



CASTLETON

ENVIRONMENTAL

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Soil Vapor Intrusion Investigation

**Villa Cleaners Site
1887-1899 Deer Park Avenue
Deer Park, New York
DEC Site No. 152188**

APRIL 2021 (REVISED MAY 2021)

Prepared for: LUNAR LIGHTS INC.
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**SOIL VAPOR INTRUSTION INVESTIGATION
VILLA DRY CLEANERS SITE
DEC SITE NO. 152188
CASTLETON PROJECT NUMBER: LUNA2001
APRIL 2021 (REVISED MAY 2021)**

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1.0 INTRODUCTION

Castleton Environmental Geologic Services, DPC (Castleton) has prepared this Soil Vapor Intrusion (SVI) Investigation Report for Villa Dry Cleaners (the Site) to address the required monitoring for the Site Management Plan approved under the New York State Department of Environmental Conservation (NYSDEC) Inactive Hazardous Waste Disposal Site Remedial Program Site No. 152188.

Castleton completed the following work to comply with the SMP:

1. Soil vapor intrusion monitoring
2. Semi-annual Sub-Slab Depressurization System (SSDS) Monitoring

This work was completed in accordance with the SVI Investigation Work Plan Revision 1 dated July 2020 and the subsequent letter dated November 16, 2020. NYSDEC approval is included as Appendix A.

1.1 Site Description

The Site is located at 1887 to 1899 Deer Park Avenue in Deer Park, Suffolk County, New York (Figure 1). The site is an approximately 0.778-acre area bounded by Long Island Rail Road to the north, a one-story commercial business to the south, public school administration property to the east, and Deer Park Avenue to the west. The property at 1895-1899 Deer Park Avenue is improved with a 1-story multi-tenant commercial building, which was built in 1965. Villa Dry Cleaners is located in the northern portion of the building and has been used for dry cleaning operations since the 1960s to the present. The property at 1887 Deer Park Avenue is improved with a 1-story commercial building which is used as a liquor store. A site plan is included as Figure 2.

Castleton understands that in response to past remedial actions, a total of 6 sub-slab depressurization systems (SSDSs) were installed at the multi-tenant building and 2 SSDSs were installed at Crazy Billy's liquor store. Currently, these SSDSs are off-line pending monitoring activities.

2.0 SSDS MONITORING

The SSDS monitoring consisted of an inspection two weeks prior to soil vapor intrusion sampling activities (as described below in section 3.0) to ensure that the systems are turned off prior to the sampling event.

The inspection was conducted on February 11, 2021. All systems were off during the inspection. The SSDS Semi-Annual Inspection Form is included as Appendix B.

3.0 SOIL VAPOR INTRUSION INVESTIGATION

The soil vapor intrusion monitoring consisted of the collection and laboratory analysis of sub-slab vapor, indoor air, and outdoor air samples in the 1897 Deer Park Avenue tenant space. Sampling was conducted on February 25 through 26, 2021.

Castleton understands that testing is not required for the remaining tenant spaces at this time.

All samples were collected in accordance with the Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York (NYSDOH October 2006). Vapor and air sample locations are shown on Figure 3.

3.1 Sub-Slab Vapor Sampling

The sub-slab vapor sample point was set no more than two inches below the building slab. A hammer drill was used to drill through the concrete slab. Dedicated polyethylene tubing was used at each sample point. The sample point was sealed with bentonite.

As part of the vapor intrusion evaluation, a tracer gas (helium) was used in accordance with NYSDOH protocols to serve as a quality assurance/quality control (QA/QC) device to verify the integrity of the soil vapor probe seal. The seal was tested and reset until each passed.

One to three volumes were purged prior to sample collection to ensure samples collected were representative and each sample point was screened with a photoionization detector (PID) for the presence of volatile organic compounds (VOCs). The sub-slab vapor sample were collected in 6-liter Summa canisters fitted with 24-hour regulators and analyzed by using USEPA Method TO-15 by Alpha Analytical Laboratories of Westborough, Massachusetts, New York State Department of Health (NYSDOH) Environmental Laboratory Accreditation Program (ELAP)-certified laboratory.

At the conclusion of the sampling round, tracer monitoring was performed a second time to confirm the integrity of the probe seal.

3.2 Indoor and Outdoor Ambient Air Sampling

The indoor air sample was placed approximately 3 to 5 feet above the building slab prior to sample collection commencing. The outdoor air sample was placed 3 to 5 feet above street level. Samples were collected using 6-liter Summa canisters fitted with 24-hour regulators.

Indoor and outdoor ambient air samples were submitted to Alpha Analytical Laboratories and analyzed for VOCs by EPA Method TO-15 and TO-15 SIM to accommodate the detection limits required as specified in the NYSDOH matrices updated May 2017 (https://health.ny.gov/environmental/indoors/vapor_intrusion/update.htm).

The Indoor air quality questionnaire and building inventory are included in Appendix C.

4.0 ANALYTICAL RESULTS

4.1 Ambient Air Analytical Results

Indoor and outdoor air quality analytical results were compared to NYSDOH Air Guidance Values (AGVs) and NYSDOH Guidance Table C1. NYSDOH 2003: Study of volatile organic chemicals in air of fuel oil heated homes 90th Percentile.

According to the NYSDOH guidance, AGVs are applicable to a limited list of compounds including methylene chloride (60 ug/m³), tetrachloroethylene (PCE) (30 ug/m³) and trichloroethylene (TCE) (2 ug/m³).

