Dichloropropane | 46.2 | 54.10 | | ug/m3 | | 117 | 67 - 127 |
| 1,2-Dichlorotetrafluoroethane | 69.9 | 72.56 | | ug/m3 | | 104 | 78 - 138 |
| 1,3,5-Trimethylbenzene | 49.2 | 54.53 | | ug/m3 | | 111 | 65 - 125 |
| 1,3-Butadiene | 22.1 | 24.92 | | ug/m3 | | 113 | 59 - 125 |
| 1,3-Dichlorobenzene | 60.1 | 63.82 | | ug/m3 | | 106 | 67 - 127 |
| 1,4-Dichlorobenzene | 60.1 | 64.28 | | ug/m3 | | 107 | 66 - 126 |
| 1,4-Dioxane | 36.0 | 39.25 | | ug/m3 | | 109 | 66 - 132 |
| 2,2,4-Trimethylpentane | 46.7 | 50.83 | | ug/m3 | | 109 | 67 - 127 |
| 2-Chlorotoluene | 51.8 | 58.82 | | ug/m3 | | 114 | 67 - 127 |
| 3-Chloropropene | 31.3 | 40.25 | | ug/m3 | | 129 | 53 - 133 |
| 4-Ethyltoluene | 49.2 | 54.19 | | ug/m3 | | 110 | 69 - 129 |
| 4-Isopropyltoluene | 54.9 | 59.09 | | ug/m3 | | 108 | 67 - 129 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 41.0 | 48.08 | | ug/m3 | | 117 | 62 - 130 |
| Acetone | 23.7 | 27.06 | | ug/m3 | | 114 | 64 - 136 |
| Benzene | 31.9 | 32.80 | | ug/m3 | | 103 | 67 - 127 |
| Benzyl chloride | 51.8 | 63.34 | | ug/m3 | | 122 | 54 - 135 |

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

**Lab Sample ID: LCS 200-140147/3**
**Matrix: Air**
**Analysis Batch: 140147**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Bromodichloromethane | 67.0 | 79.11 | | ug/m3 | | 118 | 69 - 129 |
| Bromoethene(Vinyl Bromide) | 43.7 | 48.66 | | ug/m3 | | 111 | 67 - 127 |
| Bromoform | 103 | 88.94 | | ug/m3 | | 86 | 34 - 170 |
| Bromomethane | 38.8 | 39.06 | | ug/m3 | | 101 | 68 - 128 |
| Carbon disulfide | 31.1 | 33.03 | | ug/m3 | | 106 | 81 - 141 |
| Carbon tetrachloride | 62.9 | 69.62 | | ug/m3 | | 111 | 62 - 143 |
| Chlorobenzene | 46.0 | 48.14 | | ug/m3 | | 105 | 68 - 128 |
| Chlorodifluoromethane | 35.4 | 36.91 | | ug/m3 | | 104 | 64 - 128 |
| Chloroethane | 26.4 | 27.59 | | ug/m3 | | 105 | 65 - 125 |
| Chloroform | 48.8 | 56.76 | | ug/m3 | | 116 | 69 - 129 |
| Chloromethane | 20.6 | 20.39 | | ug/m3 | | 99 | 57 - 126 |
| cis-1,2-Dichloroethene | 39.6 | 40.78 | | ug/m3 | | 103 | 67 - 127 |
| cis-1,3-Dichloropropene | 45.4 | 52.38 | | ug/m3 | | 115 | 70 - 130 |
| Cumene | 49.1 | 52.80 | | ug/m3 | | 107 | 67 - 127 |
| Cyclohexane | 34.4 | 34.78 | | ug/m3 | | 101 | 69 - 129 |
| Dibromochloromethane | 85.2 | 85.17 | | ug/m3 | | 100 | 66 - 130 |
| Dichlorodifluoromethane | 49.4 | 52.19 | | ug/m3 | | 106 | 68 - 128 |
| Ethylbenzene | 43.4 | 47.53 | | ug/m3 | | 109 | 68 - 128 |
| Hexachlorobutadiene | 107 | 103.6 | | ug/m3 | | 97 | 62 - 130 |
| Isopropyl alcohol | 24.6 | 26.35 | | ug/m3 | | 107 | 55 - 124 |
| m,p-Xylene | 86.8 | 91.89 | | ug/m3 | | 106 | 68 - 128 |
| Methyl Butyl Ketone (2-Hexanone) | 41.0 | 46.51 | | ug/m3 | | 114 | 61 - 127 |
| Methyl Ethyl Ketone (2-Butanone) | 29.5 | 31.89 | | ug/m3 | | 108 | 62 - 122 |
| Methyl methacrylate | 40.9 | 46.29 | | ug/m3 | | 113 | 70 - 130 |
| Methyl tert-butyl ether | 36.0 | 39.86 | | ug/m3 | | 111 | 67 - 127 |
| Methylene Chloride | 34.7 | 38.12 | | ug/m3 | | 110 | 62 - 122 |
| Naphthalene | 52.4 | 64.95 | * | ug/m3 | | 124 | 50 - 121 |
| n-Butane | 23.8 | 26.29 | | ug/m3 | | 111 | 56 - 130 |
| n-Butylbenzene | 54.9 | 64.83 | | ug/m3 | | 118 | 67 - 127 |
| n-Heptane | 41.0 | 45.44 | | ug/m3 | | 111 | 62 - 130 |
| n-Hexane | 35.2 | 37.98 | | ug/m3 | | 108 | 71 - 131 |
| n-Propylbenzene | 49.1 | 55.19 | | ug/m3 | | 112 | 67 - 127 |
| o-Xylene | 43.4 | 46.44 | | ug/m3 | | 107 | 67 - 127 |
| sec-Butylbenzene | 54.9 | 60.65 | | ug/m3 | | 111 | 66 - 126 |
| Styrene | 42.6 | 44.44 | | ug/m3 | | 104 | 68 - 128 |
| tert-Butyl alcohol | 30.3 | 33.81 | | ug/m3 | | 112 | 64 - 124 |
| tert-Butylbenzene | 54.9 | 58.60 | | ug/m3 | | 107 | 63 - 125 |
| Tetrachloroethene | 67.8 | 63.03 | | ug/m3 | | 93 | 70 - 130 |
| Tetrahydrofuran | 29.5 | 31.39 | | ug/m3 | | 106 | 61 - 136 |
| Toluene | 37.7 | 40.68 | | ug/m3 | | 108 | 67 - 127 |
| trans-1,2-Dichloroethene | 39.6 | 45.11 | | ug/m3 | | 114 | 72 - 132 |
| trans-1,3-Dichloropropene | 45.4 | 54.87 | | ug/m3 | | 121 | 69 - 129 |
| Trichloroethene | 53.7 | 57.06 | | ug/m3 | | 106 | 68 - 128 |
| Trichlorofluoromethane | 56.2 | 67.64 | | ug/m3 | | 120 | 67 - 127 |
| Vinyl chloride | 25.6 | 28.50 | | ug/m3 | | 111 | 62 - 125 |

# QC Sample Results

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 10.0 | 10.61 | | ppb v/v | | 106 | 70 - 130 |
| 1,1,2,2-Tetrachloroethane | 10.0 | 11.35 | | ppb v/v | | 114 | 69 - 129 |
| 1,1,2-Trichloroethane | 10.0 | 11.28 | | ppb v/v | | 113 | 69 - 129 |
| 1,1,2-Trichlorotrifluoroethane | 10.0 | 9.952 | | ppb v/v | | 100 | 68 - 128 |
| 1,1-Dichloroethane | 10.0 | 11.13 | | ppb v/v | | 111 | 66 - 126 |
| 1,1-Dichloroethene | 10.0 | 9.034 | | ppb v/v | | 90 | 67 - 127 |
| 1,2,4-Trichlorobenzene | 10.0 | 11.14 | | ppb v/v | | 111 | 59 - 126 |
| 1,2,4-Trimethylbenzene | 10.0 | 11.24 | | ppb v/v | | 112 | 65 - 125 |
| 1,2-Dibromoethane | 10.0 | 10.97 | | ppb v/v | | 110 | 70 - 130 |
| 1,2-Dichlorobenzene | 10.0 | 10.54 | | ppb v/v | | 105 | 67 - 127 |
| 1,2-Dichloroethane | 10.0 | 11.81 | | ppb v/v | | 118 | 67 - 132 |
| 1,2-Dichloropropane | 10.0 | 11.71 | | ppb v/v | | 117 | 67 - 127 |
| 1,2-Dichlorotetrafluoroethane | 10.0 | 10.38 | | ppb v/v | | 104 | 78 - 138 |
| 1,3,5-Trimethylbenzene | 10.0 | 11.09 | | ppb v/v | | 111 | 65 - 125 |
| 1,3-Butadiene | 10.0 | 11.26 | | ppb v/v | | 113 | 59 - 125 |
| 1,3-Dichlorobenzene | 10.0 | 10.61 | | ppb v/v | | 106 | 67 - 127 |
| 1,4-Dichlorobenzene | 10.0 | 10.69 | | ppb v/v | | 107 | 66 - 126 |
| 1,4-Dioxane | 10.0 | 10.89 | | ppb v/v | | 109 | 66 - 132 |
| 2,2,4-Trimethylpentane | 10.0 | 10.88 | | ppb v/v | | 109 | 67 - 127 |
| 2-Chlorotoluene | 10.0 | 11.36 | | ppb v/v | | 114 | 67 - 127 |
| 3-Chloropropene | 10.0 | 12.86 | | ppb v/v | | 129 | 53 - 133 |
| 4-Ethyltoluene | 10.0 | 11.02 | | ppb v/v | | 110 | 69 - 129 |
| 4-Isopropyltoluene | 10.0 | 10.76 | | ppb v/v | | 108 | 67 - 129 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 10.0 | 11.74 | | ppb v/v | | 117 | 62 - 130 |
| Acetone | 10.0 | 11.39 | | ppb v/v | | 114 | 64 - 136 |
| Benzene | 10.0 | 10.27 | | ppb v/v | | 103 | 67 - 127 |
| Benzyl chloride | 10.0 | 12.24 | | ppb v/v | | 122 | 54 - 135 |
| Bromodichloromethane | 10.0 | 11.81 | | ppb v/v | | 118 | 69 - 129 |
| Bromoethene(Vinyl Bromide) | 10.0 | 11.12 | | ppb v/v | | 111 | 67 - 127 |
| Bromoform | 10.0 | 8.604 | | ppb v/v | | 86 | 34 - 170 |
| Bromomethane | 10.0 | 10.06 | | ppb v/v | | 101 | 68 - 128 |
| Carbon disulfide | 10.0 | 10.61 | | ppb v/v | | 106 | 81 - 141 |
| Carbon tetrachloride | 10.0 | 11.07 | | ppb v/v | | 111 | 62 - 143 |
| Chlorobenzene | 10.0 | 10.46 | | ppb v/v | | 105 | 68 - 128 |
| Chlorodifluoromethane | 10.0 | 10.44 | | ppb v/v | | 104 | 64 - 128 |
| Chloroethane | 10.0 | 10.46 | | ppb v/v | | 105 | 65 - 125 |
| Chloroform | 10.0 | 11.62 | | ppb v/v | | 116 | 69 - 129 |
| Chloromethane | 10.0 | 9.873 | | ppb v/v | | 99 | 57 - 126 |
| cis-1,2-Dichloroethene | 10.0 | 10.29 | | ppb v/v | | 103 | 67 - 127 |
| cis-1,3-Dichloropropene | 10.0 | 11.54 | | ppb v/v | | 115 | 70 - 130 |
| Cumene | 10.0 | 10.74 | | ppb v/v | | 107 | 67 - 127 |
| Cyclohexane | 10.0 | 10.11 | | ppb v/v | | 101 | 69 - 129 |
| Dibromochloromethane | 10.0 | 9.997 | | ppb v/v | | 100 | 66 - 130 |
| Dichlorodifluoromethane | 10.0 | 10.55 | | ppb v/v | | 106 | 68 - 128 |
| Ethylbenzene | 10.0 | 10.95 | | ppb v/v | | 109 | 68 - 128 |
| Hexachlorobutadiene | 10.0 | 9.711 | | ppb v/v | | 97 | 62 - 130 |
| Isopropyl alcohol | 10.0 | 10.72 | | ppb v/v | | 107 | 55 - 124 |
| m,p-Xylene | 20.0 | 21.16 | | ppb v/v | | 106 | 68 - 128 |
| Methyl Butyl Ketone (2-Hexanone) | 10.0 | 11.35 | | ppb v/v | | 114 | 61 - 127 |
| Methyl Ethyl Ketone (2-Butanone) | 10.0 | 10.81 | | ppb v/v | | 108 | 62 - 122 |
| Methyl methacrylate | 10.0 | 11.30 | | ppb v/v | | 113 | 70 - 130 |
| Methyl tert-butyl ether | 10.0 | 11.05 | | ppb v/v | | 111 | 67 - 127 |

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

**Lab Sample ID: LCS 200-140147/3**
**Matrix: Air**
**Analysis Batch: 140147**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Methylene Chloride | 10.0 | 10.97 | | ppb v/v | | 110 | 62 - 122 |
| Naphthalene | 10.0 | 12.39 | * | ppb v/v | | 124 | 50 - 121 |
| n-Butane | 10.0 | 11.06 | | ppb v/v | | 111 | 56 - 130 |
| n-Butylbenzene | 10.0 | 11.81 | | ppb v/v | | 118 | 67 - 127 |
| n-Heptane | 10.0 | 11.09 | | ppb v/v | | 111 | 62 - 130 |
| n-Hexane | 10.0 | 10.78 | | ppb v/v | | 108 | 71 - 131 |
| n-Propylbenzene | 10.0 | 11.23 | | ppb v/v | | 112 | 67 - 127 |
| o-Xylene | 10.0 | 10.69 | | ppb v/v | | 107 | 67 - 127 |
| sec-Butylbenzene | 10.0 | 11.05 | | ppb v/v | | 111 | 66 - 126 |
| Styrene | 10.0 | 10.43 | | ppb v/v | | 104 | 68 - 128 |
| tert-Butyl alcohol | 10.0 | 11.15 | | ppb v/v | | 112 | 64 - 124 |
| tert-Butylbenzene | 10.0 | 10.67 | | ppb v/v | | 107 | 63 - 125 |
| Tetrachloroethene | 10.0 | 9.293 | | ppb v/v | | 93 | 70 - 130 |
| Tetrahydrofuran | 10.0 | 10.64 | | ppb v/v | | 106 | 61 - 136 |
| Toluene | 10.0 | 10.80 | | ppb v/v | | 108 | 67 - 127 |
| trans-1,2-Dichloroethene | 10.0 | 11.38 | | ppb v/v | | 114 | 72 - 132 |
| trans-1,3-Dichloropropene | 10.0 | 12.09 | | ppb v/v | | 121 | 69 - 129 |
| Trichloroethene | 10.0 | 10.62 | | ppb v/v | | 106 | 68 - 128 |
| Trichlorofluoromethane | 10.0 | 12.04 | | ppb v/v | | 120 | 67 - 127 |
| Vinyl chloride | 10.0 | 11.15 | | ppb v/v | | 111 | 62 - 125 |

## Air - GC/MS VOA

### Analysis Batch: 140028

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 200-47424-11 | IA-6-SUBSLAB | Total/NA | Air | TO-15 | |
| 200-47424-12 | IA-6-INDOOR AIR | Total/NA | Air | TO-15 | |
| 200-47424-14 | IA-7-INDOOR AIR | Total/NA | Air | TO-15 | |
| 200-47424-15 | OUTDOOR AIR | Total/NA | Air | TO-15 | |
| MB 200-140028/5 | Method Blank | Total/NA | Air | TO-15 | |
| LCS 200-140028/4 | Lab Control Sample | Total/NA | Air | TO-15 | |

### Analysis Batch: 140031

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 200-47424-1 | IA-1-SUBSLAB | Total/NA | Air | TO-15 | |
| 200-47424-2 | IA-1-INDOOR AIR | Total/NA | Air | TO-15 | |
| 200-47424-3 | IA-2-SUBSLAB | Total/NA | Air | TO-15 | |
| 200-47424-4 | IA-2-INDOOR AIR | Total/NA | Air | TO-15 | |
| 200-47424-5 | IA-3-SUBSLAB | Total/NA | Air | TO-15 | |
| 200-47424-6 | IA-3-INDOOR AIR | Total/NA | Air | TO-15 | |
| 200-47424-8 | IA-4-INDOOR AIR | Total/NA | Air | TO-15 | |
| MB 200-140031/5 | Method Blank | Total/NA | Air | TO-15 | |
| LCS 200-140031/3 | Lab Control Sample | Total/NA | Air | TO-15 | |

### Analysis Batch: 140047

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 200-47424-9 | IA-5-SUBSLAB | Total/NA | Air | TO-15 | |
| 200-47424-10 | IA-5-INDOOR AIR | Total/NA | Air | TO-15 | |
| MB 200-140047/5 | Method Blank | Total/NA | Air | TO-15 | |
| LCS 200-140047/3 | Lab Control Sample | Total/NA | Air | TO-15 | |

### Analysis Batch: 140147

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 200-47424-7 | IA-4-SUBSLAB | Total/NA | Air | TO-15 | |
| MB 200-140147/4 | Method Blank | Total/NA | Air | TO-15 | |
| LCS 200-140147/3 | Lab Control Sample | Total/NA | Air | TO-15 | |

# Lab Chronicle

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

## Client Sample ID: IA-1-SUBSLAB
**Date Collected: 02/13/19 11:01**
**Date Received: 02/15/19 10:30**

## Lab Sample ID: 200-47424-1
**Matrix: Air**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | TO-15 | | 1 | 140031 | 02/15/19 18:30 | K1P | TAL BUR |

## Client Sample ID: IA-1-INDOOR AIR
**Date Collected: 02/13/19 11:01**
**Date Received: 02/15/19 10:30**

## Lab Sample ID: 200-47424-2
**Matrix: Air**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | TO-15 | | 1 | 140031 | 02/15/19 19:23 | K1P | TAL BUR |

## Client Sample ID: IA-2-SUBSLAB
**Date Collected: 02/13/19 08:54**
**Date Received: 02/15/19 10:30**

## Lab Sample ID: 200-47424-3
**Matrix: Air**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | TO-15 | | 1 | 140031 | 02/15/19 20:15 | K1P | TAL BUR |

## Client Sample ID: IA-2-INDOOR AIR
**Date Collected: 02/13/19 11:13**
**Date Received: 02/15/19 10:30**

## Lab Sample ID: 200-47424-4
**Matrix: Air**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | TO-15 | | 1 | 140031 | 02/15/19 21:07 | K1P | TAL BUR |

## Client Sample ID: IA-3-SUBSLAB
**Date Collected: 02/13/19 11:40**
**Date Received: 02/15/19 10:30**

## Lab Sample ID: 200-47424-5
**Matrix: Air**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | TO-15 | | 1 | 140031 | 02/16/19 00:05 | K1P | TAL BUR |

## Client Sample ID: IA-3-INDOOR AIR
**Date Collected: 02/13/19 13:02**
**Date Received: 02/15/19 10:30**

## Lab Sample ID: 200-47424-6
**Matrix: Air**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | TO-15 | | 1 | 140031 | 02/16/19 00:57 | K1P | TAL BUR |

# Lab Chronicle

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

## Client Sample ID: IA-4-SUBSLAB
**Lab Sample ID: 200-47424-7**
**Date Collected: 02/13/19 13:06**
**Matrix: Air**
**Date Received: 02/15/19 10:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | TO-15 | | 3 | 140147 | 02/20/19 18:16 | K1P | TAL BUR |

## Client Sample ID: IA-4-INDOOR AIR
**Lab Sample ID: 200-47424-8**
**Date Collected: 02/13/19 12:13**
**Matrix: Air**
**Date Received: 02/15/19 10:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | TO-15 | | 1 | 140031 | 02/16/19 02:41 | K1P | TAL BUR |

## Client Sample ID: IA-5-SUBSLAB
**Lab Sample ID: 200-47424-9**
**Date Collected: 02/13/19 10:55**
**Matrix: Air**
**Date Received: 02/15/19 10:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | TO-15 | | 1 | 140047 | 02/16/19 17:28 | K1P | TAL BUR |

## Client Sample ID: IA-5-INDOOR AIR
**Lab Sample ID: 200-47424-10**
**Date Collected: 02/13/19 09:46**
**Matrix: Air**
**Date Received: 02/15/19 10:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | TO-15 | | 1 | 140047 | 02/16/19 18:20 | K1P | TAL BUR |

## Client Sample ID: IA-6-SUBSLAB
**Lab Sample ID: 200-47424-11**
**Date Collected: 02/13/19 11:06**
**Matrix: Air**
**Date Received: 02/15/19 10:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | TO-15 | | 1 | 140028 | 02/16/19 05:06 | A1B | TAL BUR |

## Client Sample ID: IA-6-INDOOR AIR
**Lab Sample ID: 200-47424-12**
**Date Collected: 02/13/19 09:32**
**Matrix: Air**
**Date Received: 02/15/19 10:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | TO-15 | | 1 | 140028 | 02/16/19 06:00 | A1B | TAL BUR |

# Lab Chronicle

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

## Client Sample ID: IA-7-INDOOR AIR

**Lab Sample ID: 200-47424-14**

**Date Collected: 02/13/19 09:53**
**Matrix: Air**
**Date Received: 02/15/19 10:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | TO-15 | | 1 | 140028 | 02/16/19 06:53 | A1B | TAL BUR |

## Client Sample ID: OUTDOOR AIR

**Lab Sample ID: 200-47424-15**

**Date Collected: 02/13/19 10:13**
**Matrix: Air**
**Date Received: 02/15/19 10:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | TO-15 | | 1 | 140028 | 02/16/19 07:47 | A1B | TAL BUR |

**Laboratory References:**

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

# Accreditation/Certification Summary

Client: Benchmark Env. Eng. & Science, PLLC
TestAmerica Job ID: 200-47424-1
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

## Laboratory: TestAmerica Burlington

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | EPA Region | Identification Number | Expiration Date |
|---|---|---|---|---|
| ANAB | DoD / DOE | | L2336 | 02-25-20 |
| Connecticut | State Program | 1 | PH-0751 | 09-30-19 |
| DE Haz. Subst. Cleanup Act (HSCA) | State Program | 3 | NA | 02-01-19 * |
| Florida | NELAP | 4 | E87467 | 06-30-19 |
| Maine | State Program | 1 | VT00008 | 04-17-19 * |
| Minnesota | NELAP | 5 | 050-999-436 | 12-31-19 |
| New Hampshire | NELAP | 1 | 2006 | 12-18-19 |
| New Jersey | NELAP | 2 | VT972 | 06-30-19 |
| New York | NELAP | 2 | 10391 | 04-01-19 * |
| Pennsylvania | NELAP | 3 | 68-00489 | 04-30-19 * |
| Rhode Island | State Program | 1 | LAO00298 | 12-30-19 |
| US Fish & Wildlife | Federal | | LE-058448-0 | 07-31-19 |
| USDA | Federal | | P330-11-00093 | 07-24-20 |
| Vermont | State Program | 1 | VT-4000 | 12-31-19 |
| Virginia | NELAP | 3 | 460209 | 12-14-19 |

## Laboratory: TestAmerica Buffalo

The accreditations/certifications listed below are applicable to this report.

| Authority | Program | EPA Region | Identification Number | Expiration Date |
|---|---|---|---|---|
| New York | NELAP | 2 | 10026 | 03-31-19 |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# Method Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| TO-15 | Volatile Organic Compounds in Ambient Air | EPA | TAL BUR |

**Protocol References:**

EPA = US Environmental Protection Agency

**Laboratory References:**

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

# Sample Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 200-47424-1 | IA-1-SUBSLAB | Air | 02/13/19 11:01 | 02/15/19 10:30 |
| 200-47424-2 | IA-1-INDOOR AIR | Air | 02/13/19 11:01 | 02/15/19 10:30 |
| 200-47424-3 | IA-2-SUBSLAB | Air | 02/13/19 08:54 | 02/15/19 10:30 |
| 200-47424-4 | IA-2-INDOOR AIR | Air | 02/13/19 11:13 | 02/15/19 10:30 |
| 200-47424-5 | IA-3-SUBSLAB | Air | 02/13/19 11:40 | 02/15/19 10:30 |
| 200-47424-6 | IA-3-INDOOR AIR | Air | 02/13/19 13:02 | 02/15/19 10:30 |
| 200-47424-7 | IA-4-SUBSLAB | Air | 02/13/19 13:06 | 02/15/19 10:30 |
| 200-47424-8 | IA-4-INDOOR AIR | Air | 02/13/19 12:13 | 02/15/19 10:30 |
| 200-47424-9 | IA-5-SUBSLAB | Air | 02/13/19 10:55 | 02/15/19 10:30 |
| 200-47424-10 | IA-5-INDOOR AIR | Air | 02/13/19 09:46 | 02/15/19 10:30 |
| 200-47424-11 | IA-6-SUBSLAB | Air | 02/13/19 11:06 | 02/15/19 10:30 |
| 200-47424-12 | IA-6-INDOOR AIR | Air | 02/13/19 09:32 | 02/15/19 10:30 |
| 200-47424-14 | IA-7-INDOOR AIR | Air | 02/13/19 09:53 | 02/15/19 10:30 |
| 200-47424-15 | OUTDOOR AIR | Air | 02/13/19 10:13 | 02/15/19 10:30 |

**TestAmerica Burlington**
30 Community Drive
Suite 11
South Burlington, VT 05403-6809
phone 802.660.1990 fax 802.660.1919

# Canister Samples Chain of Custody Record

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

200-47424 Chain of Custody

THE LEADER IN ENVIRONMENTAL TESTING

**TestAmerica Laboratories, Inc.**

| | | |
|---|---|---|
| **Client Contact Information** | **Client Project Manager:** Tom Forbes | **Samples Collected By:** RLO |
| Company Name: BenchMark Env Eng | Phone: 716-856-0599 | |
| Address: 2558 Hamburg Turnpike | Email: [redacted]@forbesbenchmarkeng.com | |
| City/State/Zip: Buffalo, NY 14218 | | |
| Phone: 716-856-0599 | Site Contact: Rick Dubiel | |
| FAX: 716-856-0583 | Tel/Fax 716-998-4334 | |
| Project Name: Penn Ave SVI Inv | **Anaylsis Turnaround Time** | |
| Site/Location: Dresden, NY | Standard (Specific): ✓ | |
| P O # Boosi-003-200 | Rush (Specifiy): | |

COC No: 1 of 2 COCs

**For Lab Use Only:**
Walk-in Client:
Lab Sampling:

Job / SDG No.:
(See below for Add'l Items)

| Sample Identification | Sample Date(s) | Time Start | Time Stop | Canister Vacuum in Field, 'Hg (Start)' | Canister Vacuum in Field, 'Hg (Stop)' | Flow Controller ID | Canister ID | TO-14A (Standard / Low Level) | TO-15 SIM | EPA 3C | EPA 25C | ASTM D-1946 | EPA 15/16 | Other (Please specify in notes section) | Sample Type | Indoor Air/Ambient Air | Sub-Slab | Soil Gas | Soil Vapor Extraction (SVE) | Landfill Gas | Other (Please specify in notes section) | Sample Specific Notes: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IA-1 - SubSLAB | 2-12-19 | 1308 | 1101 | -30 | -4 | 6053 | 2644 | ✓ | | | | | | | | | | | | | | |
| IA-1 - Indoor Air | | 1307 | 1101 | -30 | -4 | 4992 | 4150 | ✓ | | | | | | | | | | | | | | |
| IA-2 - SubSLAB | | 1322 | 0854 | -28 | -0 | 4173 | 3289 | ✓ | | | | | | | | | | | | | | |
| IA-2 - Indoor Air | | 1321 | 1113 | -30 | -5 | 4531 | 5434 | ✓ | | | | | | | | | | | | | | |
| IA-3 SubSLAB | | 1324 | 1140 | -30 | -5 | 3977 | 5159 | ✓ | | | | | | | | | | | | | | |
| IA-3 Indoor Air | | 1323 | 1302 | -30 | -5 | 3184 | 2536 | ✓ | | | | | | | | | | | | | | |
| IA-4 - SubSlab | | 1317 | 1306 | -30 | -5 | 4750 | 3283 | ✓ | | | | | | | | | | | | | | |
| IA-4- Indoor Air | | 1316 | 1213 | -30 | -5 | 5243 | 5675 | ✓ | | | | | | | | | | | | | | |
| IA-5 SubSLAB | | 1319 | 1057 | -30 | -4 | 3965 | 4546 | ✓ | | | | | | | | | | | | | | |
| IA-5 Indoor Air | ✓ | 1318 | 0946 | -29 | -4 | 3956 | 4555 | ✓ | | | | | | | | | | | | | | |
| ~~IA-6 SubSLAB~~ | | | | | | | | | | | | | | | | | | | | | | |

| Temperature (Fahrenheit) | Interior | Ambient |
|---|---|---|
| Start | | |
| Stop | | |

| Pressure (inches of Hg) | Interior | Ambient |
|---|---|---|
| Start | | |
| Stop | | |

**Special Instructions/QC Requirements & Comments:**

| | | | |
|---|---|---|---|
| **Samples Shipped by:** R. Dubiel | **Date / Time:** 2-14-19 12:00 | **Samples Received by:** | 2/14/19 12:17 |
| **Samples Relinquished by:** | **Date / Time:** 2/14/19 14:45 | **Received by:** Taylor Johnson TABE | 2/15/19 1030 |
| **Relinquished by:** | **Date / Time:** | **Received by:** | |

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

Form No. CA-C-WI-003, Rev. 2.5, dated 9/22/2017

**TestAmerica Burlington**
30 Community Drive
Suite 11
South Burlington, VT 05403-6809
phone 802.660.1990 fax 802.660.1919

# Canister Samples Chain of Custody Record

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

| | | | |
|---|---|---|---|
| **Client Contact Information** | **Client Project Manager:** Tom Forbes | **Samples Collected By:** RLO | COC No: 2 of 2 COCs |
| Company Name: Benchmark Env Eng & Sci, | Phone: 716-856 0599 | | |
| Address: 2558 Hamburg Turnpike | Email: tforbes@benchmarkees.com | | For Lab Use Only: |
| City/State/Zip Buffalo, NY 14218 | | | Walk-in Client: |
| Phone: 716-856 0599 | Site Contact: Rick DuBise | | Lab Sampling: |
| FAX: 716-856 0583 | Tel/Fax 716-856 998-4334 | | |
| Project Name: Merc Air Sit Inv | **Anaylsis Turnaround Time** | | Job / SDG No.: |
| Site/Location: Dresden, NY | Standard (Specific): ✓ | | (See below for Add'l Items) |
| PO# B0001-003-200 | Rush (Specifiy): | | |

| Sample Identification | Sample Date(s) | Time Start | Time Stop | Canister Vacuum in Field, 'Hg (Start)' | Canister Vacuum in Field, 'Hg (Stop)' | Flow Controller ID | Canister ID | TO-14(15) (Standard (Low Level)) | TO-15 SIM | EPA 3C | EPA 25C | ASTM D-1946 | EPA 15/16 | Other (Please specify in notes sectio | Sample Type | Indoor Air/Ambient Air | Sub-Slab | Soil Gas | Soil Vapor Extraction (SVE) | Landfill Gas | Other (Please specify in notes section) | Sample Specific Notes: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IA-6 SubSlab | 2-12-13 | 1312 | 1106 | -30 | -4 | 3749 | 5466 | ✓ | | | | | | | | | | | | | | |
| IA-6 Indoor Air | | 1311 | 0932 | -30 | -4 | 4998 | 4305 | ✓ | | | | | | | | | | | | | | |
| IA-8 SubSlab * | | 1314 | 0952 | -30 | -30 | 5172 | 4372 | ✓ | | | | | | | | | | | | | * | DO not Analyze- Replicate MAK Encl 3/16 ✓ |
| IA-7 Indoor Air | | 1313 | 0953 | -30 | -4 | 6023 | 2565 | ✓ | | | | | | | | | | | | | | |
| Outdoor Air | | 1303 | 1013 | -30 | -4 | 4508 | 3459 | ✓ | | | | | | | | | | | | | | |

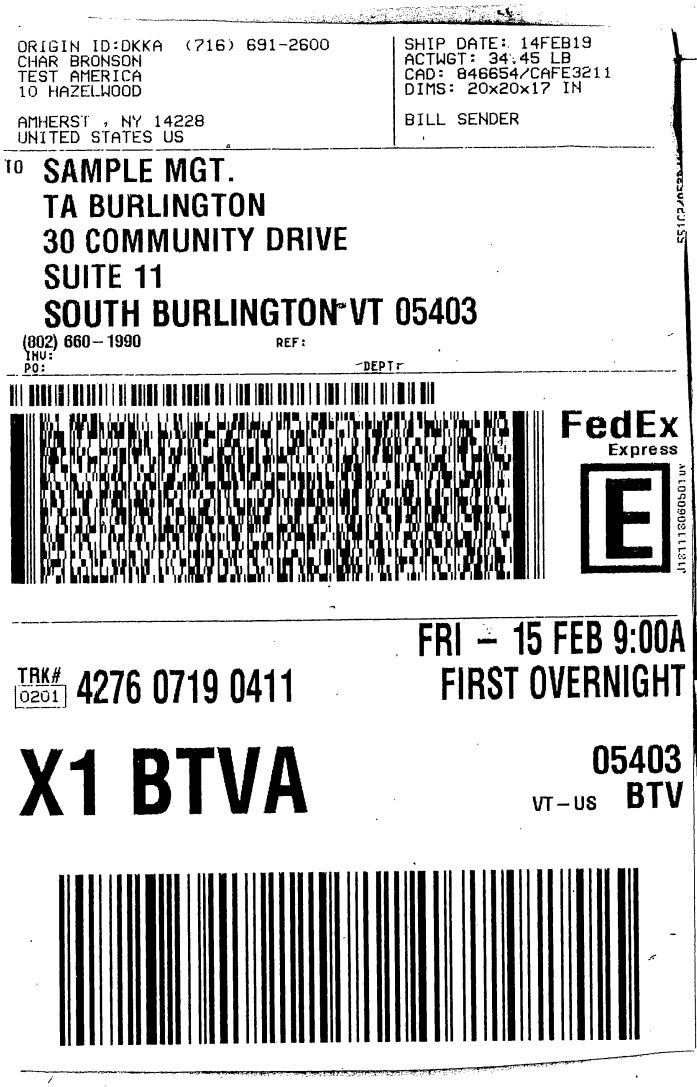
| Temperature (Fahrenheit) | Interior | Ambient |
|---|---|---|
| Start | | |
| Stop | | |

| Pressure (inches of Hg) | Interior | Ambient |
|---|---|---|
| Start | | |
| Stop | | |

**Special Instructions/QC Requirements & Comments:**

| | | |
|---|---|---|
| **Samples Shipped by:** Rick DuBise | **Date / Time:** 2/14/19 1200 | **Samples Received by:** 2/14/19 12:17 |
| **Samples Relinquished by:** | **Date / Time:** 2/14/19 14:45 | **Received by:** Taylor Johnson TABR 2/15/19 1030 |
| **Relinquished by:** | **Date / Time:** | **Received by:** |
| **Lab Use Only:** **Shipper Name:** | **Opened by:** | **Condition:** |

Form No. CA-C-WI-003, Rev. 2.5, dated 9/22/2017



ORIGIN ID:DKKA (716) 691-2600
CHAR BRONSON
TEST AMERICA
10 HAZELWOOD

AMHERST , NY 14228
UNITED STATES US

SHIP DATE: 14FEB19
ACTWGT: 34.45 LB
CAD: 846654/CAFE3211
DIMS: 20x20x17 IN

BILL SENDER

TO SAMPLE MGT.
TA BURLINGTON
30 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403

(802) 660-1990 REF:
INV:
PO: DEPT:

FedEx Express

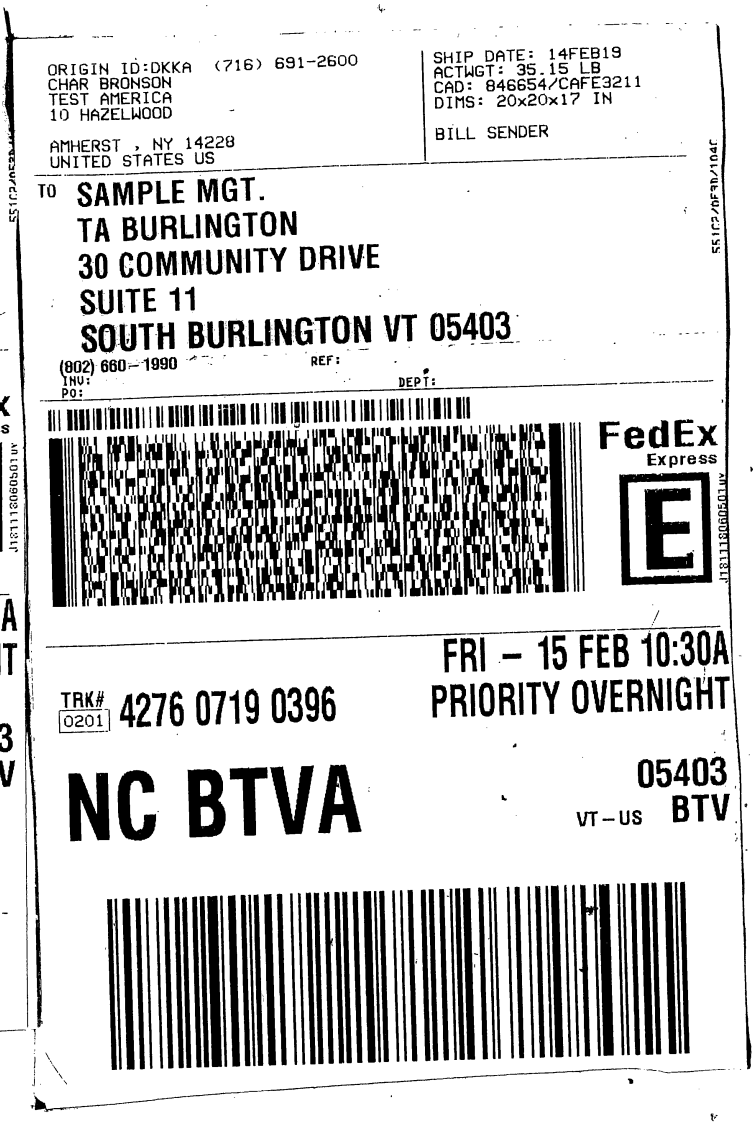
TRK# 0201 4276 0719 0411

FRI - 15 FEB 9:00A
FIRST OVERNIGHT

X1 BTVA

05403
VT-US BTV





ORIGIN ID:DKKA (716) 691-2600
CHAR BRONSON
TEST AMERICA
10 HAZELWOOD

AMHERST , NY 14228
UNITED STATES US

SHIP DATE: 14FEB19
ACTWGT: 35.15 LB
CAD: 846654/CAFE3211
DIMS: 20x20x17 IN

BILL SENDER

TO SAMPLE MGT.
TA BURLINGTON
30 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403

(802) 660-1990 REF:
INV:
PO: DEPT:

FedEx Express

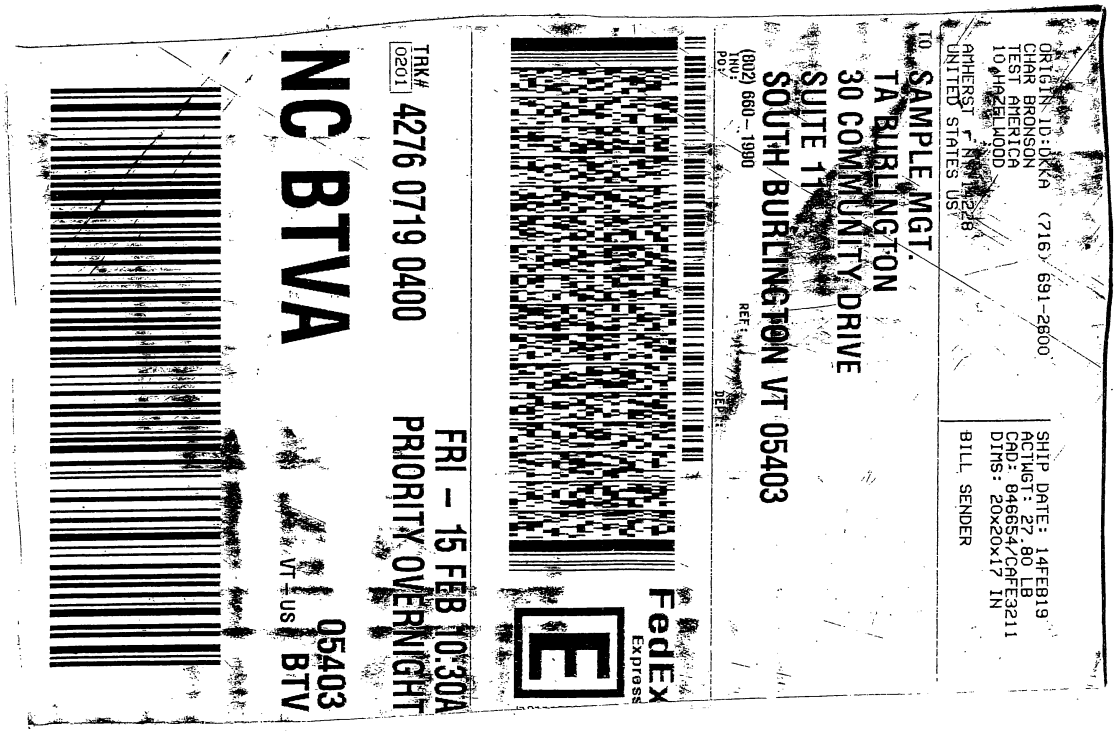
TRK# 0201 4276 0719 0396

FRI - 15 FEB 10:30A
PRIORITY OVERNIGHT

NC BTVA

05403
VT-US BTV





TRK# 0201 4276 0719 0400

FRI - 15 FEB 10:30A
PRIORITY OVERNIGHT

NC BTVA

05403
VT-US BTV

FedEx Express

(802) 660-1990
INV:
PO: DEPT:

TO SAMPLE MGT.
TA BURLINGTON
30 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403

ORIGIN ID:DKKA (716) 691-2600
CHAR BRONSON
TEST AMERICA
10 HAZELWOOD

AMHERST , NY 14228
UNITED STATES US

SHIP DATE: 14FEB19
ACTWGT: 27.80 LB
CAD: 846654/CAFE3211
DIMS: 20x20x17 IN

BILL SENDER

ORIGIN ID:DKKA (716) 691-2600
CHAR BRONSON
TEST AMERICA
10 HAZELWOOD
AMHERST , NY 14228
UNITED STATES US
SHIP DATE: 14FEB19
ACTWGT: 34.05 LB
CAD: 846654/CAFE3211
DIMS: 20x20x17 IN
BILL SENDER
TO SAMPLE MGT.
TA BURLINGTON
30 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403
(802) 660-1990
REF:
INV:
PO:
DEPT:
FedEx
Express
FRI - 15 FEB 10:30A
PRIORITY OVERNIGHT
TRK#
0201
4276 0719 0385
NC BTVA
05403
VT-US
BTV

# Login Sample Receipt Checklist

Client: Benchmark Env. Eng. & Science, PLLC

Job Number: 200-47424-1

**Login Number: 47424**
**List Number: 1**
**Creator: McNabb, Robert W**

**List Source: TestAmerica Burlington**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity either was not measured or, if measured, is at or below background | N/A | NA: Lab does not accept radioactive samples |
| The cooler's custody seal, if present, is intact. | True | No: Not present |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | N/A | No: Thermal preservation not required |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | N/A | No:  Thermal preservation not required |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | RLO |
| There are no discrepancies between the sample IDs on the containers and the COC. | True | |
| Samples are received within Holding Time (Excluding tests with immediate HTs).. | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | N/A | |
| Sample Preservation Verified | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter. | True | |
| If necessary, staff have been informed of any short hold time or quick TAT needs | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Sampling Company provided. | True | |
| Samples received within 48 hours of sampling. | True | |
| Samples requiring field filtration have been filtered in the field. | True | |
| Chlorine Residual checked. | N/A | |

# Pre-Shipment Clean Canister Certification Report

## Canister Cleaning & Pre-Shipment Leak Test

| System ID | Max DF# | # Cycles | Cleaning Start Date/Time | | System Start Temp(s): | | Technician | Can Size | Certification Type: |
|---|---|---|---|---|---|---|---|---|---|
| Bottom Rack | 49 | 25 | 1/17/2019 | 1433 | 21 | 21 | EJE | 6 liter | batch |

| Port | Can ID | Initial[1] (psia) | Final (psia) | Diff.[3] | Final ("Hg) | Initial Reading Gauge: | Date: | Time: | Tech: | Temp: | Final Reading Gauge: | Date: | Time: | Tech: | Temp: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2593 | .02 | .02 | .00 | -30.1 | G26 | 1/18/2019 | 9:58 | EE | 20 | G26 | 1/23/19 | 12:03 | CC | 21 |
| 2 | 3474 | " | .02 | .00 | " | G26 | " | " | " | " | G26 | " | " | " | " |
| 3 | 5464 | " | .02 | .00 | " | G26 | " | " | " | " | G26 | " | " | " | " |
| 4 | 5406 | " | .02 | .00 | " | G26 | " | " | " | " | G26 | " | " | " | " |
| 5 | 4289 | " | .02 | .00 | " | G26 | " | " | " | " | G26 | " | " | " | " |
| 6 | 5435 | .02 | .02 | .00 | -29.7 | G26 | 1-28-19 | 11:11 | CC | 21 | G26 | 1-30-19 | 9:30 | CC | 21 |
| 7 | 3137 | .02 | .02 | .00 | -30.1 | G26 | 1/18/2019 | 9:58 | EE | 20 | G26 | 1-23-19 | 12:03 | CC | 21 |
| 8 | 3569 | " | .02 | .00 | " | G26 | " | " | " | " | G26 | " | " | " | " |
| 9 | 4947 | " | .04 | .02 | " | G26 | " | " | " | " | G26 | " | " | " | " |
| 10 | 3462 | " | .11 | .09 | " | G26 | " | " | " | " | G26 | " | " | " | " |
| 11 | 3310 | " | .02 | .00 | " | G26 | " | " | " | " | G26 | " | " | " | " |
| 12 | 2565 | " | .02 | .00 | " | G26 | " | " | " | " | G26 | " | " | " | " |

[1] Batch Certification: The reading is taken on the "batch" canister and this value is used as the initial pressure for all canisters in the batch.

[3] Difference = Final Pressure - Initial Pressure . Acceptance Criteria: (1) The difference must be less than or equal to + 0.25psi. (2) Pressure readings must be at least 24 hours apart.

**If time frame was not met, the PM must authorize shipment of canister** **PM Authorization** **Date:**

## Clean Canister Certification Analysis & Authorization of Release to Inventory

**Test Method:** ☑ TO15 Routine ☐ TO15 LL

| Can ID | Date | Sequence | Analyst | Inventory Level 1 | 2 | 3 | 4 | Secondary Review Limited | Review Date | Reviewer |
|---|---|---|---|---|---|---|---|---|---|---|
| 5435 | 1/25/19 | 34287 | CGG | | XXXX | | | | 1/23/19 | GRJ |

**Inventory Level 1:** Individual Canister Certification (TO15LL 0.01).

**Inventory Level 2:** Individual or Batch Certification (TO15 0.04 ppbv).

**Inventory Level 3:** Individual or Batch Certification (TO15 0.2 ppbv).

**Inventory Level Limited:** Canisters may only be used for certain projects.

**Dup Tees/Vac gauges (enter IDs if included):**

**Comments:**

Ran in 34216 But LCS↓

Form ID: FAI023:12
Revision Date: 12/18/2018

TestAmerica Burlington



2/28/2019

200-47058-A-6
5435
Location: Air-Storage
Bottle: Summa Canister 6L
Sampled: 1/17/2019 12:00 AM 200-1249970
Loc: 200
47058
#6
A

# Pre-Shipment Clean Canister Certification Report

## Canister Cleaning & Pre-Shipment Leak Test

| System ID | Max DF# | # Cycles | Cleaning Start Date/Time | | System Start Temp(s): | | Technician | Can Size | Certification Type: |
|---|---|---|---|---|---|---|---|---|---|
| Bottom Rack | 200 | 25 | 1/22/2019 | 1513 | 22 | 22 | EJE | 6 liter | batch |

| Port | Can ID | Initial[1] (psia) | Final (psia) | Diff.[3] | Final ("Hg) | Initial Reading Gauge: | Date: | Time: | Tech: | Temp: | Final Reading Gauge: | Date: | Time: | Tech: | Temp: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3289 | .02 | .02 | .00 | -29.7 | G26 | 1.23.19 | 834 | EE | 21 | G26 | 1.30.19 | 9:44 | EE | 21 |
| 2 | 4555 | ↑ | .02 | .00 | ↓ | G26 | ↓ | ↓ | ↓ | ↓ | G26 | ↓ | ↓ | ↓ | ↓ |
| 3 | 5966 | | .02 | .00 | | G26 | | | | | G26 | | | | |
| 4 | 4546 | | .11 | .09 | | G26 | | | | | G26 | | | | |
| 5 | 2690 | | .02 | .00 | | G26 | | | | | G26 | | | | |
| 6 | 3283 | ↓ | .02 | .00 | ↓ | G26 | ↓ | ↓ | ↓ | ↓ | G26 | ↓ | ↓ | ↓ | ↓ |
| 7 | 3534 | .02 | .09 | .07 | -29.9 | G26 | 1.30.19 | 10:14 | EE | 21 | G26 | 1.31.19 | 12:16 | EE | 22 |
| 8 | 3161 | .02 | .02 | .00 | -29.7 | G26 | 1.23.19 | 834 | EE | 21 | G26 | 1.30.19 | 9:44 | EE | 21 |
| 9 | 4305 | ↑ | .02 | .00 | ↓ | G26 | ↓ | ↓ | ↓ | ↓ | G26 | ↓ | ↓ | ↓ | ↓ |
| 10 | 4372 | | .04 | .02 | | G26 | | | | | G26 | | | | |
| 11 | 4077 | | .02 | .00 | | G26 | | | | | G26 | | | | |
| 12 | 2644 | ↓ | .02 | .00 | ↓ | G26 | ↓ | ↓ | ↓ | ↓ | G26 | ↓ | ↓ | ↓ | ↓ |

[1] Batch Certification: The reading is taken on the "batch" canister and this value is used as the initial pressure for all canisters in the batch.