Analytical results reported concentrations of TCE as non-detect (<0.107 ug/m³) in the ambient air sample, below its AGV of 2 ug/m³. Analytical results reported concentrations of PCE at 1.0 ug/m³ in the ambient air sample, below its AGV of 30 ug/m³. Analytical results reported concentrations of methylene chloride as non-detect (<1.74 ug/m³) in the ambient air sample.

One compound, chloroform, exceeded NYSDOH Guidance Table C1 90th percentile in the indoor ambient air sample.

A summary table of ambient air quality results is included as Table 1.

4.2 Soil Vapor Intrusion Comparison

Sub-slab vapor and indoor air analytical results were compared to the matrices contained in the NYSDOH guidance for SVI for PCE, TCE, 1,1-dichloroethylene, cis-1,2-dichloroethylene, 1,1,1-trichloroethane (1,1,1-TCA), carbon tetrachloride, methylene chloride, and vinyl chloride.

The reported sub-slab vapor and indoor air analytical concentrations were entered into the applicable NYSDOH matrices. The tables compare the results of the sub-slab vapor samples to that of the indoor air samples. The results of this comparison yield the NYSDOH's recommended action. The table below summarizes the recommended action:

1897 Deer Park Ave	1897-IA	1897-SS	
Compound	Indoor Air Concentration (ug/m3)	Sub-slab Vapor Concentration (ug/m3)	Recommended Action
1,1,1-TCA	<0.109	<1.09	No Further Action
1,1-dichloroethylene	<0.079	<0.793	No Further Action
carbon tetrachloride	0.440	<1.26	No Further Action
cis-1,2-dichloroethylene	0.17	<0.793	No Further Action
methylene chloride	<1.74	<1.74	No Further Action
PCE	1.0	<1.36	No Further Action
TCE	<0.107	<1.07	No Further Action
Vinyl chloride	<0.051	<0.511	No Further Action

The recommended action for the 1897 Deer Park Avenue tenant space is “No Further Action”.

The laboratory analytical report is included as Appendix D.

4.3 Data Usability Summary Report (DUSR)

A DUSR was prepared by Laboratory Data Consultants, Inc. of Carlsbad, California dated March 29, 2021. The data validation was performed in accordance with the USEP A Region 2 Analysis of Volatile Organic Compounds in Air Contained Canisters, SOP HW-31, Revision 6 (September 2016) and the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, EPA 540-R-2017-002 (January 2017), modified as necessary to accommodate the non-CLP methodologies used.

All results are usable as reported or usable with minor qualification due to laboratory quality control outliers with the exceptions noted below:

- The 1,2,4-trichlorobenzene results were estimated due to continuing calibration exceedance. The bias cannot be determined. The results can be used for project objectives as non-detects with estimated quantitation limits (UJ) which may have a minor impact on data usability.

The DUSR is included as Appendix E.

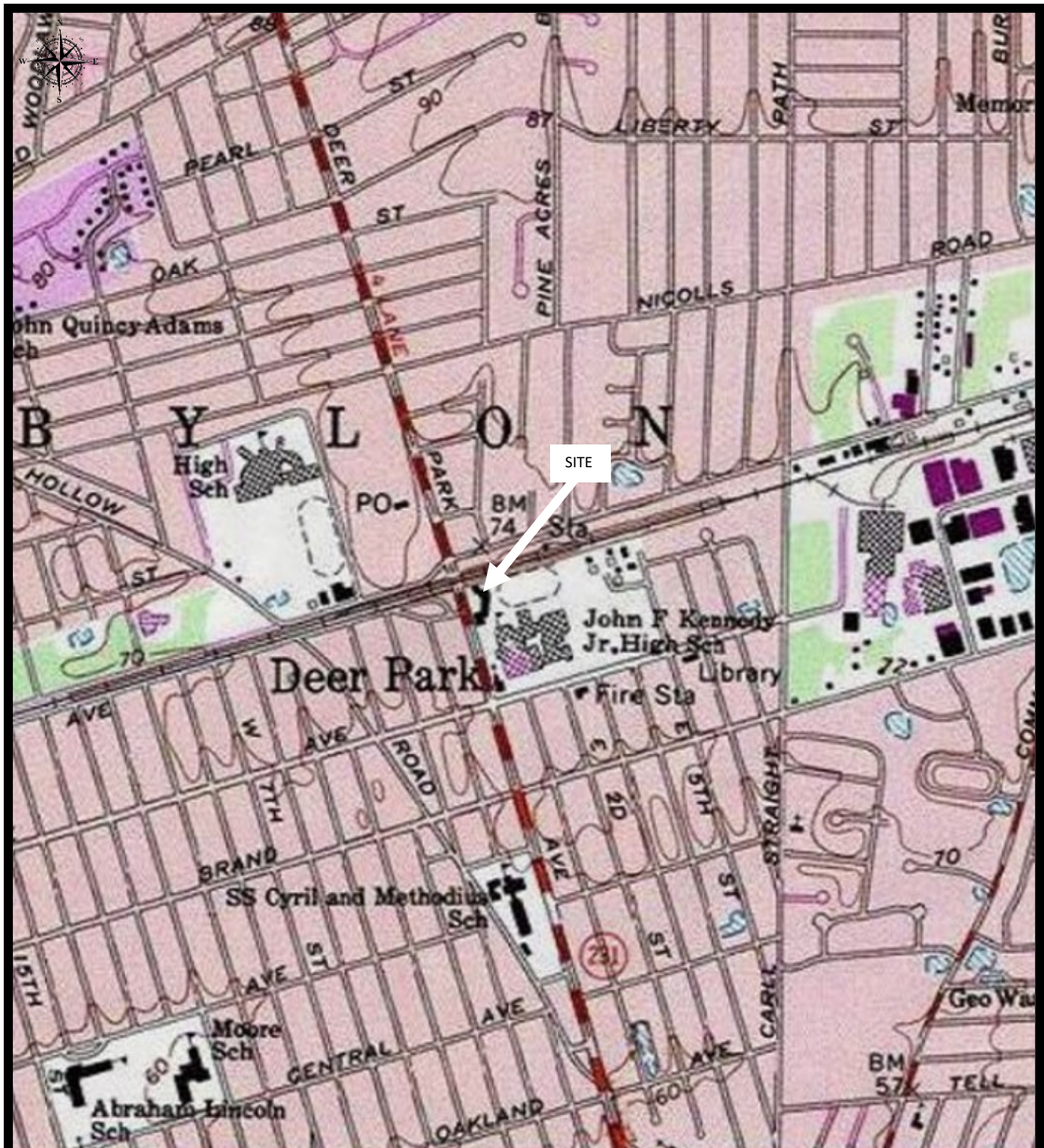


5.0 CONCLUSIONS

Based on the sample results, no further actions are recommended for the 1897 Deer Park Avenue tenant space. Castleton recommends discontinuing the long-term monitoring program for the 1897 Deer Park Avenue tenant space.



FIGURES



<https://ngmdb.usgs.gov/topoview/viewer/#>

0 500 1000 1500 2000
(FEET)

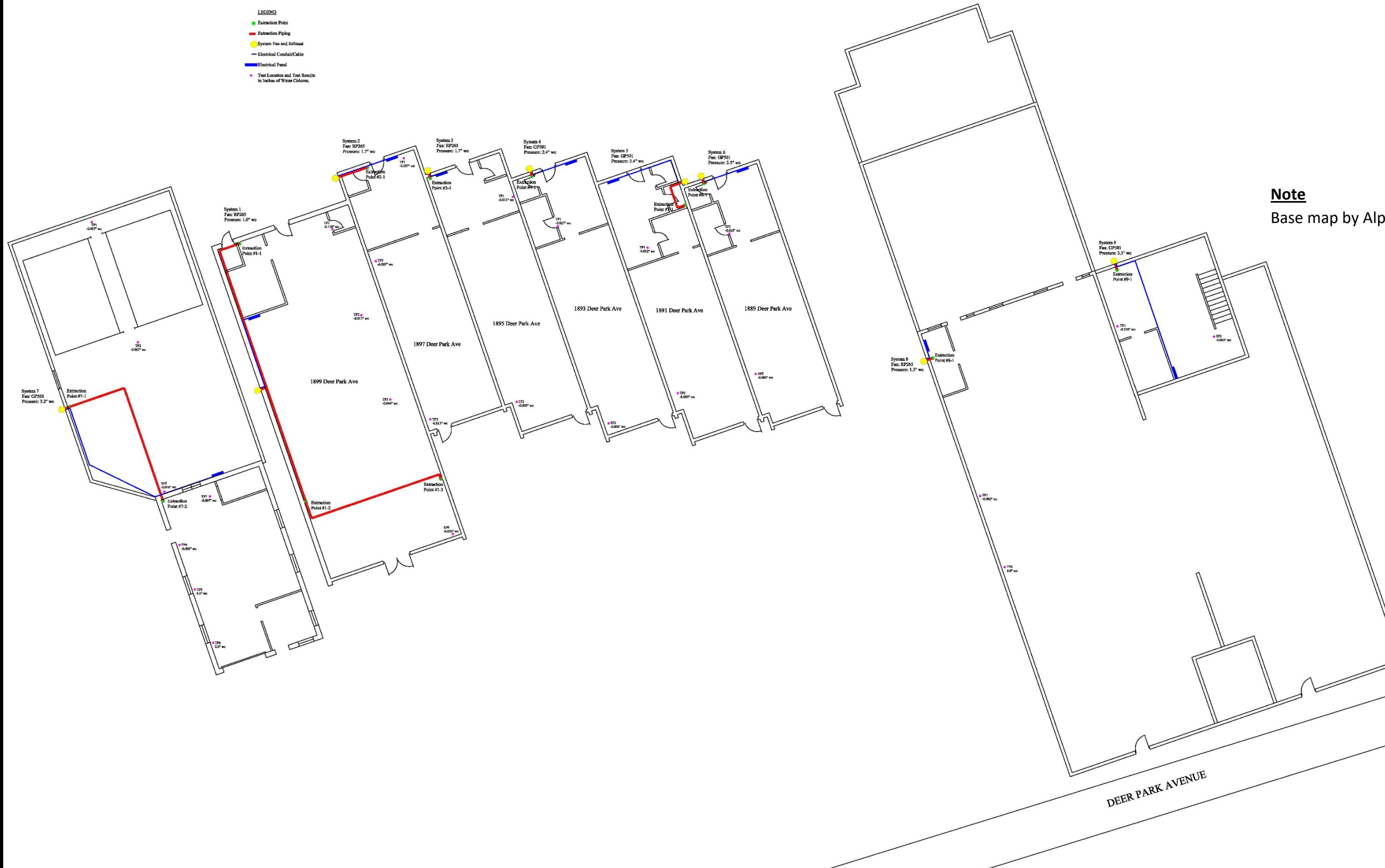
Figure 1 – Vicinity Map

Villa Cleaners Site
Deer Park, New York





- LEGEND**
- Extraction Point
 - Extraction Piping
 - System Fan and Exhaust
 - Electrical Conduit/Cable
 - Electrical Panel
 - Test Location and Test Results in inches of Water Column.