[3] Difference = Final Pressure - Initial Pressure . Acceptance Criteria: (1) The difference must be less than or equal to + 0.25psi. (2) Pressure readings must be at least 24 hours apart.

**If time frame was not met, the PM must authorize shipment of canister** **PM Authorization** **Date:**

## Clean Canister Certification Analysis & Authorization of Release to Inventory

**Test Method:** ☑ TO15 Routine ☐ TO15 LL

| Can ID | Date | Sequence | Analyst | Inventory Level 1 | 2 | 3 | 4 | Secondary Review Limited | Review Date | Reviewer |
|---|---|---|---|---|---|---|---|---|---|---|
| 3534 | 1/26/19 | 34301 | ERG | | XXXX | | | | 1/26/19 | UR |

**Inventory Level 1:** Individual Canister Certification (TO15LL 0.01).

**Inventory Level 2:** Individual or Batch Certification (TO15 0.04 ppbv).

**Inventory Level 3:** Individual or Batch Certification (TO15 0.2 ppbv).

**Inventory Level Limited:** Canisters may only be used for certain projects.

**Dup Tees/Vac gauges (enter IDs if included):**

**Comments:**

Form ID: FAI023:12
Revision Date: 12/18/2018

TestAmerica Burlington

Page 112 of 183

2/28/2019

200-47122-A-7
3534
Location: Air-Storage
Bottle: Summa Canister 6L
Sampled: 1/22/2019 12:00 AM 200-1251696

Loc: 200
47122
#7
A

# Pre-Shipment Clean Canister Certification Report

## Canister Cleaning & Pre-Shipment Leak Test

| System ID | Max DF# | # Cycles | Cleaning Start Date/Time | | System Start Temp(s): | | Technician | Can Size | Certification Type: |
|---|---|---|---|---|---|---|---|---|---|
| Top Rack | 40 | 25 | 1/24/2019 | 1431 | 22 | 22 | EJE | 6 liter | batch |

| Port | Can ID | Initial[1] (psia) | Final (psia) | Diff.[3] | Final ("Hg) | Initial Reading Gauge: | Date: | Time: | Tech: | Temp: | Final Reading Gauge: | Date: | Time: | Tech: | Temp: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6255 | .02 | .02 | .00 | -29.9 | G26 | 1.24.19 | 924 | EE | 21 | G26 | 1.31.19 | 0945 | EE | 22 |
| 2 | 3459 | | .17 | .15 | | G26 | | | | | G26 | | | | |
| 3 | 2854 | | .02 | .00 | | G26 | | | | | G26 | | | | |
| 4 | 2536 | | .32 | .00 | | G26 | | | | | G26 | | | | |
| 5 | 4150 | | .10 | .08 | | G26 | | | | | G26 | | | | |
| 6 | 3632 | | .02 | .00 | | G26 | | | | | G26 | | | | |
| 7 | 5675 | | .32 | .00 | | G26 | | | | | G26 | | | | |
| 8 | 4877 | .02 | .02 | .00 | -29.7 | G26 | 1.31.19 | 10:54 | EE | 22 | G26 | 2.5.19 | 16:02 | EE | 22 |
| 9 | 2975 | .02 | .02 | .00 | -29.9 | G26 | 1.25.19 | 924 | EE | 21 | G26 | 1.31.19 | 1540 | EE | 22 |
| 10 | 5434 | | .02 | .00 | | G26 | | | | | G26 | | | | |
| 11 | 3431 | | .02 | .00 | | G26 | | | | | G26 | | | | |
| 12 | 5159 | | .02 | .00 | | G26 | | | | | G26 | | | | |

[1] Batch Certification: The reading is taken on the "batch" canister and this value is used as the initial pressure for all canisters in the batch.

[3] Difference = Final Pressure - Initial Pressure . Acceptance Criteria: (1) The difference must be less than or equal to + 0.25psi. (2) Pressure readings must be at least 24 hours apart.

**If time frame was not met, the PM must authorize shipment of canister** **PM Authorization** **Date:**

## Clean Canister Certification Analysis & Authorization of Release to Inventory

**Test Method:** ☐TO15 Routine ☐ TO15 LL

| Can ID | Date | Sequence | Analyst | Inventory Level 1 | 2 | 3 | 4 | Secondary Review Limited | Review Date | Reviewe |
|---|---|---|---|---|---|---|---|---|---|---|
| 4877 | 1/30/19 | 343449 | AB1 | | XXXX | | | | 1/30/19 | UP |

**Inventory Level 1:** Individual Canister Certification (TO15LL 0.01).

**Inventory Level 2:** Individual or Batch Certification (TO15 0.04 ppbv).

**Inventory Level 3:** Individual or Batch Certification (TO15 0.2 ppbv).

**Inventory Level Limited:** Canisters may only be used for certain projects.

**Dup Tees/Vac gauges (enter IDs if included):**

**Comments:**

Form ID: FAI023:12
Revision Date: 12/18/2018

TestAmerica Burlington

200-47150-A-8
4877
Location: Air-Storage
Bottle: Summa Canister 6L
Sampled: 1/24/2019 12:00 AM 200-125216
Loc: 200
47150
#8
A

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-47058-1

SDG No.:

Client Sample ID: 5435 Lab Sample ID: 200-47058-6

Matrix: Air Lab File ID: 34287-16.D

Analysis Method: TO-15 Date Collected: 01/17/2019 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 01/25/2019 02:10

Soil Aliquot Vol: Dilution Factor: 0.2

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 139421 Units: ppb v/v

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | RL |
|---|---|---|---|---|---|
| 115-07-1 | Propylene | 1.0 | U | 1.0 | 1.0 |
| 75-71-8 | Dichlorodifluoromethane | 0.10 | U | 0.10 | 0.10 |
| 75-45-6 | Freon 22 | 0.10 | U | 0.10 | 0.10 |
| 76-14-2 | 1,2-Dichlorotetrafluoroethane | 0.040 | U | 0.040 | 0.040 |
| 74-87-3 | Chloromethane | 0.10 | U | 0.10 | 0.10 |
| 106-97-8 | n-Butane | 0.10 | U | 0.10 | 0.10 |
| 75-01-4 | Vinyl chloride | 0.040 | U | 0.040 | 0.040 |
| 106-99-0 | 1,3-Butadiene | 0.040 | U | 0.040 | 0.040 |
| 74-83-9 | Bromomethane | 0.040 | U | 0.040 | 0.040 |
| 75-00-3 | Chloroethane | 0.10 | U | 0.10 | 0.10 |
| 593-60-2 | Bromoethene(Vinyl Bromide) | 0.040 | U | 0.040 | 0.040 |
| 75-69-4 | Trichlorofluoromethane | 0.040 | U | 0.040 | 0.040 |
| 64-17-5 | Ethanol | 1.0 | U | 1.0 | 1.0 |
| 76-13-1 | Freon TF | 0.040 | U | 0.040 | 0.040 |
| 75-35-4 | 1,1-Dichloroethene | 0.040 | U | 0.040 | 0.040 |
| 67-64-1 | Acetone | 1.0 | U | 1.0 | 1.0 |
| 67-63-0 | Isopropyl alcohol | 1.0 | U | 1.0 | 1.0 |
| 75-15-0 | Carbon disulfide | 0.10 | U | 0.10 | 0.10 |
| 107-05-1 | 3-Chloropropene | 0.10 | U | 0.10 | 0.10 |
| 75-09-2 | Methylene Chloride | 0.10 | U | 0.10 | 0.10 |
| 75-65-0 | tert-Butyl alcohol | 1.0 | U | 1.0 | 1.0 |
| 1634-04-4 | Methyl tert-butyl ether | 0.040 | U | 0.040 | 0.040 |
| 156-60-5 | trans-1,2-Dichloroethene | 0.040 | U | 0.040 | 0.040 |
| 110-54-3 | n-Hexane | 0.040 | U | 0.040 | 0.040 |
| 75-34-3 | 1,1-Dichloroethane | 0.040 | U | 0.040 | 0.040 |
| 108-05-4 | Vinyl acetate | 1.0 | U | 1.0 | 1.0 |
| 141-78-6 | Ethyl acetate | 1.0 | U | 1.0 | 1.0 |
| 78-93-3 | Methyl Ethyl Ketone | 0.10 | U | 0.10 | 0.10 |
| 156-59-2 | cis-1,2-Dichloroethene | 0.040 | U | 0.040 | 0.040 |
| 540-59-0 | 1,2-Dichloroethene, Total | 0.080 | U | 0.080 | 0.080 |
| 67-66-3 | Chloroform | 0.040 | U | 0.040 | 0.040 |
| 109-99-9 | Tetrahydrofuran | 1.0 | U | 1.0 | 1.0 |
| 71-55-6 | 1,1,1-Trichloroethane | 0.040 | U | 0.040 | 0.040 |
| 110-82-7 | Cyclohexane | 0.040 | U | 0.040 | 0.040 |
| 56-23-5 | Carbon tetrachloride | 0.040 | U | 0.040 | 0.040 |
| 540-84-1 | 2,2,4-Trimethylpentane | 0.040 | U | 0.040 | 0.040 |

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington  Job No.: 200-47058-1

SDG No.:

Client Sample ID: 5435  Lab Sample ID: 200-47058-6

Matrix: Air  Lab File ID: 34287-16.D

Analysis Method: TO-15  Date Collected: 01/17/2019 00:00

Sample wt/vol: 1000(mL)  Date Analyzed: 01/25/2019 02:10

Soil Aliquot Vol:  Dilution Factor: 0.2

Soil Extract Vol.:  GC Column: RTX-624  ID: 0.32(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 139421  Units: ppb v/v

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | RL |
|---|---|---|---|---|---|
| 71-43-2 | Benzene | 0.040 | U | 0.040 | 0.040 |
| 107-06-2 | 1,2-Dichloroethane | 0.040 | U | 0.040 | 0.040 |
| 142-82-5 | n-Heptane | 0.040 | U | 0.040 | 0.040 |
| 79-01-6 | Trichloroethene | 0.040 | U | 0.040 | 0.040 |
| 80-62-6 | Methyl methacrylate | 0.10 | U | 0.10 | 0.10 |
| 78-87-5 | 1,2-Dichloropropane | 0.040 | U | 0.040 | 0.040 |
| 123-91-1 | 1,4-Dioxane | 1.0 | U | 1.0 | 1.0 |
| 75-27-4 | Bromodichloromethane | 0.040 | U | 0.040 | 0.040 |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.040 | U | 0.040 | 0.040 |
| 108-10-1 | methyl isobutyl ketone | 0.10 | U | 0.10 | 0.10 |
| 108-88-3 | Toluene | 0.040 | U | 0.040 | 0.040 |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.040 | U | 0.040 | 0.040 |
| 79-00-5 | 1,1,2-Trichloroethane | 0.040 | U | 0.040 | 0.040 |
| 127-18-4 | Tetrachloroethene | 0.040 | U | 0.040 | 0.040 |
| 591-78-6 | Methyl Butyl Ketone (2-Hexanone) | 0.10 | U | 0.10 | 0.10 |
| 124-48-1 | Dibromochloromethane | 0.040 | U | 0.040 | 0.040 |
| 106-93-4 | 1,2-Dibromoethane | 0.040 | U | 0.040 | 0.040 |
| 108-90-7 | Chlorobenzene | 0.040 | U | 0.040 | 0.040 |
| 100-41-4 | Ethylbenzene | 0.040 | U | 0.040 | 0.040 |
| 179601-23-1 | m,p-Xylene | 0.10 | U | 0.10 | 0.10 |
| 95-47-6 | Xylene, o- | 0.040 | U | 0.040 | 0.040 |
| 1330-20-7 | Xylene (total) | 0.14 | U | 0.14 | 0.14 |
| 100-42-5 | Styrene | 0.040 | U | 0.040 | 0.040 |
| 75-25-2 | Bromoform | 0.040 | U | 0.040 | 0.040 |
| 98-82-8 | Cumene | 0.040 | U | 0.040 | 0.040 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.040 | U | 0.040 | 0.040 |
| 103-65-1 | n-Propylbenzene | 0.040 | U | 0.040 | 0.040 |
| 622-96-8 | 4-Ethyltoluene | 0.040 | U | 0.040 | 0.040 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 0.040 | U | 0.040 | 0.040 |
| 95-49-8 | 2-Chlorotoluene | 0.040 | U | 0.040 | 0.040 |
| 98-06-6 | tert-Butylbenzene | 0.040 | U | 0.040 | 0.040 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.040 | U | 0.040 | 0.040 |
| 135-98-8 | sec-Butylbenzene | 0.040 | U | 0.040 | 0.040 |
| 99-87-6 | 4-Isopropyltoluene | 0.040 | U | 0.040 | 0.040 |
| 541-73-1 | 1,3-Dichlorobenzene | 0.040 | U | 0.040 | 0.040 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.040 | U | 0.040 | 0.040 |

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-47058-1

SDG No.:

Client Sample ID: 5435 Lab Sample ID: 200-47058-6

Matrix: Air Lab File ID: 34287-16.D

Analysis Method: TO-15 Date Collected: 01/17/2019 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 01/25/2019 02:10

Soil Aliquot Vol: Dilution Factor: 0.2

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 139421 Units: ppb v/v

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | RL |
|---|---|---|---|---|---|
| 100-44-7 | Benzyl chloride | 0.040 | U | 0.040 | 0.040 |
| 104-51-8 | n-Butylbenzene | 0.040 | U | 0.040 | 0.040 |
| 95-50-1 | 1,2-Dichlorobenzene | 0.040 | U | 0.040 | 0.040 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 0.10 | U | 0.10 | 0.10 |
| 87-68-3 | Hexachlorobutadiene | 0.040 | U | 0.040 | 0.040 |
| 91-20-3 | Naphthalene | 0.10 | U | 0.10 | 0.10 |

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\chromna\Burlington\ChromData\CHC.i\20190124-34287.b\34287-16.D
Lims ID: 200-47058-A-6
Client ID: 5435
Sample Type: Client
Inject. Date: 25-Jan-2019 02:10:30 ALS Bottle#: 17 Worklist Smp#: 16
Purge Vol: 200.000 mL Dil. Factor: 0.2000
Sample Info: 200-0034287-016
Misc. Info.: 47058-6
Operator ID: ert Instrument ID: CHC.i

Method: \\chromna\Burlington\ChromData\CHC.i\20190124-34287.b\TO15_MasterMethod_(v1)_CHC.i.m
Limit Group: AI_TO15_ICAL
Last Update: 25-Jan-2019 14:59:47 Calib Date: 23-Jan-2019 12:53:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Burlington\ChromData\CHC.i\20190122-34255.b\34255-22.D

Column 1 : RTX-624 ( 0.32 mm) Det: MS SCAN
Process Host: CTX0320

First Level Reviewer: bunmaa Date: 25-Jan-2019 14:59:47

| Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ppb v/v | Flags |
|---|---|---|---|---|---|---|---|---|
| 1 Propene | 41 | | 2.967 | | | | ND | U |
| 2 Dichlorodifluoromethane | 85 | | 3.032 | | | | ND | |
| 3 Chlorodifluoromethane | 51 | | 3.080 | | | | ND | U |
| 4 1,2-Dichloro-1,1,2,2-tetra | 85 | | 3.288 | | | | ND | |
| 5 Chloromethane | 50 | | 3.416 | | | | ND | U |
| 6 Butane | 43 | | 3.619 | | | | ND | |
| 7 Vinyl chloride | 62 | | 3.656 | | | | ND | |
| 8 Butadiene | 54 | | 3.731 | | | | ND | |
| 10 Bromomethane | 94 | | 4.392 | | | | ND | |
| 11 Chloroethane | 64 | | 4.633 | | | | ND | |
| 13 Vinyl bromide | 106 | | 5.017 | | | | ND | |
| 14 Trichlorofluoromethane | 101 | | 5.129 | | | | ND | |
| 17 Ethanol | 45 | | 5.700 | | | | ND | |
| 20 1,1,2-Trichloro-1,2,2-trif | 101 | | 6.218 | | | | ND | |
| 21 1,1-Dichloroethene | 96 | | 6.239 | | | | ND | |
| 22 Acetone | 43 | | 6.458 | | | | ND | |
| 23 Carbon disulfide | 76 | | 6.618 | | | | ND | |
| 24 Isopropyl alcohol | 45 | | 6.783 | | | | ND | |
| 25 3-Chloro-1-propene | 41 | | 7.024 | | | | ND | U |
| 27 Methylene Chloride | 49 | | 7.317 | | | | ND | |
| 28 2-Methyl-2-propanol | 59 | | 7.557 | | | | ND | |
| 29 Methyl tert-butyl ether | 73 | | 7.739 | | | | ND | |
| 31 trans-1,2-Dichloroethene | 61 | | 7.771 | | | | ND | |
| 33 Hexane | 57 | | 8.182 | | | | ND | |
| 34 1,1-Dichloroethane | 63 | | 8.635 | | | | ND | |
| 35 Vinyl acetate | 43 | | 8.721 | | | | ND | |
| 37 cis-1,2-Dichloroethene | 96 | | 9.751 | | | | ND | |
| 38 2-Butanone (MEK) | 72 | | 9.783 | | | | ND | |
| 39 Ethyl acetate | 88 | | 9.857 | | | | ND | |
| S 30 1,2-Dichloroethene, Total | 61 | | 10.200 | | | | ND | |
| * 40 Chlorobromomethane | 128 | 10.204 | 10.210 | -0.006 | 96 | 347399 | 10.0 | |

| Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ppb v/v | Flags |
|---|---|---|---|---|---|---|---|---|
| 41 Tetrahydrofuran | 42 | | 10.215 | | | | ND | |
| 42 Chloroform | 83 | | 10.354 | | | | ND | |
| 43 Cyclohexane | 84 | | 10.610 | | | | ND | |
| 44 1,1,1-Trichloroethane | 97 | | 10.621 | | | | ND | |
| 45 Carbon tetrachloride | 117 | | 10.877 | | | | ND | |
| 47 Benzene | 78 | | 11.336 | | | | ND | U |
| 46 Isooctane | 57 | | 11.336 | | | | ND | |
| 48 1,2-Dichloroethane | 62 | | 11.507 | | | | ND | |
| 49 n-Heptane | 43 | | 11.741 | | | | ND | |
| * 50 1,4-Difluorobenzene | 114 | 12.184 | 12.190 | -0.006 | 97 | 1989851 | 10.0 | |
| 53 Trichloroethene | 95 | | 12.659 | | | | ND | U |
| 54 1,2-Dichloropropane | 63 | | 13.198 | | | | ND | |
| 55 Methyl methacrylate | 69 | | 13.396 | | | | ND | |
| 56 1,4-Dioxane | 88 | | 13.438 | | | | ND | |
| 57 Dibromomethane | 174 | | 13.460 | | | | ND | U |
| 58 Dichlorobromomethane | 83 | | 13.775 | | | | ND | |
| 60 cis-1,3-Dichloropropene | 75 | | 14.725 | | | | ND | |
| 61 4-Methyl-2-pentanone (MIBK | 43 | | 15.008 | | | | ND | |
| 65 Toluene | 92 | | 15.322 | | | | ND | |
| 66 trans-1,3-Dichloropropene | 75 | | 15.925 | | | | ND | U |
| 67 1,1,2-Trichloroethane | 83 | | 16.294 | | | | ND | |
| 68 Tetrachloroethene | 166 | | 16.422 | | | | ND | U |
| 69 2-Hexanone | 43 | | 16.742 | | | | ND | |
| 71 Chlorodibromomethane | 129 | | 17.057 | | | | ND | |
| 72 Ethylene Dibromide | 107 | | 17.313 | | | | ND | |
| * 74 Chlorobenzene-d5 | 117 | 18.226 | 18.226 | 0.000 | 94 | 2039929 | 10.0 | |
| 75 Chlorobenzene | 112 | | 18.284 | | | | ND | |
| 76 Ethylbenzene | 91 | | 18.445 | | | | ND | U |
| 78 m-Xylene & p-Xylene | 106 | | 18.695 | | | | ND | |
| 79 o-Xylene | 106 | | 19.528 | | | | ND | |
| 80 Styrene | 104 | | 19.581 | | | | ND | |
| 81 Bromoform | 173 | | 20.014 | | | | ND | |
| S 73 Xylenes, Total | 106 | | 20.100 | | | | ND | |
| 82 Isopropylbenzene | 105 | | 20.248 | | | | ND | |
| 84 1,1,2,2-Tetrachloroethane | 83 | | 20.915 | | | | ND | |
| 85 N-Propylbenzene | 91 | | 20.990 | | | | ND | |
| 89 2-Chlorotoluene | 91 | | 21.188 | | | | ND | |
| 88 4-Ethyltoluene | 105 | | 21.188 | | | | ND | |
| 90 1,3,5-Trimethylbenzene | 105 | | 21.294 | | | | ND | |
| 92 tert-Butylbenzene | 119 | | 21.796 | | | | ND | |
| 93 1,2,4-Trimethylbenzene | 105 | | 21.892 | | | | ND | |
| 94 sec-Butylbenzene | 105 | | 22.127 | | | | ND | |
| 95 4-Isopropyltoluene | 119 | | 22.335 | | | | ND | |
| 96 1,3-Dichlorobenzene | 146 | | 22.356 | | | | ND | U |
| 97 1,4-Dichlorobenzene | 146 | | 22.495 | | | | ND | U |
| 98 Benzyl chloride | 91 | | 22.687 | | | | ND | U |
| 100 n-Butylbenzene | 91 | | 22.901 | | | | ND | U |
| 101 1,2-Dichlorobenzene | 146 | | 23.013 | | | | ND | |
| 103 1,2,4-Trichlorobenzene | 180 | | 25.420 | | | | ND | |
| 104 Hexachlorobutadiene | 225 | | 25.612 | | | | ND | |
| 105 Naphthalene | 128 | | 25.863 | | | | ND | U |

## QC Flag Legend

Review Flags

U - Marked Undetected

## Reagents:

ATTO15CISs_00010 Amount Added: 20.00 Units: mL Run Reagent

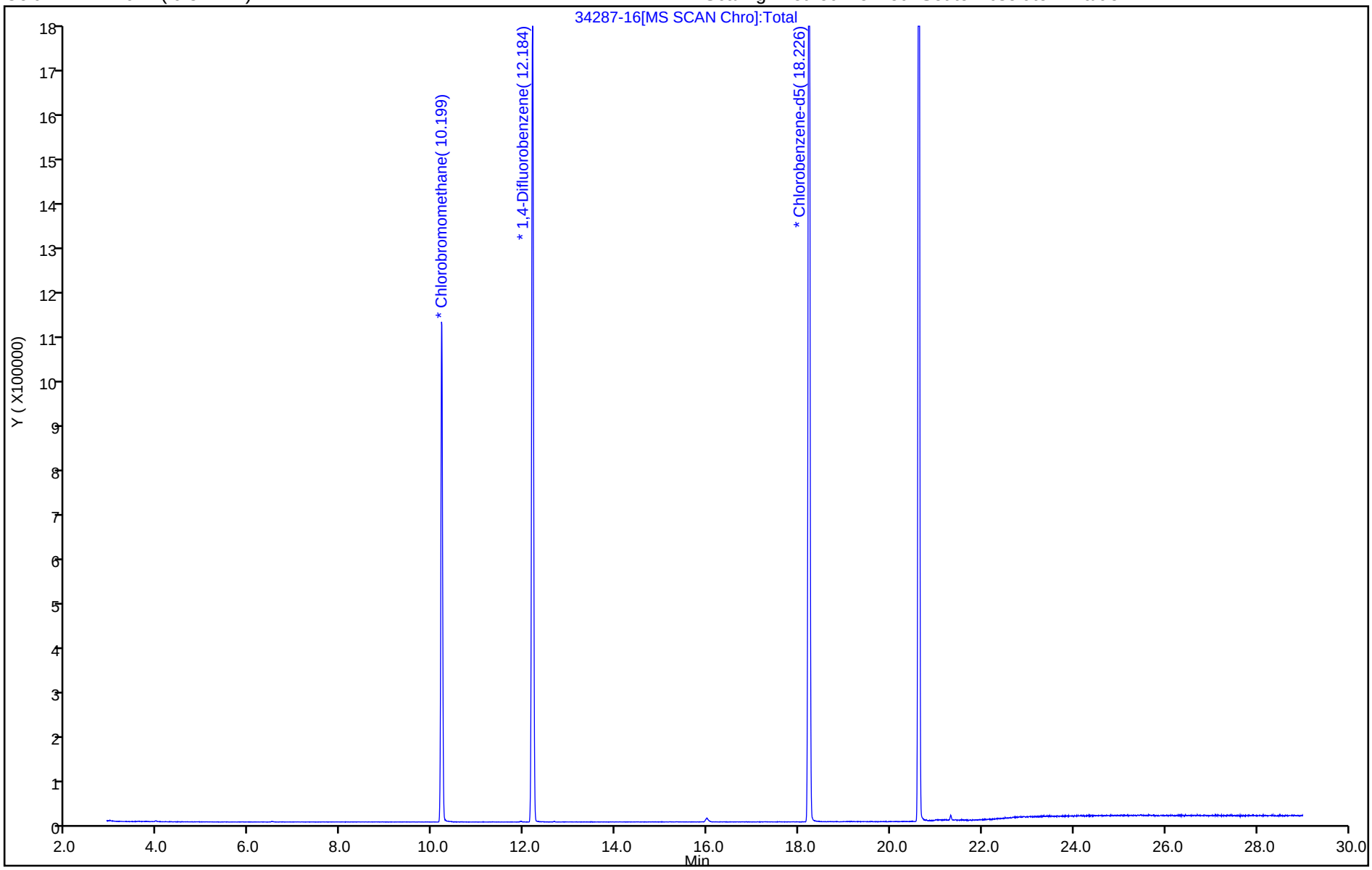
Report Date: 25-Jan-2019 14:59:47 Chrom Revision: 2.3 15-Jan-2019 08:51:34

TestAmerica Burlington

Data File: \\chromna\Burlington\ChromData\CHC.i\20190124-34287.b\34287-16.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 25-Jan-2019 02:10:30 | Instrument ID: | CHC.i | Operator ID: | ert |
| Lims ID: | 200-47058-A-6 | Lab Sample ID: | 200-47058-6 | Worklist Smp#: | 16 |
| Client ID: | 5435 | | | | |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | ALS Bottle#: | 17 |
| Method: | TO15_MasterMethod_(v1)_CHC.i | Limit Group: | AI_TO15_ICAL | | |

Column: RTX-624 ( 0.32 mm) Y Scaling: Method Defined: Set to Absolute Y Value



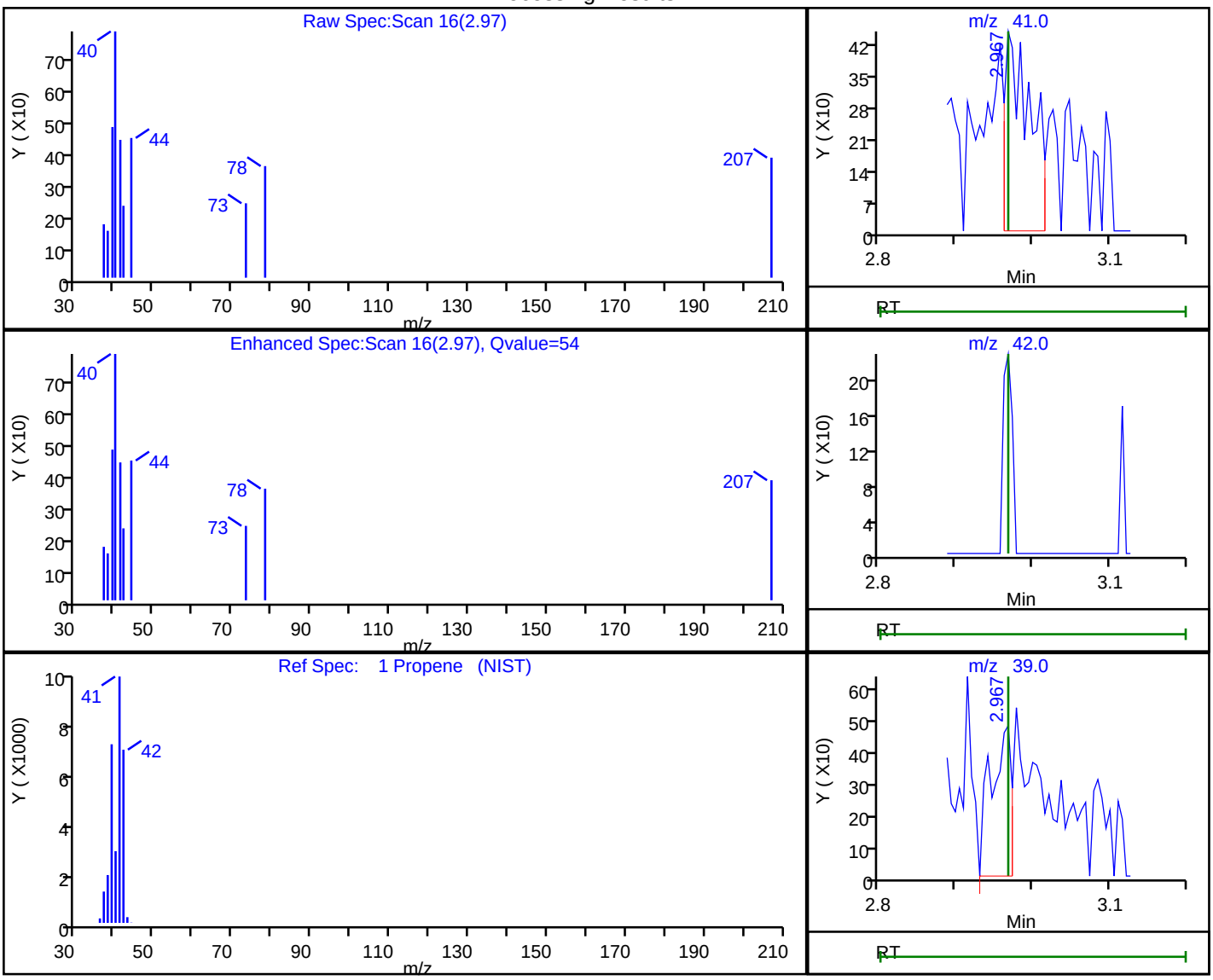
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHC.i\20190124-34287.b\34287-16.D | | | | |
| Injection Date: | 25-Jan-2019 02:10:30 | Instrument ID: | CHC.i | | |
| Lims ID: | 200-47058-A-6 | Lab Sample ID: | 200-47058-6 | | |
| Client ID: | 5435 | | | | |
| Operator ID: | ert | ALS Bottle#: | 17 | Worklist Smp#: | 16 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_MasterMethod_(v1)_CHC.i | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 1 Propene, CAS: 115-07-1

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 2.97 | 41.00 | 1031 | 0.057147 |
| 2.97 | 39.00 | 894 | |
| 2.97 | 42.00 | 0 | |

Reviewer: bunmaa, 25-Jan-2019 14:57:13

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

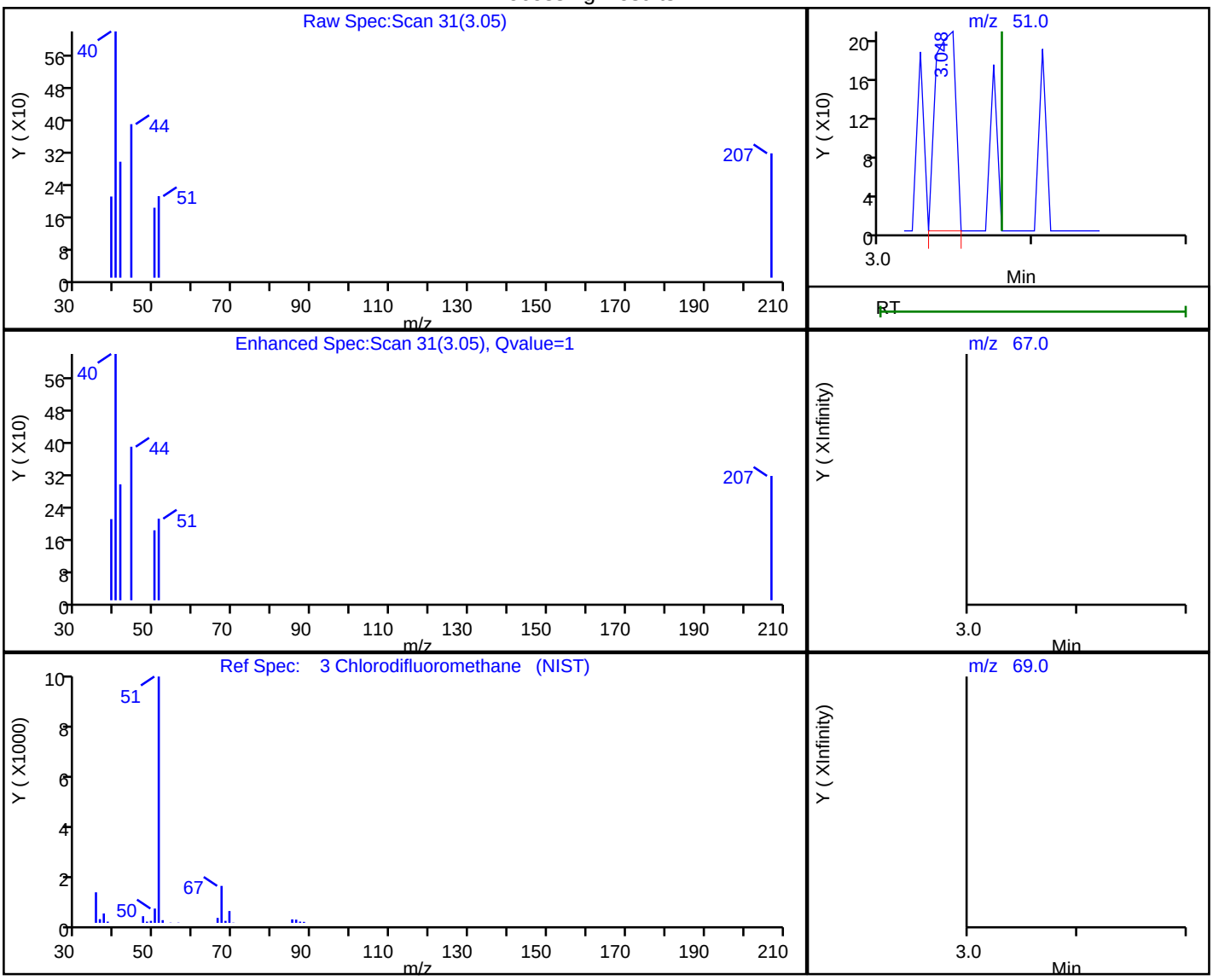
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHC.i\20190124-34287.b\34287-16.D | | | | |
| Injection Date: | 25-Jan-2019 02:10:30 | Instrument ID: | CHC.i | | |
| Lims ID: | 200-47058-A-6 | Lab Sample ID: | 200-47058-6 | | |
| Client ID: | 5435 | | | | |
| Operator ID: | ert | ALS Bottle#: | 17 | Worklist Smp#: | 16 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_MasterMethod_(v1)_CHC.i | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 3 Chlorodifluoromethane, CAS: 75-45-6

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 3.05 | 51.00 | 186 | 0.004619 |
| 3.08 | 67.00 | 0 | |
| 3.08 | 69.00 | 0 | |

Reviewer: bunmaa, 25-Jan-2019 14:57:17

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

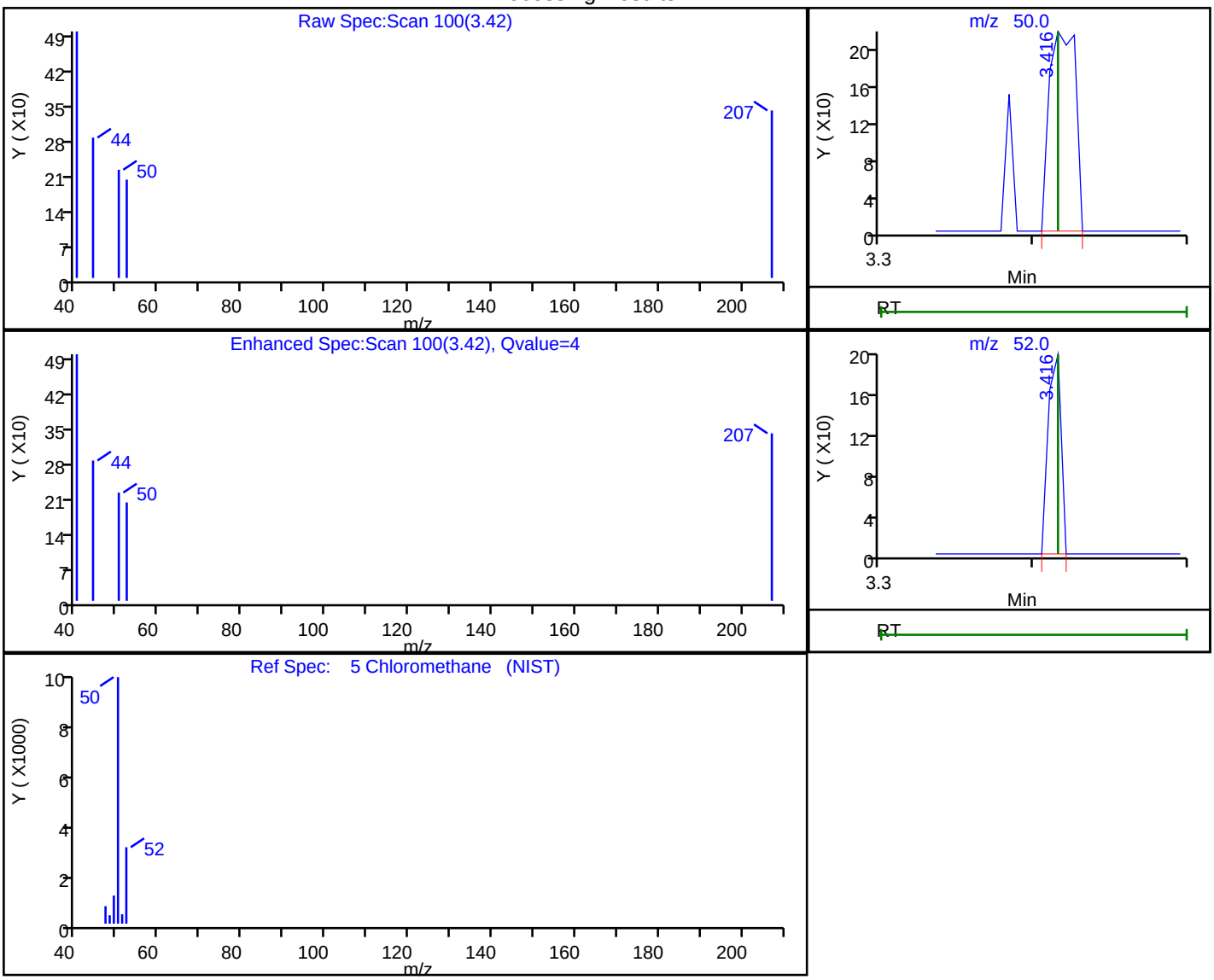
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHC.i\20190124-34287.b\34287-16.D | | | | |
| Injection Date: | 25-Jan-2019 02:10:30 | Instrument ID: | CHC.i | | |
| Lims ID: | 200-47058-A-6 | Lab Sample ID: | 200-47058-6 | | |
| Client ID: | 5435 | | | | |
| Operator ID: | ert | ALS Bottle#: | 17 | Worklist Smp#: | 16 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_MasterMethod_(v1)_CHC.i | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 5 Chloromethane, CAS: 74-87-3

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 3.42 | 50.00 | 261 | 0.015249 |
| 3.42 | 52.00 | 116 | |

Reviewer: bunmaa, 25-Jan-2019 14:57:21

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

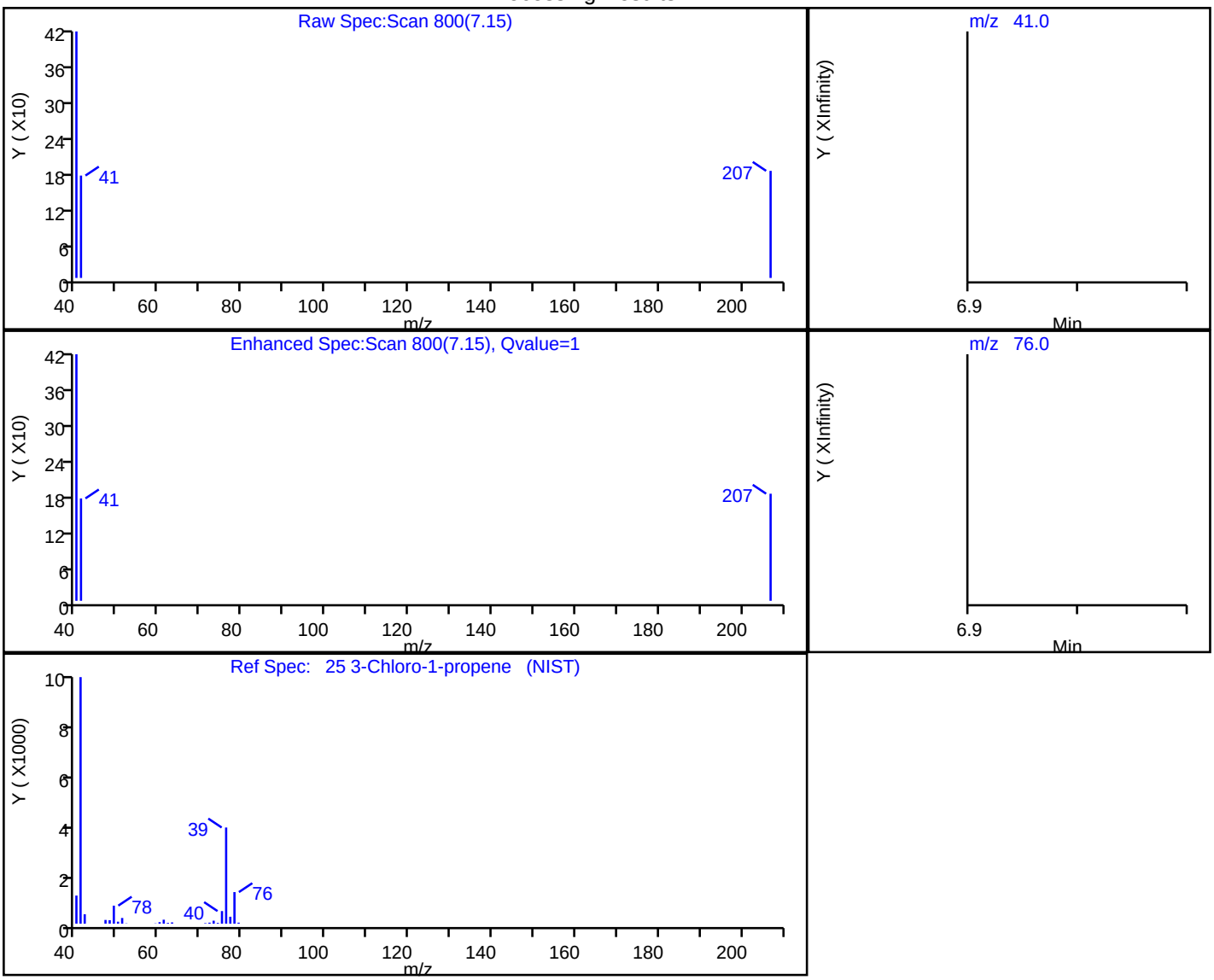
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHC.i\20190124-34287.b\34287-16.D | | | | |
| Injection Date: | 25-Jan-2019 02:10:30 | Instrument ID: | CHC.i | | |
| Lims ID: | 200-47058-A-6 | Lab Sample ID: | 200-47058-6 | | |
| Client ID: | 5435 | | | | |
| Operator ID: | ert | ALS Bottle#: | 17 | Worklist Smp#: | 16 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_MasterMethod_(v1)_CHC.i | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 25 3-Chloro-1-propene, CAS: 107-05-1

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 7.15 | 41.00 | 104 | 0.004255 |
| 7.02 | 76.00 | 0 | |

Reviewer: bunmaa, 25-Jan-2019 14:58:03

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

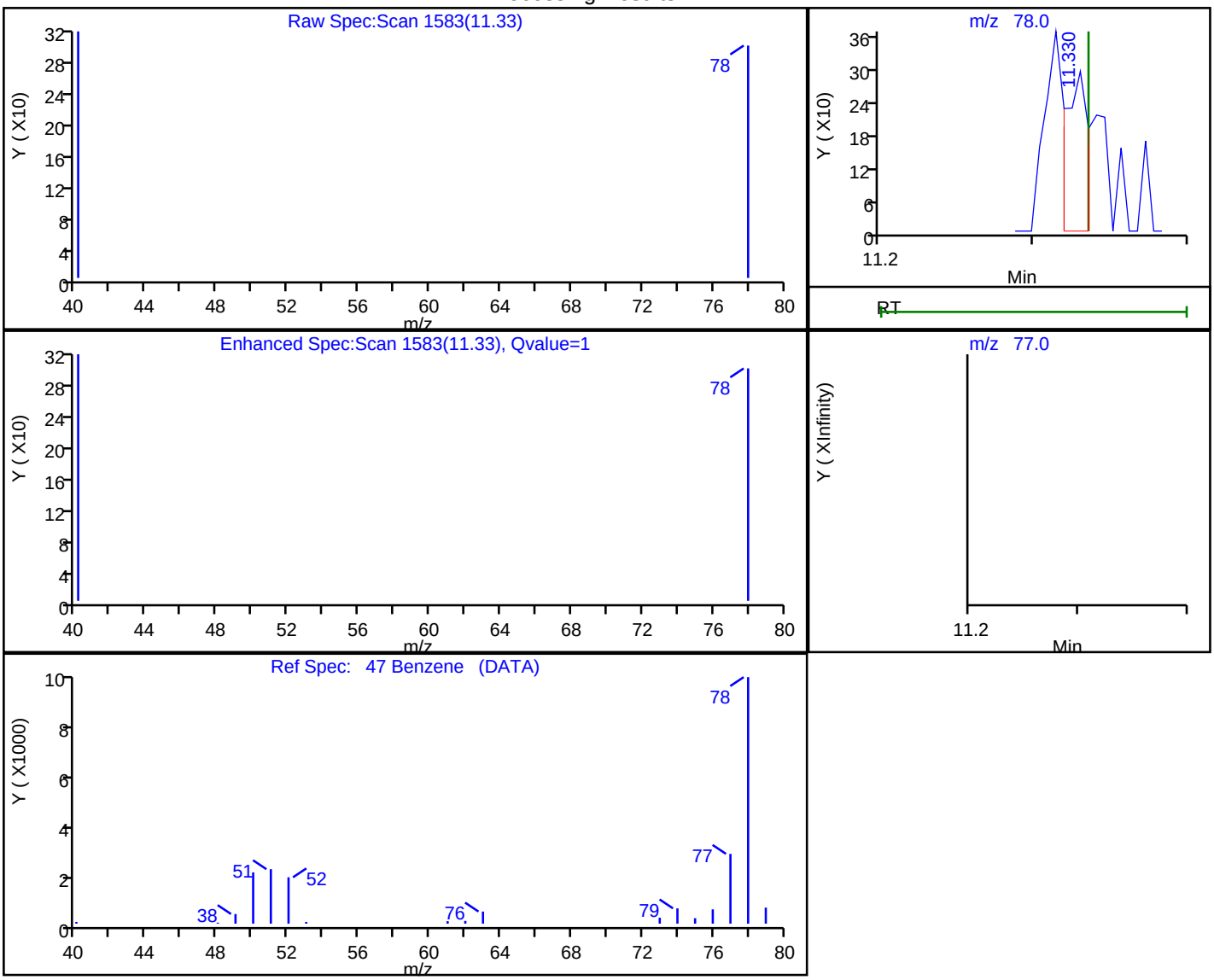
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHC.i\20190124-34287.b\34287-16.D | | | | |
| Injection Date: | 25-Jan-2019 02:10:30 | Instrument ID: | CHC.i | | |
| Lims ID: | 200-47058-A-6 | Lab Sample ID: | 200-47058-6 | | |
| Client ID: | 5435 | | | | |
| Operator ID: | ert | ALS Bottle#: | 17 | Worklist Smp#: | 16 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_MasterMethod_(v1)_CHC.i | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 47 Benzene, CAS: 71-43-2

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 11.33 | 78.00 | 301 | 0.003654 |
| 11.34 | 77.00 | 0 | |