Note
Base map by Alpine Environmental Services

Figure 2
Site Plan
Villa Cleaners Site
Deer Park, New York





Legend

- Sub-slab Vapor/Indoor Air Sample Location
- Outdoor Air Sample Location

Note

Base map by Alpine Environmental Services

Figure 3
Sample Locations

Villa Cleaners Site
Deer Park, New York





TABLES

TABLE 1
AMBIENT AIR ANALYTICAL SUMMARY VILLA CLEANERS
FEBRUARY 2021

LOCATION				1897-1A	OA1
SAMPLING DATE				2/26/2021	2/26/2021
LAB SAMPLE ID				L2109987-02	L2109987-03
SAMPLE TYPE				AIR	AIR
SAMPLE DEPTH (ft.)					
	CasNum	NYSDOH 2003 VOCs in Indoor Air 90th Percentile	Units	Results Qua	Results Qual
Volatile Organics in Air					
1,1,1-Trichloroethane	71-55-6	3.1	ug/m3	- -	- -
1,1,2,2-Tetrachloroethane	79-34-5	<0.25	ug/m3	1.37 U	1.37 U
1,1,2-Trichloroethane	79-00-5	<0.25	ug/m3	1.09 U	1.09 U
1,1-Dichloroethane	75-34-3	<0.25	ug/m3	0.809 U	0.809 U
1,1-Dichloroethene	75-35-4	<0.25	ug/m3	- -	- -
1,2,4-Trichlorobenzene	120-82-1	3.4	ug/m3	1.48 U	1.48 U
1,2,4-Trimethylbenzene	95-63-6	9.5	ug/m3	0.983 U	0.98 U
1,2-Dibromoethane	106-93-4	<0.25	ug/m3	1.54 U	1.54 U
1,2-Dichlorobenzene	95-50-1	0.7	ug/m3	1.2 U	1.2 U
1,2-Dichloroethane	107-06-2	<0.25	ug/m3	0.809 U	0.809 U
1,2-Dichloropropane	78-87-5	<0.25	ug/m3	0.924 U	0.924 U
1,3,5-Trimethylbenzene	108-67-8	3.6	ug/m3	0.983 U	0.983 U
1,3-Butadiene	106-99-0	4.6	ug/m3	0.442 U	0.442 U
1,3-Dichlorobenzene	541-73-1	0.6	ug/m3	1.2 U	1.2 U
1,4-Dichlorobenzene	106-46-7	1.3	ug/m3	1.2 U	1.2 U
1,4-Dioxane	123-91-1	NL	ug/m3	0.721 U	0.721 U
2,2,4-Trimethylpentane	540-84-1	6.5	ug/m3	0.93 U	0.93 U
2-Butanone	78-93-3	16	ug/m3	1.49	1.47 U
2-Hexanone	591-78-6	2.2	ug/m3	0.82 U	0.82 U
3-Chloropropene	107-05-1	NL	ug/m3	0.626 U	0.626 U
4-Ethyltoluene	622-96-8	NL	ug/m3	0.983 U	0.983 U
4-Methyl-2-pentanone	108-10-1	2	ug/m3	2.05 U	2.05 U
Acetone	67-64-1	110	ug/m3	13.6	8.0
Benzene	71-43-2	15	ug/m3	1.2	0.85
Benzyl chloride	100-44-7	NL	ug/m3	1.04 U	1.04 U
Bromodichloromethane	75-27-4	NL	ug/m3	1.34 U	1.34 U
Bromoform	75-25-2	NL	ug/m3	2.07 U	2.07 U
Bromomethane	74-83-9	0.6	ug/m3	0.777 U	0.777 U
Carbon disulfide	75-15-0	NL	ug/m3	0.623 U	0.623 U
Carbon tetrachloride	56-23-5	0.8	ug/m3	- -	- -
Chlorobenzene	108-90-7	<0.25	ug/m3	0.921 U	0.921 U
Chloroethane	75-00-3	<0.25	ug/m3	0.528 U	0.528 U
Chloroform	67-66-3	<0.25	ug/m3	1.22	0.977 U
Chloromethane	74-87-3	3.3	ug/m3	1.41	1.37
cis-1,2-Dichloroethene	156-59-2	<0.25	ug/m3	- -	- -
cis-1,3-Dichloropropene	10061-01-5	<0.25	ug/m3	0.908 U	0.908 U
Cyclohexane	110-82-7	8.1	ug/m3	0.688 U	0.688 U
Dibromochloromethane	124-48-1	NL	ug/m3	1.7 U	1.7 U
Dichlorodifluoromethane	75-71-8	15	ug/m3	2.47	2.47
Ethanol	64-17-5	NL	ug/m3	339.0	24
Ethyl Acetate	141-78-6	NL	ug/m3	2.32	1.8 U
Ethylbenzene	100-41-4	7.3	ug/m3	0.869 U	0.869 U
Freon-113	76-13-1	NL	ug/m3	1.53 U	1.53 U
Freon-114	76-14-2	NL	ug/m3	1.4 U	1.4 U
Heptane	142-82-5	NL	ug/m3	1.08	0.82 U
Hexachlorobutadiene	87-68-3	4.8	ug/m3	2.13 U	2.13 U
Isopropanol	67-63-0	NL	ug/m3	149	11.9
Methyl tert butyl ether	1634-04-4	26	ug/m3	0.721 U	0.721 U
Methylene chloride	75-09-2	22	ug/m3	1.74 U	1.74 U
n-Hexane	110-54-3	18	ug/m3	0.856	0.71 U
o-Xylene	95-47-6	7.6	ug/m3	0.869 U	0.869 U
p/m-Xylene	179601-23-1	12	ug/m3	1.74 U	1.74 U
Styrene	100-42-5	1.3	ug/m3	0.852 U	0.852 U
Tertiary butyl Alcohol	75-65-0	NL	ug/m3	1.52 U	2 U
Tetrachloroethene	127-18-4	2.9	ug/m3	- -	- -
Tetrahydrofuran	109-99-9	3.3	ug/m3	1.47 U	1.47 U
Toluene	108-88-3	58	ug/m3	1.91	1.56
trans-1,2-Dichloroethene	156-60-5	NL	ug/m3	0.793 U	0.793 U
trans-1,3-Dichloropropene	10061-02-6	<0.25	ug/m3	0.908 U	0.908 U
Trichloroethene	79-01-6	0.5	ug/m3	- -	- -
Trichlorofluoromethane	75-69-4	17.0	ug/m3	1.49	1.44
Vinyl bromide	593-60-2	NL	ug/m3	0.874 U	0.874 U
Vinyl chloride	75-01-4	<0.25	ug/m3	- -	- -
1,1,1-Trichloroethane	71-55-6	3.1	ug/m3	0.109 U	0.109 U
1,1-Dichloroethene	75-35-4	<0.25	ug/m3	0.079 U	0.079 U
Carbon tetrachloride	56-23-5	0.8	ug/m3	0.440	0.465
cis-1,2-Dichloroethene	156-59-2	<0.25	ug/m3	0.17	0.079 U
Tetrachloroethene	127-18-4	2.9	ug/m3	1.0	0.136 U
Trichloroethene	79-01-6	0.5	ug/m3	0.107 U	0.107 U
Vinyl chloride	75-01-4	<0.25	ug/m3	0.051 U	0.051 U