Reviewer: bunmaa, 25-Jan-2019 14:58:19

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

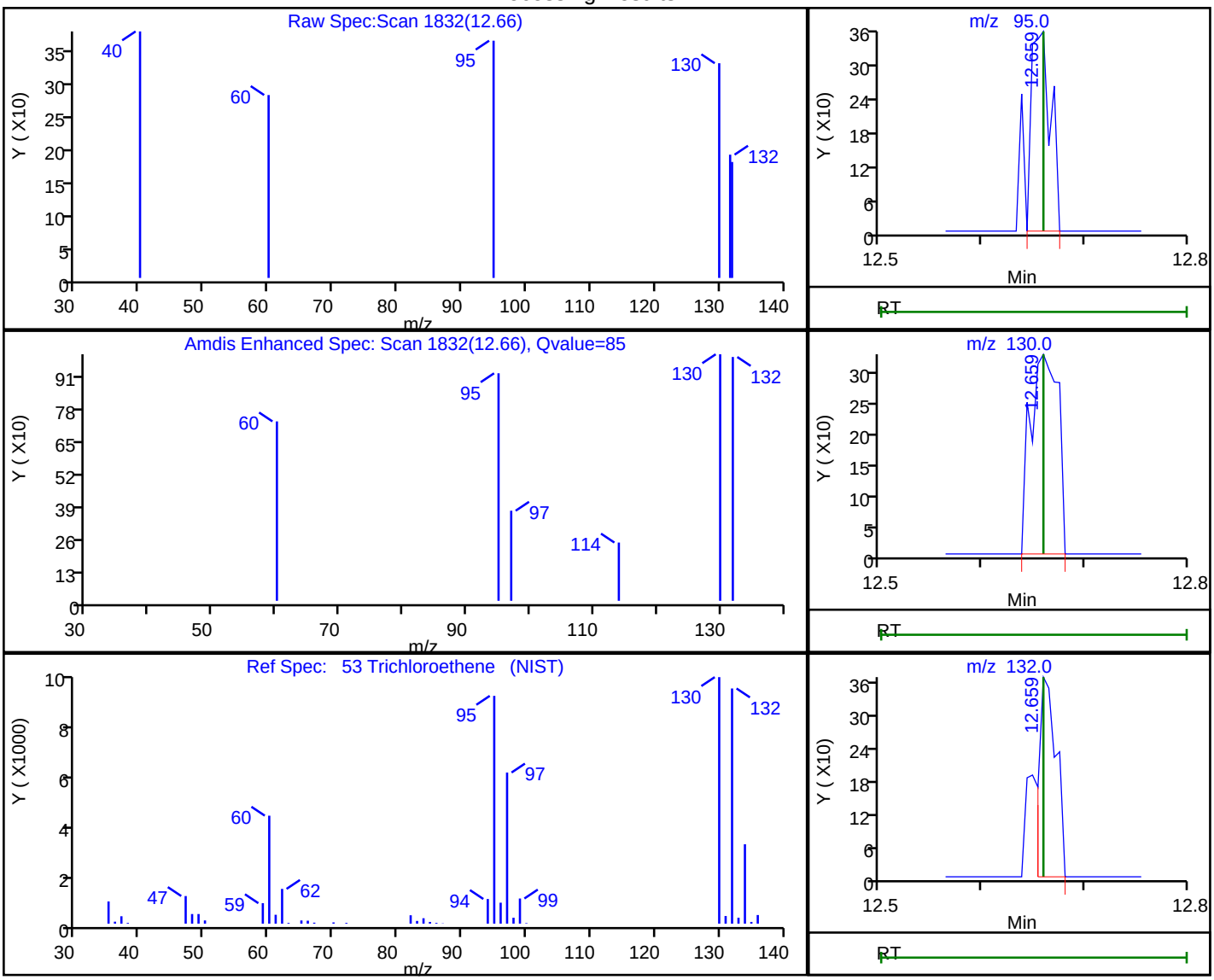
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHC.i\20190124-34287.b\34287-16.D | | | | |
| Injection Date: | 25-Jan-2019 02:10:30 | Instrument ID: | CHC.i | | |
| Lims ID: | 200-47058-A-6 | Lab Sample ID: | 200-47058-6 | | |
| Client ID: | 5435 | | | | |
| Operator ID: | ert | ALS Bottle#: | 17 | Worklist Smp#: | 16 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_MasterMethod_(v1)_CHC.i | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 53 Trichloroethene, CAS: 79-01-6

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 12.66 | 95.00 | 465 | 0.010912 |
| 12.66 | 130.00 | 614 | |
| 12.66 | 132.00 | 418 | |

Reviewer: bunmaa, 25-Jan-2019 14:58:35

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

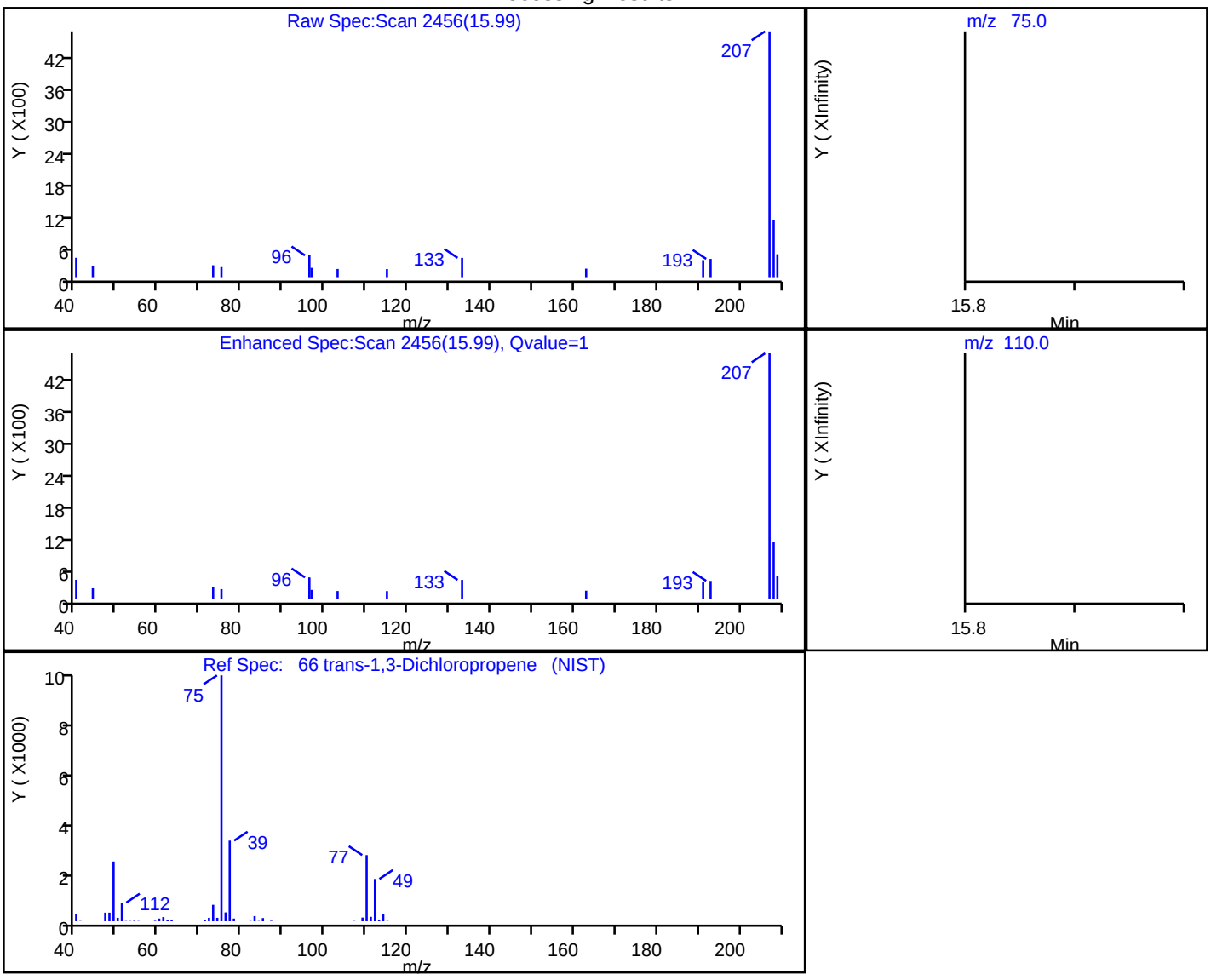
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHC.i\20190124-34287.b\34287-16.D | | | | |
| Injection Date: | 25-Jan-2019 02:10:30 | Instrument ID: | CHC.i | | |
| Lims ID: | 200-47058-A-6 | Lab Sample ID: | 200-47058-6 | | |
| Client ID: | 5435 | | | | |
| Operator ID: | ert | ALS Bottle#: | 17 | Worklist Smp#: | 16 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_MasterMethod_(v1)_CHC.i | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 66 trans-1,3-Dichloropropene, CAS: 10061-02-6

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 15.99 | 75.00 | 122 | 0.001858 |
| 15.93 | 110.00 | 0 | |

Reviewer: bunmaa, 25-Jan-2019 14:58:47

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

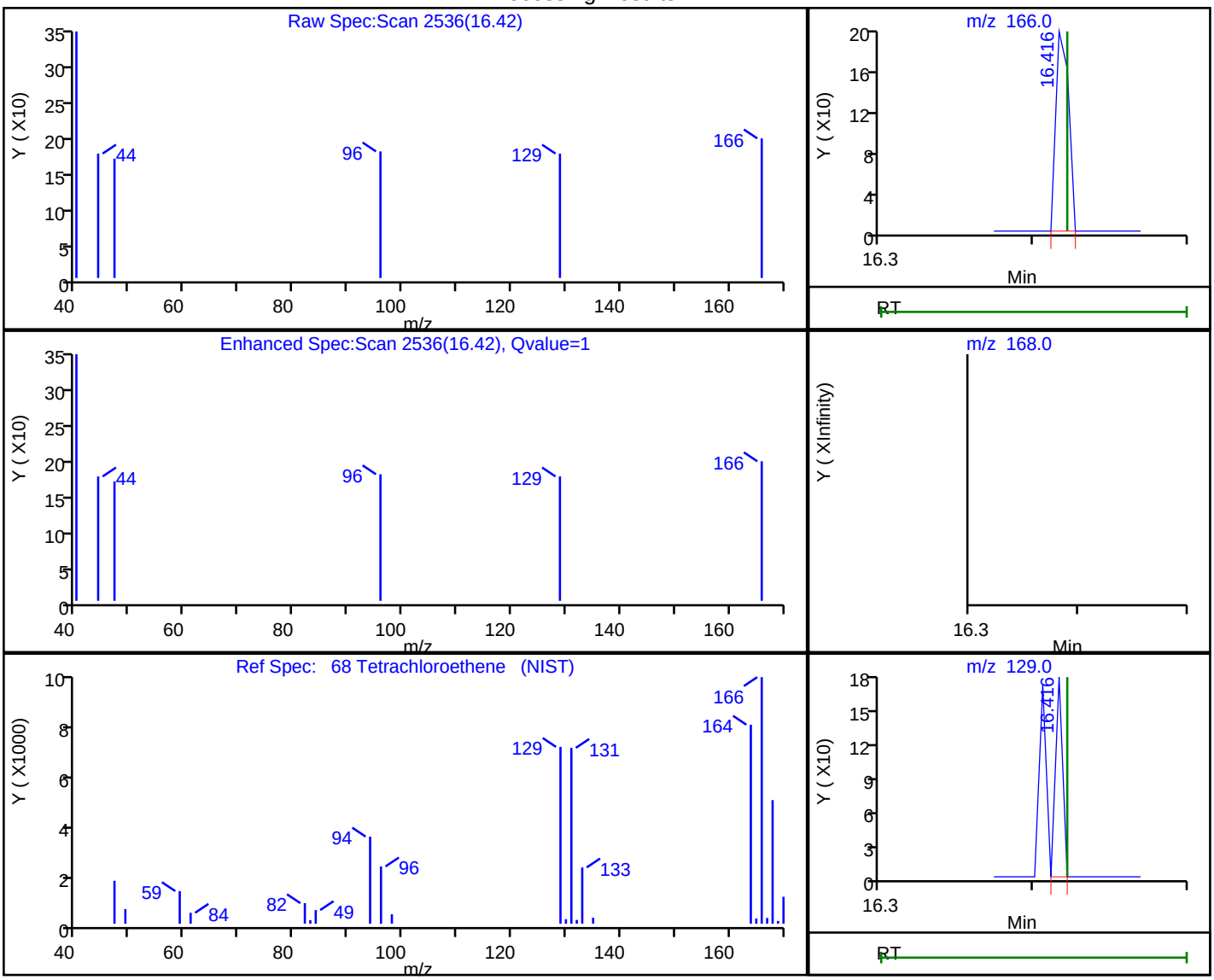
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHC.i\20190124-34287.b\34287-16.D | | | | |
| Injection Date: | 25-Jan-2019 02:10:30 | Instrument ID: | CHC.i | | |
| Lims ID: | 200-47058-A-6 | Lab Sample ID: | 200-47058-6 | | |
| Client ID: | 5435 | | | | |
| Operator ID: | ert | ALS Bottle#: | 17 | Worklist Smp#: | 16 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_MasterMethod_(v1)_CHC.i | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 68 Tetrachloroethene, CAS: 127-18-4

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 16.42 | 166.00 | 112 | 0.001799 |
| 16.42 | 168.00 | 0 | |
| 16.42 | 129.00 | 55 | |

Reviewer: bunmaa, 25-Jan-2019 14:58:51

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

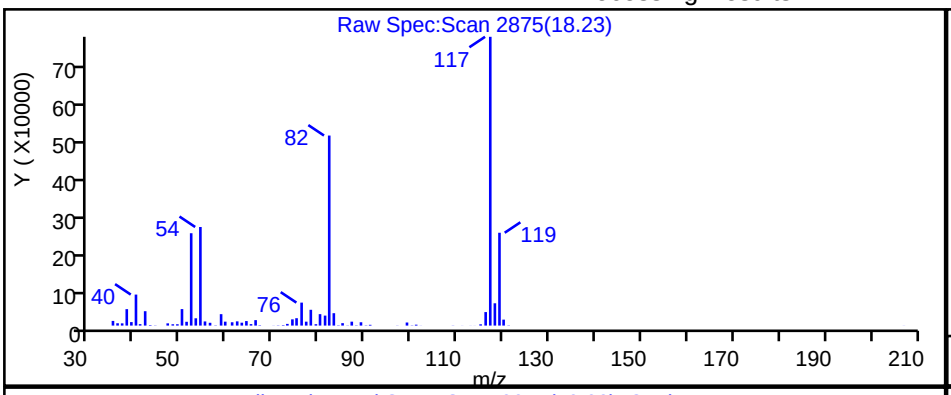
User Disabled Compound Report

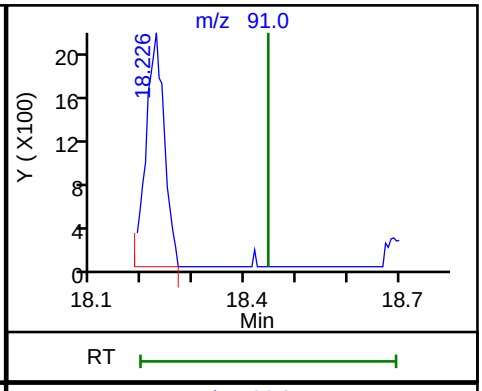
TestAmerica Burlington

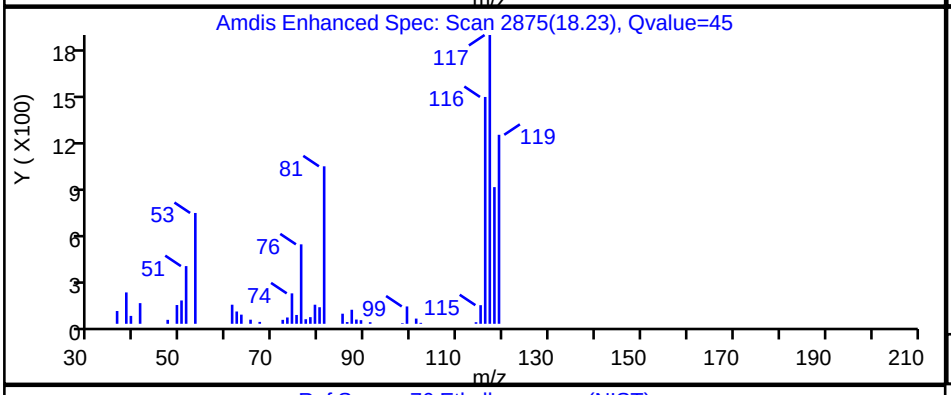
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHC.i\20190124-34287.b\34287-16.D | | | | |
| Injection Date: | 25-Jan-2019 02:10:30 | Instrument ID: | CHC.i | | |
| Lims ID: | 200-47058-A-6 | Lab Sample ID: | 200-47058-6 | | |
| Client ID: | 5435 | | | | |
| Operator ID: | ert | ALS Bottle#: | 17 | Worklist Smp#: | 16 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_MasterMethod_(v1)_CHC.i | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

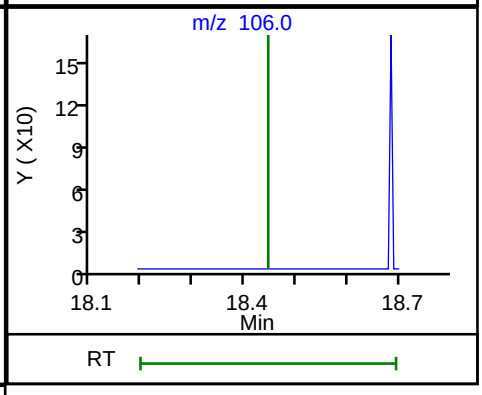
## 76 Ethylbenzene, CAS: 100-41-4

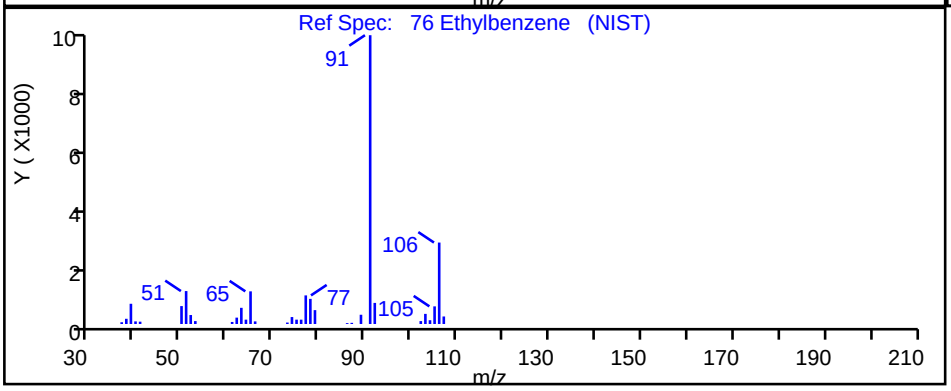
Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 18.23 | 91.00 | 5136 | 0.030889 |
| 18.44 | 106.00 | 0 | |

Reviewer: bunmaa, 25-Jan-2019 14:58:58

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

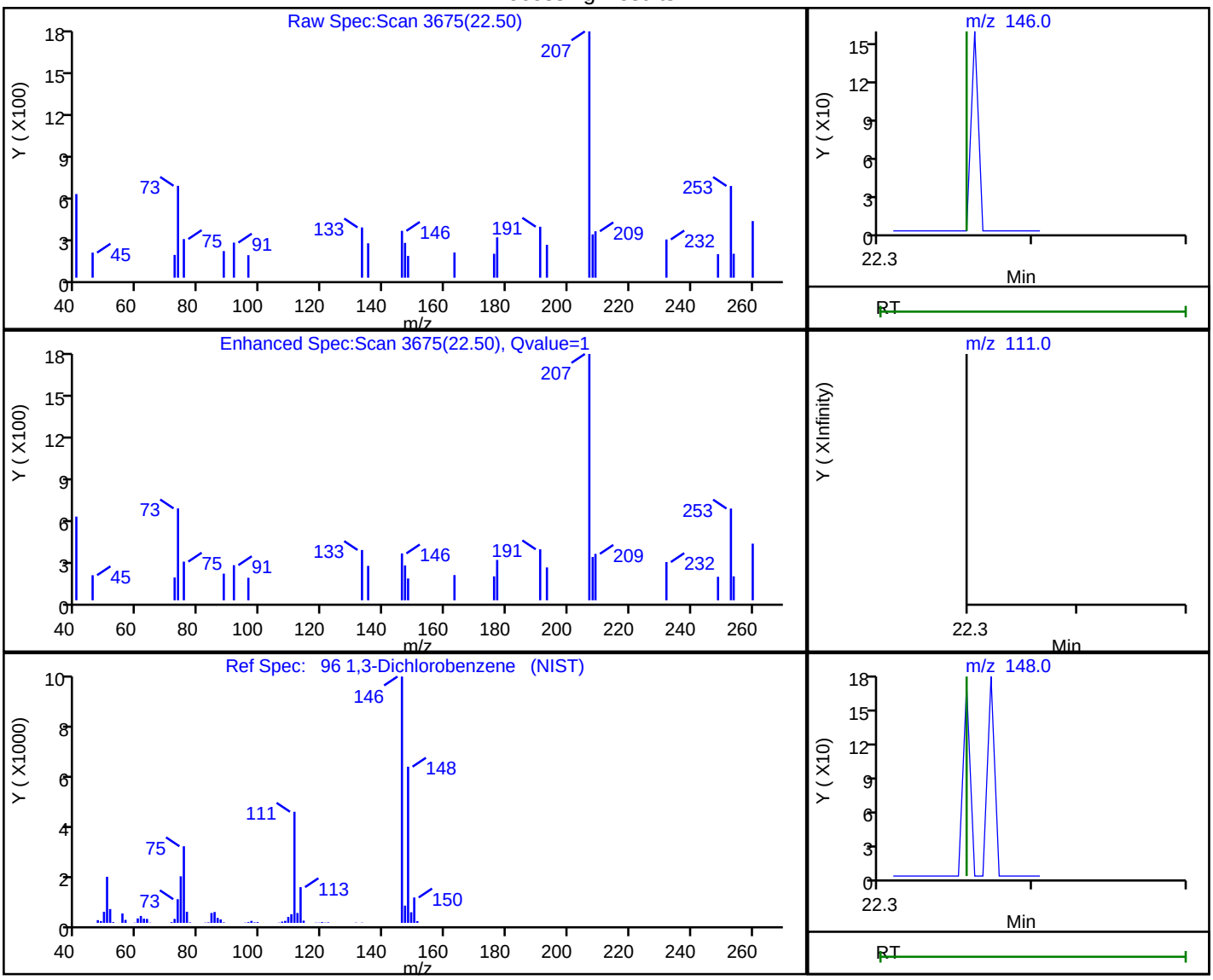
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHC.i\20190124-34287.b\34287-16.D | | | | |
| Injection Date: | 25-Jan-2019 02:10:30 | Instrument ID: | CHC.i | | |
| Lims ID: | 200-47058-A-6 | Lab Sample ID: | 200-47058-6 | | |
| Client ID: | 5435 | | | | |
| Operator ID: | ert | ALS Bottle#: | 17 | Worklist Smp#: | 16 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_MasterMethod_(v1)_CHC.i | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 96 1,3-Dichlorobenzene, CAS: 541-73-1

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 22.50 | 146.00 | 180 | 0.001842 |
| 22.36 | 111.00 | 0 | |
| 22.50 | 148.00 | 245 | |

Reviewer: bunmaa, 25-Jan-2019 14:59:17

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

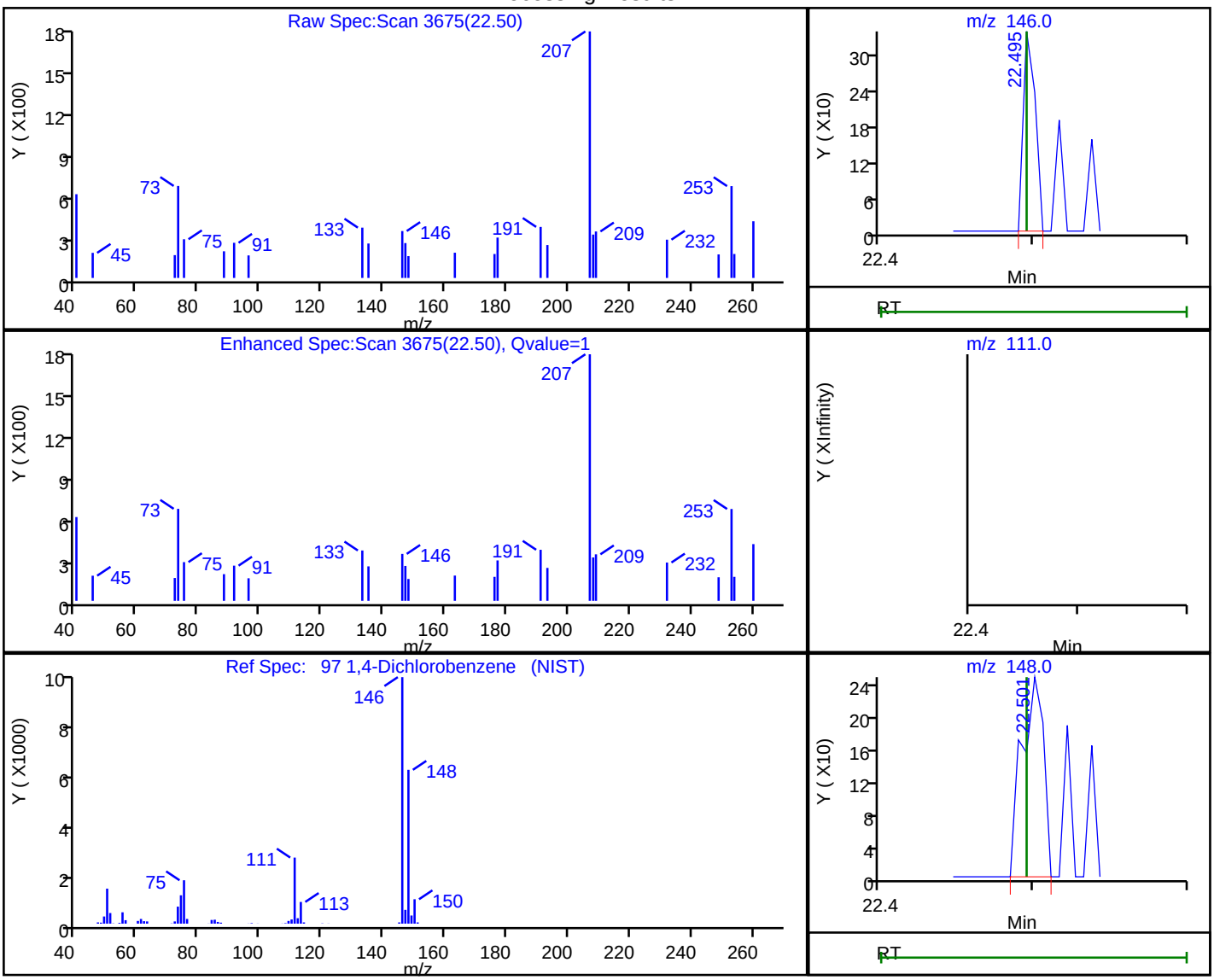
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHC.i\20190124-34287.b\34287-16.D | | | | |
| Injection Date: | 25-Jan-2019 02:10:30 | Instrument ID: | CHC.i | | |
| Lims ID: | 200-47058-A-6 | Lab Sample ID: | 200-47058-6 | | |
| Client ID: | 5435 | | | | |
| Operator ID: | ert | ALS Bottle#: | 17 | Worklist Smp#: | 16 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_MasterMethod_(v1)_CHC.i | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 97 1,4-Dichlorobenzene, CAS: 106-46-7

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 22.50 | 146.00 | 180 | 0.001877 |
| 22.50 | 111.00 | 0 | |
| 22.50 | 148.00 | 245 | |

Reviewer: bunmaa, 25-Jan-2019 14:59:19

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

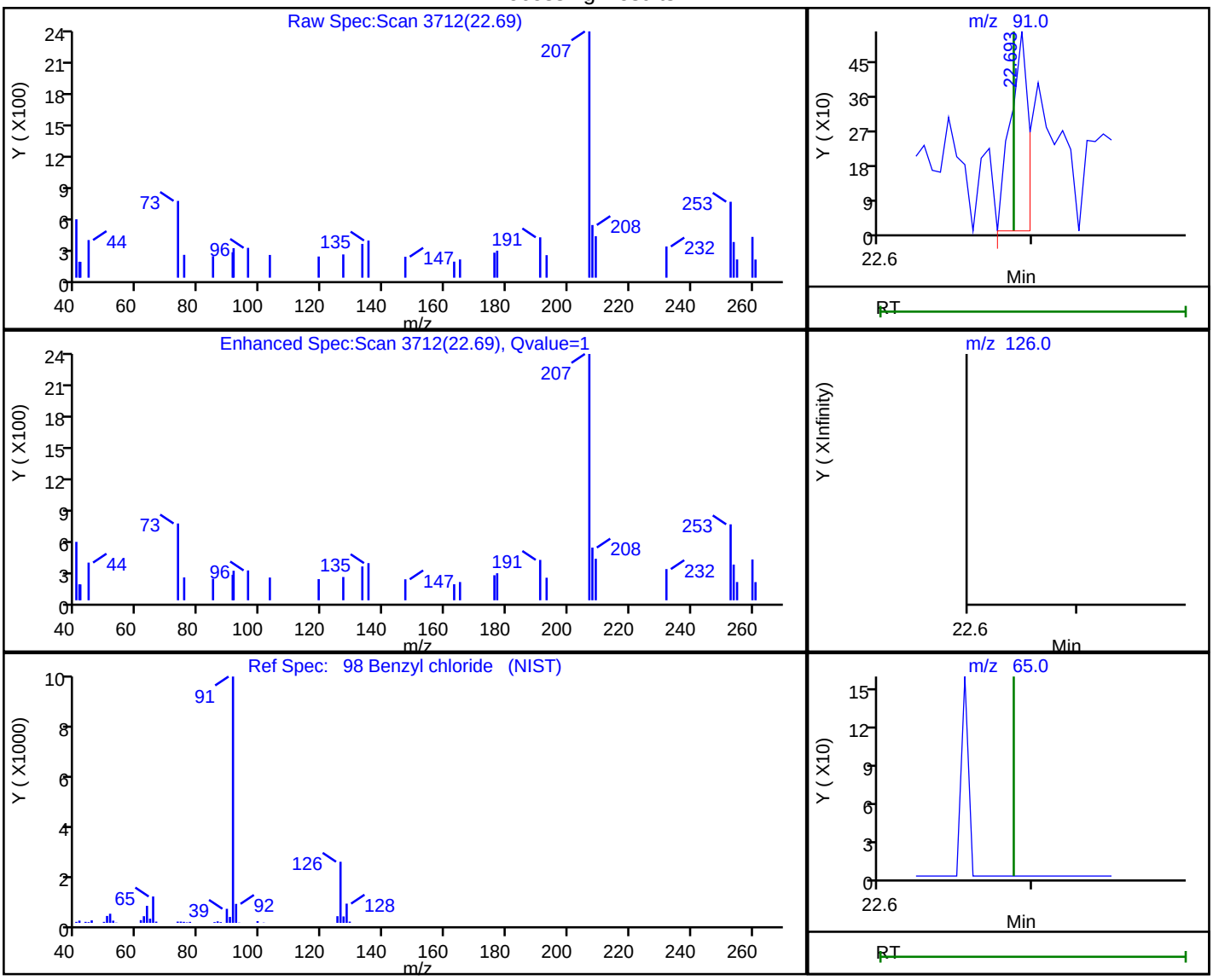
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHC.i\20190124-34287.b\34287-16.D | | | | |
| Injection Date: | 25-Jan-2019 02:10:30 | Instrument ID: | CHC.i | | |
| Lims ID: | 200-47058-A-6 | Lab Sample ID: | 200-47058-6 | | |
| Client ID: | 5435 | | | | |
| Operator ID: | ert | ALS Bottle#: | 17 | Worklist Smp#: | 16 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_MasterMethod_(v1)_CHC.i | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 98 Benzyl chloride, CAS: 100-44-7

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 22.69 | 91.00 | 433 | 0.003047 |
| 22.69 | 126.00 | 0 | |
| 22.69 | 65.00 | 0 | |

Reviewer: bunmaa, 25-Jan-2019 14:59:22

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

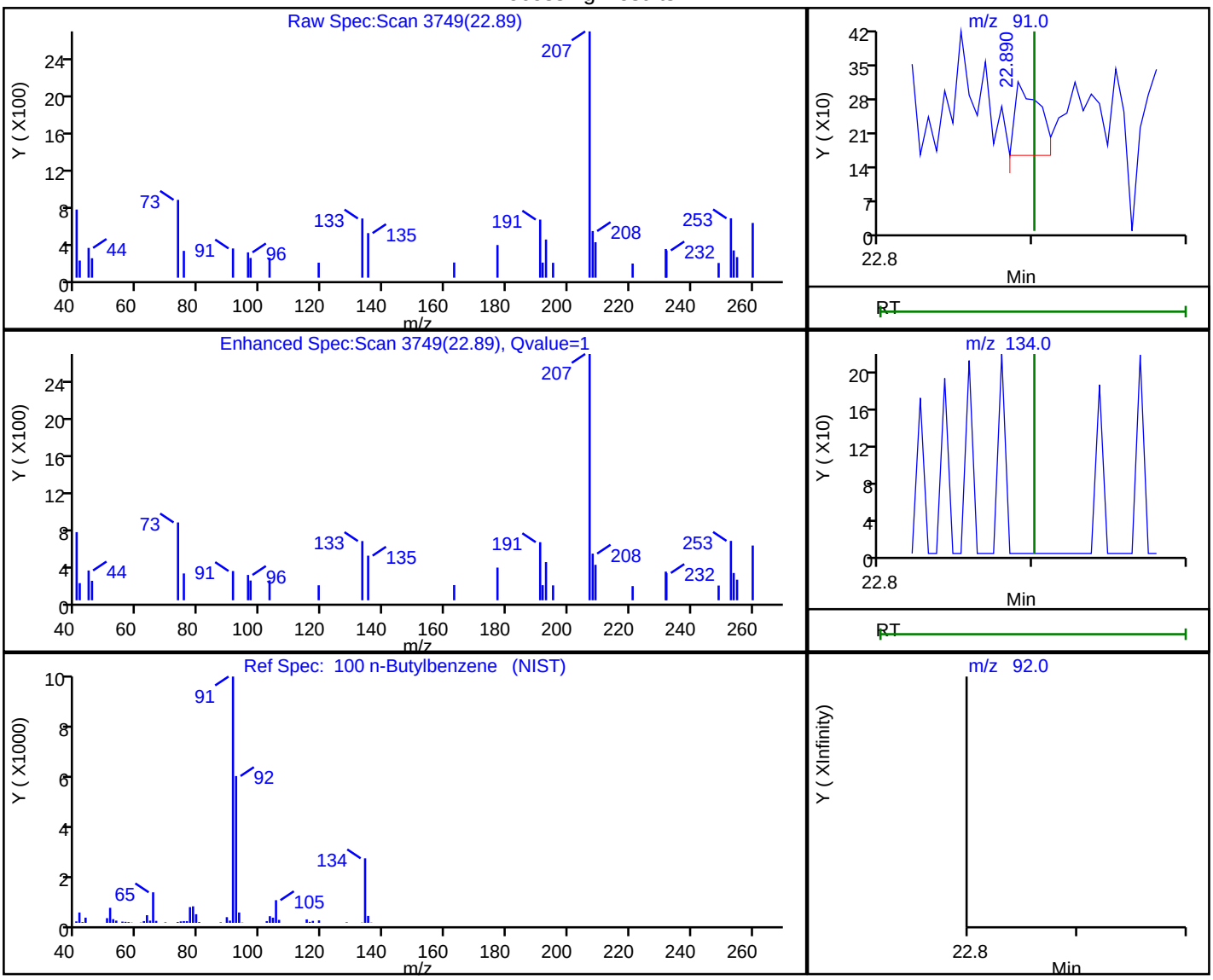
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHC.i\20190124-34287.b\34287-16.D | | | | |
| Injection Date: | 25-Jan-2019 02:10:30 | Instrument ID: | CHC.i | | |
| Lims ID: | 200-47058-A-6 | Lab Sample ID: | 200-47058-6 | | |
| Client ID: | 5435 | | | | |
| Operator ID: | ert | ALS Bottle#: | 17 | Worklist Smp#: | 16 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_MasterMethod_(v1)_CHC.i | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 100 n-Butylbenzene, CAS: 104-51-8

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 22.89 | 91.00 | 170 | 0.000928 |
| 22.90 | 134.00 | 0 | |
| 22.90 | 92.00 | 0 | |

Reviewer: bunmaa, 25-Jan-2019 14:59:24

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

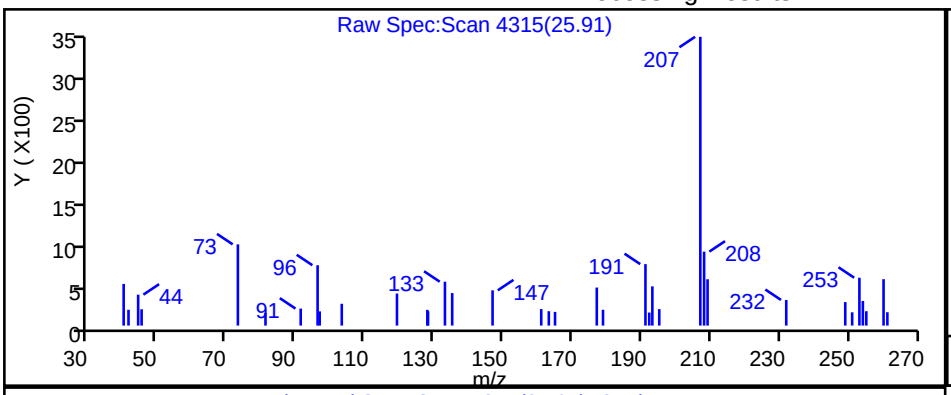
User Disabled Compound Report

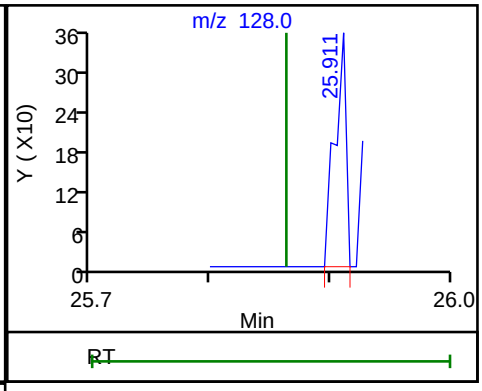
TestAmerica Burlington

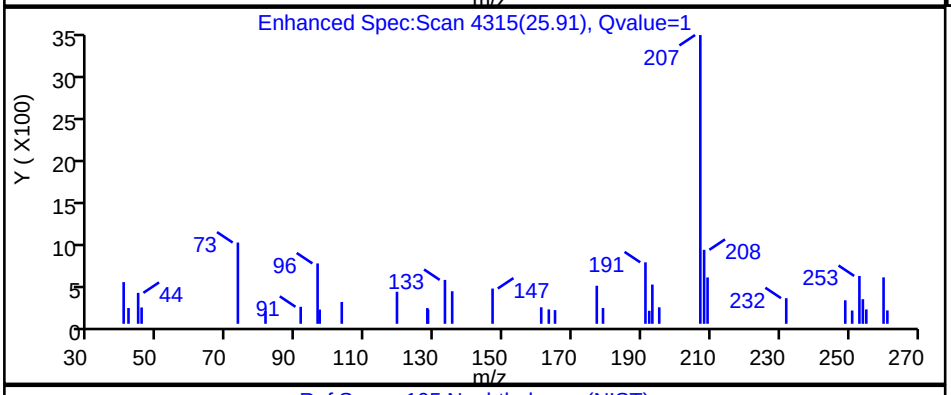
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHC.i\20190124-34287.b\34287-16.D | | | | |
| Injection Date: | 25-Jan-2019 02:10:30 | Instrument ID: | CHC.i | | |
| Lims ID: | 200-47058-A-6 | Lab Sample ID: | 200-47058-6 | | |
| Client ID: | 5435 | | | | |
| Operator ID: | ert | ALS Bottle#: | 17 | Worklist Smp#: | 16 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_MasterMethod_(v1)_CHC.i | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

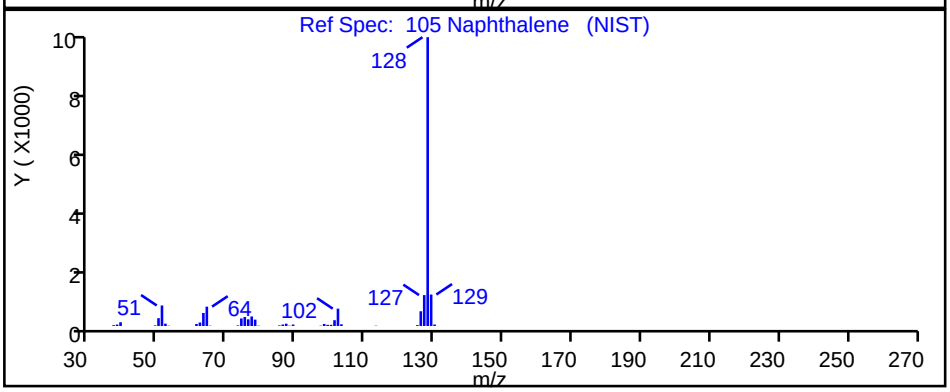
## 105 Naphthalene, CAS: 91-20-3

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 25.91 | 128.00 | 233 | 0.001754 |

Reviewer: bunmaa, 25-Jan-2019 14:59:30

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-47122-1

SDG No.:

Client Sample ID: 3534 Lab Sample ID: 200-47122-7

Matrix: Air Lab File ID: 34301-24.D

Analysis Method: TO-15 Date Collected: 01/22/2019 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 01/26/2019 08:56

Soil Aliquot Vol: Dilution Factor: 0.2

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 139445 Units: ppb v/v

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | RL |
|---|---|---|---|---|---|
| 115-07-1 | Propylene | 1.0 | U | 1.0 | 1.0 |
| 75-71-8 | Dichlorodifluoromethane | 0.10 | U | 0.10 | 0.10 |
| 75-45-6 | Freon 22 | 0.10 | U | 0.10 | 0.10 |
| 76-14-2 | 1,2-Dichlorotetrafluoroethane | 0.040 | U | 0.040 | 0.040 |
| 74-87-3 | Chloromethane | 0.10 | U | 0.10 | 0.10 |
| 106-97-8 | n-Butane | 0.10 | U | 0.10 | 0.10 |
| 75-01-4 | Vinyl chloride | 0.040 | U | 0.040 | 0.040 |
| 106-99-0 | 1,3-Butadiene | 0.040 | U | 0.040 | 0.040 |
| 74-83-9 | Bromomethane | 0.040 | U | 0.040 | 0.040 |
| 75-00-3 | Chloroethane | 0.10 | U | 0.10 | 0.10 |
| 593-60-2 | Bromoethene(Vinyl Bromide) | 0.040 | U | 0.040 | 0.040 |
| 75-69-4 | Trichlorofluoromethane | 0.040 | U | 0.040 | 0.040 |
| 64-17-5 | Ethanol | 1.0 | U | 1.0 | 1.0 |
| 76-13-1 | Freon TF | 0.040 | U | 0.040 | 0.040 |
| 75-35-4 | 1,1-Dichloroethene | 0.040 | U | 0.040 | 0.040 |
| 67-64-1 | Acetone | 1.0 | U | 1.0 | 1.0 |
| 67-63-0 | Isopropyl alcohol | 1.0 | U | 1.0 | 1.0 |
| 75-15-0 | Carbon disulfide | 0.10 | U | 0.10 | 0.10 |
| 107-05-1 | 3-Chloropropene | 0.10 | U | 0.10 | 0.10 |
| 75-09-2 | Methylene Chloride | 0.10 | U | 0.10 | 0.10 |
| 75-65-0 | tert-Butyl alcohol | 1.0 | U | 1.0 | 1.0 |
| 1634-04-4 | Methyl tert-butyl ether | 0.040 | U | 0.040 | 0.040 |
| 156-60-5 | trans-1,2-Dichloroethene | 0.040 | U | 0.040 | 0.040 |
| 110-54-3 | n-Hexane | 0.040 | U | 0.040 | 0.040 |
| 75-34-3 | 1,1-Dichloroethane | 0.040 | U | 0.040 | 0.040 |
| 108-05-4 | Vinyl acetate | 1.0 | U | 1.0 | 1.0 |
| 141-78-6 | Ethyl acetate | 1.0 | U | 1.0 | 1.0 |
| 78-93-3 | Methyl Ethyl Ketone | 0.10 | U | 0.10 | 0.10 |
| 156-59-2 | cis-1,2-Dichloroethene | 0.040 | U | 0.040 | 0.040 |
| 540-59-0 | 1,2-Dichloroethene, Total | 0.080 | U | 0.080 | 0.080 |
| 67-66-3 | Chloroform | 0.040 | U | 0.040 | 0.040 |
| 109-99-9 | Tetrahydrofuran | 1.0 | U | 1.0 | 1.0 |
| 71-55-6 | 1,1,1-Trichloroethane | 0.040 | U | 0.040 | 0.040 |
| 110-82-7 | Cyclohexane | 0.040 | U | 0.040 | 0.040 |
| 56-23-5 | Carbon tetrachloride | 0.040 | U | 0.040 | 0.040 |
| 540-84-1 | 2,2,4-Trimethylpentane | 0.040 | U | 0.040 | 0.040 |

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington  Job No.: 200-47122-1

SDG No.:

Client Sample ID: 3534  Lab Sample ID: 200-47122-7

Matrix: Air  Lab File ID: 34301-24.D

Analysis Method: TO-15  Date Collected: 01/22/2019 00:00

Sample wt/vol: 1000(mL)  Date Analyzed: 01/26/2019 08:56

Soil Aliquot Vol:  Dilution Factor: 0.2

Soil Extract Vol.:  GC Column: RTX-624  ID: 0.32(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 139445  Units: ppb v/v

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | RL |
|---|---|---|---|---|---|
| 71-43-2 | Benzene | 0.040 | U | 0.040 | 0.040 |
| 107-06-2 | 1,2-Dichloroethane | 0.040 | U | 0.040 | 0.040 |
| 142-82-5 | n-Heptane | 0.040 | U | 0.040 | 0.040 |
| 79-01-6 | Trichloroethene | 0.040 | U | 0.040 | 0.040 |
| 80-62-6 | Methyl methacrylate | 0.10 | U | 0.10 | 0.10 |
| 78-87-5 | 1,2-Dichloropropane | 0.040 | U | 0.040 | 0.040 |
| 123-91-1 | 1,4-Dioxane | 1.0 | U | 1.0 | 1.0 |
| 75-27-4 | Bromodichloromethane | 0.040 | U | 0.040 | 0.040 |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.040 | U | 0.040 | 0.040 |
| 108-10-1 | methyl isobutyl ketone | 0.10 | U | 0.10 | 0.10 |
| 108-88-3 | Toluene | 0.040 | U | 0.040 | 0.040 |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.040 | U | 0.040 | 0.040 |
| 79-00-5 | 1,1,2-Trichloroethane | 0.040 | U | 0.040 | 0.040 |
| 127-18-4 | Tetrachloroethene | 0.040 | U | 0.040 | 0.040 |
| 591-78-6 | Methyl Butyl Ketone (2-Hexanone) | 0.10 | U | 0.10 | 0.10 |
| 124-48-1 | Dibromochloromethane | 0.040 | U | 0.040 | 0.040 |
| 106-93-4 | 1,2-Dibromoethane | 0.040 | U | 0.040 | 0.040 |
| 108-90-7 | Chlorobenzene | 0.040 | U | 0.040 | 0.040 |
| 100-41-4 | Ethylbenzene | 0.040 | U | 0.040 | 0.040 |
| 179601-23-1 | m,p-Xylene | 0.10 | U | 0.10 | 0.10 |
| 95-47-6 | Xylene, o- | 0.040 | U | 0.040 | 0.040 |
| 1330-20-7 | Xylene (total) | 0.14 | U | 0.14 | 0.14 |
| 100-42-5 | Styrene | 0.040 | U | 0.040 | 0.040 |
| 75-25-2 | Bromoform | 0.040 | U | 0.040 | 0.040 |
| 98-82-8 | Cumene | 0.040 | U | 0.040 | 0.040 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.040 | U | 0.040 | 0.040 |
| 103-65-1 | n-Propylbenzene | 0.040 | U | 0.040 | 0.040 |
| 622-96-8 | 4-Ethyltoluene | 0.040 | U | 0.040 | 0.040 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 0.040 | U | 0.040 | 0.040 |
| 95-49-8 | 2-Chlorotoluene | 0.040 | U | 0.040 | 0.040 |
| 98-06-6 | tert-Butylbenzene | 0.040 | U | 0.040 | 0.040 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.040 | U | 0.040 | 0.040 |
| 135-98-8 | sec-Butylbenzene | 0.040 | U | 0.040 | 0.040 |
| 99-87-6 | 4-Isopropyltoluene | 0.040 | U | 0.040 | 0.040 |
| 541-73-1 | 1,3-Dichlorobenzene | 0.040 | U | 0.040 | 0.040 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.040 | U | 0.040 | 0.040 |

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington  Job No.: 200-47122-1

SDG No.:

Client Sample ID: 3534  Lab Sample ID: 200-47122-7

Matrix: Air  Lab File ID: 34301-24.D

Analysis Method: TO-15  Date Collected: 01/22/2019 00:00

Sample wt/vol: 1000(mL)  Date Analyzed: 01/26/2019 08:56

Soil Aliquot Vol:  Dilution Factor: 0.2

Soil Extract Vol.:  GC Column: RTX-624  ID: 0.32(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 139445  Units: ppb v/v

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | RL |
|---|---|---|---|---|---|
| 100-44-7 | Benzyl chloride | 0.040 | U | 0.040 | 0.040 |
| 104-51-8 | n-Butylbenzene | 0.040 | U | 0.040 | 0.040 |
| 95-50-1 | 1,2-Dichlorobenzene | 0.040 | U | 0.040 | 0.040 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 0.10 | U | 0.10 | 0.10 |
| 87-68-3 | Hexachlorobutadiene | 0.040 | U | 0.040 | 0.040 |
| 91-20-3 | Naphthalene | 0.10 | U | 0.10 | 0.10 |

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\chromna\Burlington\ChromData\CHC.i\20190125-34301.b\34301-24.D
Lims ID: 200-47122-A-7
Client ID: 3534
Sample Type: Client
Inject. Date: 26-Jan-2019 08:56:30 ALS Bottle#: 25 Worklist Smp#: 24
Purge Vol: 200.000 mL Dil. Factor: 0.2000
Sample Info: 200-0034301-024
Misc. Info.: 47122-7
Operator ID: ggg Instrument ID: CHC.i

Method: \\chromna\Burlington\ChromData\CHC.i\20190125-34301.b\TO15_MasterMethod_(v1)_CHC.i.m
Limit Group: AI_TO15_ICAL
Last Update: 28-Jan-2019 14:41:03 Calib Date: 23-Jan-2019 12:53:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Burlington\ChromData\CHC.i\20190122-34255.b\34255-22.D

Column 1 : RTX-624 ( 0.32 mm) Det: MS SCAN
Process Host: CTX0330

First Level Reviewer: bunmaa Date: 28-Jan-2019 14:41:03

| Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ppb v/v | Flags |
|---|---|---|---|---|---|---|---|---|
| 1 Propene | 41 | | 2.962 | | | | ND | U |
| 2 Dichlorodifluoromethane | 85 | | 3.026 | | | | ND | |
| 3 Chlorodifluoromethane | 51 | | 3.074 | | | | ND | U |
| 4 1,2-Dichloro-1,1,2,2-tetra | 85 | | 3.282 | | | | ND | |
| 5 Chloromethane | 50 | | 3.410 | | | | ND | |
| 6 Butane | 43 | | 3.613 | | | | ND | |
| 7 Vinyl chloride | 62 | | 3.651 | | | | ND | |
| 8 Butadiene | 54 | | 3.725 | | | | ND | |
| 10 Bromomethane | 94 | | 4.387 | | | | ND | |
| 11 Chloroethane | 64 | | 4.622 | | | | ND | |
| 13 Vinyl bromide | 106 | | 5.011 | | | | ND | |
| 14 Trichlorofluoromethane | 101 | | 5.124 | | | | ND | |
| 17 Ethanol | 45 | | 5.695 | | | | ND | |
| 20 1,1,2-Trichloro-1,2,2-trif | 101 | | 6.207 | | | | ND | |
| 21 1,1-Dichloroethene | 96 | | 6.234 | | | | ND | |
| 22 Acetone | 43 | | 6.452 | | | | ND | |
| 23 Carbon disulfide | 76 | 6.618 | 6.609 | 0.005 | 97 | 1598 | 0.0332 | |
| 24 Isopropyl alcohol | 45 | | 6.778 | | | | ND | |
| 25 3-Chloro-1-propene | 41 | | 7.018 | | | | ND | |
| 27 Methylene Chloride | 49 | | 7.317 | | | | ND | |
| 28 2-Methyl-2-propanol | 59 | | 7.552 | | | | ND | |
| 29 Methyl tert-butyl ether | 73 | | 7.733 | | | | ND | |
| 31 trans-1,2-Dichloroethene | 61 | | 7.765 | | | | ND | |
| 33 Hexane | 57 | | 8.176 | | | | ND | |
| 34 1,1-Dichloroethane | 63 | | 8.630 | | | | ND | |
| 35 Vinyl acetate | 43 | | 8.721 | | | | ND | |
| 37 cis-1,2-Dichloroethene | 96 | | 9.745 | | | | ND | |
| 38 2-Butanone (MEK) | 72 | | 9.783 | | | | ND | |
| 39 Ethyl acetate | 88 | | 9.852 | | | | ND | |
| S 30 1,2-Dichloroethene, Total | 61 | | 10.200 | | | | ND | |
| * 40 Chlorobromomethane | 128 | 10.199 | 10.204 | -0.005 | 96 | 319936 | 10.0 | |

| | Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ppb v/v | Flags |
|---|---|---|---|---|---|---|---|---|---|
| | 41 Tetrahydrofuran | 42 | | 10.210 | | | | ND | |
| | 42 Chloroform | 83 | | 10.348 | | | | ND | |
| | 43 Cyclohexane | 84 | | 10.610 | | | | ND | |
| | 44 1,1,1-Trichloroethane | 97 | | 10.621 | | | | ND | |
| | 45 Carbon tetrachloride | 117 | | 10.877 | | | | ND | |
| | 47 Benzene | 78 | | 11.330 | | | | ND | U |
| | 46 Isooctane | 57 | | 11.336 | | | | ND | |
| | 48 1,2-Dichloroethane | 62 | | 11.506 | | | | ND | |
| | 49 n-Heptane | 43 | | 11.736 | | | | ND | U |
| * | 50 1,4-Difluorobenzene | 114 | 12.184 | 12.190 | -0.006 | 97 | 1796560 | 10.0 | |
| | 53 Trichloroethene | 95 | | 12.659 | | | | ND | |
| | 54 1,2-Dichloropropane | 63 | | 13.198 | | | | ND | |
| | 55 Methyl methacrylate | 69 | | 13.390 | | | | ND | |
| | 56 1,4-Dioxane | 88 | | 13.433 | | | | ND | |
| | 57 Dibromomethane | 174 | | 13.460 | | | | ND | |
| | 58 Dichlorobromomethane | 83 | | 13.775 | | | | ND | |
| | 60 cis-1,3-Dichloropropene | 75 | | 14.725 | | | | ND | |
| | 61 4-Methyl-2-pentanone (MIBK | 43 | | 15.007 | | | | ND | |
| | 65 Toluene | 92 | 15.322 | 15.322 | 0.005 | 21 | 718 | 0.0108 | 7M |
| | 66 trans-1,3-Dichloropropene | 75 | | 15.920 | | | | ND | |
| | 67 1,1,2-Trichloroethane | 83 | | 16.294 | | | | ND | |
| | 68 Tetrachloroethene | 166 | | 16.422 | | | | ND | |
| | 69 2-Hexanone | 43 | | 16.742 | | | | ND | |
| | 71 Chlorodibromomethane | 129 | | 17.057 | | | | ND | |
| | 72 Ethylene Dibromide | 107 | | 17.313 | | | | ND | |
| * | 74 Chlorobenzene-d5 | 117 | 18.220 | 18.226 | -0.006 | 96 | 1886335 | 10.0 | |
| | 75 Chlorobenzene | 112 | | 18.284 | | | | ND | |
| | 76 Ethylbenzene | 91 | | 18.444 | | | | ND | Ua |
| | 78 m-Xylene & p-Xylene | 106 | 18.706 | 18.706 | 0.011 | 0 | 903 | 0.0163 | M |
| | 79 o-Xylene | 106 | | 19.528 | | | | ND | |
| | 80 Styrene | 104 | | 19.581 | | | | ND | |
| | 81 Bromoform | 173 | | 20.014 | | | | ND | |
| S | 73 Xylenes, Total | 106 | | | | 0 | | 0.0163 | 7 |
| | 82 Isopropylbenzene | 105 | | 20.243 | | | | ND | |
| | 84 1,1,2,2-Tetrachloroethane | 83 | | 20.910 | | | | ND | |
| | 85 N-Propylbenzene | 91 | | 20.990 | | | | ND | |
| | 88 4-Ethyltoluene | 105 | | 21.188 | | | | ND | U |
| | 89 2-Chlorotoluene | 91 | | 21.188 | | | | ND | |
| | 90 1,3,5-Trimethylbenzene | 105 | | 21.294 | | | | ND | U |
| | 92 tert-Butylbenzene | 119 | | 21.796 | | | | ND | |
| | 93 1,2,4-Trimethylbenzene | 105 | | 21.892 | | | | ND | |
| | 94 sec-Butylbenzene | 105 | | 22.127 | | | | ND | |
| | 95 4-Isopropyltoluene | 119 | | 22.335 | | | | ND | |
| | 96 1,3-Dichlorobenzene | 146 | | 22.356 | | | | ND | U |
| | 97 1,4-Dichlorobenzene | 146 | | 22.495 | | | | ND | U |
| | 98 Benzyl chloride | 91 | | 22.682 | | | | ND | U |
| | 100 n-Butylbenzene | 91 | | 22.901 | | | | ND | U |
| | 101 1,2-Dichlorobenzene | 146 | | 23.013 | | | | ND | |
| | 103 1,2,4-Trichlorobenzene | 180 | | 25.414 | | | | ND | |
| | 104 Hexachlorobutadiene | 225 | | 25.607 | | | | ND | |
| | 105 Naphthalene | 128 | | 25.863 | | | | ND | |

## QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

U - Marked Undetected

a - User Assigned ID

## Reagents:

ATTO15CISs_00010 Amount Added: 20.00 Units: mL Run Reagent

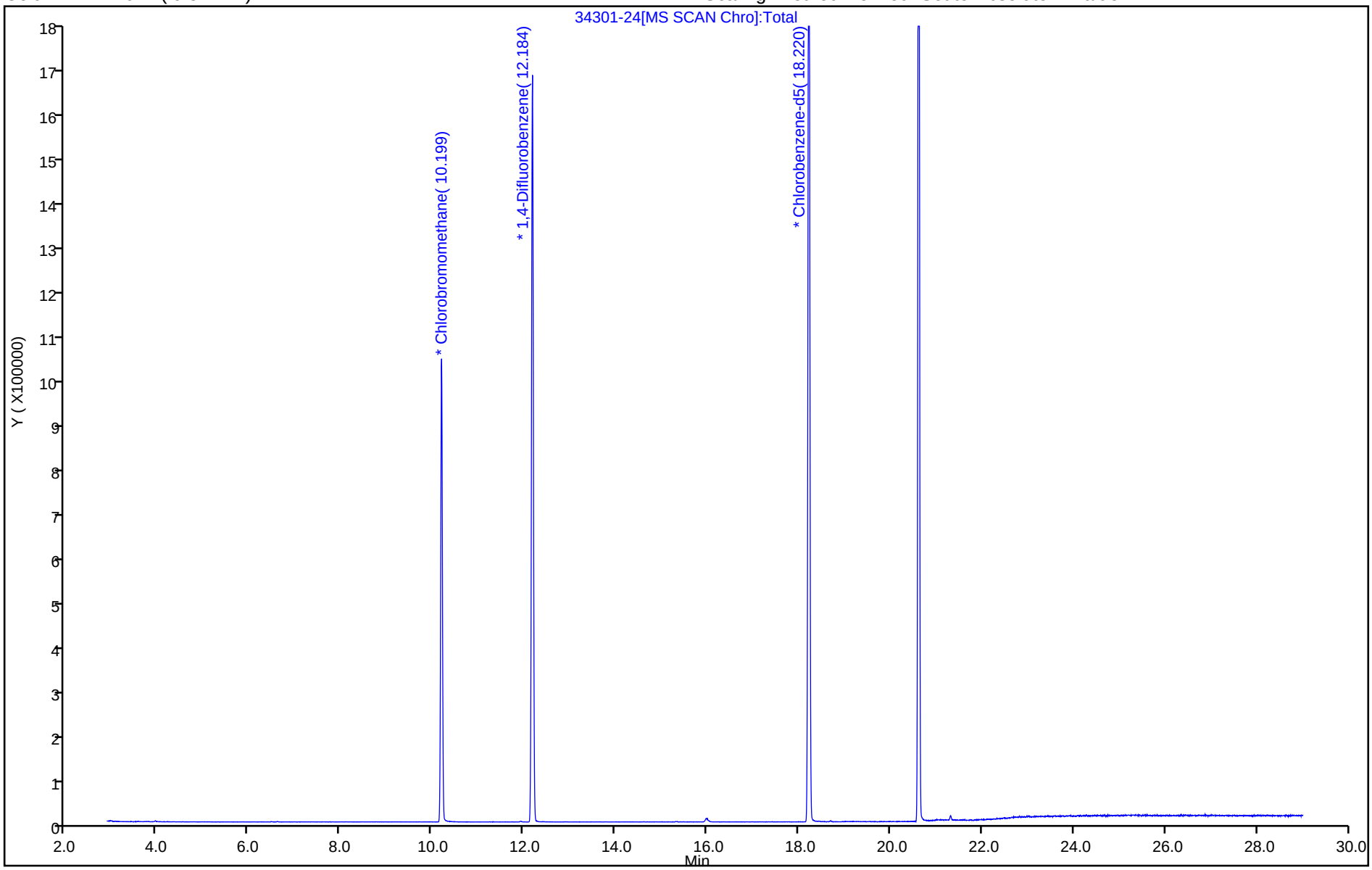
Report Date: 28-Jan-2019 14:41:04 Chrom Revision: 2.3 15-Jan-2019 08:51:34

TestAmerica Burlington

Data File: \\chromna\Burlington\ChromData\CHC.i\20190125-34301.b\34301-24.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Jan-2019 08:56:30 | Instrument ID: | CHC.i | Operator ID: | ggg |
| Lims ID: | 200-47122-A-7 | Lab Sample ID: | 200-47122-7 | Worklist Smp#: | 24 |
| Client ID: | 3534 | | | | |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | ALS Bottle#: | 25 |
| Method: | TO15_MasterMethod_(v1)_CHC.i | Limit Group: | AI_TO15_ICAL | | |

Column: RTX-624 ( 0.32 mm) Y Scaling: Method Defined: Set to Absolute Y Value



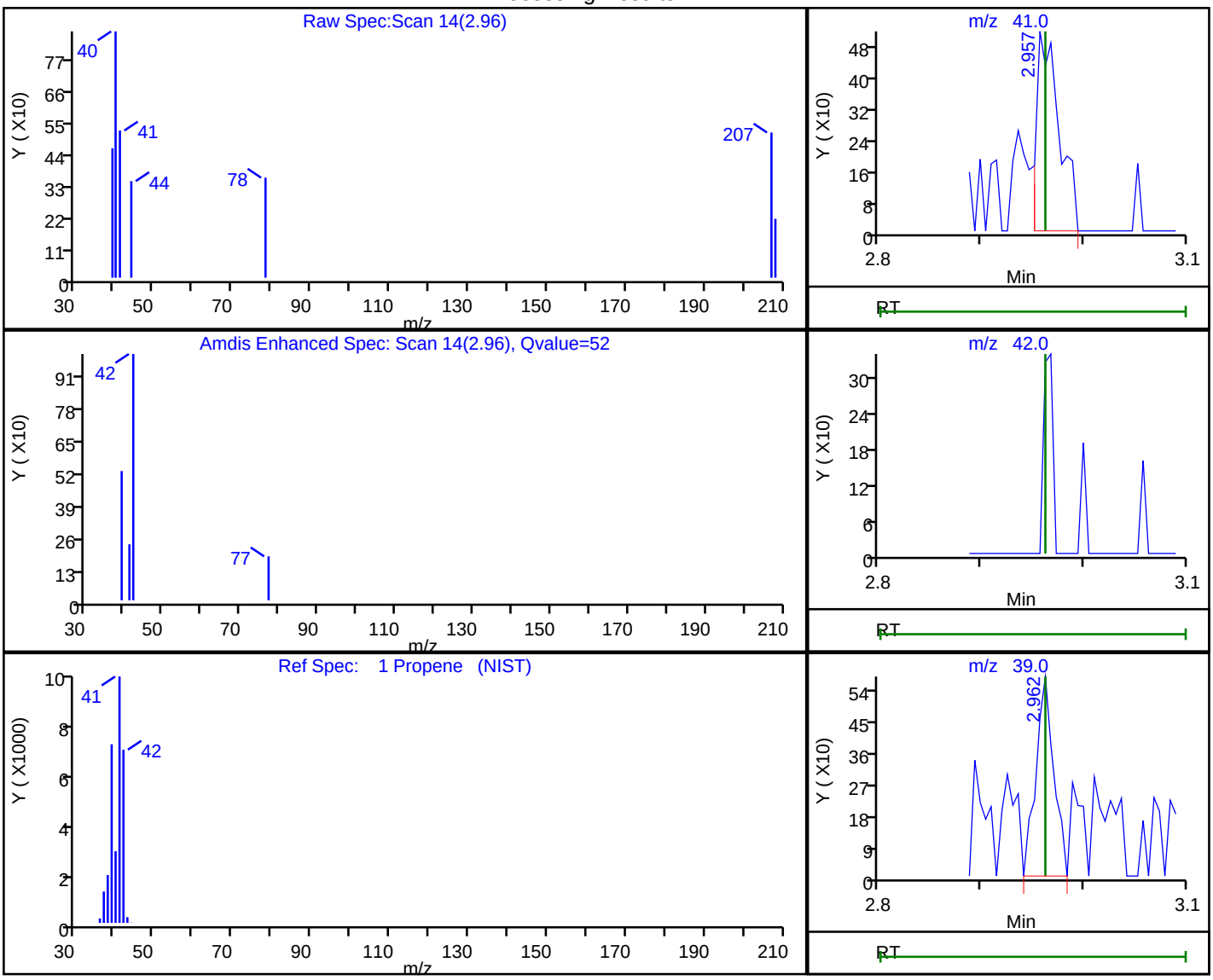
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHC.i\20190125-34301.b\34301-24.D | | | | |
| Injection Date: | 26-Jan-2019 08:56:30 | Instrument ID: | CHC.i | | |
| Lims ID: | 200-47122-A-7 | Lab Sample ID: | 200-47122-7 | | |
| Client ID: | 3534 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 25 | Worklist Smp#: | 24 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_MasterMethod_(v1)_CHC.i | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 1 Propene, CAS: 115-07-1

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 2.96 | 41.00 | 788 | 0.047427 |
| 2.96 | 42.00 | 0 | |
| 2.96 | 39.00 | 695 | |

Reviewer: bunmaa, 28-Jan-2019 14:38:31

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

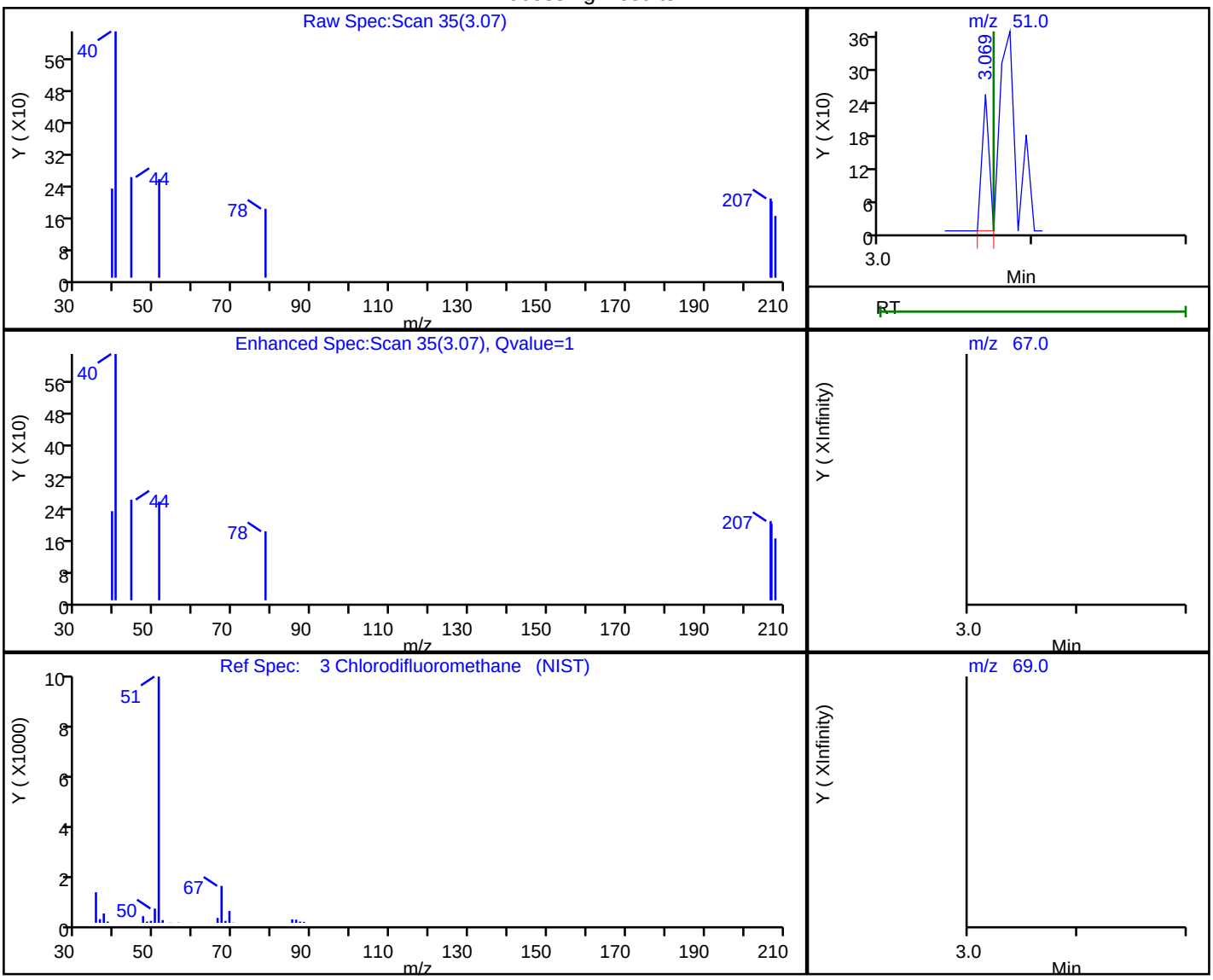
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHC.i\20190125-34301.b\34301-24.D | | | | |
| Injection Date: | 26-Jan-2019 08:56:30 | Instrument ID: | CHC.i | | |
| Lims ID: | 200-47122-A-7 | Lab Sample ID: | 200-47122-7 | | |
| Client ID: | 3534 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 25 | Worklist Smp#: | 24 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_MasterMethod_(v1)_CHC.i | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 3 Chlorodifluoromethane, CAS: 75-45-6

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 3.07 | 51.00 | 80 | 0.002157 |
| 3.07 | 67.00 | 0 | |
| 3.07 | 69.00 | 0 | |

Reviewer: bunmaa, 28-Jan-2019 14:38:36

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

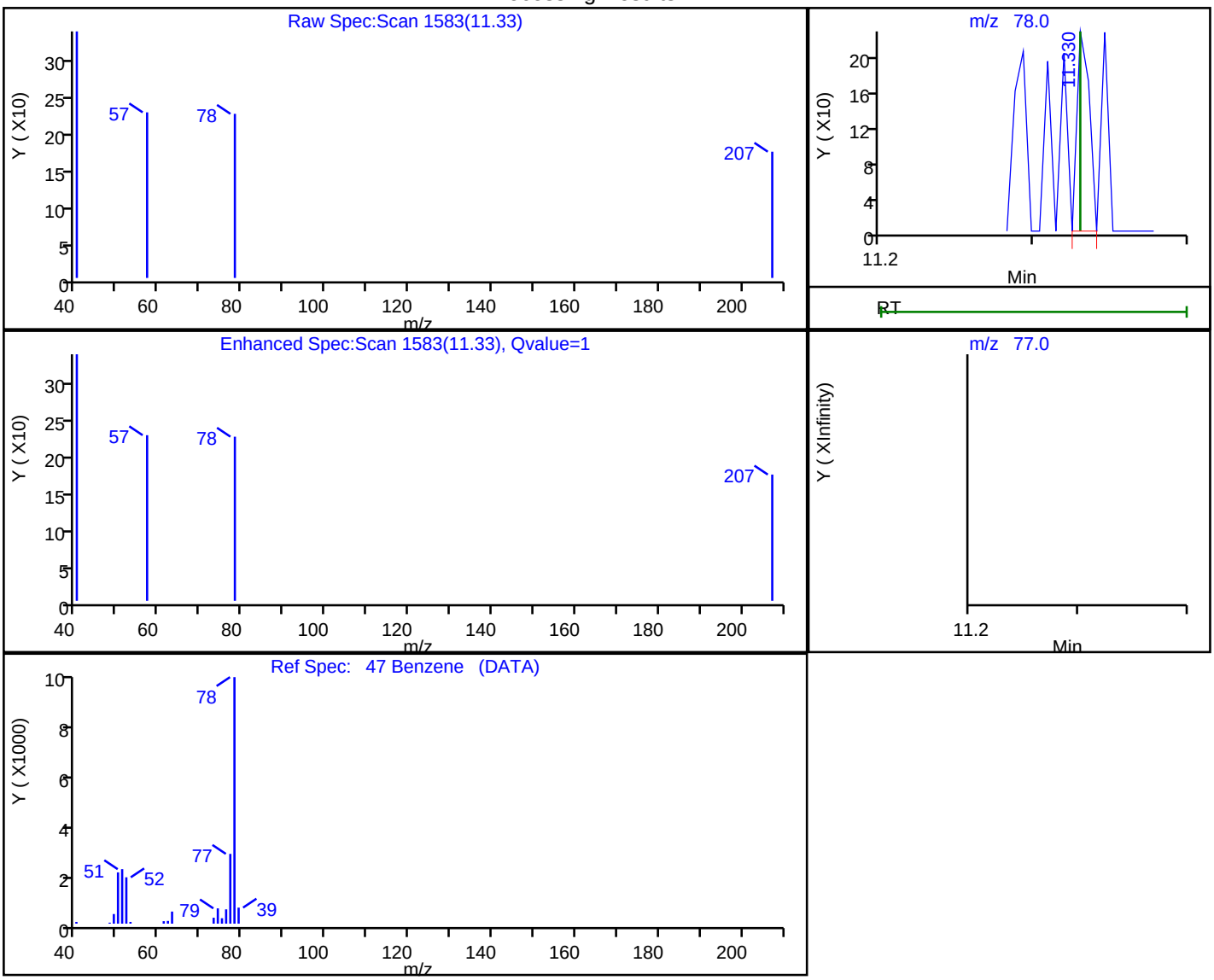
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHC.i\20190125-34301.b\34301-24.D | | | | |
| Injection Date: | 26-Jan-2019 08:56:30 | Instrument ID: | CHC.i | | |
| Lims ID: | 200-47122-A-7 | Lab Sample ID: | 200-47122-7 | | |
| Client ID: | 3534 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 25 | Worklist Smp#: | 24 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_MasterMethod_(v1)_CHC.i | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 47 Benzene, CAS: 71-43-2

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 11.33 | 78.00 | 124 | 0.001667 |
| 11.33 | 77.00 | 0 | |

Reviewer: bunmaa, 28-Jan-2019 14:39:19

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

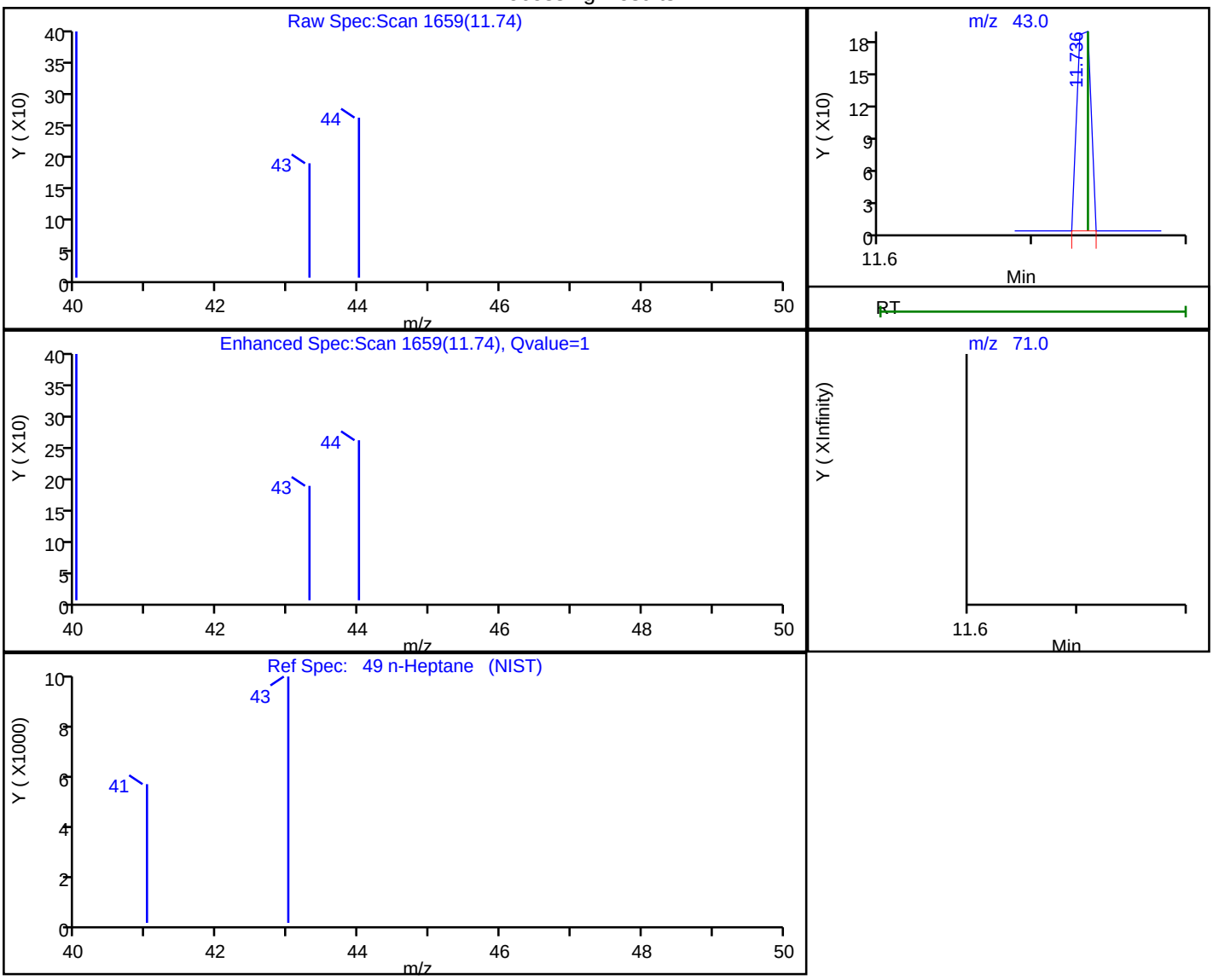
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHC.i\20190125-34301.b\34301-24.D | | | | |
| Injection Date: | 26-Jan-2019 08:56:30 | Instrument ID: | CHC.i | | |
| Lims ID: | 200-47122-A-7 | Lab Sample ID: | 200-47122-7 | | |
| Client ID: | 3534 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 25 | Worklist Smp#: | 24 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_MasterMethod_(v1)_CHC.i | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 49 n-Heptane, CAS: 142-82-5

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 11.74 | 43.00 | 116 | 0.002278 |
| 11.74 | 71.00 | 0 | |

Reviewer: bunmaa, 28-Jan-2019 14:39:25

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

TestAmerica Burlington

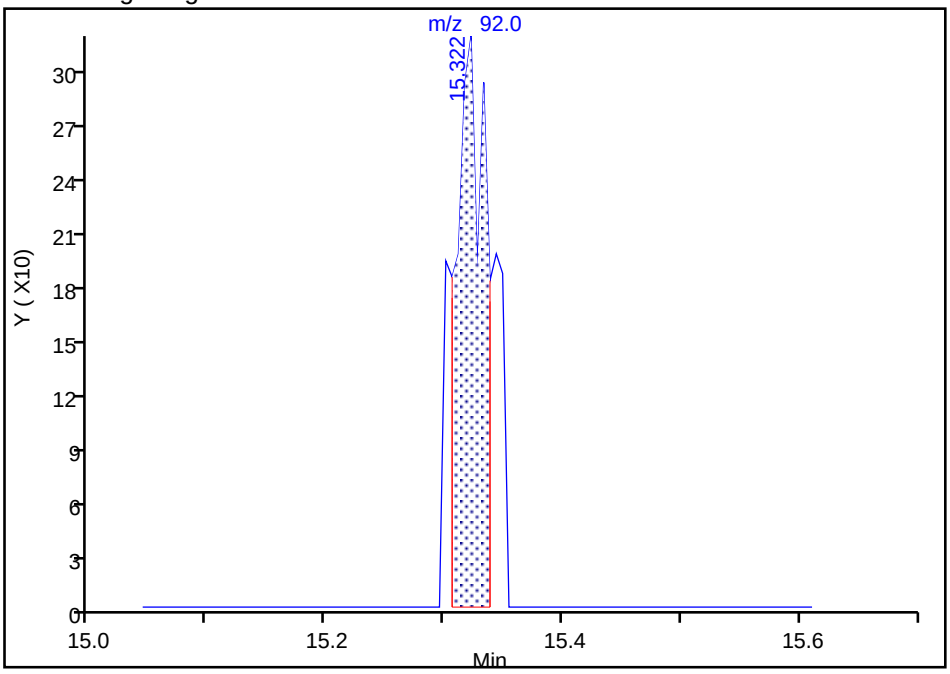
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHC.i\20190125-34301.b\34301-24.D | | | | |
| Injection Date: | 26-Jan-2019 08:56:30 | Instrument ID: | CHC.i | | |
| Lims ID: | 200-47122-A-7 | Lab Sample ID: | 200-47122-7 | | |
| Client ID: | 3534 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 25 | Worklist Smp#: | 24 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_MasterMethod_(v1)_CHC.i | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 65 Toluene, CAS: 108-88-3

Signal: 1

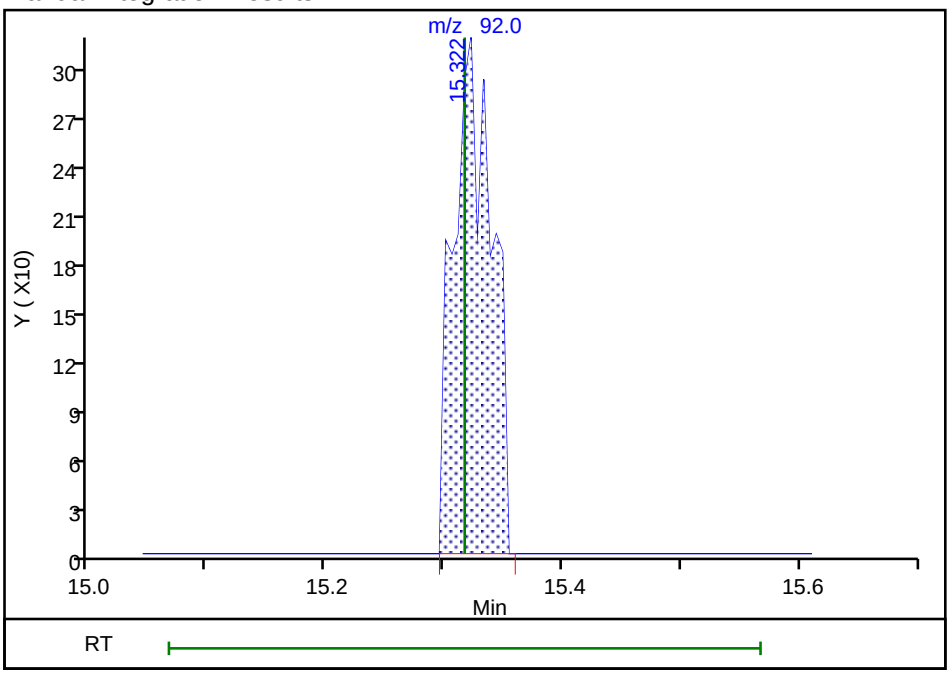
Processing Integration Results

RT: 15.32
Area: 532
Amount: 0.008021
Amount Units: ppb v/v




Manual Integration Results

RT: 15.32
Area: 718
Amount: 0.010825
Amount Units: ppb v/v




Reviewer: bunmaa, 28-Jan-2019 14:39:43

Audit Action: Manually Integrated Audit Reason: Assign Peak

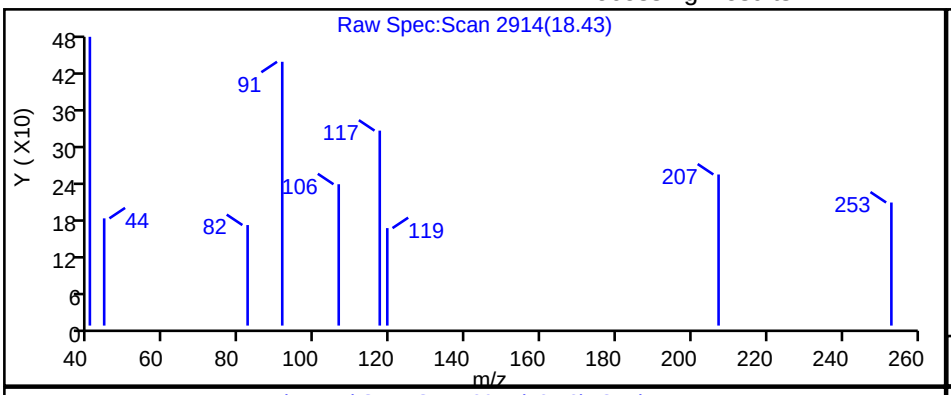
User Disabled Compound Report

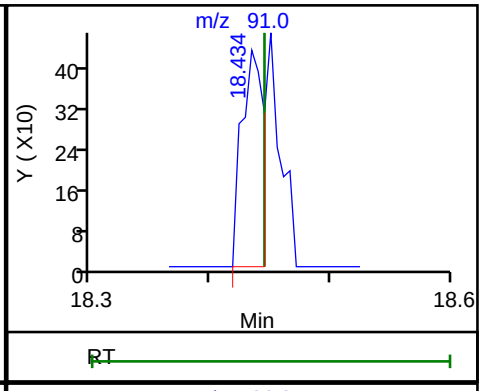
TestAmerica Burlington

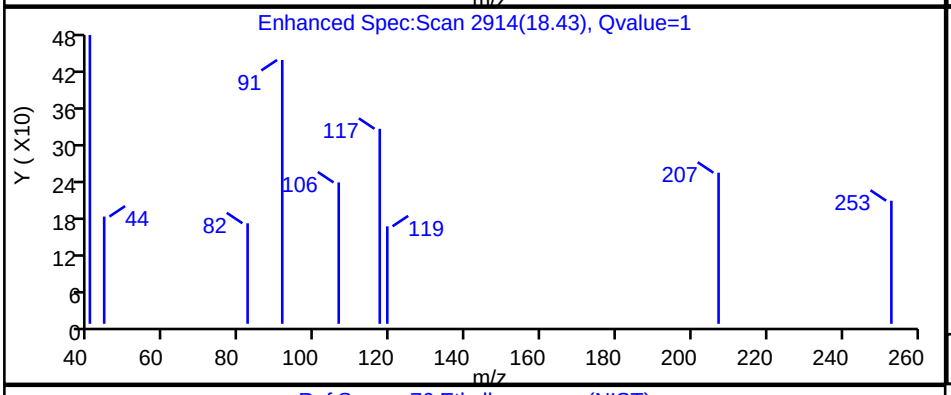
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHC.i\20190125-34301.b\34301-24.D | | | | |
| Injection Date: | 26-Jan-2019 08:56:30 | Instrument ID: | CHC.i | | |
| Lims ID: | 200-47122-A-7 | Lab Sample ID: | 200-47122-7 | | |
| Client ID: | 3534 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 25 | Worklist Smp#: | 24 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_MasterMethod_(v1)_CHC.i | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

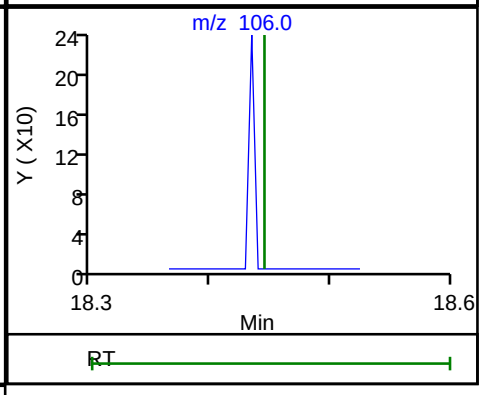
## 76 Ethylbenzene, CAS: 100-41-4

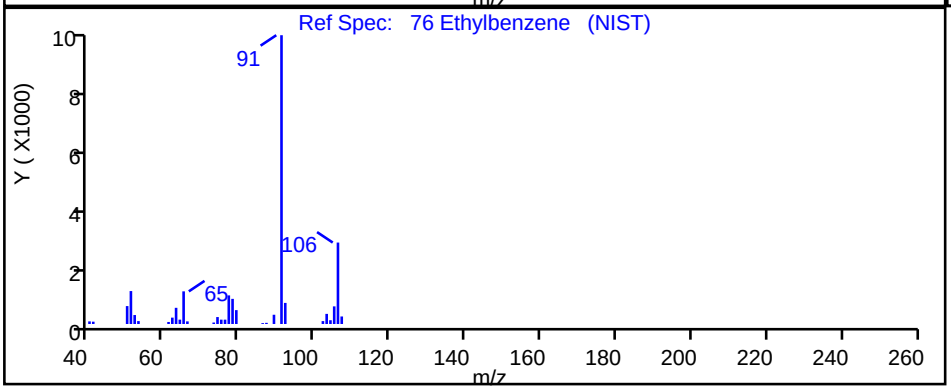
Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 18.43 | 91.00 | 550 | 0.003577 |
| 18.44 | 106.00 | 0 | |

Reviewer: bunmaa, 28-Jan-2019 14:40:09

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

TestAmerica Burlington

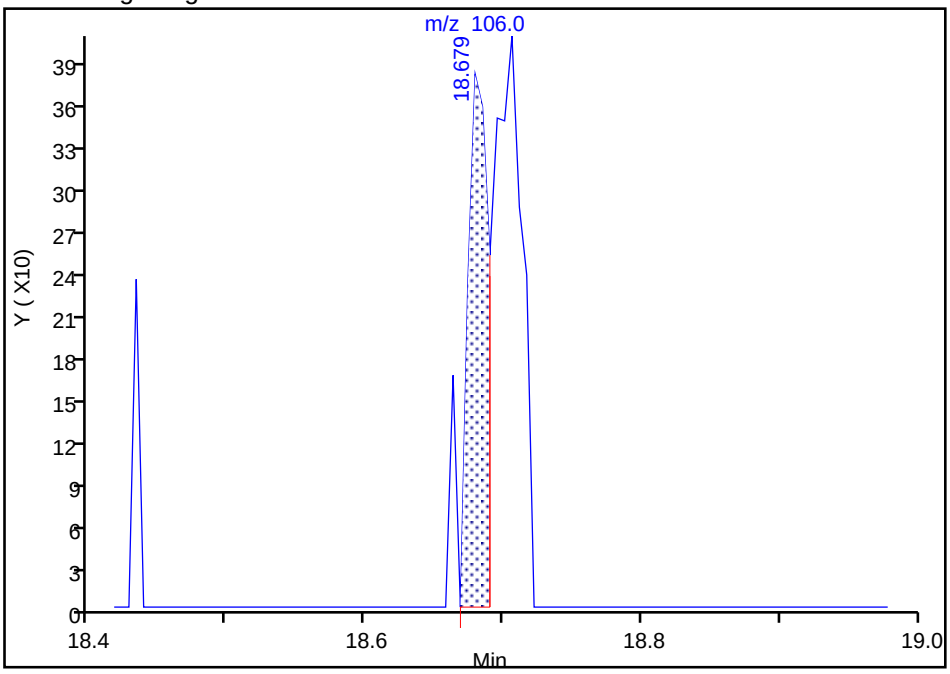
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHC.i\20190125-34301.b\34301-24.D | | | | |
| Injection Date: | 26-Jan-2019 08:56:30 | Instrument ID: | CHC.i | | |
| Lims ID: | 200-47122-A-7 | Lab Sample ID: | 200-47122-7 | | |
| Client ID: | 3534 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 25 | Worklist Smp#: | 24 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_MasterMethod_(v1)_CHC.i | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 78 m-Xylene & p-Xylene, CAS: 179601-23-1

Signal: 1

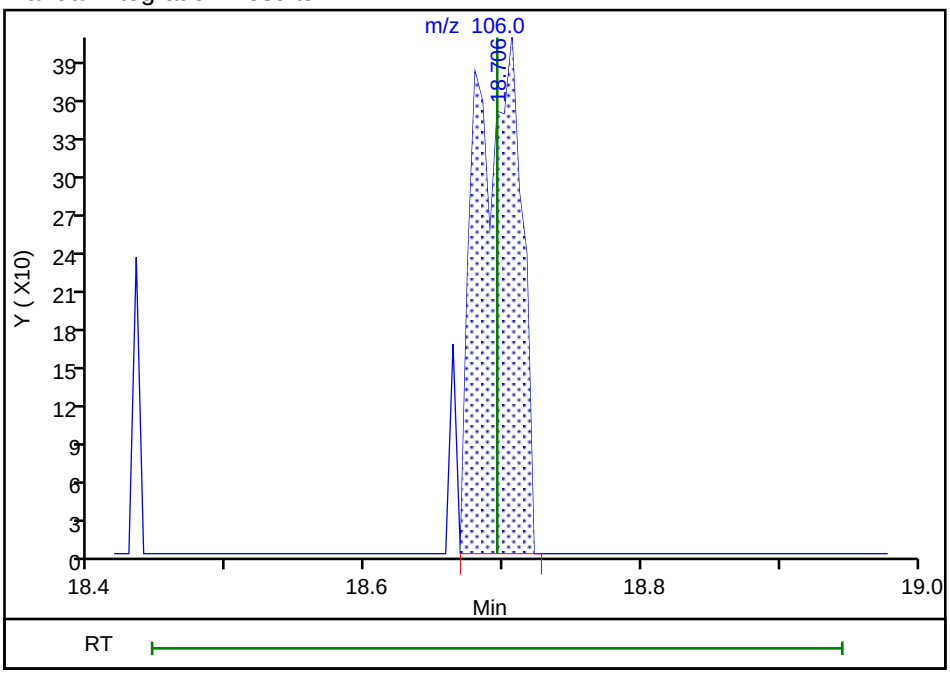
Processing Integration Results

RT: 18.68
Area: 387
Amount: 0.006966
Amount Units: ppb v/v




Manual Integration Results

RT: 18.71
Area: 903
Amount: 0.016254
Amount Units: ppb v/v




Reviewer: bunmaa, 28-Jan-2019 14:40:17

Audit Action: Manually Integrated Audit Reason: Assign Peak

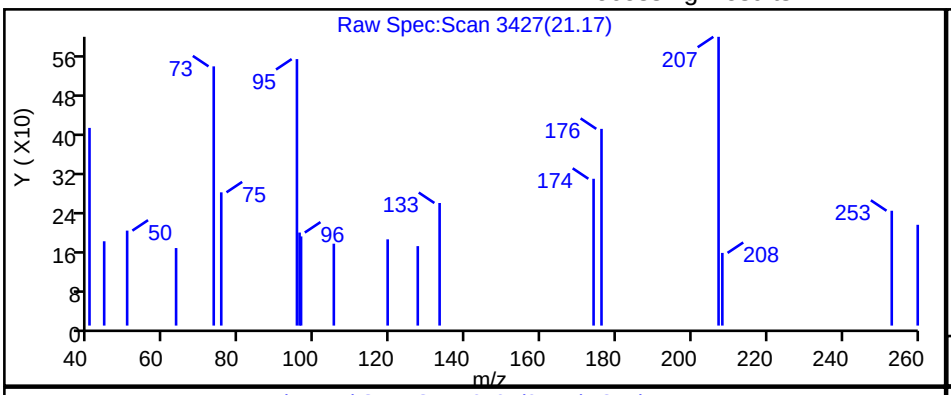
User Disabled Compound Report

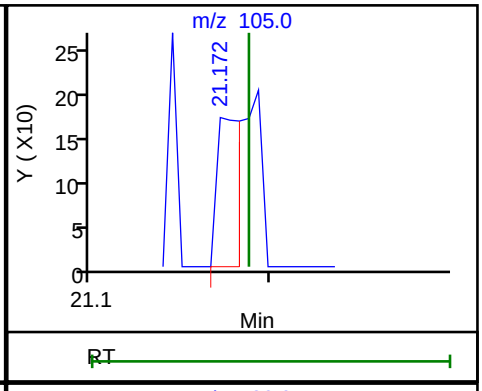
TestAmerica Burlington

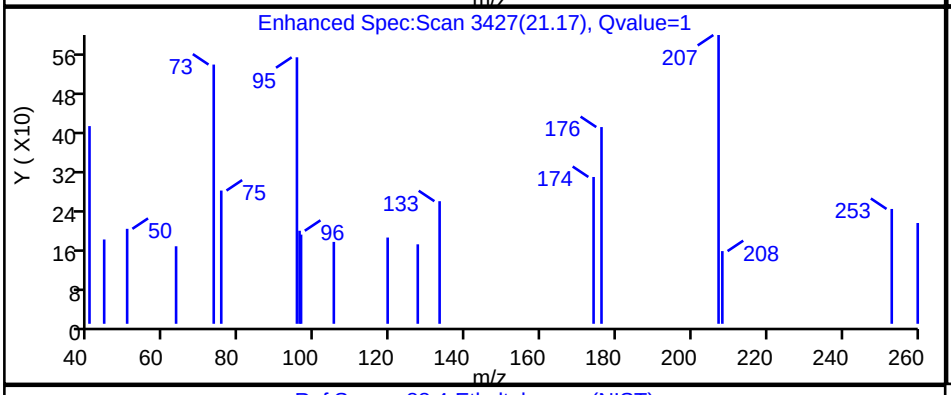
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHC.i\20190125-34301.b\34301-24.D | | | | |
| Injection Date: | 26-Jan-2019 08:56:30 | Instrument ID: | CHC.i | | |
| Lims ID: | 200-47122-A-7 | Lab Sample ID: | 200-47122-7 | | |
| Client ID: | 3534 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 25 | Worklist Smp#: | 24 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_MasterMethod_(v1)_CHC.i | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

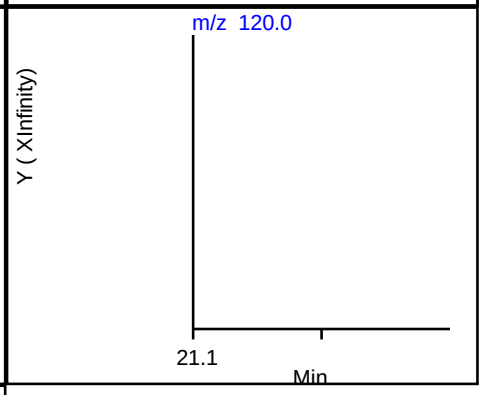
## 88 4-Ethyltoluene, CAS: 622-96-8

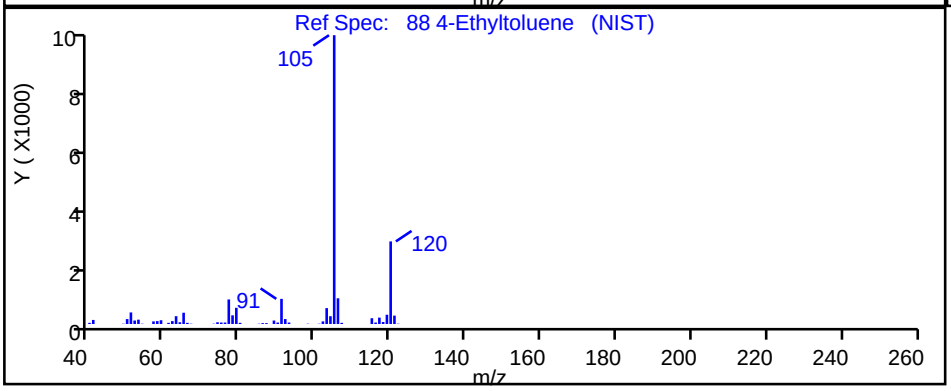
Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 21.17 | 105.00 | 160 | 0.000968 |
| 21.19 | 120.00 | 0 | |