Notes:

Yellow highlight indicates exceedance of NYSDOH 2003: Study of volatile organic chemicals in air of fuel oil heated homes

Gray highlight indicates that the compound was reported as non-detect, however the method detection limit is higher than the applicable standard.

Qualifier Key

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

TABLE 2
SUB-SLAB VAPOR ANALYTICAL SUMMARY VILLA CLEANERS
FEBRUARY 2021

LOCATION			1897-SS	
SAMPLING DATE			2/25/2021	
LAB SAMPLE ID			L2109987-01	
SAMPLE TYPE			SOIL_VAPOR	
SAMPLE DEPTH (ft.)				
	CasNum	Units	Results	Qual
Volatile Organics in Air				
1,1,1-Trichloroethane	71-55-6	ug/m3	1.09	U
1,1,2,2-Tetrachloroethane	79-34-5	ug/m3	1.37	U
1,1,2-Trichloroethane	79-00-5	ug/m3	1.09	U
1,1-Dichloroethane	75-34-3	ug/m3	0.809	U
1,1-Dichloroethene	75-35-4	ug/m3	0.793	U
1,2,4-Trichlorobenzene	120-82-1	ug/m3	1.48	U
1,2,4-Trimethylbenzene	95-63-6	ug/m3	10.10	
1,2-Dibromoethane	106-93-4	ug/m3	1.54	U
1,2-Dichlorobenzene	95-50-1	ug/m3	1.2	U
1,2-Dichloroethane	107-06-2	ug/m3	0.8	U
1,2-Dichloropropane	78-87-5	ug/m3	0.924	U
1,3,5-Trimethylbenzene	108-67-8	ug/m3	2.920	
1,3-Butadiene	106-99-0	ug/m3	0.442	U
1,3-Dichlorobenzene	541-73-1	ug/m3	1.2	U
1,4-Dichlorobenzene	106-46-7	ug/m3	1.2	U
1,4-Dioxane	123-91-1	ug/m3	0.721	U
2,2,4-Trimethylpentane	540-84-1	ug/m3	0.93	U
2-Butanone	78-93-3	ug/m3	1.47	U
2-Hexanone	591-78-6	ug/m3	0.82	U
3-Chloropropene	107-05-1	ug/m3	0.626	U
4-Ethyltoluene	622-96-8	ug/m3	1.130	
4-Methyl-2-pentanone	108-10-1	ug/m3	2.05	U
Acetone	67-64-1	ug/m3	8.4	
Benzene	71-43-2	ug/m3	0.837	
Benzyl chloride	100-44-7	ug/m3	1.04	U
Bromodichloromethane	75-27-4	ug/m3	1.34	U
Bromoform	75-25-2	ug/m3	2.07	U
Bromomethane	74-83-9	ug/m3	0.777	U
Carbon disulfide	75-15-0	ug/m3	0.623	U
Carbon tetrachloride	56-23-5	ug/m3	1.26	U
Chlorobenzene	108-90-7	ug/m3	0.921	U
Chloroethane	75-00-3	ug/m3	0.528	U
Chloroform	67-66-3	ug/m3	0.98	U
Chloromethane	74-87-3	ug/m3	1.090	
cis-1,2-Dichloroethene	156-59-2	ug/m3	0.793	U
cis-1,3-Dichloropropene	10061-01-5	ug/m3	0.908	U
Cyclohexane	110-82-7	ug/m3	0.688	U
Dibromochloromethane	124-48-1	ug/m3	1.7	U
Dichlorodifluoromethane	75-71-8	ug/m3	2.43	
Ethanol	64-17-5	ug/m3	28	
Ethyl Acetate	141-78-6	ug/m3	1.80	U
Ethylbenzene	100-41-4	ug/m3	0.87	U
Freon-113	76-13-1	ug/m3	1.53	U
Freon-114	76-14-2	ug/m3	1.4	U
Heptane	142-82-5	ug/m3	0.82	U
Hexachlorobutadiene	87-68-3	ug/m3	2.13	U
Isopropanol	67-63-0	ug/m3	11	
Methyl tert butyl ether	1634-04-4	ug/m3	0.721	U
Methylene chloride	75-09-2	ug/m3	1.74	U
n-Hexane	110-54-3	ug/m3	0.705	U
o-Xylene	95-47-6	ug/m3	1.13	
p/m-Xylene	179601-23-1	ug/m3	3.71	
Styrene	100-42-5	ug/m3	0.852	U
Tertiary butyl Alcohol	75-65-0	ug/m3	1.52	U
Tetrachloroethene	127-18-4	ug/m3	1.36	U
Tetrahydrofuran	109-99-9	ug/m3	1.47	U
Toluene	108-88-3	ug/m3	3.14	
trans-1,2-Dichloroethene	156-60-5	ug/m3	0.793	U
trans-1,3-Dichloropropene	10061-02-6	ug/m3	0.908	U
Trichloroethene	79-01-6	ug/m3	1.07	U
Trichlorofluoromethane	75-69-4	ug/m3	1.33	
Vinyl bromide	593-60-2	ug/m3	0.874	U
Vinyl chloride	75-01-4	ug/m3	0.511	U

Qualifier Key

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



APPENDIX A

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

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

August 4, 2020

Jessica Ferngren, PG
Castleton Environmental
54 George Street
Babylon, New York 11702

Re: Villa Cleaners (Site No. 152188)
Soil Vapor Intrusion Monitoring Work Plan

Ms. Ferngren:

The New York State Department of Environmental Conservation (Department) has reviewed and approves the Soil Vapor Intrusion Monitoring Work Plan, dated July 2020, for the Villa Cleaners site (Site No. 152188).

Please provide a copy of the approved report to the document repositories.

Sincerely,

Caroline Jalanti

Caroline Jalanti
Environmental Engineer
Division of Environmental Remediation
Remedial Bureau A, Section A

ec: B. Corcoran, NYSDEC
C. Bethoney/R. Ockerby, NYSDOH
J. Ferngren, P.G., Castleton Environmental
F. Castellano, Castleton Environmental

Cc: I. Anatolia, Property Owner

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau A

625 Broadway, 12th Floor, Albany, NY 12233-7015

P: (518) 402-9625 | F: (518) 402-9627

www.dec.ny.gov

November 16, 2020

Jessica Ferngren, PG
Castleton Environmental
54 George Street
Babylon, New York 11702

Re: Villa Cleaners (Site No. 152188)
Soil Vapor Intrusion Investigation Report

Ms. Ferngren:

The New York State Department of Environmental Conservation (Department) has reviewed and approves the Soil Vapor Intrusion Investigation Report, dated October 2020, for the Villa Cleaners site (Site No. 152188).

Please provide a copy of the approved report to the document repositories.

Based on the findings of the Soil Vapor Intrusion Investigation, the Department and New York State Department of Health (NYSDOH) agree with the recommendation to identify sources of tetrachloroethene (PCE) in indoor air at 1897 Deer Park Avenue (Restaurant). To complete this work please plan to conduct follow up sampling during the 2020-2021 heating season. The existing workplan is acceptable for conducting this work and may be utilized in place of submitting a separate sampling plan. The findings of this sampling may be submitted as a full addendum to this Soil Vapor Intrusion Report, or as a technical memo to be added as an appendix to the existing report. Please advise the Department and NYSDOH on your preferred method of submission.

Additionally, the Department and NYSDOH agree with the recommendation to discontinue long-term monitoring at all other tenant spaces. This includes the tenant spaces at 1889 Deer Park Ave, 1887 Deer Park Ave, 1891 Deer Park Ave, 1893 Deer Park Ave, and 1895 Deer Park Ave.

Attached you will find a template letter for Property Owner notification of the sampling results and supplemental documents that should be included with the letter as an enclosure. Please complete these templates and provide draft copies for review by the Department and NYSDOH prior to distribution.

Should you have any questions regarding this letter, please contact me via email or at (518) 402-9575.