Reviewer: bunmaa, 28-Jan-2019 14:40:31

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

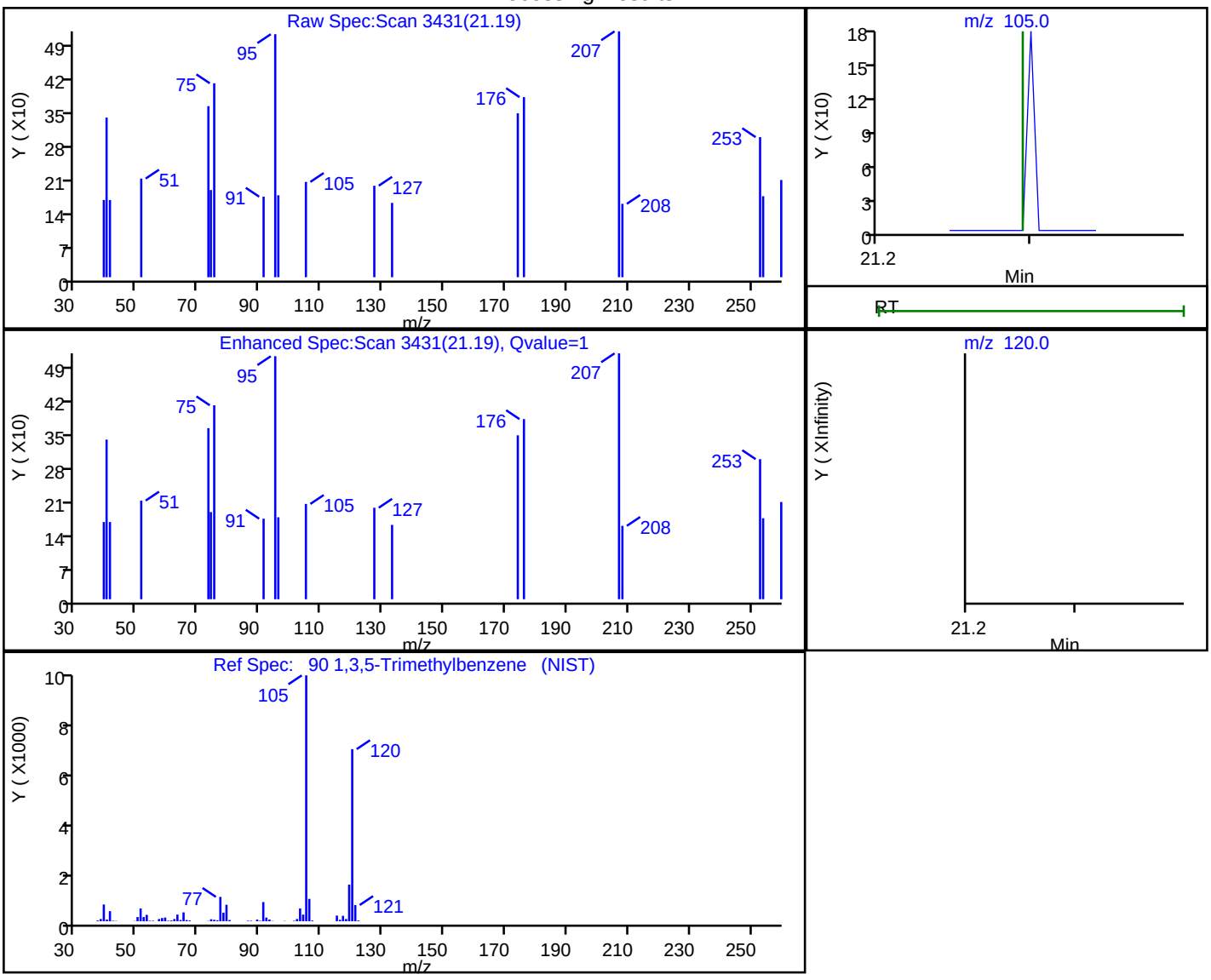
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHC.i\20190125-34301.b\34301-24.D | | | | |
| Injection Date: | 26-Jan-2019 08:56:30 | Instrument ID: | CHC.i | | |
| Lims ID: | 200-47122-A-7 | Lab Sample ID: | 200-47122-7 | | |
| Client ID: | 3534 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 25 | Worklist Smp#: | 24 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_MasterMethod_(v1)_CHC.i | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 90 1,3,5-Trimethylbenzene, CAS: 108-67-8

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 21.19 | 105.00 | 171 | 0.001228 |
| 21.29 | 120.00 | 0 | |

Reviewer: bunmaa, 28-Jan-2019 14:40:35

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

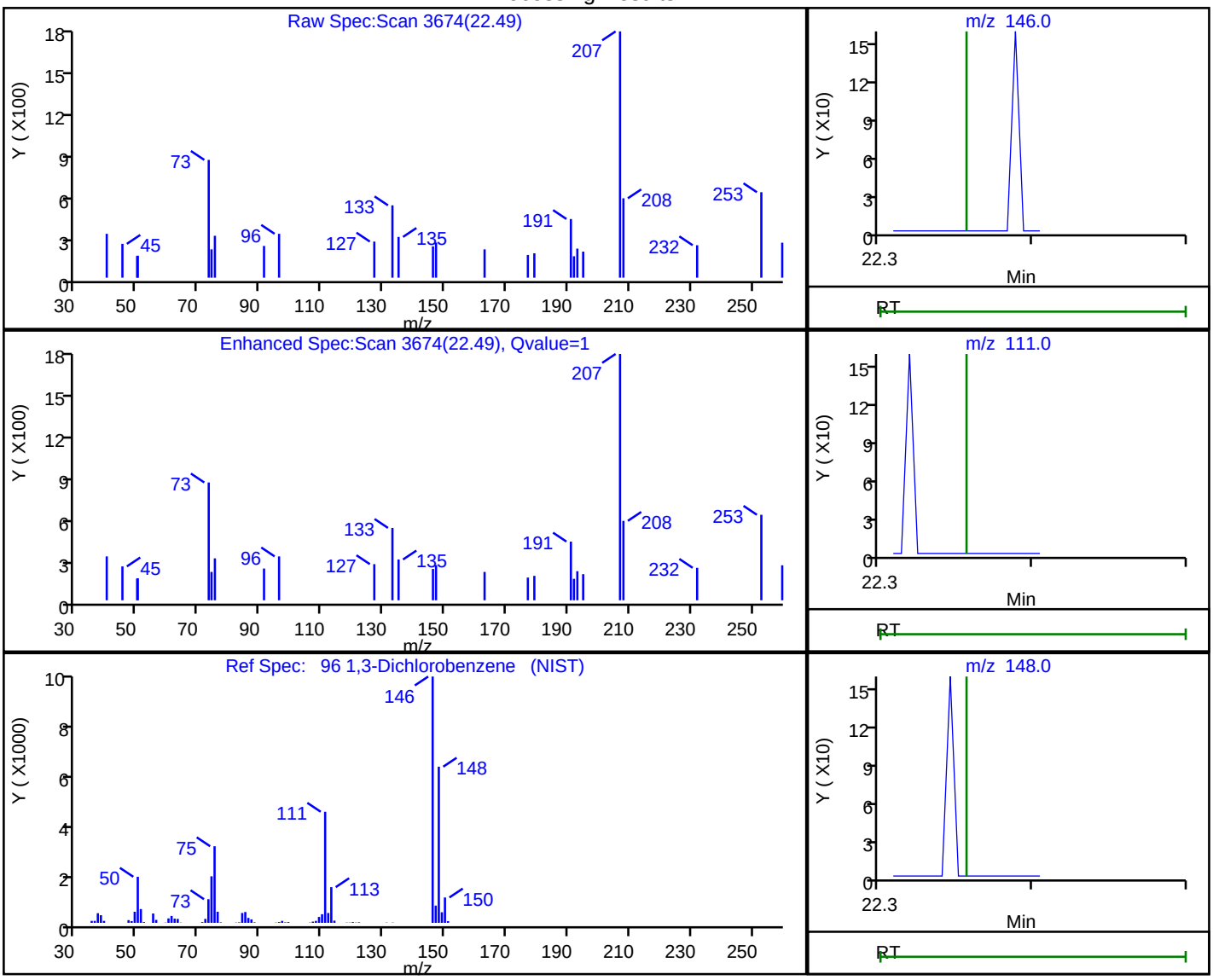
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHC.i\20190125-34301.b\34301-24.D | | | | |
| Injection Date: | 26-Jan-2019 08:56:30 | Instrument ID: | CHC.i | | |
| Lims ID: | 200-47122-A-7 | Lab Sample ID: | 200-47122-7 | | |
| Client ID: | 3534 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 25 | Worklist Smp#: | 24 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_MasterMethod_(v1)_CHC.i | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 96 1,3-Dichlorobenzene, CAS: 541-73-1

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 22.49 | 146.00 | 125 | 0.001383 |
| 22.36 | 111.00 | 0 | |
| 22.36 | 148.00 | 0 | |

Reviewer: bunmaa, 28-Jan-2019 14:40:45

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

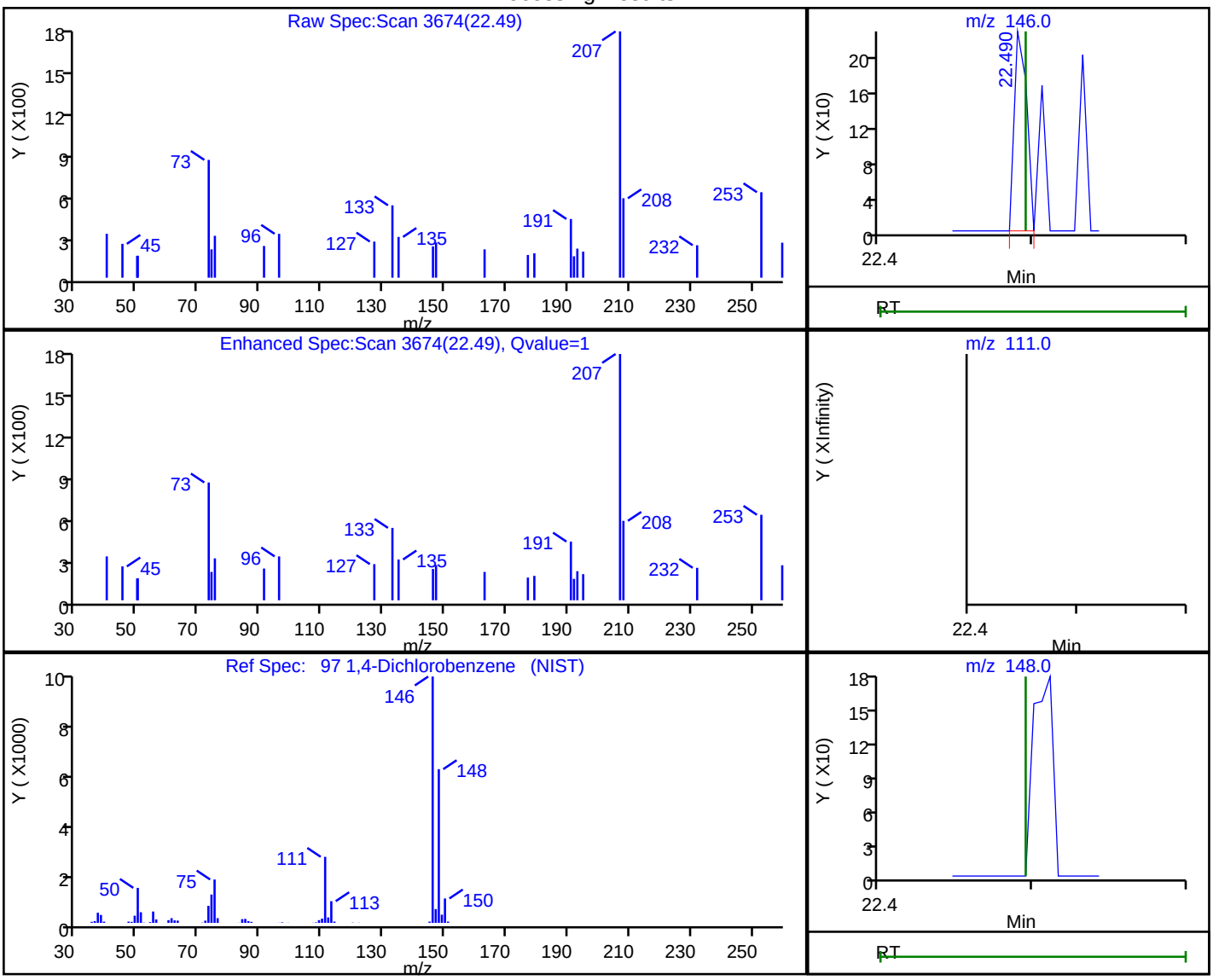
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHC.i\20190125-34301.b\34301-24.D | | | | |
| Injection Date: | 26-Jan-2019 08:56:30 | Instrument ID: | CHC.i | | |
| Lims ID: | 200-47122-A-7 | Lab Sample ID: | 200-47122-7 | | |
| Client ID: | 3534 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 25 | Worklist Smp#: | 24 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_MasterMethod_(v1)_CHC.i | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 97 1,4-Dichlorobenzene, CAS: 106-46-7

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 22.49 | 146.00 | 125 | 0.001410 |
| 22.50 | 111.00 | 0 | |
| 22.50 | 148.00 | 0 | |

Reviewer: bunmaa, 28-Jan-2019 14:40:50

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

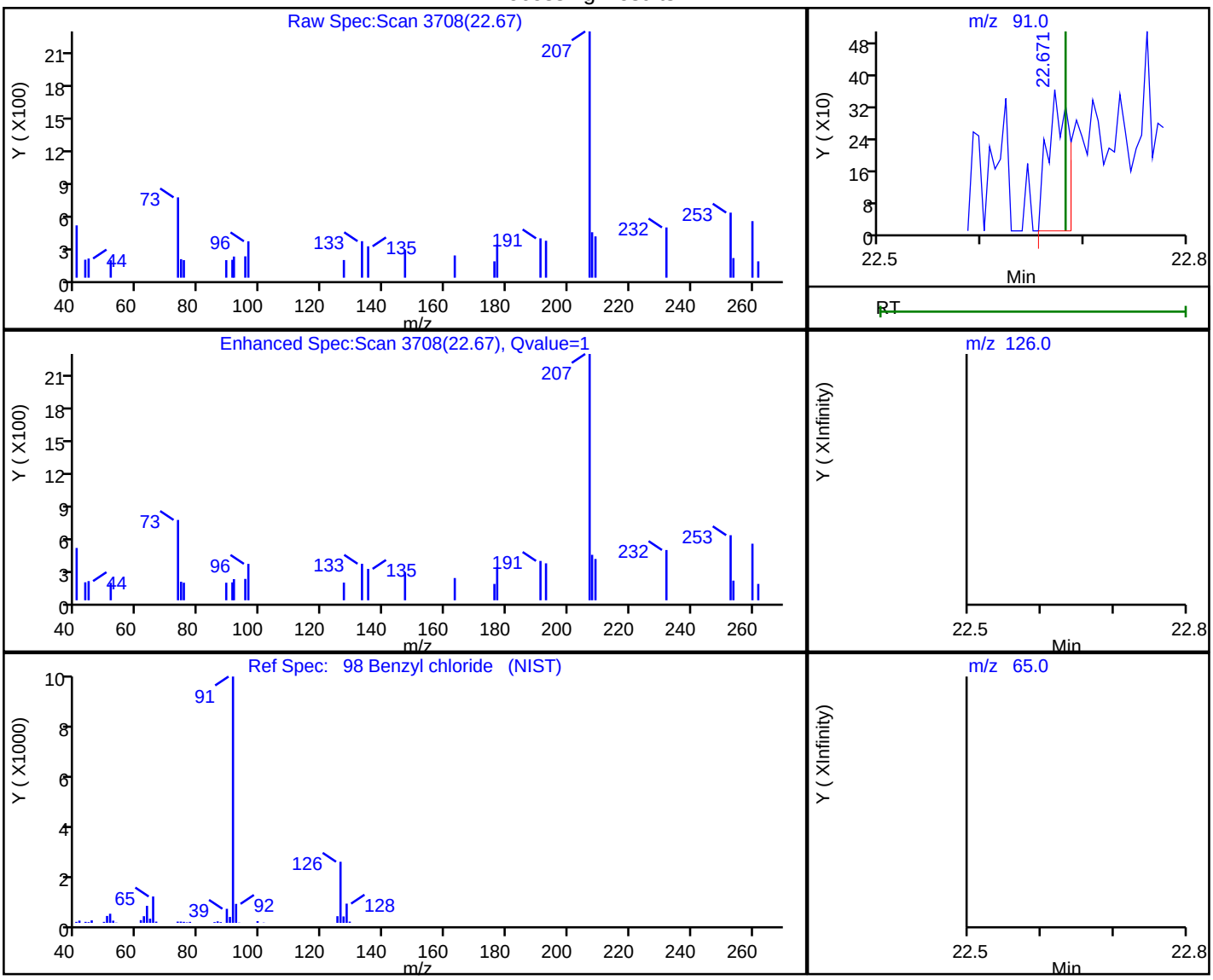
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHC.i\20190125-34301.b\34301-24.D | | | | |
| Injection Date: | 26-Jan-2019 08:56:30 | Instrument ID: | CHC.i | | |
| Lims ID: | 200-47122-A-7 | Lab Sample ID: | 200-47122-7 | | |
| Client ID: | 3534 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 25 | Worklist Smp#: | 24 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_MasterMethod_(v1)_CHC.i | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 98 Benzyl chloride, CAS: 100-44-7

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 22.67 | 91.00 | 494 | 0.003759 |
| 22.68 | 126.00 | 0 | |
| 22.68 | 65.00 | 0 | |

Reviewer: bunmaa, 28-Jan-2019 14:40:52

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

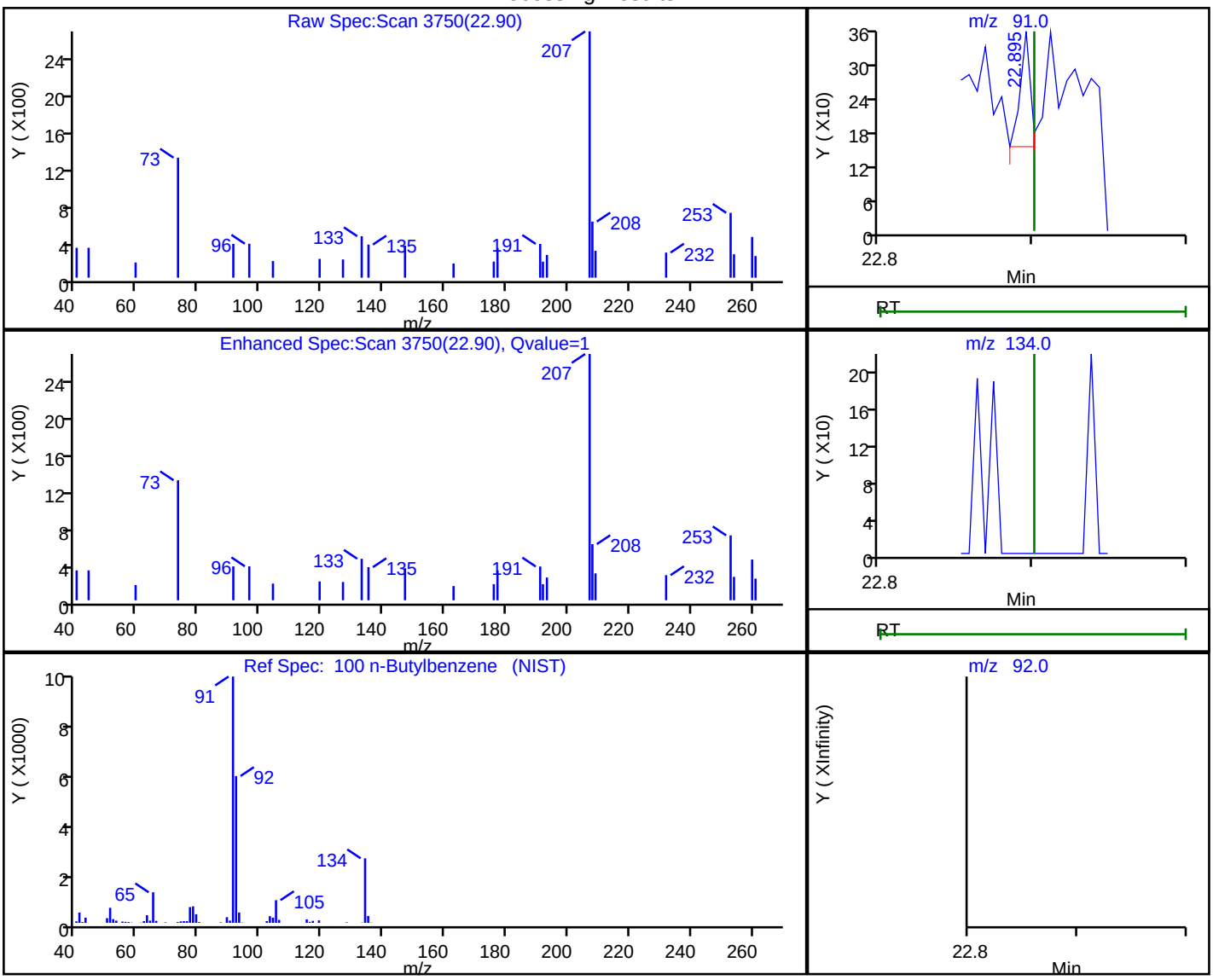
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHC.i\20190125-34301.b\34301-24.D | | | | |
| Injection Date: | 26-Jan-2019 08:56:30 | Instrument ID: | CHC.i | | |
| Lims ID: | 200-47122-A-7 | Lab Sample ID: | 200-47122-7 | | |
| Client ID: | 3534 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 25 | Worklist Smp#: | 24 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_MasterMethod_(v1)_CHC.i | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 100 n-Butylbenzene, CAS: 104-51-8

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 22.90 | 91.00 | 95 | 0.000561 |
| 22.90 | 134.00 | 0 | |
| 22.90 | 92.00 | 0 | |

Reviewer: bunmaa, 28-Jan-2019 14:40:54

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-47150-1

SDG No.:

Client Sample ID: 4877 Lab Sample ID: 200-47150-8

Matrix: Air Lab File ID: 34349-05.D

Analysis Method: TO-15 Date Collected: 01/24/2019 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 01/29/2019 15:10

Soil Aliquot Vol: Dilution Factor: 0.2

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 139534 Units: ppb v/v

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | RL |
|---|---|---|---|---|---|
| 115-07-1 | Propylene | 1.0 | U | 1.0 | 1.0 |
| 75-71-8 | Dichlorodifluoromethane | 0.10 | U | 0.10 | 0.10 |
| 75-45-6 | Freon 22 | 0.10 | U | 0.10 | 0.10 |
| 76-14-2 | 1,2-Dichlorotetrafluoroethane | 0.040 | U | 0.040 | 0.040 |
| 74-87-3 | Chloromethane | 0.10 | U | 0.10 | 0.10 |
| 106-97-8 | n-Butane | 0.10 | U | 0.10 | 0.10 |
| 75-01-4 | Vinyl chloride | 0.040 | U | 0.040 | 0.040 |
| 106-99-0 | 1,3-Butadiene | 0.040 | U | 0.040 | 0.040 |
| 74-83-9 | Bromomethane | 0.040 | U | 0.040 | 0.040 |
| 75-00-3 | Chloroethane | 0.10 | U | 0.10 | 0.10 |
| 593-60-2 | Bromoethene(Vinyl Bromide) | 0.040 | U | 0.040 | 0.040 |
| 75-69-4 | Trichlorofluoromethane | 0.040 | U | 0.040 | 0.040 |
| 64-17-5 | Ethanol | 1.0 | U | 1.0 | 1.0 |
| 76-13-1 | Freon TF | 0.040 | U | 0.040 | 0.040 |
| 75-35-4 | 1,1-Dichloroethene | 0.040 | U | 0.040 | 0.040 |
| 67-64-1 | Acetone | 1.0 | U | 1.0 | 1.0 |
| 67-63-0 | Isopropyl alcohol | 1.0 | U | 1.0 | 1.0 |
| 75-15-0 | Carbon disulfide | 0.10 | U | 0.10 | 0.10 |
| 107-05-1 | 3-Chloropropene | 0.10 | U | 0.10 | 0.10 |
| 75-09-2 | Methylene Chloride | 0.10 | U | 0.10 | 0.10 |
| 75-65-0 | tert-Butyl alcohol | 1.0 | U | 1.0 | 1.0 |
| 1634-04-4 | Methyl tert-butyl ether | 0.040 | U | 0.040 | 0.040 |
| 156-60-5 | trans-1,2-Dichloroethene | 0.040 | U | 0.040 | 0.040 |
| 110-54-3 | n-Hexane | 0.040 | U | 0.040 | 0.040 |
| 75-34-3 | 1,1-Dichloroethane | 0.040 | U | 0.040 | 0.040 |
| 108-05-4 | Vinyl acetate | 1.0 | U | 1.0 | 1.0 |
| 141-78-6 | Ethyl acetate | 1.0 | U | 1.0 | 1.0 |
| 78-93-3 | Methyl Ethyl Ketone | 0.10 | U | 0.10 | 0.10 |
| 156-59-2 | cis-1,2-Dichloroethene | 0.040 | U | 0.040 | 0.040 |
| 540-59-0 | 1,2-Dichloroethene, Total | 0.080 | U | 0.080 | 0.080 |
| 67-66-3 | Chloroform | 0.040 | U | 0.040 | 0.040 |
| 109-99-9 | Tetrahydrofuran | 1.0 | U | 1.0 | 1.0 |
| 71-55-6 | 1,1,1-Trichloroethane | 0.040 | U | 0.040 | 0.040 |
| 110-82-7 | Cyclohexane | 0.040 | U | 0.040 | 0.040 |
| 56-23-5 | Carbon tetrachloride | 0.040 | U | 0.040 | 0.040 |
| 540-84-1 | 2,2,4-Trimethylpentane | 0.040 | U | 0.040 | 0.040 |

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington  Job No.: 200-47150-1

SDG No.:

Client Sample ID: 4877  Lab Sample ID: 200-47150-8

Matrix: Air  Lab File ID: 34349-05.D

Analysis Method: TO-15  Date Collected: 01/24/2019 00:00

Sample wt/vol: 1000(mL)  Date Analyzed: 01/29/2019 15:10

Soil Aliquot Vol:  Dilution Factor: 0.2

Soil Extract Vol.:  GC Column: RTX-624  ID: 0.32(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 139534  Units: ppb v/v

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | RL |
|---|---|---|---|---|---|
| 71-43-2 | Benzene | 0.040 | U | 0.040 | 0.040 |
| 107-06-2 | 1,2-Dichloroethane | 0.040 | U | 0.040 | 0.040 |
| 142-82-5 | n-Heptane | 0.040 | U | 0.040 | 0.040 |
| 79-01-6 | Trichloroethene | 0.040 | U | 0.040 | 0.040 |
| 80-62-6 | Methyl methacrylate | 0.10 | U | 0.10 | 0.10 |
| 78-87-5 | 1,2-Dichloropropane | 0.040 | U | 0.040 | 0.040 |
| 123-91-1 | 1,4-Dioxane | 1.0 | U | 1.0 | 1.0 |
| 75-27-4 | Bromodichloromethane | 0.040 | U | 0.040 | 0.040 |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.040 | U | 0.040 | 0.040 |
| 108-10-1 | methyl isobutyl ketone | 0.10 | U | 0.10 | 0.10 |
| 108-88-3 | Toluene | 0.040 | U | 0.040 | 0.040 |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.040 | U | 0.040 | 0.040 |
| 79-00-5 | 1,1,2-Trichloroethane | 0.040 | U | 0.040 | 0.040 |
| 127-18-4 | Tetrachloroethene | 0.040 | U | 0.040 | 0.040 |
| 591-78-6 | Methyl Butyl Ketone (2-Hexanone) | 0.10 | U | 0.10 | 0.10 |
| 124-48-1 | Dibromochloromethane | 0.040 | U | 0.040 | 0.040 |
| 106-93-4 | 1,2-Dibromoethane | 0.040 | U | 0.040 | 0.040 |
| 108-90-7 | Chlorobenzene | 0.040 | U | 0.040 | 0.040 |
| 100-41-4 | Ethylbenzene | 0.040 | U | 0.040 | 0.040 |
| 179601-23-1 | m,p-Xylene | 0.10 | U | 0.10 | 0.10 |
| 95-47-6 | Xylene, o- | 0.040 | U | 0.040 | 0.040 |
| 1330-20-7 | Xylene (total) | 0.14 | U | 0.14 | 0.14 |
| 100-42-5 | Styrene | 0.040 | U | 0.040 | 0.040 |
| 75-25-2 | Bromoform | 0.040 | U | 0.040 | 0.040 |
| 98-82-8 | Cumene | 0.040 | U | 0.040 | 0.040 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.040 | U | 0.040 | 0.040 |
| 103-65-1 | n-Propylbenzene | 0.040 | U | 0.040 | 0.040 |
| 622-96-8 | 4-Ethyltoluene | 0.040 | U | 0.040 | 0.040 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 0.040 | U | 0.040 | 0.040 |
| 95-49-8 | 2-Chlorotoluene | 0.040 | U | 0.040 | 0.040 |
| 98-06-6 | tert-Butylbenzene | 0.040 | U | 0.040 | 0.040 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.040 | U | 0.040 | 0.040 |
| 135-98-8 | sec-Butylbenzene | 0.040 | U | 0.040 | 0.040 |
| 99-87-6 | 4-Isopropyltoluene | 0.040 | U | 0.040 | 0.040 |
| 541-73-1 | 1,3-Dichlorobenzene | 0.040 | U | 0.040 | 0.040 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.040 | U | 0.040 | 0.040 |

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington  Job No.: 200-47150-1

SDG No.:

Client Sample ID: 4877  Lab Sample ID: 200-47150-8

Matrix: Air  Lab File ID: 34349-05.D

Analysis Method: TO-15  Date Collected: 01/24/2019 00:00

Sample wt/vol: 1000(mL)  Date Analyzed: 01/29/2019 15:10

Soil Aliquot Vol:  Dilution Factor: 0.2

Soil Extract Vol.:  GC Column: RTX-624  ID: 0.32(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 139534  Units: ppb v/v

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | RL |
|---|---|---|---|---|---|
| 100-44-7 | Benzyl chloride | 0.040 | U | 0.040 | 0.040 |
| 104-51-8 | n-Butylbenzene | 0.040 | U | 0.040 | 0.040 |
| 95-50-1 | 1,2-Dichlorobenzene | 0.040 | U | 0.040 | 0.040 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 0.10 | U | 0.10 | 0.10 |
| 87-68-3 | Hexachlorobutadiene | 0.040 | U | 0.040 | 0.040 |
| 91-20-3 | Naphthalene | 0.10 | U | 0.10 | 0.10 |

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\chromna\Burlington\ChromData\CHB.i\20190129-34349.b\34349-05.D
Lims ID: 200-47150-A-8
Client ID: 4877
Sample Type: Client
Inject. Date: 29-Jan-2019 15:10:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 200.000 mL Dil. Factor: 0.2000
Sample Info: 200-00342349-005
Misc. Info.: 47150-08
Operator ID: ggg Instrument ID: CHB.i

Method: \\chromna\Burlington\ChromData\CHB.i\20190129-34349.b\TO15_LLNJ_TO3.m
Limit Group: AI_TO15_ICAL
Last Update: 30-Jan-2019 13:10:00 Calib Date: 10-Jan-2019 13:03:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal/External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Burlington\ChromData\CHB.i\20190109-34081.b\34081-16.D

Column 1 : RTX-624 ( 0.32 mm) Det: MS SCAN
Process Host: CTX0320

First Level Reviewer: bunmaa Date: 30-Jan-2019 13:10:00

| Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ppb v/v | Flags |
|---|---|---|---|---|---|---|---|---|
| 1 Propene | 41 | | 3.135 | | | | ND | U |
| 2 Dichlorodifluoromethane | 85 | | 3.193 | | | | ND | |
| 3 Chlorodifluoromethane | 51 | | 3.225 | | | | ND | |
| 4 1,2-Dichloro-1,1,2,2-tetra | 85 | | 3.412 | | | | ND | |
| 5 Chloromethane | 50 | | 3.529 | | | | ND | |
| 6 Butane | 43 | | 3.706 | | | | ND | |
| 7 Vinyl chloride | 62 | | 3.743 | | | | ND | |
| 8 Butadiene | 54 | | 3.807 | | | | ND | |
| 10 Bromomethane | 94 | | 4.463 | | | | ND | |
| 11 Chloroethane | 64 | | 4.688 | | | | ND | |
| 13 Vinyl bromide | 106 | | 5.099 | | | | ND | |
| 14 Trichlorofluoromethane | 101 | | 5.195 | | | | ND | |
| 16 Ethanol | 45 | | 5.676 | | | | ND | |
| 19 1,1,2-Trichloro-1,2,2-trif | 101 | | 6.225 | | | | ND | |
| 20 1,1-Dichloroethene | 96 | | 6.289 | | | | ND | |
| 21 Acetone | 43 | 6.507 | 6.507 | 0.069 | 26 | 2628 | 0.0540 | 7M |
| 22 Isopropyl alcohol | 45 | | 6.657 | | | | ND | |
| 23 Carbon disulfide | 76 | | 6.721 | | | | ND | |
| 24 3-Chloro-1-propene | 41 | | 6.983 | | | | ND | |
| 27 Methylene Chloride | 49 | | 7.239 | | | | ND | MU |
| 28 2-Methyl-2-propanol | 59 | | 7.356 | | | | ND | |
| 29 Methyl tert-butyl ether | 73 | | 7.591 | | | | ND | |
| 30 trans-1,2-Dichloroethene | 61 | | 7.655 | | | | ND | |
| 32 Hexane | 57 | 7.991 | 7.986 | 0.005 | 89 | 9941 | 0.1288 | |
| 33 1,1-Dichloroethane | 63 | | 8.391 | | | | ND | |
| 34 Vinyl acetate | 43 | | 8.397 | | | | ND | |
| 36 2-Butanone (MEK) | 72 | | 9.277 | | | | ND | |
| 37 cis-1,2-Dichloroethene | 96 | | 9.293 | | | | ND | |
| 35 Ethyl acetate | 88 | | 9.299 | | | | ND | |
| * 39 Chlorobromomethane | 128 | 9.656 | 9.662 | -0.006 | 76 | 418295 | 10.0 | |
| 38 Tetrahydrofuran | 42 | | 9.672 | | | | ND | |

| Compound | Sig | RT (min.) | Adj RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ppb v/v | Flags |
|---|---|---|---|---|---|---|---|---|
| 40 Chloroform | 83 | | 9.736 | | | | ND | |
| 42 1,1,1-Trichloroethane | 97 | | 9.992 | | | | ND | |
| S 41 1,2-Dichloroethene, Total | 61 | | 10.000 | | | | ND | |
| 43 Cyclohexane | 84 | | 10.014 | | | | ND | |
| 44 Carbon tetrachloride | 117 | | 10.201 | | | | ND | |
| 45 Isooctane | 57 | | 10.489 | | | | ND | |
| 46 Benzene | 78 | 10.521 | 10.531 | 0.000 | 93 | 4539 | 0.0321 | |
| 47 1,2-Dichloroethane | 62 | | 10.622 | | | | ND | |
| 48 n-Heptane | 43 | | 10.740 | | | | ND | MU |
| * 50 1,4-Difluorobenzene | 114 | 11.060 | 11.065 | -0.005 | 93 | 1826894 | 10.0 | |
| 53 Trichloroethene | 95 | | 11.439 | | | | ND | |
| 54 1,2-Dichloropropane | 63 | | 11.802 | | | | ND | |
| 55 Methyl methacrylate | 69 | | 11.839 | | | | ND | |
| 56 1,4-Dioxane | 88 | | 11.930 | | | | ND | |
| 57 Dibromomethane | 174 | | 11.988 | | | | ND | |
| 58 Dichlorobromomethane | 83 | | 12.159 | | | | ND | |
| 60 cis-1,3-Dichloropropene | 75 | | 12.789 | | | | ND | |
| 61 4-Methyl-2-pentanone (MIBK | 43 | | 12.933 | | | | ND | |
| 64 Toluene | 92 | 13.227 | 13.221 | 0.006 | 93 | 2990 | 0.0306 | |
| 66 trans-1,3-Dichloropropene | 75 | | 13.579 | | | | ND | |
| 67 1,1,2-Trichloroethane | 83 | | 13.846 | | | | ND | |
| 68 Tetrachloroethene | 166 | | 13.995 | | | | ND | |
| 69 2-Hexanone | 43 | | 14.107 | | | | ND | |
| 70 Chlorodibromomethane | 129 | | 14.406 | | | | ND | |
| 71 Ethylene Dibromide | 107 | | 14.609 | | | | ND | Ua |
| * 72 Chlorobenzene-d5 | 117 | 15.175 | 15.175 | 0.000 | 82 | 1483010 | 10.0 | |
| 73 Chlorobenzene | 112 | | 15.212 | | | | ND | U |
| 74 Ethylbenzene | 91 | 15.281 | 15.281 | 0.000 | 94 | 7203 | 0.0339 | |
| 76 m-Xylene & p-Xylene | 106 | | 15.431 | | | | ND | MU |
| 78 o-Xylene | 106 | | 15.943 | | | | ND | |
| 79 Styrene | 104 | | 15.964 | | | | ND | U |
| S 77 Xylenes, Total | 106 | | 16.000 | | | | ND | |
| 80 Bromoform | 173 | | 16.258 | | | | ND | U |
| 81 Isopropylbenzene | 105 | | 16.354 | | | | ND | U |
| 83 1,1,2,2-Tetrachloroethane | 83 | | 16.760 | | | | ND | MU |
| 84 N-Propylbenzene | 91 | | 16.834 | | | | ND | U |
| 87 4-Ethyltoluene | 105 | | 16.962 | | | | ND | MUa |
| 88 2-Chlorotoluene | 91 | | 17.000 | | | | ND | U |
| 89 1,3,5-Trimethylbenzene | 105 | | 17.027 | | | | ND | MU |
| 91 tert-Butylbenzene | 119 | | 17.400 | | | | ND | |
| 92 1,2,4-Trimethylbenzene | 105 | | 17.475 | | | | ND | |
| 93 sec-Butylbenzene | 105 | | 17.656 | | | | ND | U |
| 94 4-Isopropyltoluene | 119 | | 17.811 | | | | ND | U |
| 95 1,3-Dichlorobenzene | 146 | | 17.886 | | | | ND | |
| 96 1,4-Dichlorobenzene | 146 | | 17.998 | | | | ND | MUa |
| 97 Benzyl chloride | 91 | | 18.147 | | | | ND | U |
| 99 n-Butylbenzene | 91 | | 18.318 | | | | ND | U |
| 100 1,2-Dichlorobenzene | 146 | | 18.478 | | | | ND | |
| 103 1,2,4-Trichlorobenzene | 180 | | 20.826 | | | | ND | MU |
| 104 Hexachlorobutadiene | 225 | | 20.997 | | | | ND | U |
| 105 Naphthalene | 128 | | 21.301 | | | | ND | MU |

## QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

U - Marked Undetected

a - User Assigned ID

## Reagents:

ATTO15BISs_00006 Amount Added: 20.00 Units: mL Run Reagent

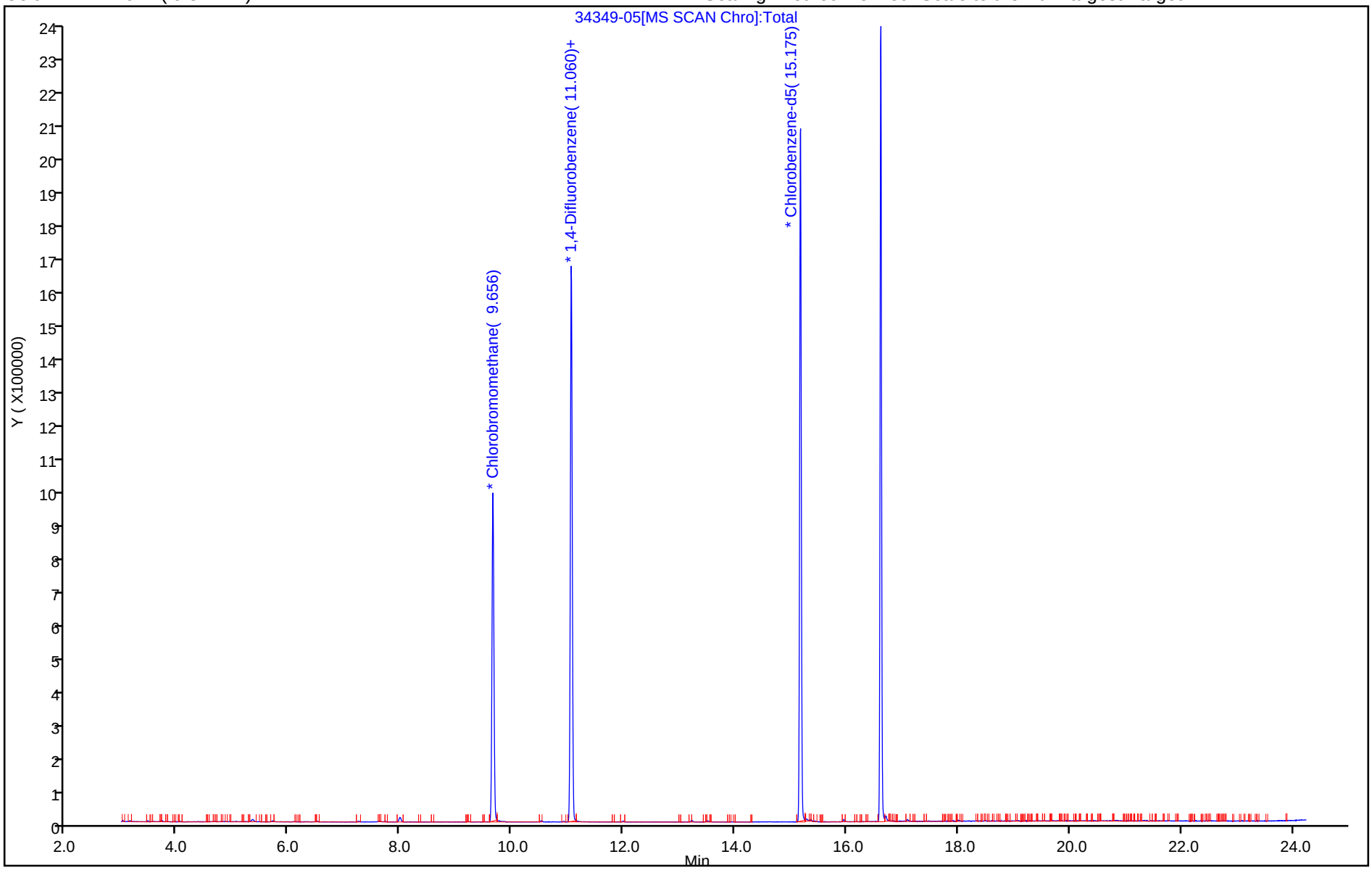
Report Date: 30-Jan-2019 13:10:01 Chrom Revision: 2.3 15-Jan-2019 08:51:34

TestAmerica Burlington

Data File: \\chromna\Burlington\ChromData\CHB.i\20190129-34349.b\34349-05.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 29-Jan-2019 15:10:30 | Instrument ID: | CHB.i | Operator ID: | ggg |
| Lims ID: | 200-47150-A-8 | Lab Sample ID: | 200-47150-8 | Worklist Smp#: | 5 |
| Client ID: | 4877 | | | | |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | ALS Bottle#: | 4 |
| Method: | TO15_LLNJ_TO3 | Limit Group: | AI_TO15_ICAL | | |

Column: RTX-624 ( 0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



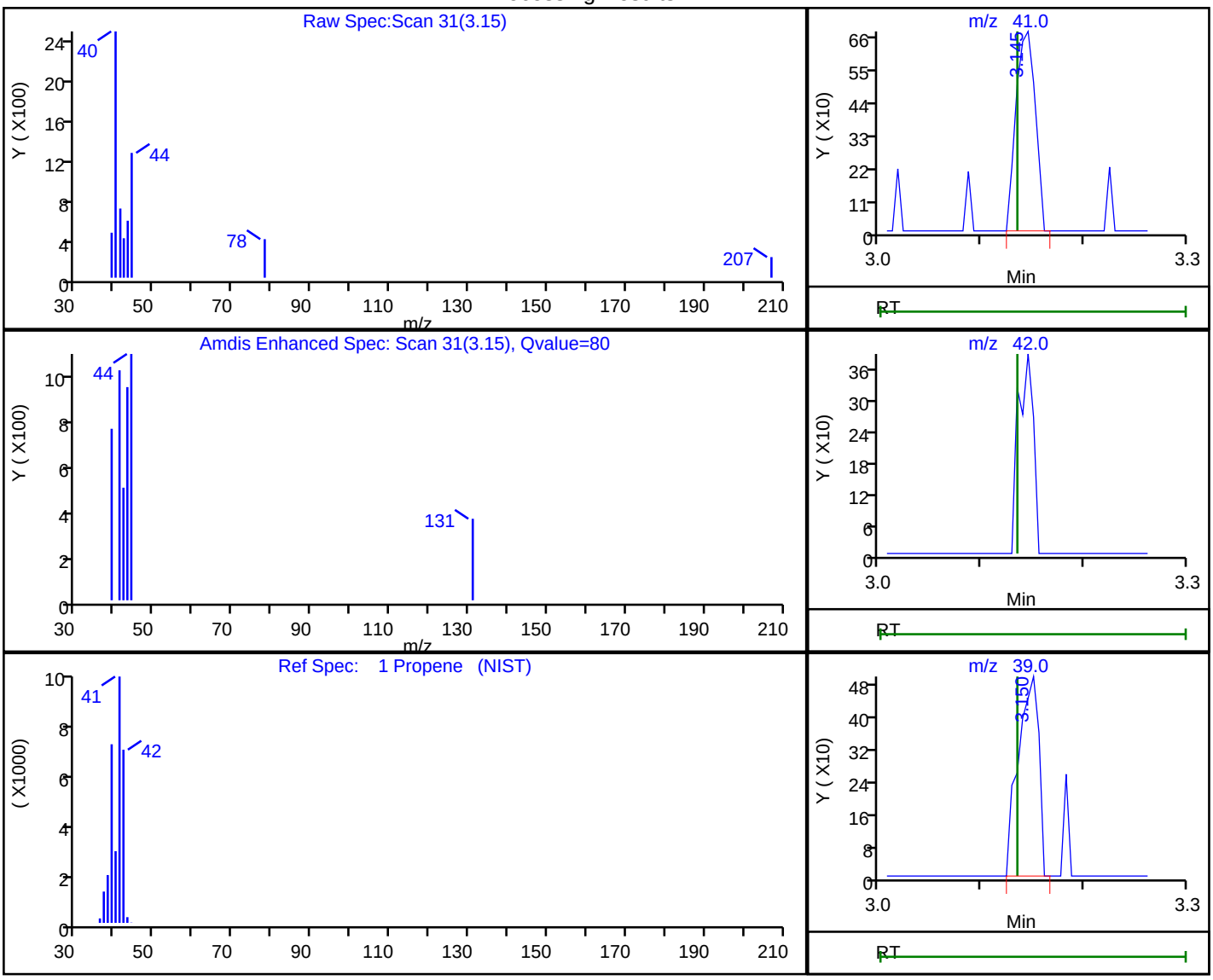
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHB.i\20190129-34349.b\34349-05.D | | | | |
| Injection Date: | 29-Jan-2019 15:10:30 | Instrument ID: | CHB.i | | |
| Lims ID: | 200-47150-A-8 | Lab Sample ID: | 200-47150-8 | | |
| Client ID: | 4877 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 4 | Worklist Smp#: | 5 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_LLNJ_TO3 | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 1 Propene, CAS: 115-07-1

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 3.15 | 41.00 | 891 | 0.045564 |
| 3.13 | 42.00 | 0 | |
| 3.15 | 39.00 | 689 | |

Reviewer: bunmaa, 30-Jan-2019 13:05:07

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

TestAmerica Burlington

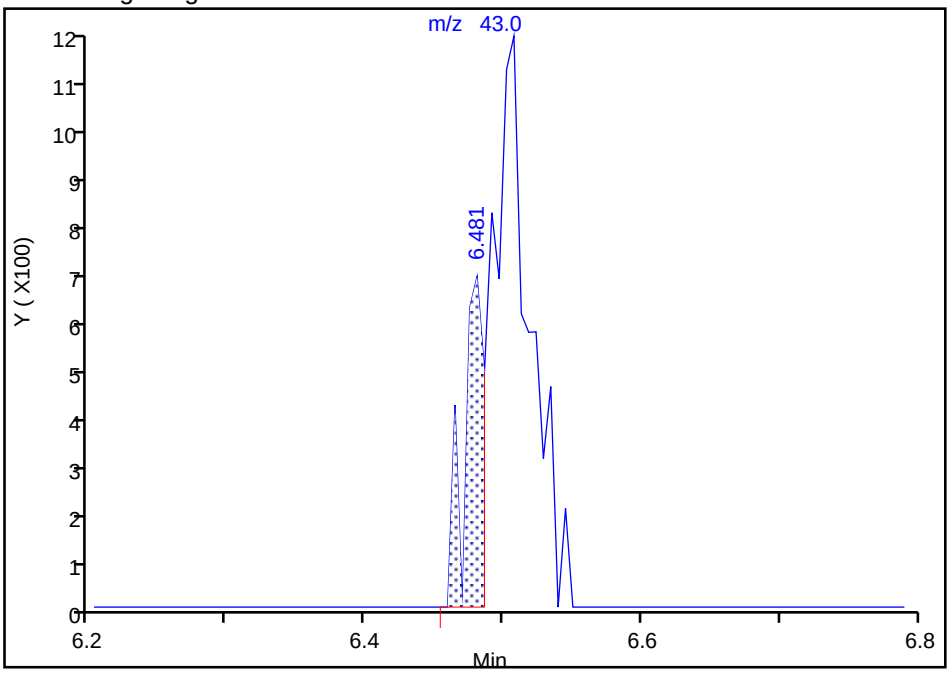
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHB.i\20190129-34349.b\34349-05.D | | | | |
| Injection Date: | 29-Jan-2019 15:10:30 | Instrument ID: | CHB.i | | |
| Lims ID: | 200-47150-A-8 | Lab Sample ID: | 200-47150-8 | | |
| Client ID: | 4877 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 4 | Worklist Smp#: | 5 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_LLNJ_TO3 | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 21 Acetone, CAS: 67-64-1