Department of
Environmental
Conservation



Sincerely,

Caroline Jalanti

Caroline Jalanti
Environmental Engineer
Division of Environmental Remediation
Remedial Bureau A, Section A

Attachment

Property Owner Notification Letter Template
VOC Product Factsheet
SVI FAQs

ec: B. Corcoran, NYSDEC
C. Bethoney/R. Ockerby, NYSDOH
J. Ferngren, P.G., Castleton Environmental
F. Castellano, Castleton Environmental

Cc: I. Anatolia, Property Owner



APPENDIX B

Semi-Annual Inspection Documentation Form
Sub-slab Depressurization Vapor Mitigation Systems

Villa Cleaners Site

1885, 1889-1899 Deer Park Avenue, Town of Babylon, Suffolk County, New York

Date of Inspection: February 11, 2021

Name of Inspector: Jessica Ferngren

Company Name: Castleton Environmental Geologic Services DPC

Address: 54 George Street, Babylon, New York

Phone #: 631-482-1818

System ID	Address	Monitoring Operational Status	Current Observations
1	1899B Deer Park Ave	OFF	Not inspected
2	1897 Deer Park Ave	OFF	OFF
3	1895 Deer Park Ave	OFF	OFF
4	1893 Deer Park Ave	OFF	OFF
5	1891 Deer Park Ave	OFF	OFF
6	1889 Deer Park Ave	OFF	OFF
7	1899A Deer Park Ave	OFF	Not inspected
8	1887 Deer Park Ave	OFF	OFF



APPENDIX C

Site No. : 152188 Site Name : Villa Cleaners - 1897 Tenant Space
Date: 2/25/2021 Time: 11:30
Structure Address : 1897 Deer Park Ave
Preparer's Name & Affiliation : Jessica Ferngren / Castleton Env
Residential ? ☐ Yes ☒ No Owner Occupied ? ☐ Yes ☒ No Owner Interviewed ? ☐ Yes ☒ No
Commercial ? ☒ Yes ☐ No Industrial ? ☐ Yes ☒ No Mixed Uses ? ☐ Yes ☒ No
Identify all non-residential use(s) : Restaurant
Owner Name : Isabella Owner Phone : (347) 837 - 3660
Secondary Owner Phone : () -
Owner Address (if different) : 1482 Deer Park Ave
Occupant Name : Gladis Cabe Occupant Phone : (631) 940 - 9783
Secondary Occupant Phone : () -
Number & Age of All Persons Residing at this Location : 5
Additional Owner/Occupant Information : _____
Describe Structure (style, number floors, size) : 1 story
Approximate Year Built : 1967 Is the building Insulated? ☐ Yes ☒ No
Lowest level : ☒ Slab-on-grade ☐ Basement ☐ Crawlspace
Describe Lowest Level (finishing, use, time spent in space) : restaurant space
Floor Type: ☒ Concrete Slab ☐ Dirt ☐ Mixed : _____
Floor Condition : ☐ Good (few or no cracks) ☒ Average (some cracks) ☐ Poor (broken concrete or dirt)
Sumps/Drains? ☒ Yes ☐ No Describe : _____
Identify other floor penetrations & details : _____
Wall Construction : ☒ Concrete Block ☐ Poured Concrete ☐ Laid-Up Stone
Identify any wall penetrations : _____
Identify water, moisture, or seepage: location & severity (sump, cracks, stains, etc) : N/A
Heating Fuel : ☐ Oil ☒ Gas ☐ Wood ☐ Electric ☐ Other : _____
Heating System : ☒ Forced Air ☐ Hot Water ☐ Other : _____
Hot Water System : ☐ Combustion ☐ Electric ☒ Boilermate ☐ Other : _____
Clothes Dryer : ☐ Electric ☐ Gas Where is dryer vented to? N/A
If combustion occurs, describe where air is drawn from (cold air return, basement, external air, etc.) : _____
Fans & Vents (identify where fans/vents pull air from and where they vent/exhaust to) : vent in the kitchen
discharges at rear of building

Describe factors that may affect indoor air quality (chemical use/storage, unvented heaters, smoking, workshop):

N/A

Attached garage ? ☐ Yes ☒ No Air fresheners ? ☐ Yes ☐ No

New carpet or furniture ? ☐ Yes ☒ No What/Where ? _____

Recent painting or staining ? ☐ Yes ☒ No Where ? : _____

Any solvent or chemical-like odors ? ☐ Yes ☒ No Describe : _____

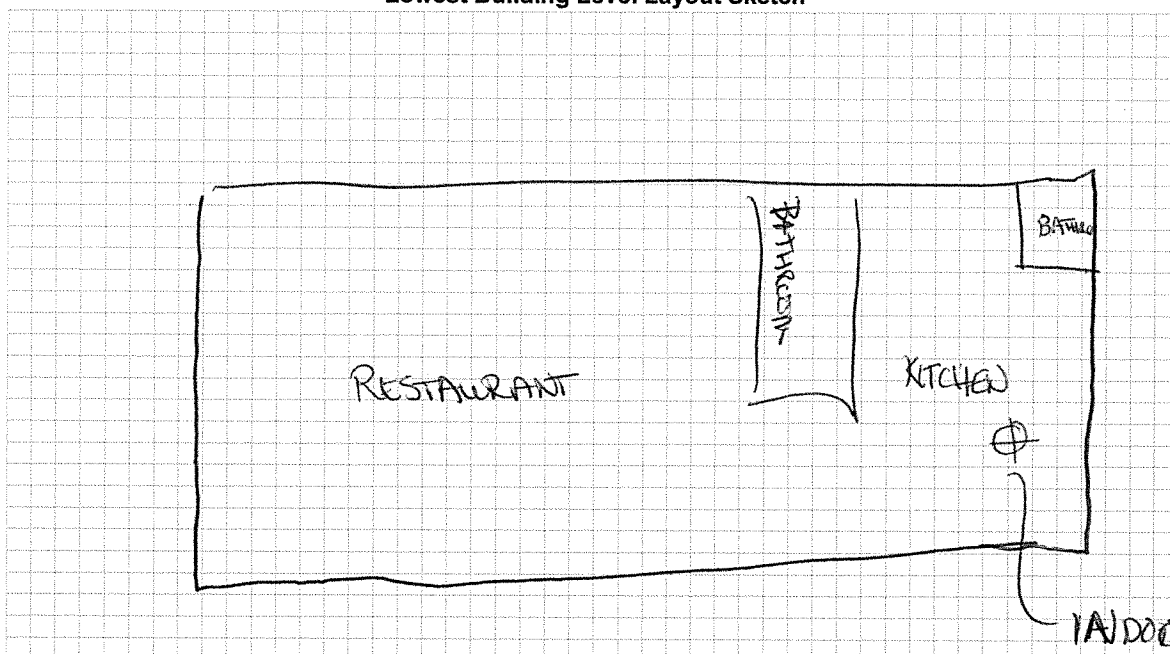
Last time Dry Cleaned fabrics brought in ? W/A What / Where ? _____