Signal: 1

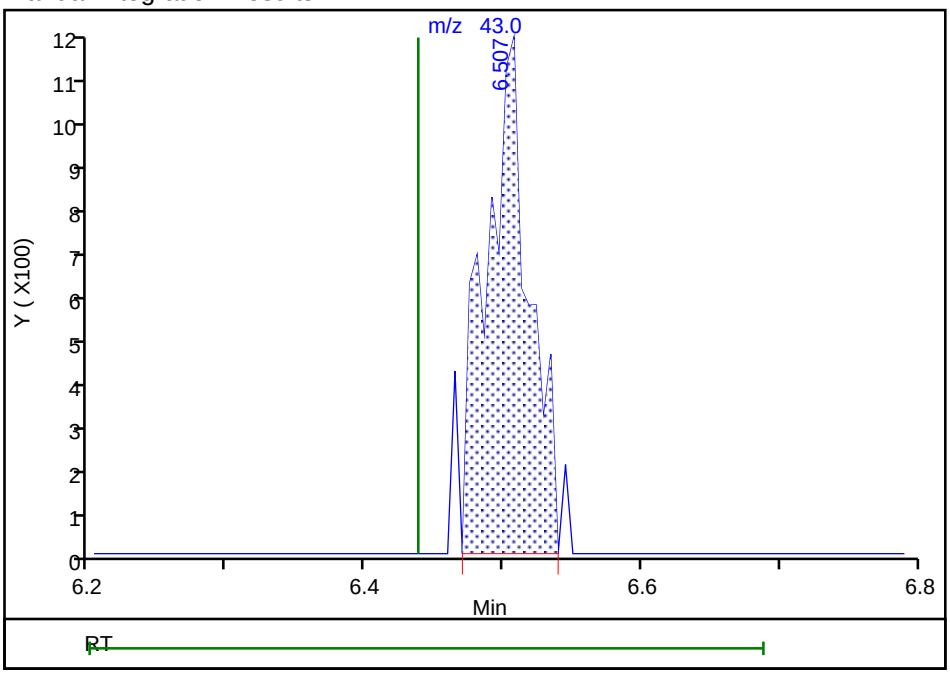
Processing Integration Results

RT: 6.48
Area: 717
Amount: 0.014732
Amount Units: ppb v/v




Manual Integration Results

RT: 6.51
Area: 2628
Amount: 0.053998
Amount Units: ppb v/v




Reviewer: bunmaa, 30-Jan-2019 13:05:37

Audit Action: Manually Integrated Audit Reason: Assign Peak

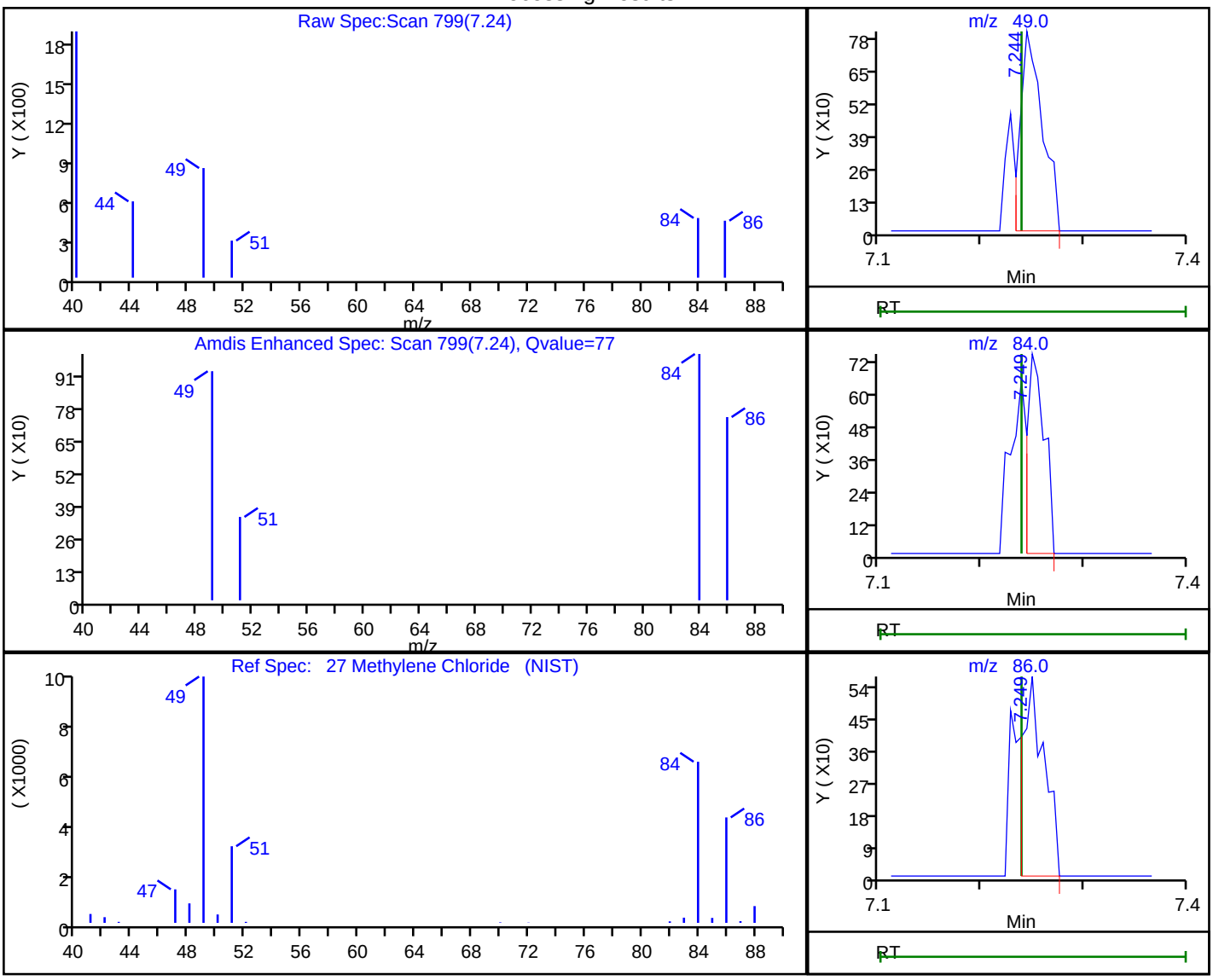
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHB.i\20190129-34349.b\34349-05.D | | | | |
| Injection Date: | 29-Jan-2019 15:10:30 | Instrument ID: | CHB.i | | |
| Lims ID: | 200-47150-A-8 | Lab Sample ID: | 200-47150-8 | | |
| Client ID: | 4877 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 4 | Worklist Smp#: | 5 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_LLNJ_TO3 | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 27 Methylene Chloride, CAS: 75-09-2

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 7.24 | 49.00 | 1211 | 0.028093 |
| 7.25 | 84.00 | 866 | |
| 7.25 | 86.00 | 829 | |

Reviewer: bunmaa, 30-Jan-2019 13:06:01

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

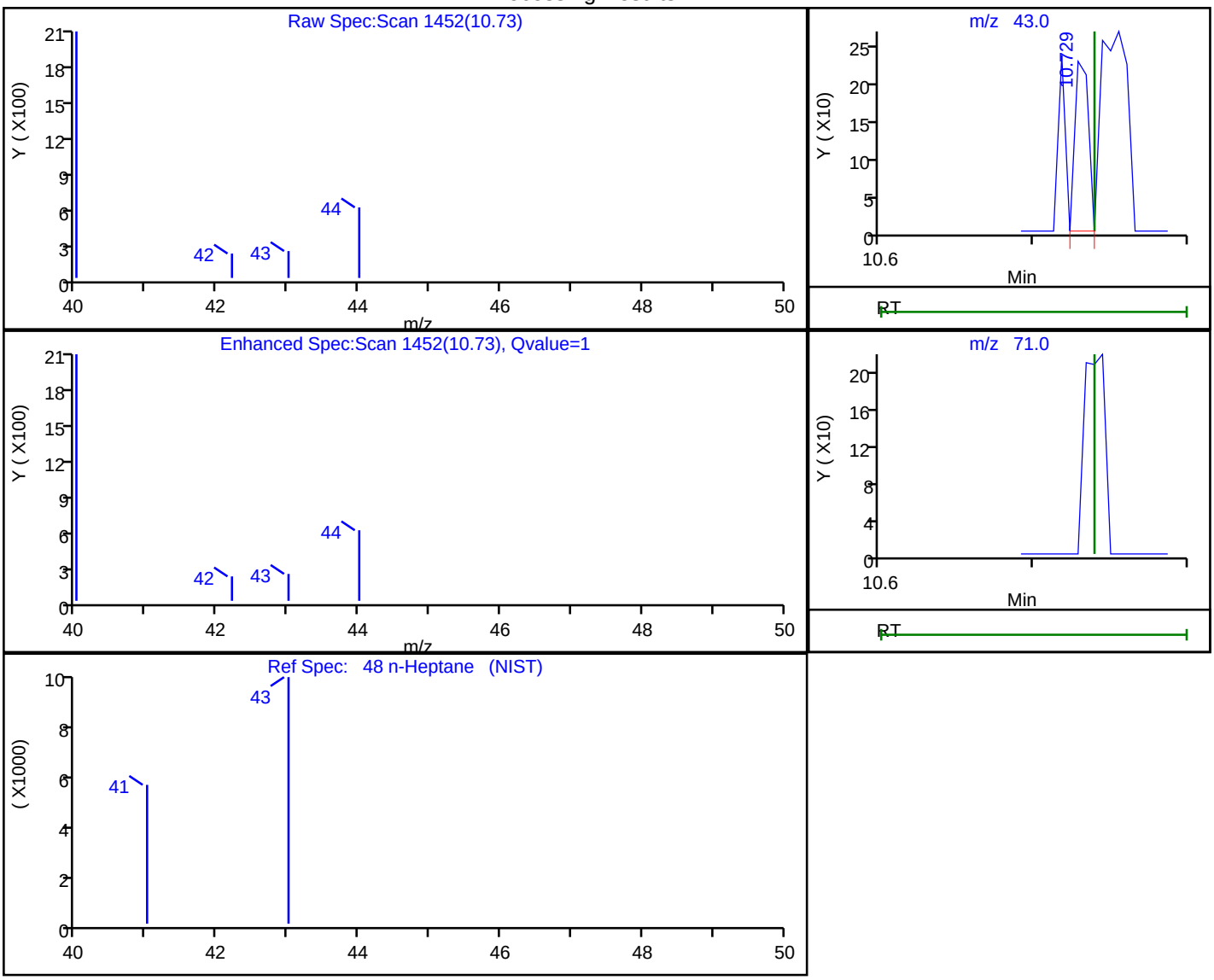
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHB.i\20190129-34349.b\34349-05.D | | | | |
| Injection Date: | 29-Jan-2019 15:10:30 | Instrument ID: | CHB.i | | |
| Lims ID: | 200-47150-A-8 | Lab Sample ID: | 200-47150-8 | | |
| Client ID: | 4877 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 4 | Worklist Smp#: | 5 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_LLNJ_TO3 | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 48 n-Heptane, CAS: 142-82-5

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 10.73 | 43.00 | 140 | 0.002236 |
| 10.74 | 71.00 | 0 | |

Reviewer: bunmaa, 30-Jan-2019 13:06:39

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

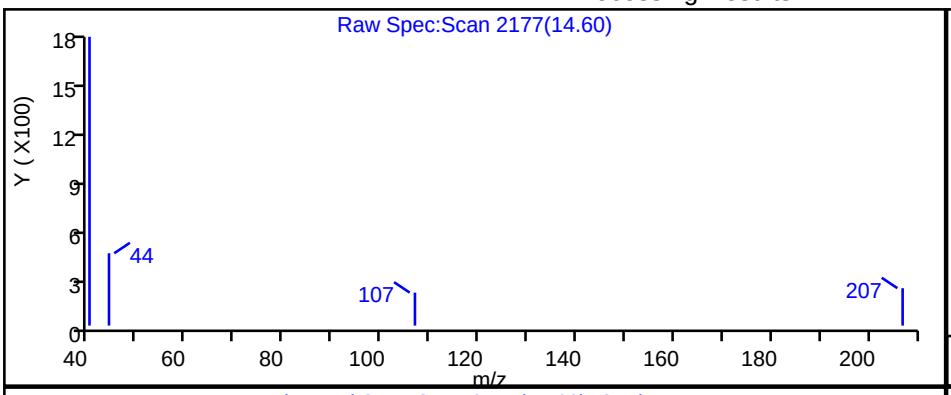
User Disabled Compound Report

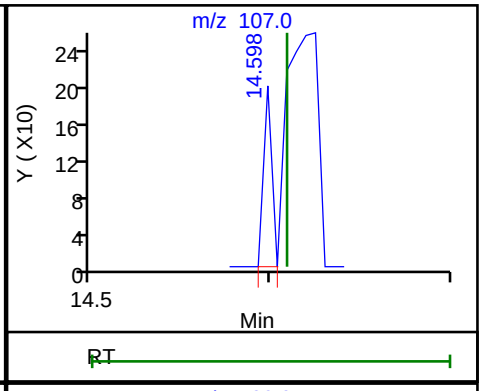
TestAmerica Burlington

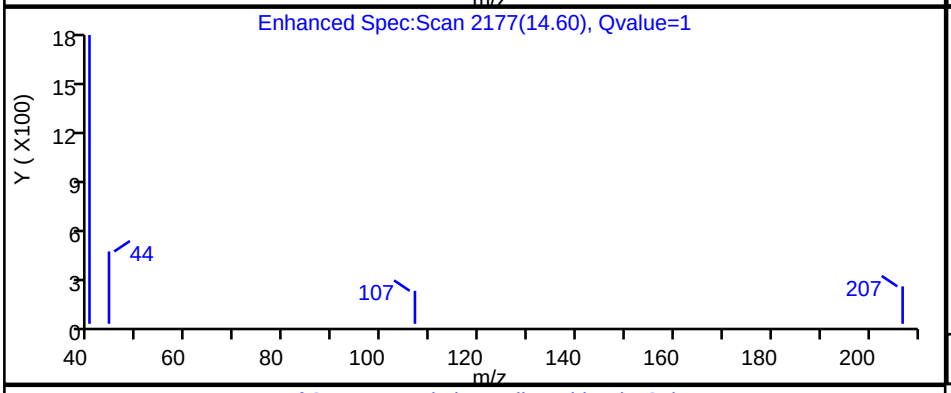
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHB.i\20190129-34349.b\34349-05.D | | | | |
| Injection Date: | 29-Jan-2019 15:10:30 | Instrument ID: | CHB.i | | |
| Lims ID: | 200-47150-A-8 | Lab Sample ID: | 200-47150-8 | | |
| Client ID: | 4877 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 4 | Worklist Smp#: | 5 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_LLNJ_TO3 | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

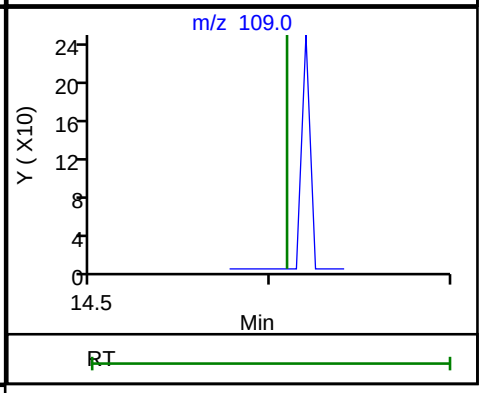
## 71 Ethylene Dibromide, CAS: 106-93-4

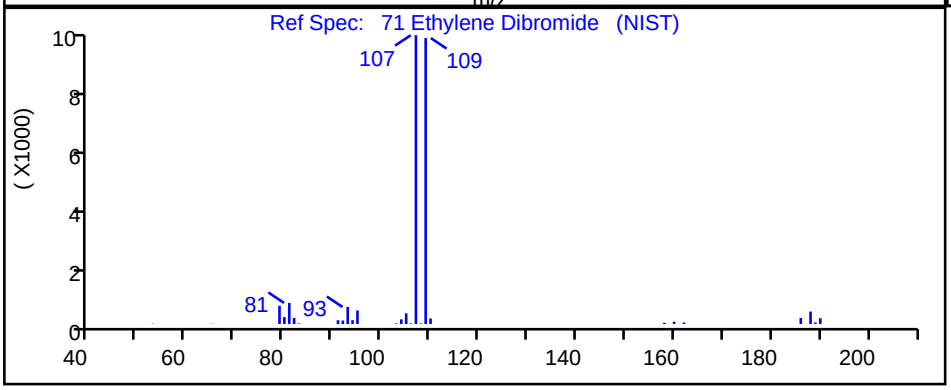
Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 14.60 | 107.00 | 64 | 0.000749 |
| 14.61 | 109.00 | 0 | |

Reviewer: bunmaa, 30-Jan-2019 13:07:12

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

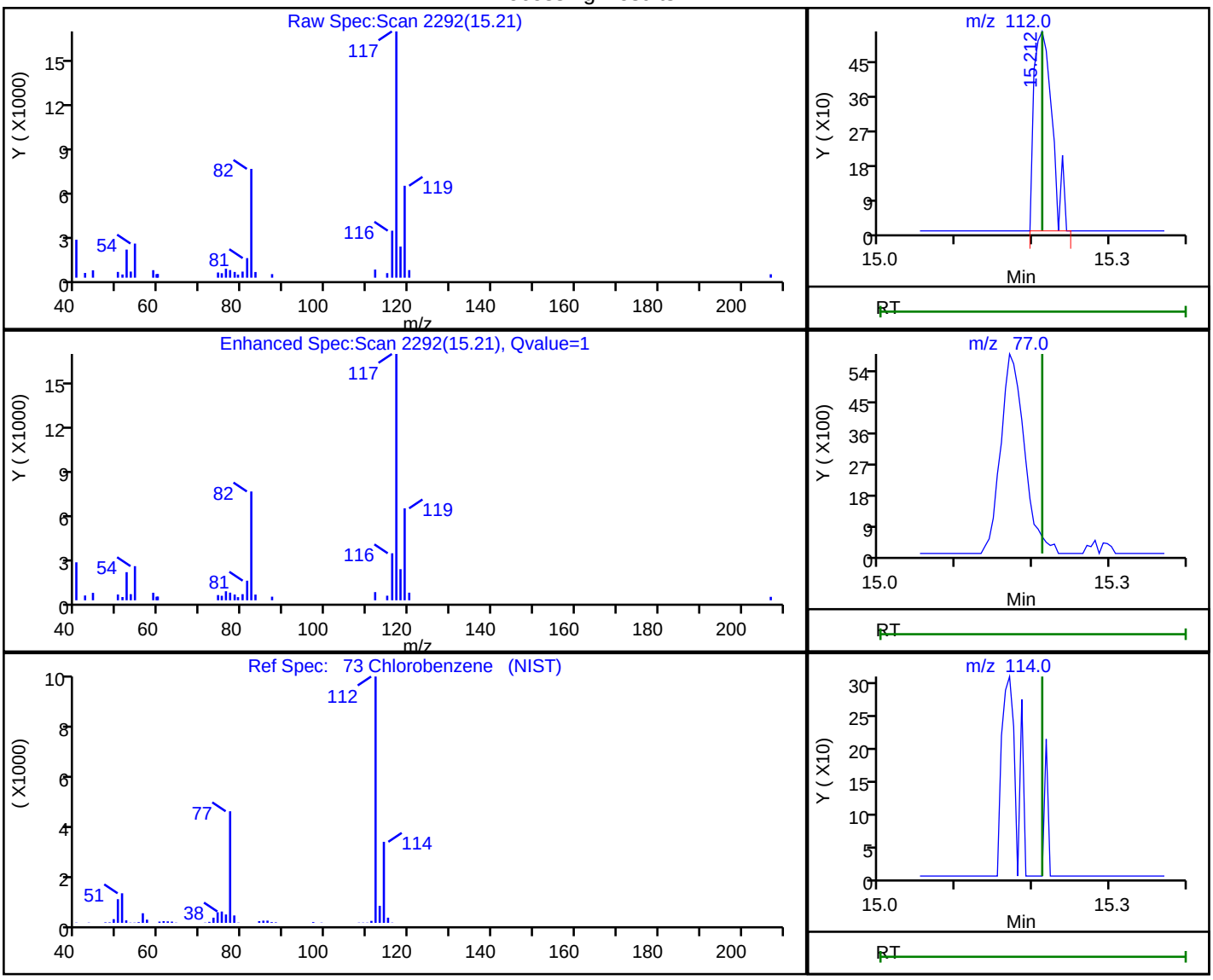
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHB.i\20190129-34349.b\34349-05.D | | | | |
| Injection Date: | 29-Jan-2019 15:10:30 | Instrument ID: | CHB.i | | |
| Lims ID: | 200-47150-A-8 | Lab Sample ID: | 200-47150-8 | | |
| Client ID: | 4877 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 4 | Worklist Smp#: | 5 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_LLNJ_TO3 | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 73 Chlorobenzene, CAS: 108-90-7

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 15.21 | 112.00 | 875 | 0.006601 |
| 15.21 | 77.00 | 0 | |
| 15.21 | 114.00 | 0 | |

Reviewer: bunmaa, 30-Jan-2019 13:07:16

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

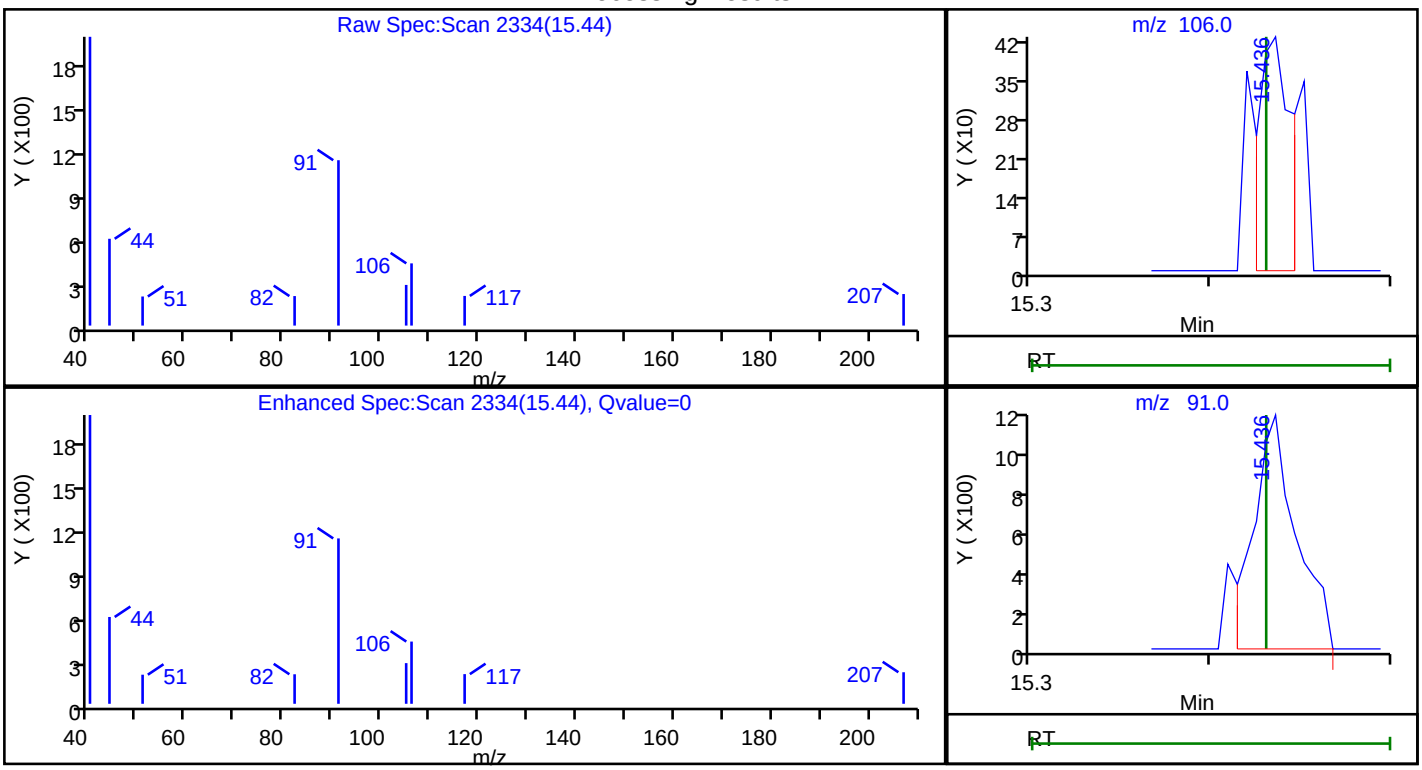
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHB.i\20190129-34349.b\34349-05.D | | | | |
| Injection Date: | 29-Jan-2019 15:10:30 | Instrument ID: | CHB.i | | |
| Lims ID: | 200-47150-A-8 | Lab Sample ID: | 200-47150-8 | | |
| Client ID: | 4877 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 4 | Worklist Smp#: | 5 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_LLNJ_TO3 | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 76 m-Xylene & p-Xylene, CAS: 179601-23-1

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 15.44 | 106.00 | 533 | 0.006387 |
| 15.44 | 91.00 | 1905 | |

Reviewer: bunmaa, 30-Jan-2019 13:07:30

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

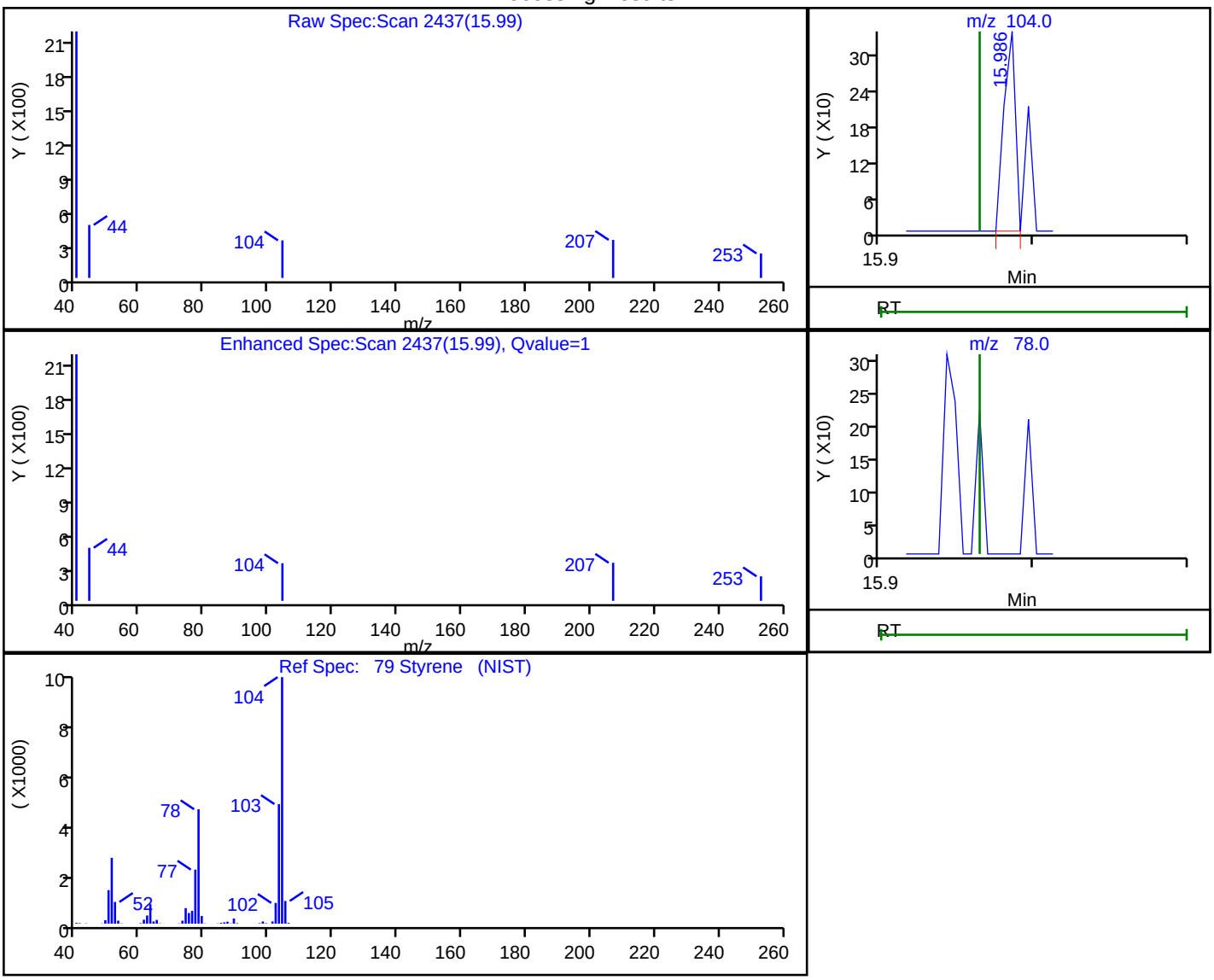
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHB.i\20190129-34349.b\34349-05.D | | | | |
| Injection Date: | 29-Jan-2019 15:10:30 | Instrument ID: | CHB.i | | |
| Lims ID: | 200-47150-A-8 | Lab Sample ID: | 200-47150-8 | | |
| Client ID: | 4877 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 4 | Worklist Smp#: | 5 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_LLNJ_TO3 | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 79 Styrene, CAS: 100-42-5

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 15.99 | 104.00 | 174 | 0.001299 |
| 15.96 | 78.00 | 0 | |

Reviewer: bunmaa, 30-Jan-2019 13:07:36

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

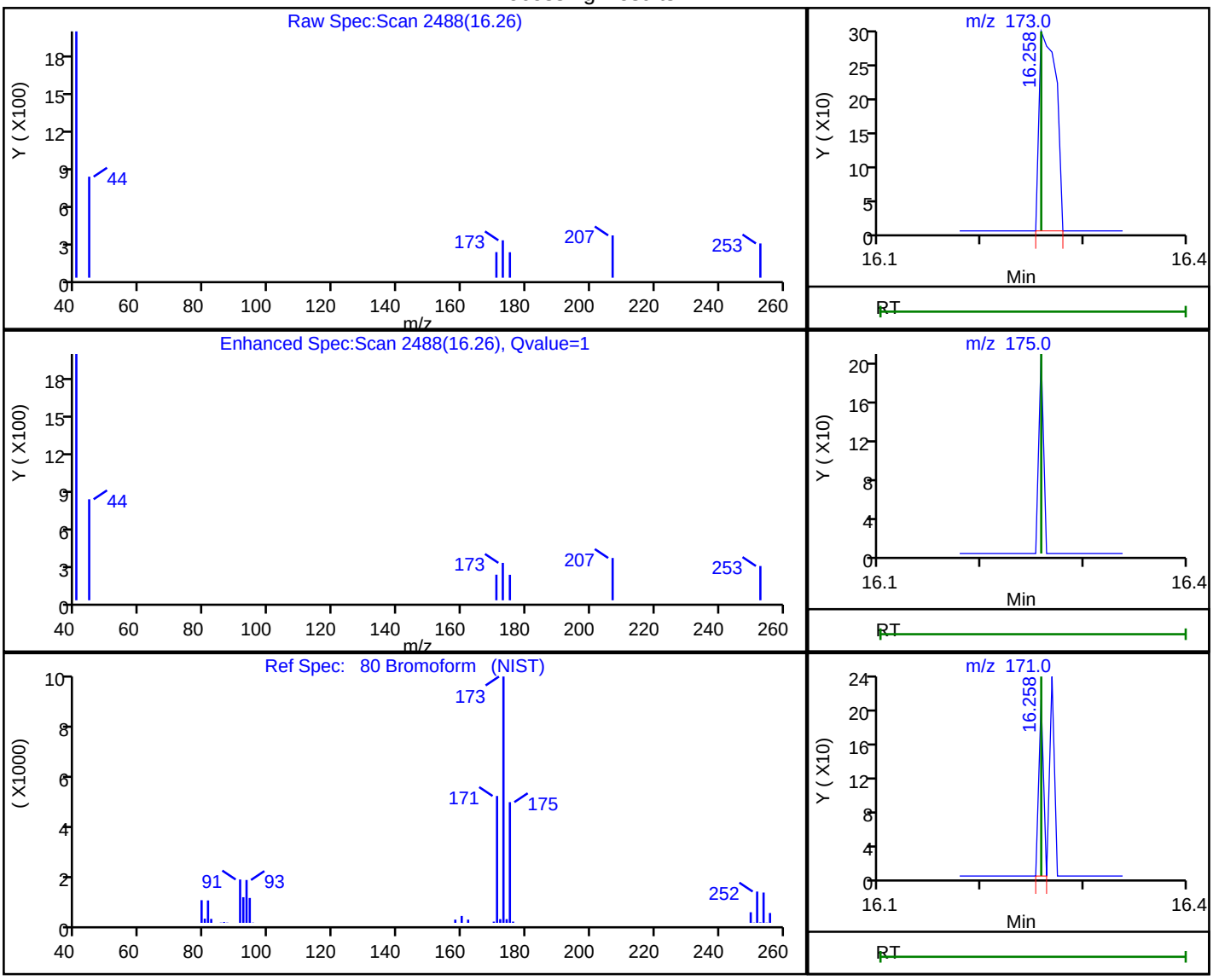
TestAmerica Burlington

Data File: \\chromna\Burlington\ChromData\CHB.i\20190129-34349.b\34349-05.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 29-Jan-2019 15:10:30 | Instrument ID: | CHB.i | | |
| Lims ID: | 200-47150-A-8 | Lab Sample ID: | 200-47150-8 | | |
| Client ID: | 4877 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 4 | Worklist Smp#: | 5 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_LLNJ_TO3 | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 80 Bromoform, CAS: 75-25-2

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 16.26 | 173.00 | 340 | 0.003965 |
| 16.26 | 175.00 | 0 | |
| 16.26 | 171.00 | 65 | |

Reviewer: bunmaa, 30-Jan-2019 13:07:42

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

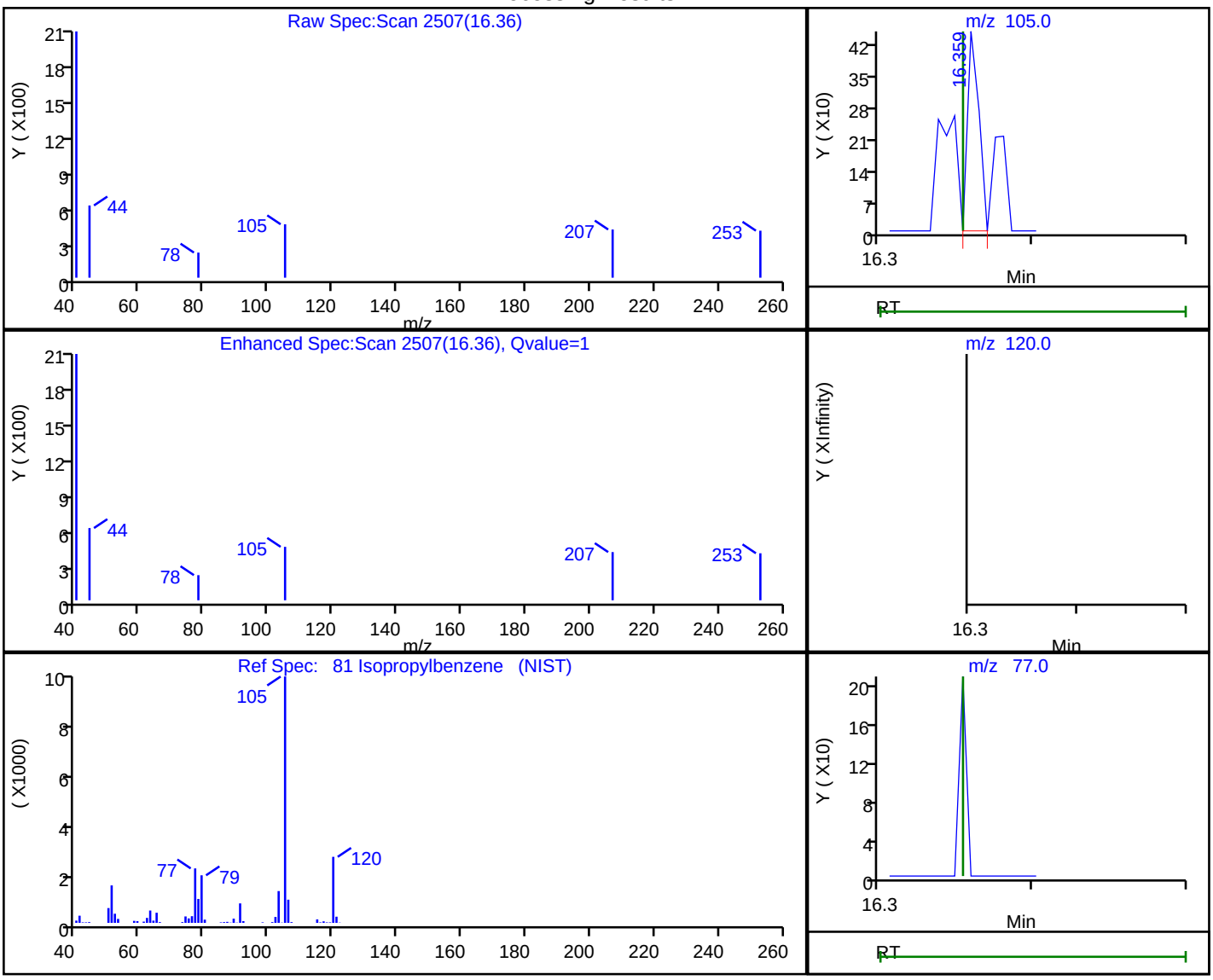
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHB.i\20190129-34349.b\34349-05.D | | | | |
| Injection Date: | 29-Jan-2019 15:10:30 | Instrument ID: | CHB.i | | |
| Lims ID: | 200-47150-A-8 | Lab Sample ID: | 200-47150-8 | | |
| Client ID: | 4877 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 4 | Worklist Smp#: | 5 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_LLNJ_TO3 | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 81 Isopropylbenzene, CAS: 98-82-8

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 16.36 | 105.00 | 230 | 0.000977 |
| 16.35 | 120.00 | 0 | |
| 16.35 | 77.00 | 0 | |

Reviewer: bunmaa, 30-Jan-2019 13:07:46

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

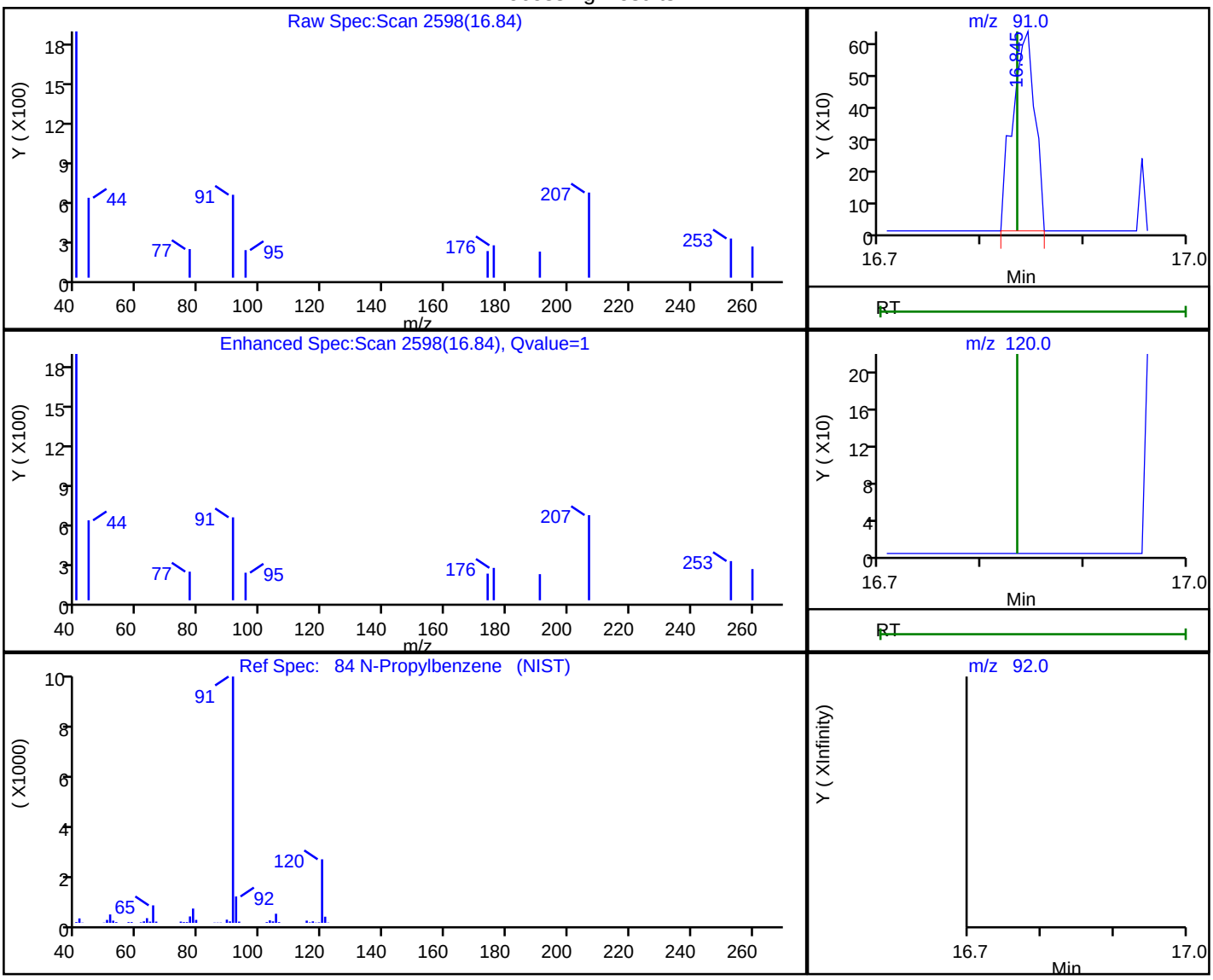
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHB.i\20190129-34349.b\34349-05.D | | | | |
| Injection Date: | 29-Jan-2019 15:10:30 | Instrument ID: | CHB.i | | |
| Lims ID: | 200-47150-A-8 | Lab Sample ID: | 200-47150-8 | | |
| Client ID: | 4877 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 4 | Worklist Smp#: | 5 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_LLNJ_TO3 | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 84 N-Propylbenzene, CAS: 103-65-1

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 16.84 | 91.00 | 962 | 0.003538 |
| 16.83 | 120.00 | 0 | |
| 16.83 | 92.00 | 0 | |

Reviewer: bunmaa, 30-Jan-2019 13:08:02

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

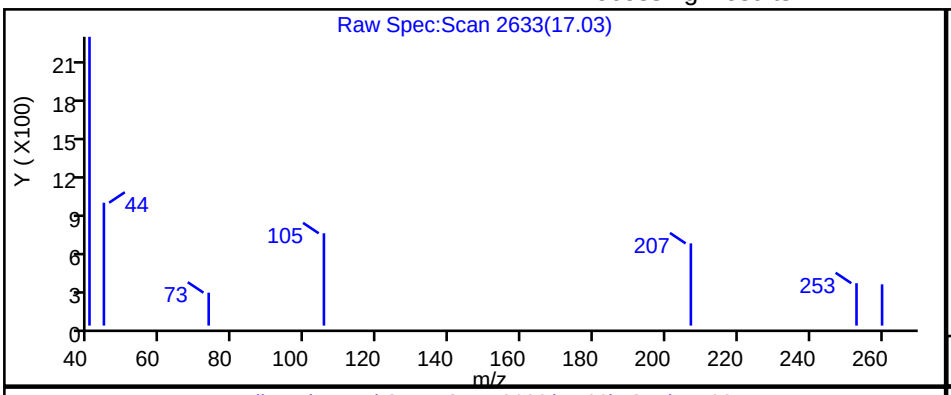
User Disabled Compound Report

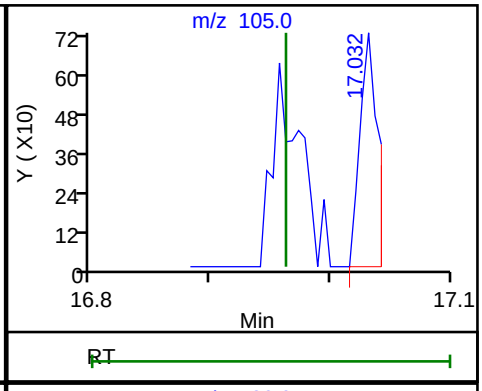
TestAmerica Burlington

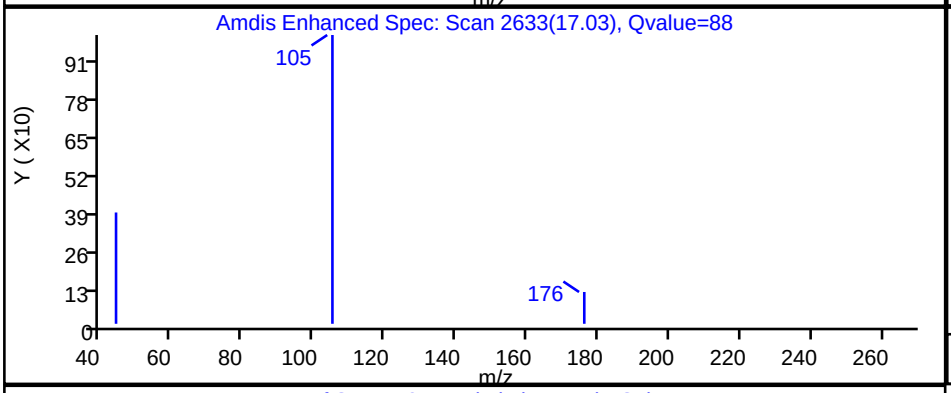
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHB.i\20190129-34349.b\34349-05.D | | | | |
| Injection Date: | 29-Jan-2019 15:10:30 | Instrument ID: | CHB.i | | |
| Lims ID: | 200-47150-A-8 | Lab Sample ID: | 200-47150-8 | | |
| Client ID: | 4877 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 4 | Worklist Smp#: | 5 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_LLNJ_TO3 | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

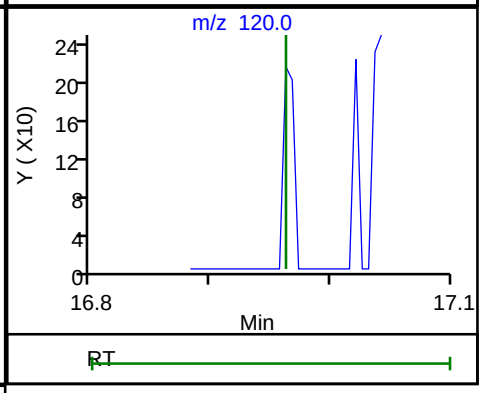
## 87 4-Ethyltoluene, CAS: 622-96-8

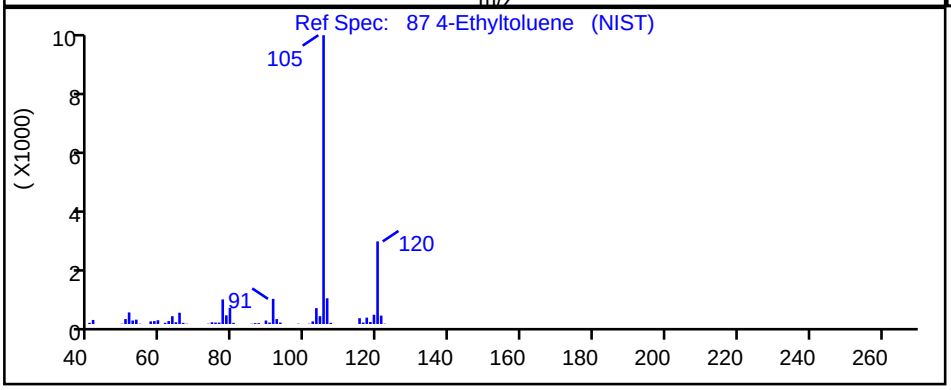
Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 17.03 | 105.00 | 741 | 0.003168 |
| 16.96 | 120.00 | 0 | |

Reviewer: bunmaa, 30-Jan-2019 13:08:18

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

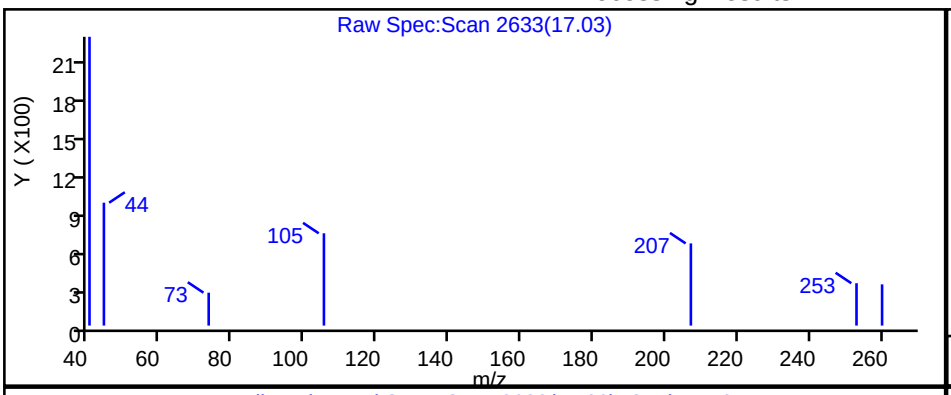
User Disabled Compound Report

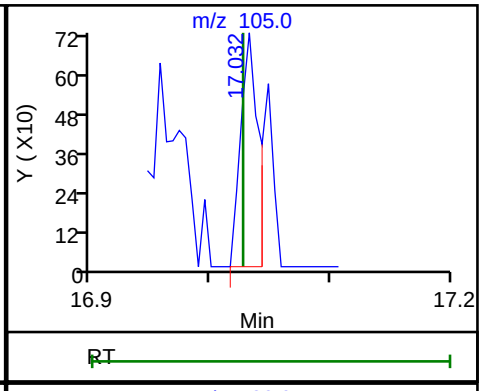
TestAmerica Burlington

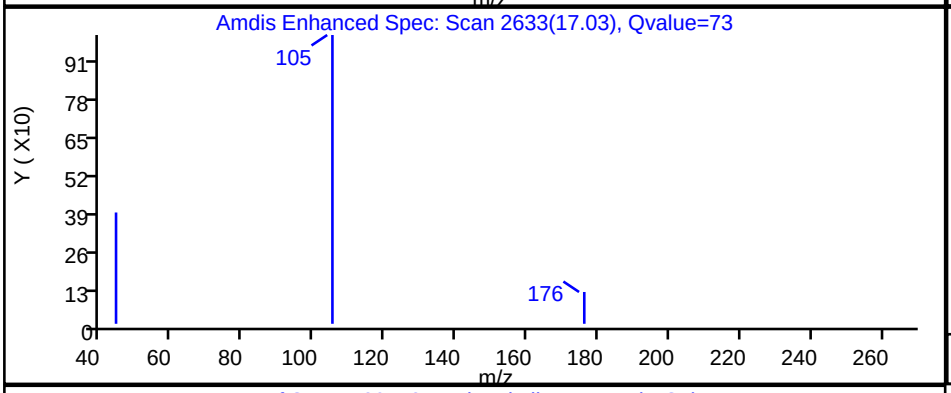
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHB.i\20190129-34349.b\34349-05.D | | | | |
| Injection Date: | 29-Jan-2019 15:10:30 | Instrument ID: | CHB.i | | |
| Lims ID: | 200-47150-A-8 | Lab Sample ID: | 200-47150-8 | | |
| Client ID: | 4877 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 4 | Worklist Smp#: | 5 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_LLNJ_TO3 | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

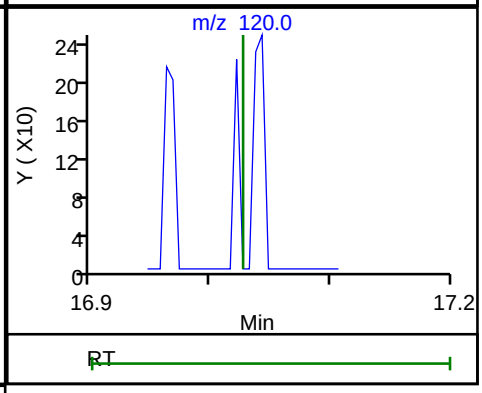
## 89 1,3,5-Trimethylbenzene, CAS: 108-67-8

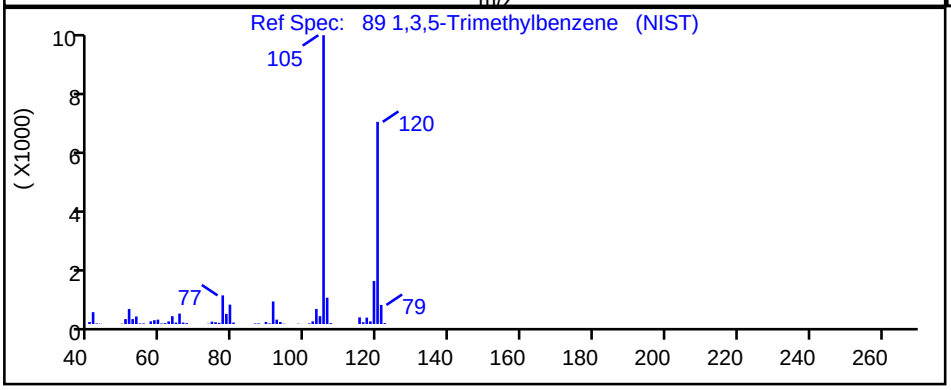
Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 17.03 | 105.00 | 741 | 0.003868 |
| 17.03 | 120.00 | 0 | |

Reviewer: bunmaa, 30-Jan-2019 13:08:44

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

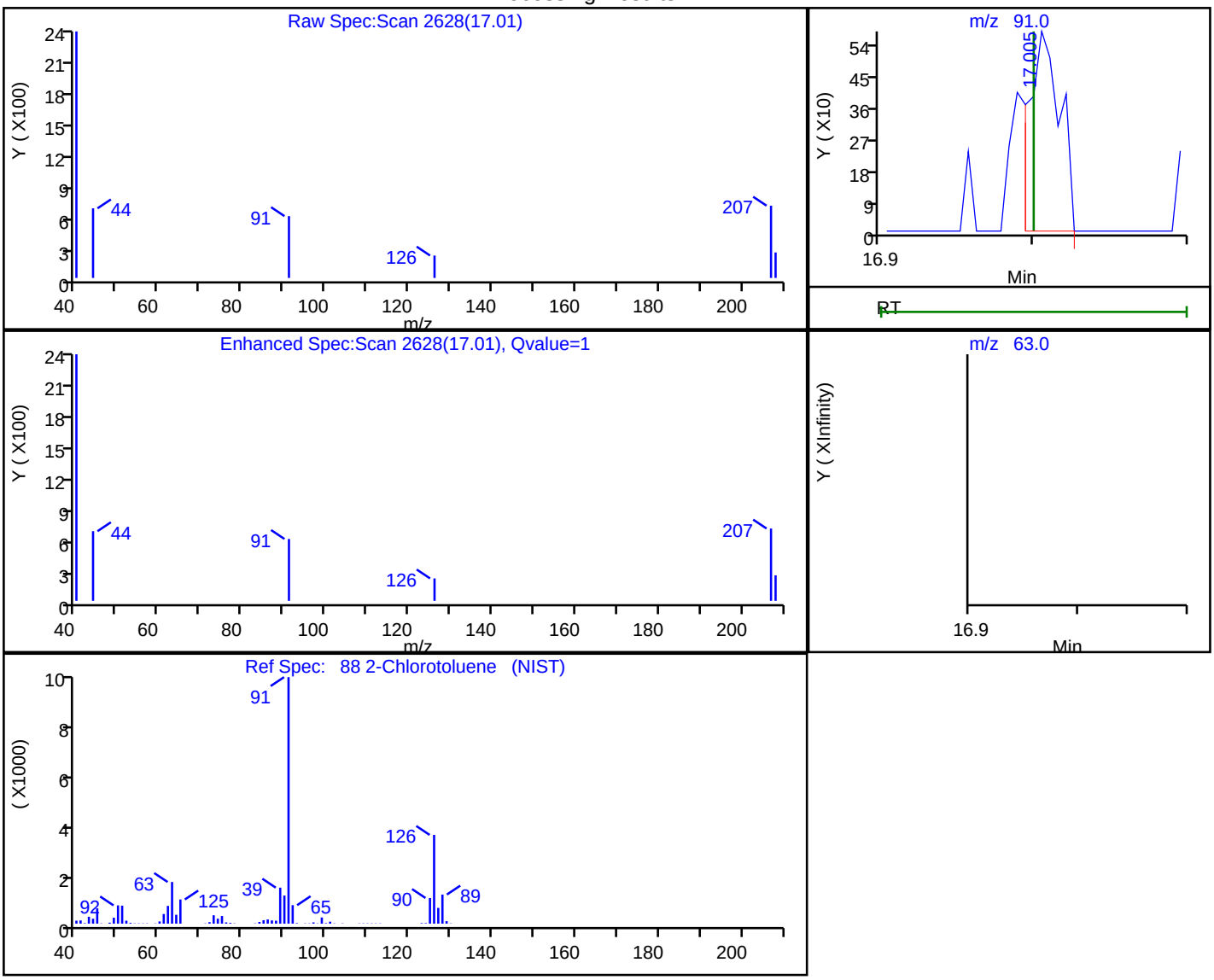
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHB.i\20190129-34349.b\34349-05.D | | | | |
| Injection Date: | 29-Jan-2019 15:10:30 | Instrument ID: | CHB.i | | |
| Lims ID: | 200-47150-A-8 | Lab Sample ID: | 200-47150-8 | | |
| Client ID: | 4877 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 4 | Worklist Smp#: | 5 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_LLNJ_TO3 | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 88 2-Chlorotoluene, CAS: 95-49-8

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 17.01 | 91.00 | 815 | 0.004433 |
| 17.00 | 63.00 | 0 | |

Reviewer: bunmaa, 30-Jan-2019 13:08:31

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

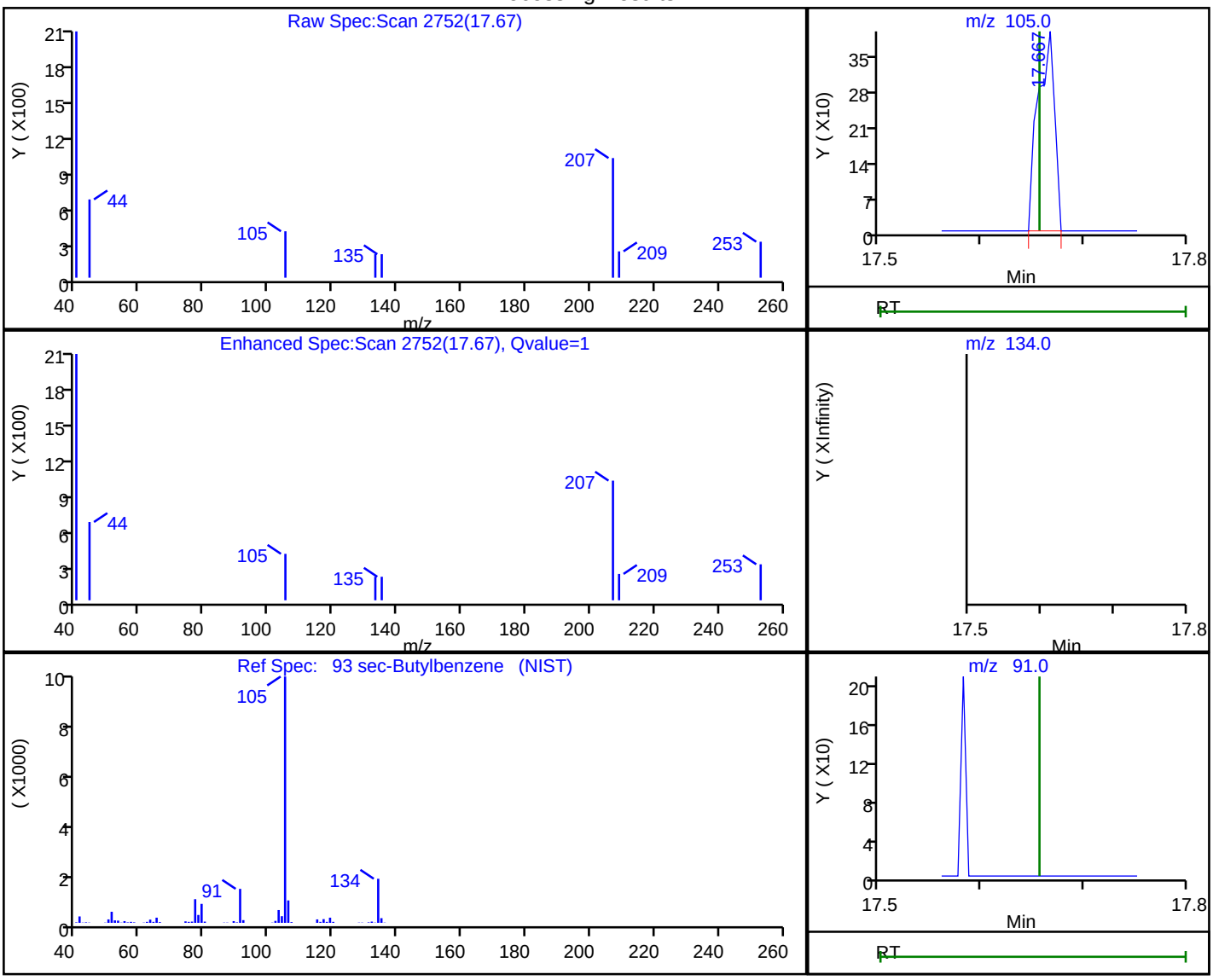
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHB.i\20190129-34349.b\34349-05.D | | | | |
| Injection Date: | 29-Jan-2019 15:10:30 | Instrument ID: | CHB.i | | |
| Lims ID: | 200-47150-A-8 | Lab Sample ID: | 200-47150-8 | | |
| Client ID: | 4877 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 4 | Worklist Smp#: | 5 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_LLNJ_TO3 | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 93 sec-Butylbenzene, CAS: 135-98-8

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 17.67 | 105.00 | 446 | 0.001560 |
| 17.66 | 134.00 | 0 | |
| 17.66 | 91.00 | 0 | |

Reviewer: bunmaa, 30-Jan-2019 13:08:51

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

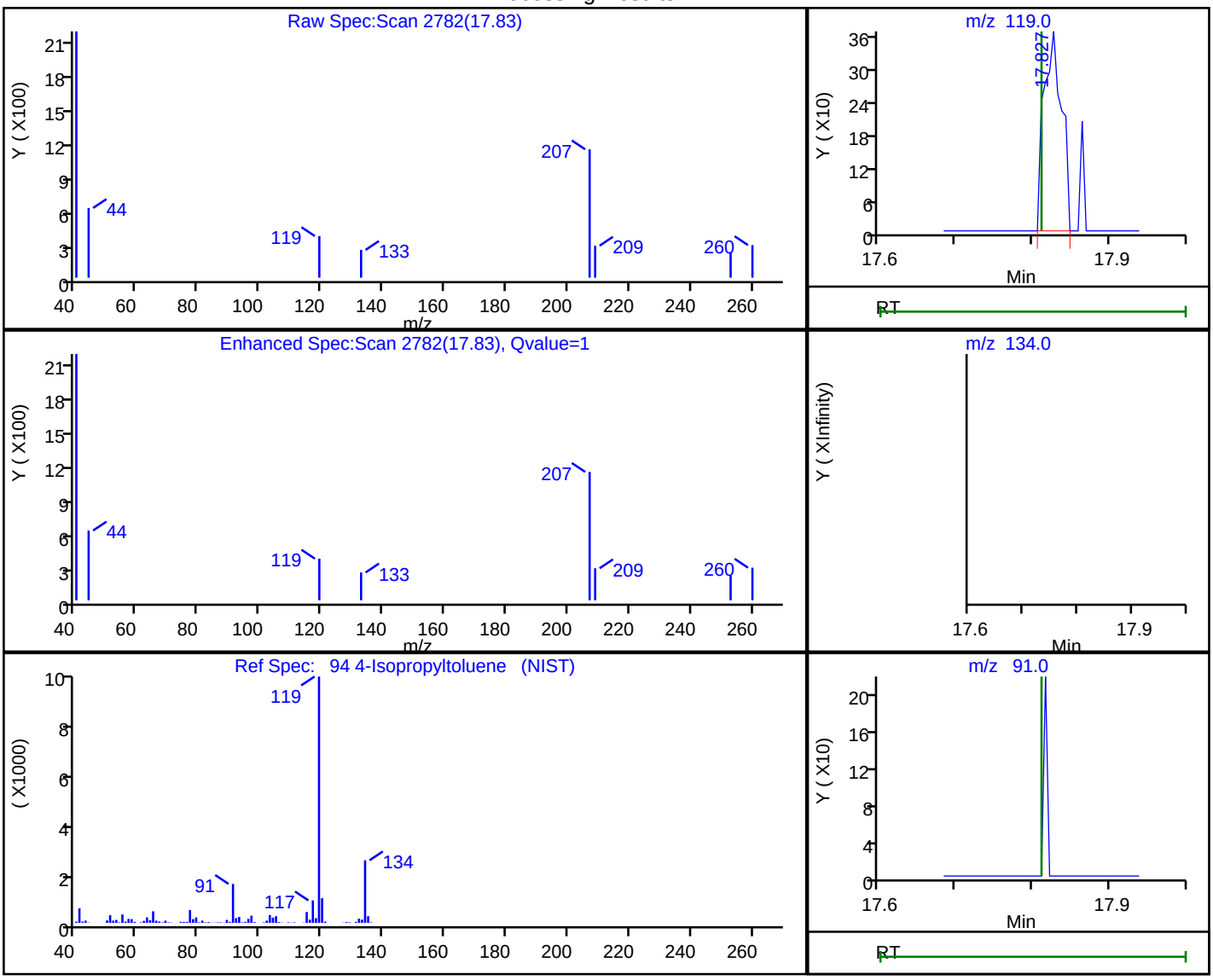
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHB.i\20190129-34349.b\34349-05.D | | | | |
| Injection Date: | 29-Jan-2019 15:10:30 | Instrument ID: | CHB.i | | |
| Lims ID: | 200-47150-A-8 | Lab Sample ID: | 200-47150-8 | | |
| Client ID: | 4877 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 4 | Worklist Smp#: | 5 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_LLNJ_TO3 | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 94 4-Isopropyltoluene, CAS: 99-87-6

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 17.83 | 119.00 | 589 | 0.002424 |
| 17.81 | 134.00 | 0 | |
| 17.81 | 91.00 | 0 | |

Reviewer: bunmaa, 30-Jan-2019 13:08:57

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

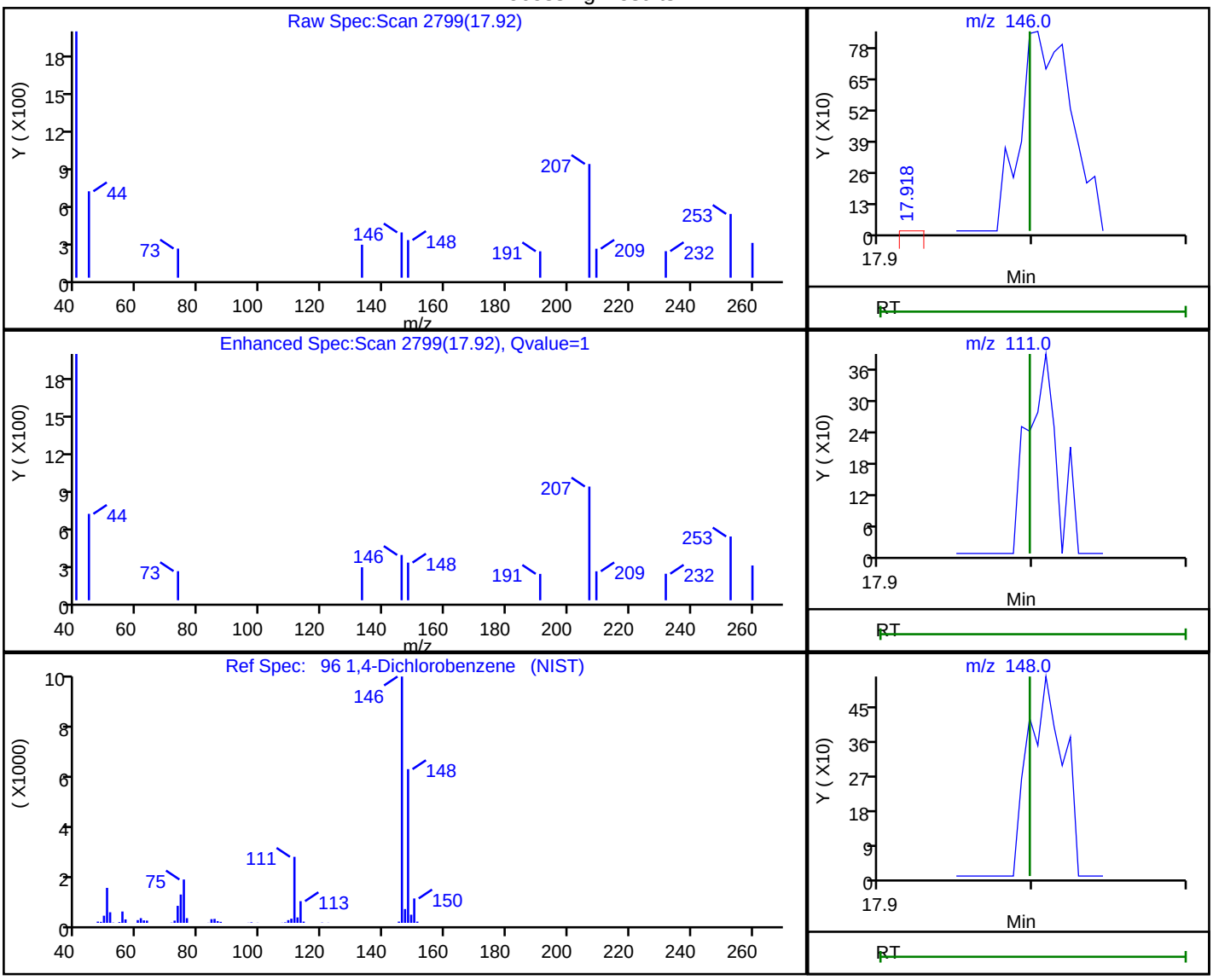
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHB.i\20190129-34349.b\34349-05.D | | | | |
| Injection Date: | 29-Jan-2019 15:10:30 | Instrument ID: | CHB.i | | |
| Lims ID: | 200-47150-A-8 | Lab Sample ID: | 200-47150-8 | | |
| Client ID: | 4877 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 4 | Worklist Smp#: | 5 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_LLNJ_TO3 | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 96 1,4-Dichlorobenzene, CAS: 106-46-7

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 17.92 | 146.00 | 290 | 0.002043 |
| 18.00 | 111.00 | 0 | |
| 18.00 | 148.00 | 0 | |

Reviewer: bunmaa, 30-Jan-2019 13:09:21

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

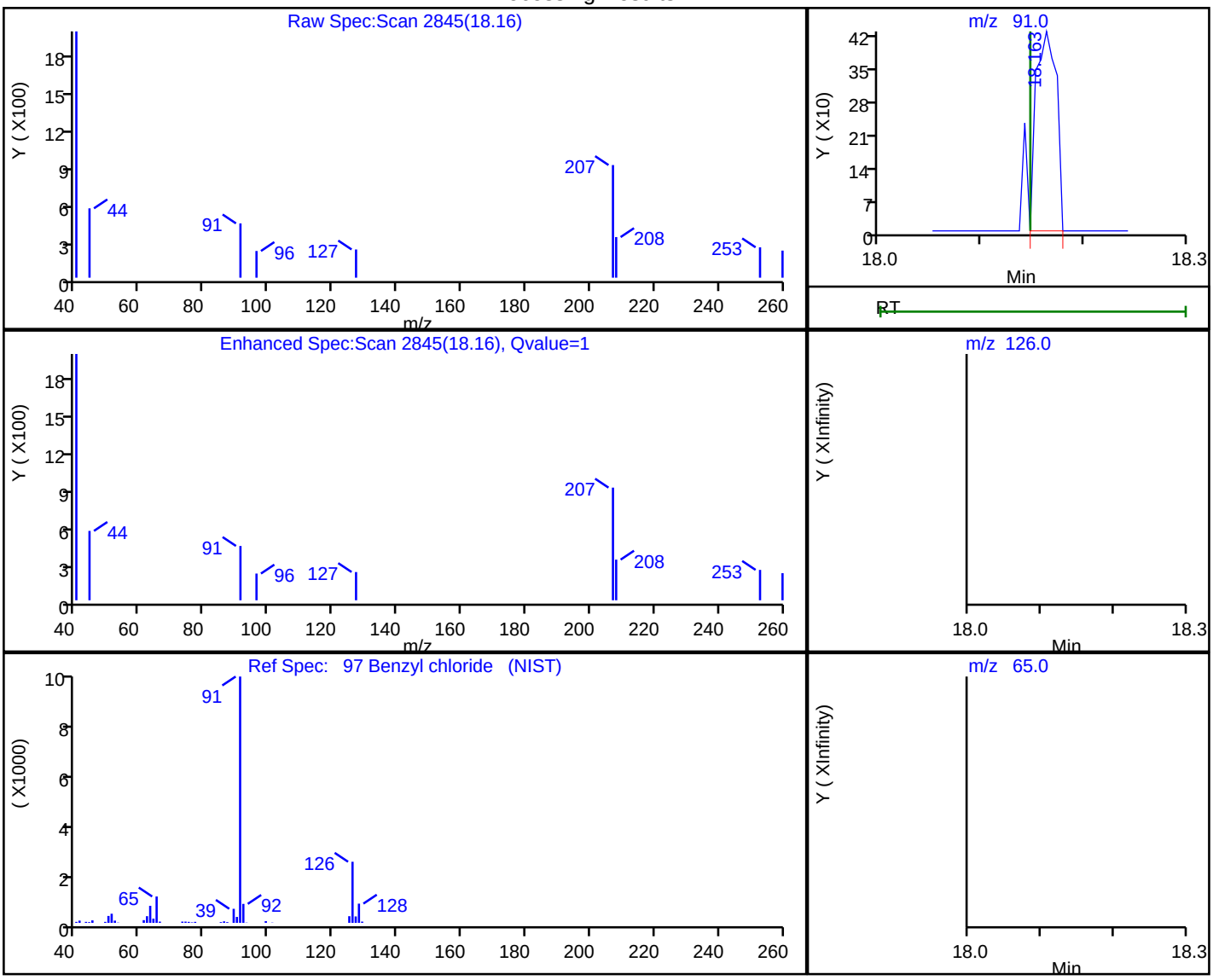
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHB.i\20190129-34349.b\34349-05.D | | | | |
| Injection Date: | 29-Jan-2019 15:10:30 | Instrument ID: | CHB.i | | |
| Lims ID: | 200-47150-A-8 | Lab Sample ID: | 200-47150-8 | | |
| Client ID: | 4877 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 4 | Worklist Smp#: | 5 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_LLNJ_TO3 | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 97 Benzyl chloride, CAS: 100-44-7

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 18.16 | 91.00 | 592 | 0.003530 |
| 18.15 | 126.00 | 0 | |
| 18.15 | 65.00 | 0 | |

Reviewer: bunmaa, 30-Jan-2019 13:09:24

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

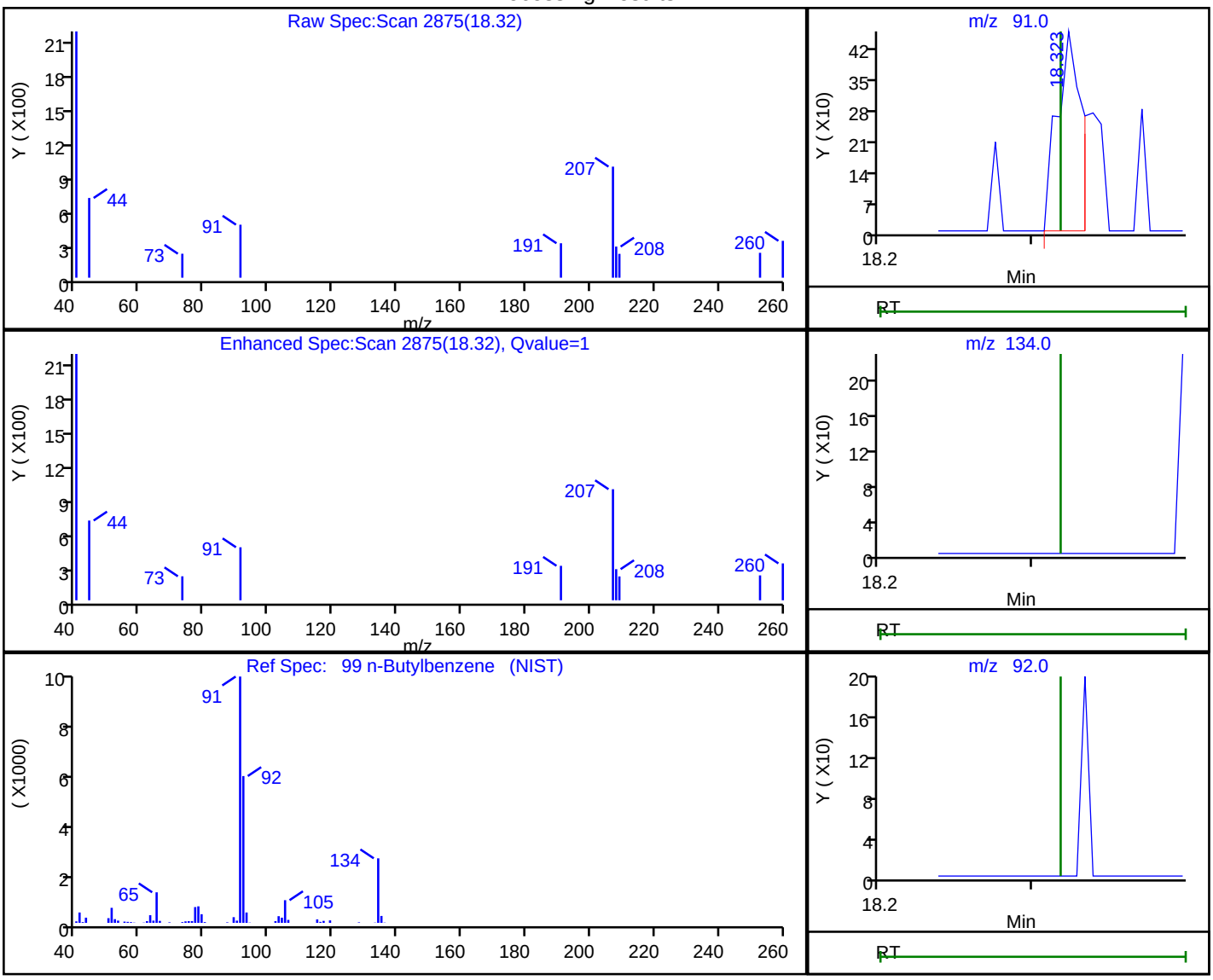
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHB.i\20190129-34349.b\34349-05.D | | | | |
| Injection Date: | 29-Jan-2019 15:10:30 | Instrument ID: | CHB.i | | |
| Lims ID: | 200-47150-A-8 | Lab Sample ID: | 200-47150-8 | | |
| Client ID: | 4877 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 4 | Worklist Smp#: | 5 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_LLNJ_TO3 | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 99 n-Butylbenzene, CAS: 104-51-8

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 18.32 | 91.00 | 508 | 0.002312 |
| 18.32 | 134.00 | 0 | |
| 18.32 | 92.00 | 0 | |

Reviewer: bunmaa, 30-Jan-2019 13:09:27

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

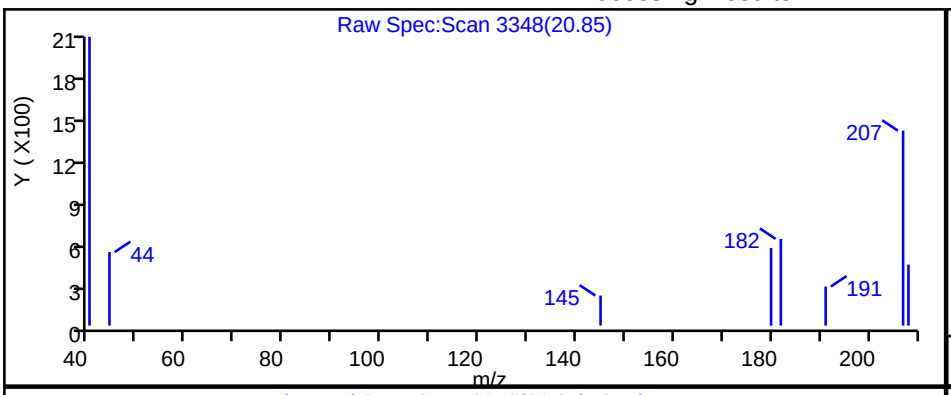
User Disabled Compound Report

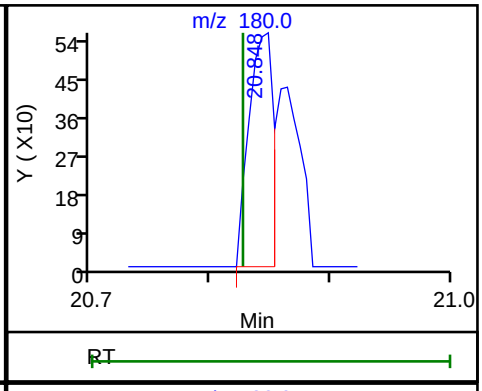
TestAmerica Burlington

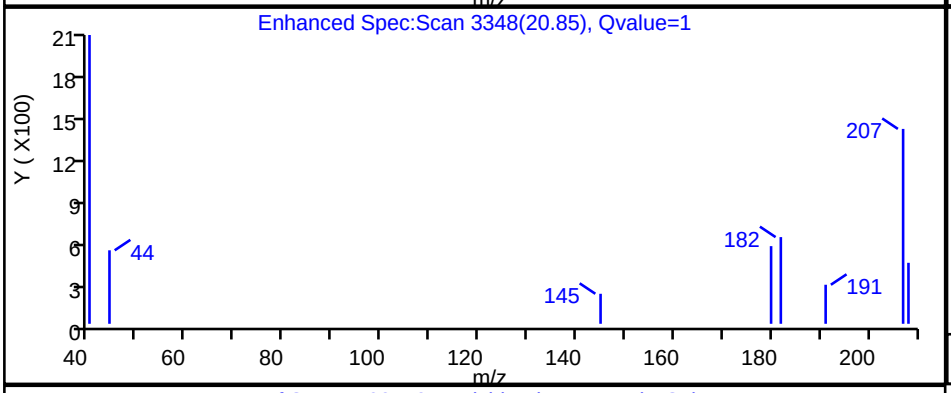
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHB.i\20190129-34349.b\34349-05.D | | | | |
| Injection Date: | 29-Jan-2019 15:10:30 | Instrument ID: | CHB.i | | |
| Lims ID: | 200-47150-A-8 | Lab Sample ID: | 200-47150-8 | | |
| Client ID: | 4877 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 4 | Worklist Smp#: | 5 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_LLNJ_TO3 | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

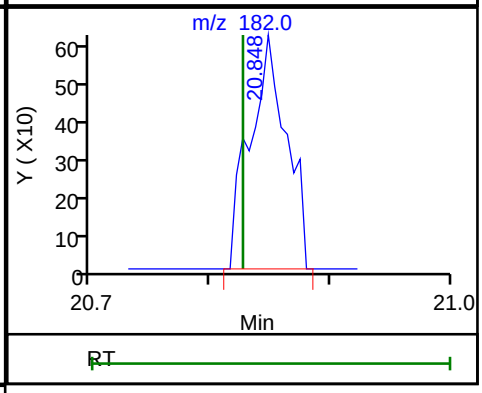
## 103 1,2,4-Trichlorobenzene, CAS: 120-82-1

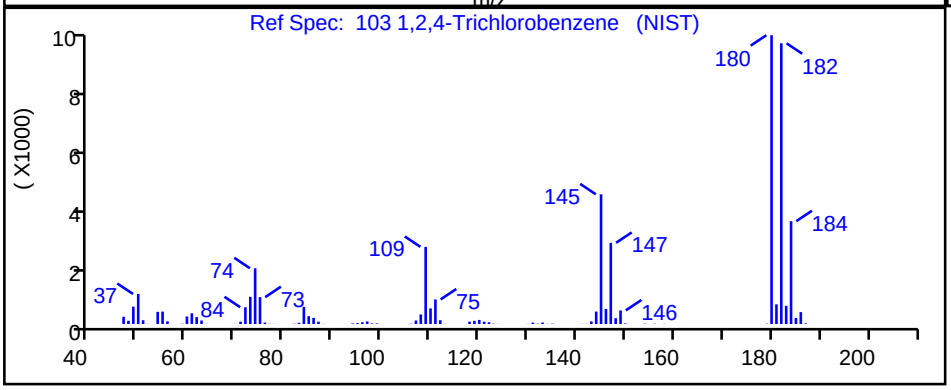
Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 20.85 | 180.00 | 797 | 0.007860 |
| 20.85 | 182.00 | 1331 | |

Reviewer: bunmaa, 30-Jan-2019 13:09:42

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

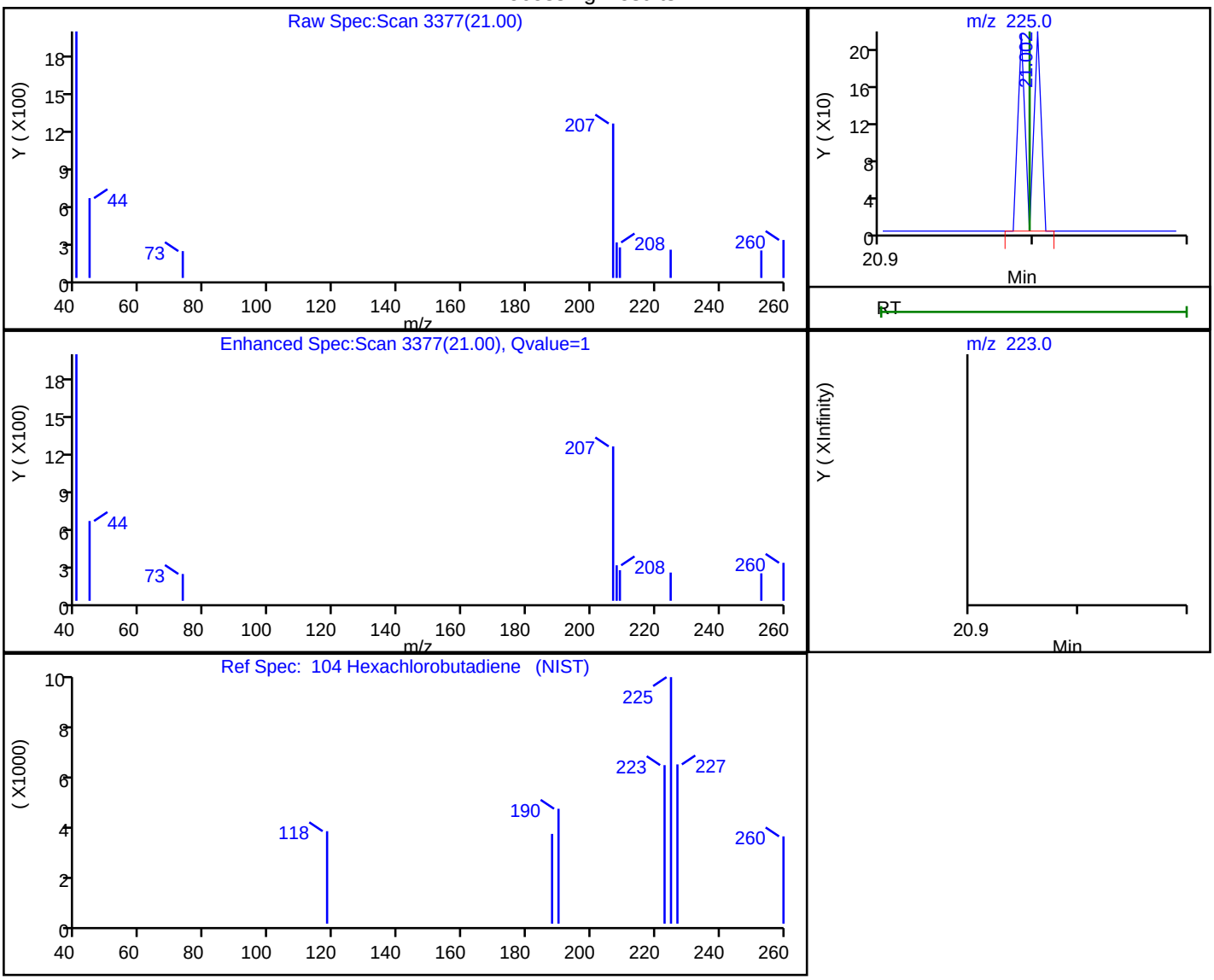
User Disabled Compound Report

TestAmerica Burlington

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHB.i\20190129-34349.b\34349-05.D | | | | |
| Injection Date: | 29-Jan-2019 15:10:30 | Instrument ID: | CHB.i | | |
| Lims ID: | 200-47150-A-8 | Lab Sample ID: | 200-47150-8 | | |
| Client ID: | 4877 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 4 | Worklist Smp#: | 5 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_LLNJ_TO3 | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

## 104 Hexachlorobutadiene, CAS: 87-68-3

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 21.00 | 225.00 | 139 | 0.001437 |
| 21.00 | 223.00 | 0 | |

Reviewer: bunmaa, 30-Jan-2019 13:09:45

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

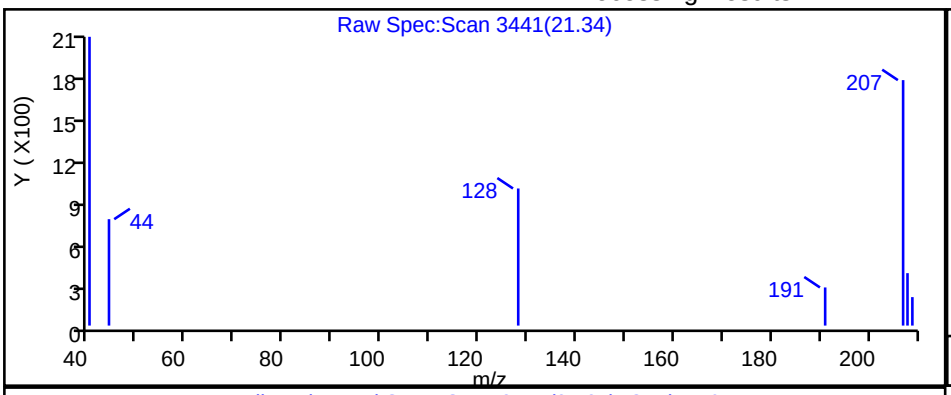
User Disabled Compound Report

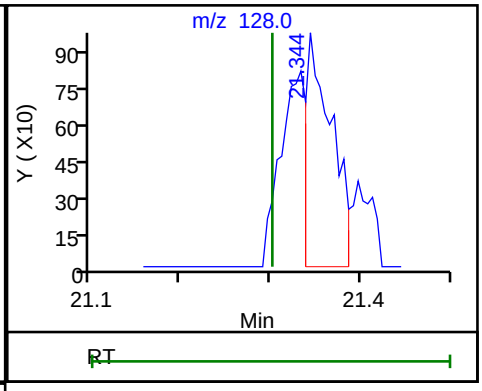
TestAmerica Burlington

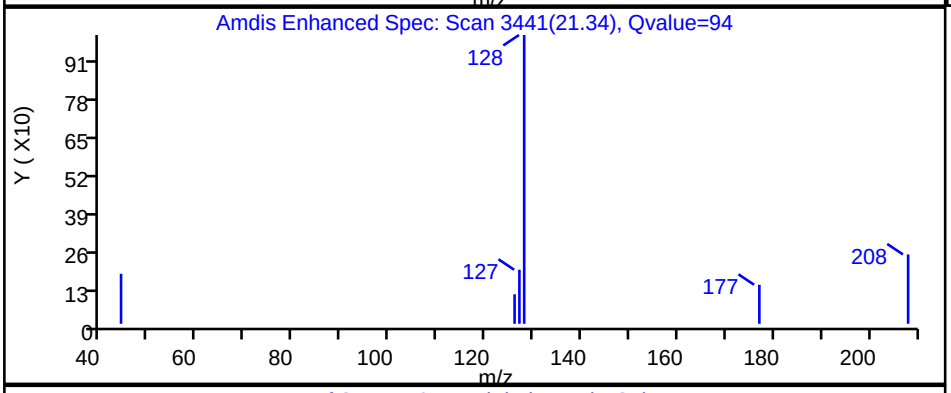
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Burlington\ChromData\CHB.i\20190129-34349.b\34349-05.D | | | | |
| Injection Date: | 29-Jan-2019 15:10:30 | Instrument ID: | CHB.i | | |
| Lims ID: | 200-47150-A-8 | Lab Sample ID: | 200-47150-8 | | |
| Client ID: | 4877 | | | | |
| Operator ID: | ggg | ALS Bottle#: | 4 | Worklist Smp#: | 5 |
| Purge Vol: | 200.000 mL | Dil. Factor: | 0.2000 | | |
| Method: | TO15_LLNJ_TO3 | Limit Group: | AI_TO15_ICAL | | |
| Column: | RTX-624 ( 0.32 mm) | Detector | MS SCAN | | |

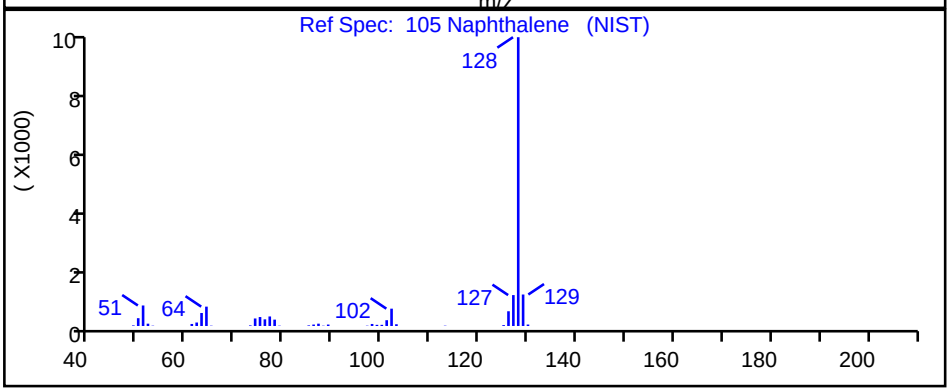
## 105 Naphthalene, CAS: 91-20-3

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 21.34 | 128.00 | 1971 | 0.009172 |

Reviewer: bunmaa, 30-Jan-2019 13:09:57

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

May 7, 2020

Thomas H. Forbes, P.E.
Principal Engineer
Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218

Re: Data Usability Summary Report –TestAmerica Burlington – February 2019 Samples

Dear Mr. Forbes:

The evaluation of analytical data for volatile organic analysis parameters by TestAmerica Burlington for 14 air samples from the Mercury Aircraft Former Dresden site, which were reported in a single data package under Job No. 200-47424-1, has been completed. The data package was received by ddms, inc. (ddms) for review, and the following samples were reported:

| | | |
|---|---|---|
| IA-1 SUBSLAB | IA-1 INDOOR AIR | IA-2 SUBSLAB |
| IA-2 INDOOR AIR | IA-3 SUBSLAB | IA-3 INDOOR AIR |
| IA-4 SUBSLAB | IA-4 INDOOR AIR | IA-5 SUBSLAB |
| IA-5 INDOOR AIR | IA-6 SUBSLAB | IA-6 INDOOR AIR |
| IA-7 INDOOR AIR | OUTDOOR AIR | |

One additional sample, IA-7 SUBSLAB, was listed on the chain of custody record and submitted with the samples in this data set. Due to a regulator malfunction, this sample was not analyzed.

Analyses were performed in accordance with USEPA Method TO-15. ddms' review was performed, to the extent possible, in accordance with the analytical method, ddms Standard Operating Procedure (SOP) ECS-SOP-1, "Validation of Volatile Organics in Air Samples by Method TO-15 and TO-17," and "DER-10/Technical Guidance for Site Investigation and Remediation." Professional judgment was applied as necessary and appropriate. Qualifiers consistent with those defined by EPA Region 2 were applied as necessary and appropriate.

Below is the Data Usability Summary Report (DUSR) associated with these samples.

| | **Data Usability Summary Report** | |
|---|---|---|
| 1. | Is the data package complete as defined under the requirements for the most current DEC ASP Category B or USEPA CLP data deliverables? | No – See Documentation Section |
| 2. | Have all holding times been met? | Yes |
| 3. | Do all the 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? | No – See Following Sections |
| 4. | Have all of the data been generated using established and agreed upon analytical protocols? | Yes |

| | Data Usability Summary Report | |
|---|---|---|
| 5. | Does an evaluation of the raw data confirm the results provided in the data summary sheet and the quality control verification forms? | Raw Data Not Available |
| 6. | Have the correct data qualifiers been used and are they consistent with the most current DEC ASP? | Yes |
| 7. | Have any quality control (QC) exceedances been specifically noted in the DUSR and has the corresponding QC summary sheet from the data package been attached to the DUSR? | Yes |

Based on the data review effort, results are usable, with the following qualifications:

- Results for trichlorofluoromethane in IA-6 SUBSLAB, IA-6 INDOOR AIR, IA-7 INDOOR AIR, and OUTDOOR AIR were qualified as not detected at the reported values (U) due to associated method blank contamination.

All qualifiers applied as a result of the validation process are reflected on the Data Summary Table included as Attachment A to this report. Qualifier definitions are also provided in attachment A. A copy of the laboratory case narrative and chain of custody record is provided in Attachment B. Pages from the data package illustrating the exceedances are included as Attachment C.

The following components were reviewed, where applicable and available:

- Chain of custody
- Receiving conditions
- Holding times
- Sample integrity
- Analyte lists
- Reporting limits
- Requested method
- Units
- Sample related quality control data:
    - Blanks
    - LCS/LCSD recoveries
    - Internal standard areas
    - Duplicates
- Instrument related quality control data:
    - Instrument tunes
    - Calibration summaries

In the remaining sections of this report, only those quality excursions resulting in qualified data are discussed. Quality control excursions having no impact to sample results are not discussed.

When a sample result is qualified estimated 'J' in addition to estimated 'J+' or 'J-' or is qualified both 'J+' and 'J-', the 'J' qualifier takes precedence and the bias is indeterminate. When a sample result is rejected (R), the 'R' qualifier takes precedence over any previous qualification.

***Documentation:*** At the time the samples were collected, a Level II data package was requested, as specified in the work plan for the vapor intrusion study. This DUSR was recently requested by

the New York State Department of Environmental Conservation (NYSDEC). Therefore, the data package is not a complete Category B data package in the following respects:

- Bromofluorobenzene instrument performance check summary forms and raw data are not included in the data package.
- Initial calibration summary forms and raw data are not included in the data package.
- Continuing calibration summary forms and raw data are not included in the data package, although the case narrative does discuss continuing calibration excursions.
- Method blank raw data are not included in the data package.
- Laboratory control sample raw data are not included in the data package.
- Site sample raw data are not included in the data package.
- Because raw data were not included, internal standard responses could not be evaluated.

**The data review was completed based on the assumption that all reported results were correctly calculated and reported from the raw data.**

***Holding Times, Preservation, Sample Integrity:***

Copies of the applicable chain of custody records were included in the data package, documenting a collection date of February 13, 2019. The samples were received by the laboratory on February 15, 2019. All samples were analyzed within analytical method required holding time.

Documentation of the canister cleaning and leak tests performed prior to shipment of the canisters was included in the data package.

## *A. Volatile Organic Compounds*

### *1. Blanks*

Four laboratory method blanks (MBs) were associated with the site sample analyses. The following target compound was detected in an associated MB:

| Blank ID | Analyte | Concentration ($\mu g/m^3$) | Associated Samples | Qualifier Applied |
|---|---|---|---|---|
| MB 140028 | Trichlorofluoromethane | 0.741 J | IA-6 SUBSLAB<br>IA-6 INDOOR AIR<br>IA-7 INDOOR AIR<br>OUTDOOR AIR | U |

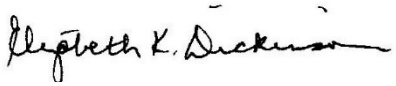
Results for trichlorofluoromethane in IA-6 SUBSLAB, IA-6 INDOOR AIR, IA-7 INDOOR AIR, and OUTDOOR AIR were qualified as not detected at the reported values (U) due to associated method blank contamination.

All other results were determined to be valid as reported by the laboratory.

Please feel free to contact me at (610) 314-6284 or edickinson@ddmsinc.com if you have any questions regarding this data package review report or need further information.

Very truly yours,

**de maximis Data Management Solutions, Inc.**



Elizabeth K. Dickinson
Sr. Environmental Chemist

# ATTACHMENT A

## DATA SUMMARY TABLE
## Laboratory Job No. 200-47424-1

**DATA SUMMARY TABLE**

**AIR SAMPLING RESULTS**
**SOIL VAPOR INTRUSION INVESTIGATION**
**NYSDEC SITE No 862006**
**FORMER MERCURY AIRCRAFT SITE**

| Parameter | Sample Location and Laboratory Sample Identification | | | | | |
|---|---|---|---|---|---|---|
| | IA-1 SUBSLAB | IA-1 INDOOR AIR | IA-2 SUBSLAB | IA-2 INDOOR AIR | IA-3 SUBSLAB | IA-3 INDOOR AIR |
| | 200-47424-1 | 200-47424-2 | 200-47424-3 | 200-47424-4 | 200-47424-5 | 200-47424-6 |
| ***Volatile Organics Compounds (VOCs) - ug/m3 (micrograms per cubic meter)*** | | | | | | |
| 1,1,2-Trichloroethane | 0.51 J | 0.52 J | 0.55 J | 0.54 J | 0.54 J | 0.54 J |
| 1,1,2,2-Tetrachloroethane | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trichlorobenzene | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | 1.51 | ND | 0.45 J | ND | 1.69 | ND |
| 1,3,5-Trimethylbenzene | 0.75 J | ND | ND | ND | 0.58 J | ND |
| 1,2-Dibromoethane | ND | ND | ND | ND | ND | ND |
| 1,2-Dichlorobenzene | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | ND | ND | ND | ND | ND | ND |
| 1,3-Butadiene | ND | ND | ND | ND | ND | ND |
| 1,4-Dichlorobenzene | ND | ND | ND | ND | ND | ND |
| 1,4-Dioxane | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethane | 3.59 | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane (TCA) | 45.2 | ND | ND | ND | 107 | ND |
| 2-Butanone | ND | ND | ND | ND | ND | ND |
| 2-Chlorotoluene | ND | ND | ND | ND | ND | ND |
| 2-Hexanone | ND | ND | ND | ND | ND | ND |
| 2,2,4-Trimethylpentane | ND | ND | ND | ND | ND | ND |
| 4-Ethyltoluene | 0.45 J | ND | ND | ND | 0.44 J | ND |
| 4-Isopropyltoluene | 3.13 | ND | ND | ND | ND | ND |
| 4-Methyl-2-pentanone | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | ND | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | ND | ND | ND | ND | ND | ND |
| 2,2,4- Trimethylpentane | ND | ND | ND | ND | ND | ND |
| Acetone | 16.5 | ND | 13.6 | 15.7 | 15.0 | 12.3 |
| Allyl chloride | ND | ND | ND | ND | ND | ND |
| Benzene | 12.6 | 0.72 | 1.12 | 0.85 | 10.1 | 0.87 |
| Benzyl chloride | ND | ND | ND | ND | ND | ND |
| Bromodichloromethane | ND | ND | ND | ND | ND | ND |
| Bromoform | ND | ND | ND | ND | ND | ND |
| Bromomethane | ND | ND | ND | ND | ND | ND |
| Carbon disulfide | 5.54 | ND | ND | 0.77 J | 1.41 J | ND |
| Carbon tetrachloride | 0.21 J | 0.41 | 0.49 | 0.42 | 2.50 | 0.44 |
| Chlorobenzene | ND | ND | ND | ND | ND | ND |
| Chloroethane | ND | ND | ND | ND | ND | ND |
| Chloroform | 2.50 | ND | 0.47 J | 0.49 J | ND | 0.41 J |
| Chlorodifluoromethane | ND | ND | 0.97 J | ND | 24.5 | ND |
| Chloromethane | ND | ND | ND | 1.09 | ND | 1.07 |
| cis-1,2-Dichloroethene | 9.72 | ND | ND | ND | ND | ND |
| cis-1,3-Dichloropropene | ND | ND | ND | ND | ND | ND |
| Cumene (Isopropylbenzene) | 0.71 J | ND | ND | ND | 0.34 J | ND |
| Cyclohexane | 21.4 | ND | 1.12 | ND | 17.4 | ND |
| Dibromochloromethane | ND | ND | ND | ND | ND | ND |
| Dichlorodifluoromethane | 2.22 J | 2.12 J | 2.29 J | 2.20 J | 2.32 J | 2.21 J |
| Ethanol | ND | ND | ND | ND | ND | ND |
| Ethyl acetate | ND | ND | ND | ND | ND | ND |
| Ethylbenzene | 3.08 | ND | 0.38 J | ND | 1.65 | 0.36 J |
| Freon 113 | ND | ND | ND | ND | ND | ND |
| Freon 114 | ND | ND | ND | ND | ND | ND |
| Heptane | ND | ND | ND | ND | ND | ND |
| Hexachlorobutadiene | ND | ND | ND | ND | ND | ND |
| Hexane | ND | ND | ND | ND | ND | ND |
| Isopropanol | 27.1 | ND | ND | ND | ND | ND |
| Heptane | ND | ND | ND | ND | ND | ND |
| Hexane | ND | ND | ND | ND | ND | ND |
| Isopropyl alcohol | ND | ND | 10.3 J | 14.8 | ND | 9.69 J |
| Methyl butyl ketone | ND | ND | ND | ND | ND | ND |
| Methyl ethyl ketone | 13 | ND | 1.66 | ND | 6.86 | ND |
| Methyl isobutyl ketone | ND | ND | ND | ND | ND | ND |
| Methly tert-butyl ether | ND | ND | ND | ND | ND | ND |
| Methyl methacrylate | ND | ND | ND | ND | ND | ND |
| Methyl tert-butyl ether | ND | ND | ND | ND | ND | ND |
| Methylene Chloride | 1.18 J | ND | 1.14 J | ND | 4.52 | 1.45 J |
| Napthalene | 3.98 | ND | ND | ND | 4.72 | ND |
| n-Butane | 66.5 | 1.69 | 6.49 | 4.65 | 41.2 | 4.84 |
| n-Heptane | 53.0 | ND | 1.51 | ND | 18.5 | ND |
| n-Hexane | 64.9 | 0.60 J | 3.05 | 0.88 | 42.0 | 1.04 |
| n-Propylbenzene | 0.54 J | ND | ND | ND | 0.43 J | ND |
| Propylene | ND | ND | ND | ND | ND | ND |
| Styrene | 1.10 | ND | ND | ND | 1.43 | ND |
| sec-Butylbenzene | ND | ND | ND | ND | ND | ND |
| tert-Butyl alcohol | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | 0.44 J | 0.40 J | 3.71 | 1.13 J | 10.7 | 1.14 J |
| Tetrahydrofuran | ND | ND | ND | ND | ND | ND |
| Toluene | 32.0 | 0.99 | 1.77 | 0.75 | 31.0 | 1.30 |
| trans-1,2-Dichloroethene | 0.93 | ND | ND | ND | ND | ND |
| trans-1,3-Dichloropropene | ND | ND | ND | ND | ND | ND |
| Trichloroethene | 31.6 | ND | 6.24 | 0.56 | 5.66 | 0.79 |
| Trichlorofluoromethane | 1.03 J | 1.15 | 1.17 | 1.18 | 3.63 | 1.25 |
| Vinyl acetate | ND | ND | ND | ND | ND | ND |
| Vinyl Bromide | ND | ND | ND | ND | ND | ND |
| Vinyl Chloride | ND | ND | ND | ND | ND | ND |
| o-Xylene | 3.77 | ND | 0.46 J | ND | 2.39 | 0.33 J |
| p/m-Xylene | 14.2 | 0.49 J | 0.98 J | 0.43 J | 7.41 | 0.67 J |
| Xylene, Total | 18.0 | 0.49 J | 1.44 J | 0.43 J | 9.80 | 1.00 J |
| Vinyl acetate | ND | ND | ND | ND | ND | ND |

**Definitions:**
ND = Parameter not detected above laboratory detection limit.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.

**DATA SUMMARY TABLE**

**AIR SAMPLING RESULTS**
**SOIL VAPOR INTRUSION INVESTIGATION**
**NYSDEC SITE No 862006**
**FORMER MERCURY AIRCRAFT SITE**

| Parameter | Sample Location and Laboratory Sample Identification | | | | | |
|---|---|---|---|---|---|---|
| | IA-4 SUBSLAB | IA-4 INDOOR AIR | IA-5 SUBSLAB | IA-5 INDOOR AIR | IA-6 SUB-SLAB | IA-6 INDOOR AIR |
| | 200-47424-7 | 200-47424-8 | 200-47424-9 | 200-47424-10 | 200-47424-11 | 200-47424-12 |
| ***Volatile Organics Compounds (VOCs) - ug/m3 (micrograms per cubic meter)*** | | | | | | |
| 1,1,2-Trichloroethane | ND | 0.53 J | 0.51 J | 0.49 J | 0.48 J | 0.47 J |
| 1,1,2,2-Tetrachloroethane | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trichlorobenzene | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | 2.33 J | ND | 0.64 J | ND | ND | ND |
| 1,3,5-Trimethylbenzene | 2.13 J | ND | ND | ND | ND | ND |
| 1,2-Dibromoethane | ND | ND | ND | ND | ND | ND |
| 1,2-Dichlorobenzene | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | ND | ND | ND | ND | ND | ND |
| 1,3-Butadiene | 1.69 | ND | ND | ND | ND | ND |
| 1,4-Dichlorobenzene | ND | ND | ND | ND | ND | ND |
| 1,4-Dioxane | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethane | 1.47 J | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane (TCA) | ND | ND | 1.37 | ND | ND | ND |
| 2-Butanone | ND | ND | ND | ND | ND | ND |
| 2-Chlorotoluene | ND | ND | ND | ND | ND | ND |
| 2-Hexanone | ND | ND | ND | ND | ND | ND |
| 2,2,4-Trimethylpentane | ND | ND | ND | ND | ND | ND |
| 4-Ethyltoluene | ND | ND | ND | ND | ND | ND |
| 4-Isopropyltoluene | ND | ND | ND | ND | ND | ND |
| 4-Methyl-2-pentanone | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | ND | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | ND | ND | ND | ND | ND | ND |
| 2,2,4- Trimethylpentane | ND | ND | ND | ND | ND | ND |
| Acetone | 147 | 27.3 | 19.5 | 6.38 J | ND | ND |
| Allyl chloride | ND | ND | ND | ND | ND | ND |
| Benzene | 41.0 | 0.93 | 1.27 | 0.68 | 0.56 J | 0.55 J |
| Benzyl chloride | ND | ND | ND | ND | ND | ND |
| Bromodichloromethane | ND | ND | ND | ND | ND | ND |
| Bromoform | ND | ND | ND | ND | ND | ND |
| Bromomethane | ND | ND | ND | ND | ND | ND |
| Carbon disulfide | 41.6 | 1.04 J | 0.99 J | ND | ND | ND |
| Carbon tetrachloride | ND | 0.44 | 0.36 | 0.41 | 0.38 | 0.38 |
| Chlorobenzene | ND | ND | ND | ND | ND | ND |
| Chloroethane | ND | ND | ND | ND | ND | ND |
| Chloroform | 7.90 | ND | ND | ND | ND | ND |
| Chlorodifluoromethane | ND | 0.97 J | ND | 1.04 J | ND | ND |
| Chloromethane | ND | 1.21 | ND | 1.10 | 1.0 J | 1.01 |
| cis-1,2-Dichloroethene | 1.88 | 0.93 | ND | ND | ND | ND |
| cis-1,3-Dichloropropene | ND | ND | ND | ND | ND | ND |
| Cumene (Isopropylbenzene) | 2.53 J | ND | ND | ND | ND | ND |
| Cyclohexane | 46.5 | ND | 2.24 | ND | 0.39 J | ND |
| Dibromochloromethane | ND | ND | ND | ND | ND | ND |
| Dichlorodifluoromethane | ND | 2.41 J | 2.37 J | 2.32 J | 2.21 J | 2.20 J |
| Ethanol | ND | ND | ND | ND | ND | ND |
| Ethyl acetate | ND | ND | ND | ND | ND | ND |
| Ethylbenzene | 6.26 | 0.62 J | 0.58 J | ND | ND | ND |
| Freon 113 | ND | ND | ND | ND | ND | ND |
| Freon 114 | ND | ND | ND | ND | ND | ND |
| Heptane | ND | ND | ND | ND | ND | ND |
| Hexachlorobutadiene | ND | ND | ND | ND | ND | ND |
| Hexane | ND | ND | ND | ND | ND | ND |
| Isopropanol | ND | ND | ND | ND | ND | ND |
| Heptane | ND | ND | ND | ND | ND | ND |
| Hexane | ND | ND | ND | ND | ND | ND |
| Isopropyl alcohol | ND | 20.3 | ND | ND | ND | ND |
| Methyl butyl ketone | ND | ND | ND | ND | ND | ND |
| Methyl ethyl ketone | 25.3 | 1.52 | 1.67 | ND | 0.88 J | 0.76 J |
| Methyl isobutyl ketone | ND | ND | ND | ND | ND | ND |
| Methly tert-butyl ether | ND | ND | ND | ND | ND | ND |
| Methyl methacrylate | ND | ND | ND | ND | ND | ND |
| Methyl tert-butyl ether | ND | ND | ND | ND | ND | ND |
| Methylene Chloride | 2.74 J | 0.72 J | 1.40 J | ND | 0.91 J | 0.81 J |
| Napthalene | ND | ND | ND | ND | ND | ND |
| n-Butane | 146 | 4.88 | 10.3 | 3.79 | 36.6 | 2.14 |
| n-Heptane | 65.8 | ND | 3.45 | ND | ND | ND |
| n-Hexane | 143 | 0.95 | 6.09 | 0.79 | 1.37 | ND |
| n-Propylbenzene | 3.18 | ND | ND | ND | ND | ND |
| Propylene | ND | ND | ND | ND | ND | ND |
| Styrene | ND | ND | 0.61 J | ND | ND | ND |
| sec-Butylbenzene | 2.89 J | ND | ND | ND | ND | ND |
| tert-Butyl alcohol | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | ND | 0.93 J | 2.89 | 4.26 | ND | ND |
| Tetrahydrofuran | ND | ND | ND | ND | ND | ND |
| Toluene | 127 | 0.95 | 3.71 | 0.77 | 0.74 J | 0.65 J |
| trans-1,2-Dichloroethene | ND | ND | ND | ND | ND | ND |
| trans-1,3-Dichloropropene | ND | ND | ND | ND | ND | ND |
| Trichloroethene | 29.6 | 0.85 | 1.59 | 1.52 | ND | ND |
| Trichlorofluoromethane | ND | 1.3 | 1.14 | 1.18 | 1.15 U | 1.15 U |
| Vinyl acetate | ND | ND | ND | ND | ND | ND |
| Vinyl Bromide | ND | ND | ND | ND | ND | ND |
| Vinyl Chloride | ND | ND | ND | ND | ND | ND |
| o-Xylene | 7.37 | 0.66 J | 0.81 J | ND | ND | ND |
| p/m-Xylene | 26.4 | 1.75 J | 1.92 J | 0.44 J | 0.48 J | 0.67 J |
| Xylene, Total | 33.8 | 2.41 J | 2.73 J | 0.44 J | 0.48 J | 0.67 J |
| Vinyl acetate | ND | ND | ND | ND | ND | ND |

**Definitions:**
ND = Parameter not detected above laboratory detection limit.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.

**DATA SUMMARY TABLE**

**AIR SAMPLING RESULTS**
**SOIL VAPOR INTRUSION INVESTIGATION**
**NYSDEC SITE No 862006**
**FORMER MERCURY AIRCRAFT SITE**

| Parameter | Sample Location and Laboratory Sample Identification | | | | | |
|---|---|---|---|---|---|---|
| | IA-7 INDOOR AIR | OUTDOOR AIR | | | | |
| | 200-47424-14 | 200-47424-15 | | | | |
| ***Volatile Organics Compounds (VOCs) - ug/m3 (micrograms per cubic meter)*** | | | | | | |
| 1,1,2-Trichloroethane | 0.50 J | 0.47 J | | | | |
| 1,1,2,2-Tetrachloroethane | ND | ND | | | | |
| 1,2,4-Trichlorobenzene | ND | ND | | | | |
| 1,2,4-Trimethylbenzene | ND | ND | | | | |
| 1,3,5-Trimethylbenzene | ND | ND | | | | |
| 1,2-Dibromoethane | ND | ND | | | | |
| 1,2-Dichlorobenzene | ND | ND | | | | |
| 1,2-Dichloroethane | ND | ND | | | | |
| 1,2-Dichloropropane | ND | ND | | | | |
| 1,3-Butadiene | ND | ND | | | | |
| 1,4-Dichlorobenzene | ND | ND | | | | |
| 1,4-Dioxane | ND | ND | | | | |
| 1,1-Dichloroethane | ND | ND | | | | |
| 1,1-Dichloroethene | ND | ND | | | | |
| 1,1,1-Trichloroethane (TCA) | ND | ND | | | | |
| 2-Butanone | ND | ND | | | | |
| 2-Chlorotoluene | ND | ND | | | | |
| 2-Hexanone | ND | ND | | | | |
| 2,2,4-Trimethylpentane | ND | ND | | | | |
| 4-Ethyltoluene | ND | ND | | | | |
| 4-Isopropyltoluene | ND | ND | | | | |
| 4-Methyl-2-pentanone | ND | ND | | | | |
| cis-1,2-Dichloroethene | ND | ND | | | | |
| 1,3,5-Trimethylbenzene | ND | ND | | | | |
| 2,2,4- Trimethylpentane | ND | ND | | | | |
| Acetone | 12.3 | ND | | | | |
| Allyl chloride | ND | ND | | | | |
| Benzene | 0.58 J | 0.32 J | | | | |
| Benzyl chloride | ND | ND | | | | |
| Bromodichloromethane | ND | ND | | | | |
| Bromoform | ND | ND | | | | |
| Bromomethane | ND | ND | | | | |
| Carbon disulfide | ND | ND | | | | |
| Carbon tetrachloride [2,3] | 0.43 | 0.41 | | | | |
| Chlorobenzene | ND | ND | | | | |
| Chloroethane | ND | ND | | | | |
| Chloroform | 0.25 J | ND | | | | |
| Chlorodifluoromethane | ND | ND | | | | |
| Chloromethane | 1.01 J | 0.96 J | | | | |
| cis-1,2-Dichloroethene | 0.47 | ND | | | | |
| cis-1,3-Dichloropropene | ND | ND | | | | |
| Cumene (Isopropylbenzene) | ND | ND | | | | |
| Cyclohexane | ND | ND | | | | |
| Dibromochloromethane | ND | ND | | | | |
| Dichlorodifluoromethane | 2.23 J | 2.25 J | | | | |
| Ethanol | ND | ND | | | | |
| Ethyl acetate | ND | ND | | | | |
| Ethylbenzene | ND | ND | | | | |
| Freon 113 | ND | ND | | | | |
| Freon 114 | ND | ND | | | | |
| Heptane | ND | ND | | | | |
| Hexachlorobutadiene | ND | ND | | | | |
| Hexane | ND | ND | | | | |
| Isopropanol | ND | ND | | | | |
| Heptane | ND | ND | | | | |
| Hexane | ND | ND | | | | |
| Isopropyl alcohol | 6.30 J | ND | | | | |
| Methyl butyl ketone | ND | ND | | | | |
| Methyl ethyl ketone | ND | ND | | | | |
| Methyl isobutyl ketone | ND | ND | | | | |
| Methly tert-butyl ether | ND | ND | | | | |
| Methyl methacrylate | ND | ND | | | | |
| Methyl tert-butyl ether | ND | ND | | | | |
| Methylene Chloride | ND | ND | | | | |
| Napthalene | ND | ND | | | | |
| n-Butane | 2.00 | 1.20 | | | | |
| n-Heptane | ND | ND | | | | |
| n-Hexane | ND | ND | | | | |
| n-Propylbenzene | ND | ND | | | | |
| Propylene | ND | ND | | | | |
| Styrene | ND | ND | | | | |
| sec-Butylbenzene | ND | ND | | | | |
| tert-Butyl alcohol | ND | ND | | | | |
| Tetrachloroethene | ND | ND | | | | |
| Tetrachloroethene | 0.22 J | ND | | | | |
| Tetrahydrofuran | ND | ND | | | | |
| Toluene | 0.44 J | 0.27 J | | | | |
| trans-1,2-Dichloroethene | ND | ND | | | | |
| trans-1,3-Dichloropropene | ND | ND | | | | |
| Trichloroethene | 0.26 | ND | | | | |
| Trichlorofluoromethane | 1.14 U | 1.15 U | | | | |
| Vinyl acetate | ND | ND | | | | |
| Vinyl Bromide | ND | ND | | | | |
| Vinyl Chloride | ND | ND | | | | |
| o-Xylene | ND | ND | | | | |
| p/m-Xylene | 0.43 J | ND | | | | |
| Xylene, Total | 0.43 J | ND | | | | |
| Vinyl acetate | ND | ND | | | | |

**Definitions:**
ND = Parameter not detected above laboratory detection limit.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.

## EPA Qualifier Definitions

| | |
|---|---|
| **U** | **The analyte was analyzed for but was not detected above the level of the reported sample quantitation limit.** |
| **J** | **The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.** |
| **J+** | **The result is an estimated quantity, but the result may be biased high.** |
| **J-** | **The result is an estimated quantity, but the result may be biased low.** |
| **NJ** | **The analyte has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the sample.** |
| **UJ** | **The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.** |
| **R** | **The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.** |

**ATTACHMENT B**

**LABORATORY CASE NARRATIVE AND CHAIN OF CUSTODY RECORDS**
**Laboratory Job No. 200-47424-1**

## Job ID: 200-47424-1

### Laboratory: TestAmerica Burlington

**Narrative**

**Job Narrative**
**200-47424-1**

**Comments**
No additional comments.

**Receipt**
The samples were received on 2/15/2019 10:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice.

**Receipt Exceptions**

During the canister pressure check performed upon receipt, the following sample was found to be received at ambient pressure. The associated flow controller was evaluated and was found to be within the acceptable flow range as compared to the original set flow rate.

**Air Toxics**
Method(s) TO-15: The continuing calibration verification (CCV) associated with batch 200-140047 recovered above the upper control limit for 1,2,4-Trichlorobenzene, 3-Chloropropene and Naphthalene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: IA-5-SUBSLAB (200-47424-9) and IA-5-INDOOR AIR (200-47424-10).

Method(s) TO-15: The continuing calibration verification (CCV) associated with batch 200-140028 recovered above the upper control limit for Bromoform. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: IA-6-SUBSLAB (200-47424-11), IA-6-INDOOR AIR (200-47424-12), IA-7-INDOOR AIR (200-47424-14) and OUTDOOR AIR (200-47424-15).

Method(s) TO-15: The laboratory control sample (LCS) for analytical batch 200-140028 recovered outside control limits for the following analytes: 1,2,4-Trichlorobenzene and Naphthalene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) TO-15: The laboratory control sample (LCS) for analytical batch 200-140052 recovered outside control limits for the following analytes: Naphthalene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) TO-15: The laboratory control sample (LCS) for analytical batch 200-140147 recovered outside control limits for the following analytes: Naphthalene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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

**TestAmerica Burlington**
30 Community Drive
Suite 11
South Burlington, VT 05403-6809
phone 802.660.1990 fax 802.660.1919

# Canister Samples Chain of Custody Record

200-47424 Chain of Custody

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

THE LEADER IN ENVIRONMENTAL TESTING

**TestAmerica Laboratories, Inc.**

| Client Contact Information | Client Project Manager: Tom Forbes | Samples Collected By: RLO | COC No: |
|---|---|---|---|
| Company Name: BenchMark Env Eng | Phone: 716-856-0599 | | 1 of 2 COCs |
| Address: 2558 Hamburg Turnpike | Email: [redacted]@forbesbenchmarkeng.com | | |
| City/State/Zip: Buffalo, NY 14218 | | | For Lab Use Only: |
| Phone: 716-856-0599 | Site Contact: Rick Dubiel | | Walk-in Client: |
| FAX: 716-856-0583 | Tel/Fax 716-998-4334 | | Lab Sampling: |
| Project Name: Penn Ave SVI Inv | Anaylsis Turnaround Time | | Job / SDG No.: |
| Site/Location: Dresden, NY | Standard (Specific): ✓ | | (See below for Add'l Items) |
| P O # Boosi-003-200 | Rush (Specifiy): | | |

| Sample Identification | Sample Date(s) | Time Start | Time Stop | Canister Vacuum in Field, 'Hg (Start)' | Canister Vacuum in Field, 'Hg (Stop)' | Flow Controller ID | Canister ID | TO-14A (Standard / Low Level) | TO-15 SIM | EPA 3C | EPA 25C | ASTM D-1946 | EPA 15/16 | Other (Please specify in notes section) | Sample Type | Indoor Air/Ambient Air | Sub-Slab | Soil Gas | Soil Vapor Extraction (SVE) | Landfill Gas | Other (Please specify in notes section) | Sample Specific Notes: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IA-1 - SubSLAB | 2-12-1319 | 1308 | 1101 | -30 | -4 | 6053 | 2644 | ✓ | | | | | | | | | | | | | | |
| IA-1 - Indoor Air | | 1307 | 1101 | -30 | -4 | 4992 | 4150 | ✓ | | | | | | | | | | | | | | |
| IA-2 - SubSLAB | | 1322 | 0854 | -28 | -0 | 4173 | 3289 | ✓ | | | | | | | | | | | | | | |
| IA-2 - Indoor Air | | 1321 | 1113 | -30 | -5 | 4531 | 5434 | ✓ | | | | | | | | | | | | | | |
| IA-3 SubSLAB | | 1324 | 1140 | -30 | -5 | 3977 | 5159 | ✓ | | | | | | | | | | | | | | |
| IA-3 Indoor Air | | 1323 | 1302 | -30 | -5 | 3184 | 2536 | ✓ | | | | | | | | | | | | | | |
| IA-4 - SubSlab | | 1317 | 1306 | -30 | -5 | 4750 | 3283 | ✓ | | | | | | | | | | | | | | |
| IA-4- Indoor Air | | 1316 | 1213 | -30 | -5 | 5243 | 5675 | ✓ | | | | | | | | | | | | | | |
| IA-5 SubSLAB | | 1319 | 1055 | -30 | -4 | 3965 | 4546 | ✓ | | | | | | | | | | | | | | |
| IA-5 Indoor Air | ✓ | 1318 | 0946 | -29 | -4 | 3956 | 4555 | ✓ | | | | | | | | | | | | | | |
| ~~IA-6 Sub~~ | | Temperature (Fahrenheit) | | | | | | | | | | | | | | | | | | | | |
| | | Start | Interior | | Ambient | | | | | | | | | | | | | | | | | |
| | | Stop | | | | | | | | | | | | | | | | | | | | |
| | | Pressure (inches of Hg) | | | | | | | | | | | | | | | | | | | | |
| | | Start | Interior | | Ambient | | | | | | | | | | | | | | | | | |
| | | Stop | | | | | | | | | | | | | | | | | | | | |

**Special Instructions/QC Requirements & Comments:**

| | | | |
|---|---|---|---|
| Samples Shipped by: R. Dubiel | Date / Time: 2-14-19 12:00 | Samples Received by: | 2/14/19 12:17 |
| Samples Relinquished by: | Date / Time: 2/14/19 14:45 | Received by: Taylor Johnson TABE | 2/15/19 1030 |
| Relinquished by: | Date / Time: | Received by: | |
| Lab Use Only: | Shipper Name: | Opened by: | Condition: |

Form No. CA-C-WI-003, Rev. 2.5, dated 9/22/2017

**TestAmerica Burlington**
30 Community Drive
Suite 11
South Burlington, VT 05403-6809
phone 802.660.1990 fax 802.660.1919

# Canister Samples Chain of Custody Record

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

| | | | |
|---|---|---|---|
| **Client Contact Information** | **Client Project Manager:** Tom Forbes | **Samples Collected By:** RLO | COC No: 2 of 2 COCs |
| Company Name: Benchmark Env Eng & Sci, | Phone: 716-856 0599 | | |
| Address: 2558 Hamburg Turnpike | Email: tforbes@benchmarkees.com | | For Lab Use Only: |
| City/State/Zip Buffalo, NY 14218 | | | Walk-in Client: |
| Phone: 716-856 0599 | Site Contact: Rick Dubiel | | Lab Sampling: |
| FAX: 716-856 0583 | Tel/Fax 716-856 998-4334 | | |
| Project Name: Merc Air Sit Inv | **Anaylsis Turnaround Time** | | Job / SDG No.: |
| Site/Location: Dresden, NY | Standard (Specific): ✓ | | (See below for Add'l Items) |
| PO# B0001-003-200 | Rush (Specifiy): | | |

| Sample Identification | Sample Date(s) | Time Start | Time Stop | Canister Vacuum in Field, 'Hg (Start)' | Canister Vacuum in Field, 'Hg (Stop)' | Flow Controller ID | Canister ID | TO-14(15) Standard (Low Level) | TO-15 SIM | EPA 3C | EPA 25C | ASTM D-1946 | EPA 15/16 | Other (Please specify in notes sectio | Sample Type | Indoor Air/Ambient Air | Sub-Slab | Soil Gas | Soil Vapor Extraction (SVE) | Landfill Gas | Other (Please specify in notes section) | Sample Specific Notes: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IA-6 SubSlab | 2-12-13 | 1312 | 1106 | -30 | -4 | 3749 | 5466 | ✓ | | | | | | | | | | | | | | |
| IA-6 Indoor Air | | 1311 | 0932 | -30 | -4 | 4998 | 4305 | ✓ | | | | | | | | | | | | | | |
| IA-8 SubSlab * | | 1314 | 0952 | -30 | -30 | 5172 | 4372 | ✓ | | | | | | | | | | | | | * | DO not Analyze- Replicate MAK Encl 3/16 ✓ |
| IA-7 Indoor Air | | 1313 | 0953 | -30 | -4 | 6023 | 2565 | ✓ | | | | | | | | | | | | | | |
| Outdoor Air | | 1303 | 1013 | -30 | -4 | 4508 | 3459 | ✓ | | | | | | | | | | | | | | |

| Temperature (Fahrenheit) | Interior | Ambient |
|---|---|---|
| Start | | |
| Stop | | |

| Pressure (inches of Hg) | Interior | Ambient |
|---|---|---|
| Start | | |
| Stop | | |

**Special Instructions/QC Requirements & Comments:**

| | | |
|---|---|---|
| **Samples Shipped by:** Rick Dubiel | **Date / Time:** 2/14/19 1200 | **Samples Received by:** 2/14/19 12:17 |
| **Samples Relinquished by:** | **Date / Time:** 2/14/19 14:45 | **Received by:** Taylor Johnson TABR 2/15/19 1030 |
| **Relinquished by:** | **Date / Time:** | **Received by:** |
| **Lab Use Only:** | **Shipper Name:** | **Opened by:** **Condition:** |

Form No. CA-C-WI-003, Rev. 2.5, dated 9/22/2017

**ATTACHMENT C**

**SELECTED PAGES FROM DATA PACKAGE -**
**QC EXCEEDANCE**
**Laboratory Job No. 200-47424-1**

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Mercury Aircraft (Dresdan)

TestAmerica Job ID: 200-47424-1

## Method: TO-15 - Volatile Organic Compounds in Ambient Air

**Lab Sample ID: MB 200-140028/5**
**Matrix: Air**
**Analysis Batch: 140028**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.09 | | 1.09 | 0.37 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.37 | | 1.37 | 0.52 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 1,1,2-Trichloroethane | 1.09 | | 1.09 | 0.43 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 1,1,2-Trichlorotrifluoroethane | 1.53 | | 1.53 | 0.24 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 1,1-Dichloroethane | 0.81 | | 0.81 | 0.11 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 1,1-Dichloroethene | 0.14 | | 0.14 | 0.13 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 1,2,4-Trichlorobenzene | 3.71 | | 3.71 | 1.78 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 1,2,4-Trimethylbenzene | 0.98 | | 0.98 | 0.39 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 1,2-Dibromoethane | 1.54 | | 1.54 | 0.53 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 1,2-Dichlorobenzene | 1.20 | | 1.20 | 0.43 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 1,2-Dichloroethane | 0.81 | | 0.81 | 0.25 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 1,2-Dichloropropane | 0.92 | | 0.92 | 0.55 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 1,2-Dichlorotetrafluoroethane | 1.40 | | 1.40 | 0.48 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 1,3,5-Trimethylbenzene | 0.98 | | 0.98 | 0.29 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 1,3-Butadiene | 0.44 | | 0.44 | 0.14 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 1,3-Dichlorobenzene | 1.20 | | 1.20 | 0.49 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 1,4-Dichlorobenzene | 0.409 | J | 1.20 | 0.39 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 1,4-Dioxane | 18.0 | | 18.0 | 4.68 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 2,2,4-Trimethylpentane | 0.93 | | 0.93 | 0.41 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 2-Chlorotoluene | 1.04 | | 1.04 | 0.37 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 3-Chloropropene | 1.57 | | 1.57 | 0.85 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 4-Ethyltoluene | 0.98 | | 0.98 | 0.34 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 4-Isopropyltoluene | 1.10 | | 1.10 | 0.41 | ug/m3 | | | 02/15/19 16:42 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 2.05 | | 2.05 | 1.47 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Acetone | 11.9 | | 11.9 | 6.18 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Benzene | 0.64 | | 0.64 | 0.23 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Benzyl chloride | 1.04 | | 1.04 | 0.62 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Bromodichloromethane | 1.34 | | 1.34 | 0.63 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Bromoethene(Vinyl Bromide) | 0.87 | | 0.87 | 0.24 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Bromoform | 2.07 | | 2.07 | 0.89 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Bromomethane | 0.78 | | 0.78 | 0.24 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Carbon disulfide | 1.56 | | 1.56 | 0.37 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Carbon tetrachloride | 0.22 | | 0.22 | 0.15 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Chlorobenzene | 0.92 | | 0.92 | 0.18 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Chlorodifluoromethane | 1.77 | | 1.77 | 0.92 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Chloroethane | 1.32 | | 1.32 | 0.55 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Chloroform | 0.98 | | 0.98 | 0.25 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Chloromethane | 1.03 | | 1.03 | 0.52 | ug/m3 | | | 02/15/19 16:42 | 1 |
| cis-1,2-Dichloroethene | 0.14 | | 0.14 | 0.15 | ug/m3 | | | 02/15/19 16:42 | 1 |
| cis-1,3-Dichloropropene | 0.91 | | 0.91 | 0.44 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Cumene | 0.98 | | 0.98 | 0.29 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Cyclohexane | 0.69 | | 0.69 | 0.22 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Dibromochloromethane | 1.70 | | 1.70 | 0.60 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Dichlorodifluoromethane | 2.47 | | 2.47 | 0.99 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Ethylbenzene | 0.87 | | 0.87 | 0.32 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Hexachlorobutadiene | 2.13 | | 2.13 | 0.87 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Isopropyl alcohol | 12.3 | | 12.3 | 4.42 | ug/m3 | | | 02/15/19 16:42 | 1 |

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

**Lab Sample ID: MB 200-140028/5**
**Matrix: Air**
**Analysis Batch: 140028**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| m,p-Xylene | 2.17 | | 2.17 | 0.30 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 2.05 | | 2.05 | 1.72 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Methyl Ethyl Ketone (2-Butanone) | 1.47 | | 1.47 | 0.59 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Methyl methacrylate | 2.05 | | 2.05 | 0.90 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Methyl tert-butyl ether | 0.72 | | 0.72 | 0.22 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Methylene Chloride | 1.74 | | 1.74 | 0.69 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Naphthalene | 2.62 | | 2.62 | 1.63 | ug/m3 | | | 02/15/19 16:42 | 1 |
| n-Butane | 1.19 | | 1.19 | 0.74 | ug/m3 | | | 02/15/19 16:42 | 1 |
| n-Butylbenzene | 1.10 | | 1.10 | 0.44 | ug/m3 | | | 02/15/19 16:42 | 1 |
| n-Heptane | 0.82 | | 0.82 | 0.57 | ug/m3 | | | 02/15/19 16:42 | 1 |
| n-Hexane | 0.70 | | 0.70 | 0.56 | ug/m3 | | | 02/15/19 16:42 | 1 |
| n-Propylbenzene | 0.98 | | 0.98 | 0.34 | ug/m3 | | | 02/15/19 16:42 | 1 |
| o-Xylene | 0.87 | | 0.87 | 0.31 | ug/m3 | | | 02/15/19 16:42 | 1 |
| sec-Butylbenzene | 1.10 | | 1.10 | 0.36 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Styrene | 0.85 | | 0.85 | 0.37 | ug/m3 | | | 02/15/19 16:42 | 1 |
| tert-Butyl alcohol | 15.2 | | 15.2 | 4.55 | ug/m3 | | | 02/15/19 16:42 | 1 |
| tert-Butylbenzene | 1.10 | | 1.10 | 0.32 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Tetrachloroethene | 1.36 | | 1.36 | 0.20 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Tetrahydrofuran | 14.7 | | 14.7 | 7.67 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Toluene | 0.75 | | 0.75 | 0.26 | ug/m3 | | | 02/15/19 16:42 | 1 |
| trans-1,2-Dichloroethene | 0.79 | | 0.79 | 0.29 | ug/m3 | | | 02/15/19 16:42 | 1 |
| trans-1,3-Dichloropropene | 0.91 | | 0.91 | 0.54 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Trichloroethene | 0.19 | | 0.19 | 0.16 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Trichlorofluoromethane | 0.741 | J | 1.12 | 0.35 | ug/m3 | | | 02/15/19 16:42 | 1 |
| Vinyl chloride | 0.090 | | 0.090 | 0.10 | ug/m3 | | | 02/15/19 16:42 | 1 |

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.20 | | 0.20 | 0.068 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.20 | | 0.20 | 0.076 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 1,1,2-Trichloroethane | 0.20 | | 0.20 | 0.078 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 1,1,2-Trichlorotrifluoroethane | 0.20 | | 0.20 | 0.031 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 1,1-Dichloroethane | 0.20 | | 0.20 | 0.026 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 1,1-Dichloroethene | 0.035 | | 0.035 | 0.034 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 1,2,4-Trichlorobenzene | 0.50 | | 0.50 | 0.24 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 1,2,4-Trimethylbenzene | 0.20 | | 0.20 | 0.080 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 1,2-Dibromoethane | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 1,2-Dichlorobenzene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 1,2-Dichloroethane | 0.20 | | 0.20 | 0.063 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 1,2-Dichloropropane | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 1,2-Dichlorotetrafluoroethane | 0.20 | | 0.20 | 0.068 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 1,3,5-Trimethylbenzene | 0.20 | | 0.20 | 0.058 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 1,3-Butadiene | 0.20 | | 0.20 | 0.065 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 1,3-Dichlorobenzene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 1,4-Dichlorobenzene | 0.0680 | J | 0.20 | 0.065 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 1,4-Dioxane | 5.00 | | 5.00 | 1.30 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 2,2,4-Trimethylpentane | 0.20 | | 0.20 | 0.088 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 2-Chlorotoluene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 3-Chloropropene | 0.50 | | 0.50 | 0.27 | ppb v/v | | | 02/15/19 16:42 | 1 |

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

**Lab Sample ID: MB 200-140028/5**
**Matrix: Air**
**Analysis Batch: 140028**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Ethyltoluene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 4-Isopropyltoluene | 0.20 | | 0.20 | 0.075 | ppb v/v | | | 02/15/19 16:42 | 1 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 0.50 | | 0.50 | 0.36 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Acetone | 5.00 | | 5.00 | 2.60 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Benzene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Benzyl chloride | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Bromodichloromethane | 0.20 | | 0.20 | 0.094 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Bromoethene(Vinyl Bromide) | 0.20 | | 0.20 | 0.056 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Bromoform | 0.20 | | 0.20 | 0.086 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Bromomethane | 0.20 | | 0.20 | 0.062 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Carbon disulfide | 0.50 | | 0.50 | 0.12 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Carbon tetrachloride | 0.035 | | 0.035 | 0.024 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Chlorobenzene | 0.20 | | 0.20 | 0.040 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Chlorodifluoromethane | 0.50 | | 0.50 | 0.26 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Chloroethane | 0.50 | | 0.50 | 0.21 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Chloroform | 0.20 | | 0.20 | 0.052 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Chloromethane | 0.50 | | 0.50 | 0.25 | ppb v/v | | | 02/15/19 16:42 | 1 |
| cis-1,2-Dichloroethene | 0.035 | | 0.035 | 0.037 | ppb v/v | | | 02/15/19 16:42 | 1 |
| cis-1,3-Dichloropropene | 0.20 | | 0.20 | 0.098 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Cumene | 0.20 | | 0.20 | 0.059 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Cyclohexane | 0.20 | | 0.20 | 0.063 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Dibromochloromethane | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Dichlorodifluoromethane | 0.50 | | 0.50 | 0.20 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Ethylbenzene | 0.20 | | 0.20 | 0.073 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Hexachlorobutadiene | 0.20 | | 0.20 | 0.082 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Isopropyl alcohol | 5.00 | | 5.00 | 1.80 | ppb v/v | | | 02/15/19 16:42 | 1 |
| m,p-Xylene | 0.50 | | 0.50 | 0.070 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Methyl Butyl Ketone (2-Hexanone) | 0.50 | | 0.50 | 0.42 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Methyl Ethyl Ketone (2-Butanone) | 0.50 | | 0.50 | 0.20 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Methyl methacrylate | 0.50 | | 0.50 | 0.22 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Methyl tert-butyl ether | 0.20 | | 0.20 | 0.061 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Methylene Chloride | 0.50 | | 0.50 | 0.20 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Naphthalene | 0.50 | | 0.50 | 0.31 | ppb v/v | | | 02/15/19 16:42 | 1 |
| n-Butane | 0.50 | | 0.50 | 0.31 | ppb v/v | | | 02/15/19 16:42 | 1 |
| n-Butylbenzene | 0.20 | | 0.20 | 0.080 | ppb v/v | | | 02/15/19 16:42 | 1 |
| n-Heptane | 0.20 | | 0.20 | 0.14 | ppb v/v | | | 02/15/19 16:42 | 1 |
| n-Hexane | 0.20 | | 0.20 | 0.16 | ppb v/v | | | 02/15/19 16:42 | 1 |
| n-Propylbenzene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/15/19 16:42 | 1 |
| o-Xylene | 0.20 | | 0.20 | 0.071 | ppb v/v | | | 02/15/19 16:42 | 1 |
| sec-Butylbenzene | 0.20 | | 0.20 | 0.066 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Styrene | 0.20 | | 0.20 | 0.086 | ppb v/v | | | 02/15/19 16:42 | 1 |
| tert-Butyl alcohol | 5.00 | | 5.00 | 1.50 | ppb v/v | | | 02/15/19 16:42 | 1 |
| tert-Butylbenzene | 0.20 | | 0.20 | 0.058 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Tetrachloroethene | 0.20 | | 0.20 | 0.029 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Tetrahydrofuran | 5.00 | | 5.00 | 2.60 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Toluene | 0.20 | | 0.20 | 0.069 | ppb v/v | | | 02/15/19 16:42 | 1 |
| trans-1,2-Dichloroethene | 0.20 | | 0.20 | 0.074 | ppb v/v | | | 02/15/19 16:42 | 1 |

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

**Lab Sample ID: MB 200-140028/5**
**Matrix: Air**
**Analysis Batch: 140028**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| trans-1,3-Dichloropropene | 0.20 | | 0.20 | 0.12 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Trichloroethene | 0.035 | | 0.035 | 0.030 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Trichlorofluoromethane | 0.132 | J | 0.20 | 0.062 | ppb v/v | | | 02/15/19 16:42 | 1 |
| Vinyl chloride | 0.035 | | 0.035 | 0.041 | ppb v/v | | | 02/15/19 16:42 | 1 |

**Lab Sample ID: LCS 200-140028/4**
**Matrix: Air**
**Analysis Batch: 140028**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 54.6 | 57.61 | | ug/m3 | | 106 | 70 - 130 |
| 1,1,2,2-Tetrachloroethane | 68.6 | 65.88 | | ug/m3 | | 96 | 69 - 129 |
| 1,1,2-Trichloroethane | 54.6 | 52.37 | | ug/m3 | | 96 | 69 - 129 |
| 1,1,2-Trichlorotrifluoroethane | 76.6 | 74.32 | | ug/m3 | | 97 | 68 - 128 |
| 1,1-Dichloroethane | 40.5 | 34.08 | | ug/m3 | | 84 | 66 - 126 |
| 1,1-Dichloroethene | 39.6 | 35.91 | | ug/m3 | | 91 | 67 - 127 |
| 1,2,4-Trichlorobenzene | 74.2 | 100.2 | * | ug/m3 | | 135 | 59 - 126 |
| 1,2,4-Trimethylbenzene | 49.2 | 57.62 | | ug/m3 | | 117 | 65 - 125 |
| 1,2-Dibromoethane | 76.8 | 81.02 | | ug/m3 | | 105 | 70 - 130 |
| 1,2-Dichlorobenzene | 60.1 | 69.86 | | ug/m3 | | 116 | 67 - 127 |
| 1,2-Dichloroethane | 40.5 | 39.69 | | ug/m3 | | 98 | 67 - 132 |
| 1,2-Dichloropropane | 46.2 | 41.64 | | ug/m3 | | 90 | 67 - 127 |
| 1,2-Dichlorotetrafluoroethane | 69.9 | 70.26 | | ug/m3 | | 101 | 78 - 138 |
| 1,3,5-Trimethylbenzene | 49.2 | 55.94 | | ug/m3 | | 114 | 65 - 125 |
| 1,3-Butadiene | 22.1 | 23.36 | | ug/m3 | | 106 | 59 - 125 |
| 1,3-Dichlorobenzene | 60.1 | 69.24 | | ug/m3 | | 115 | 67 - 127 |
| 1,4-Dichlorobenzene | 60.1 | 70.64 | | ug/m3 | | 118 | 66 - 126 |
| 1,4-Dioxane | 36.0 | 32.45 | | ug/m3 | | 90 | 66 - 132 |
| 2,2,4-Trimethylpentane | 46.7 | 42.78 | | ug/m3 | | 92 | 67 - 127 |
| 2-Chlorotoluene | 51.8 | 56.04 | | ug/m3 | | 108 | 67 - 127 |
| 3-Chloropropene | 31.3 | 36.82 | | ug/m3 | | 118 | 53 - 133 |
| 4-Ethyltoluene | 49.2 | 57.37 | | ug/m3 | | 117 | 69 - 129 |
| 4-Isopropyltoluene | 54.9 | 65.97 | | ug/m3 | | 120 | 67 - 129 |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | 41.0 | 37.86 | | ug/m3 | | 92 | 62 - 130 |
| Acetone | 23.7 | 19.83 | | ug/m3 | | 83 | 64 - 136 |
| Benzene | 31.9 | 29.77 | | ug/m3 | | 93 | 67 - 127 |
| Benzyl chloride | 51.8 | 63.59 | | ug/m3 | | 123 | 54 - 135 |
| Bromodichloromethane | 67.0 | 68.76 | | ug/m3 | | 103 | 69 - 129 |
| Bromoethene(Vinyl Bromide) | 43.7 | 43.83 | | ug/m3 | | 100 | 67 - 127 |
| Bromoform | 103 | 100.2 | | ug/m3 | | 97 | 34 - 170 |
| Bromomethane | 38.8 | 38.07 | | ug/m3 | | 98 | 68 - 128 |
| Carbon disulfide | 31.1 | 28.62 | | ug/m3 | | 92 | 81 - 141 |
| Carbon tetrachloride | 62.9 | 66.61 | | ug/m3 | | 106 | 62 - 143 |
| Chlorobenzene | 46.0 | 46.25 | | ug/m3 | | 100 | 68 - 128 |
| Chlorodifluoromethane | 35.4 | 32.92 | | ug/m3 | | 93 | 64 - 128 |
| Chloroethane | 26.4 | 24.09 | | ug/m3 | | 91 | 65 - 125 |
| Chloroform | 48.8 | 46.33 | | ug/m3 | | 95 | 69 - 129 |
| Chloromethane | 20.6 | 19.50 | | ug/m3 | | 94 | 57 - 126 |