Do any building occupants use solvents at work ? ☐ Yes ☒ No Describe : _____

Any testing for Radon ? ☐ Yes ☒ No Results : _____

Radon System/Soil Vapor Intrusion Mitigation System present ? ☒ Yes ☐ No If yes, describe below

Lowest Building Level Layout Sketch



- Identify and label the locations of all sub-slab, indoor air, and outdoor air samples on the layout sketch.
- Measure the distance of all sample locations from identifiable features, and include on the layout sketch.
- Identify room use (bedroom, living room, den, kitchen, etc.) on the layout sketch.
- Identify the locations of the following features on the layout sketch, using the appropriate symbols:

B or F	Boiler or Furnace	o	Other floor or wall penetrations (label appropriately)
HW	Hot Water Heater	xxxxxxx	Perimeter Drains (draw inside or outside outer walls as appropriate)
FP	Fireplaces	#####	Areas of broken-up concrete
WS	Wood Stoves	● SS-1	Location & label of sub-slab vapor samples
W/D	Washer / Dryer	● IA-1	Location & label of indoor air samples
S	Sumps	● OA-1	Location & label of outdoor air samples
@	Floor Drains	● PFET-1	Location and label of any pressure field test holes.

Page 1 of 1

1897 Deer Park Ave

2/25/21

Jessica Krogren / Kattletom

Structure ID:

Villa Claremont 152188

Phone Number: _____

MariRae 3050

Date of PID Calibration: 2/25/21

Identify any Changes from Original Building Questionnaire : N/A

[illegible]



APPENDIX D



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Alpha Analytical

Laboratory Code: 11148

SDG Number: L2109987

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

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Project Name: LUNA2101
Project Number: LUNA2101

Lab Number: L2109987
Report Date: 03/08/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2109987-01	1897-SS	SOIL_VAPOR	1897 DEER PARK AVE	02/25/21 14:23	03/01/21
L2109987-02	1897-IA	AIR	1897 DEER PARK AVE	02/26/21 14:24	03/01/21
L2109987-03	OA1	AIR	1897 DEER PARK AVE	02/26/21 14:20	03/01/21

Project Name: LUNA2101
Project Number: LUNA2101

Lab Number: L2109987
Report Date: 03/08/21

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

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

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

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

Project Name: LUNA2101
Project Number: LUNA2101

Lab Number: L2109987
Report Date: 03/08/21

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on February 24, 2021. The canister certification results are provided as an addendum.

The WG1471270-3 LCS recovery for 1,2,4-trichlorobenzene (134%) is above the upper 130% acceptance limit. All samples associated with this LCS do not have reportable amounts of this analyte.

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

Authorized Signature: 

Report Date: 03/08/21

Title: Technical Director/Representative

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: Data Usability Report



Project Name: LUNA2101
Project Number: LUNA2101

Lab Number: L2109987
Report Date: 03/08/21

Footnotes

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

Terms

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

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

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

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

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

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

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. (Note: 'PFAS, Total (6)' is applicable to MassDEP DW compliance analysis only.). If a 'Total' result is requested, the results of its individual components will also be reported.

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

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.

Report Format: Data Usability Report



Project Name: LUNA2101
Project Number: LUNA2101

Lab Number: L2109987
Report Date: 03/08/21

Data Qualifiers

- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- ND** - Not detected at the reporting limit (RL) for the sample.



Volatile Organics Instruments

Volatile Organics:

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

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

Volatile Organics: VPH

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

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

Volatile Organics: PIANO

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

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

Volatile Organics: Dissolved Gas

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

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

Autosampler: LEAP Headspace

Purge time: 0.6 min

Volatile Organics in Air Instruments

Volatile Organics in Air:

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

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

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

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

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



Semivolatile Organics Instruments - Westborough

Semivolatile Organics (Acid/Base/Neutral Extractables):

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

Polynuclear Aromatic Hydrocarbons by 8270 SIM:

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

Pesticides/PCB/Herbicides:

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

Petroleum/EPH:

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



Semivolatile Organic Instruments - Mansfield

Semivolatile Organics (ALK-PAH Extractables):

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

Semivolatile Organics (8270):

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

Semivolatile Organics (8270 SIM):

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

Semivolatile Organics (1,4-Dioxane):

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

Semivolatile Organics (209 Congener):

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

Semivolatile Organics (8081):

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

Semivolatile Organics (8082):

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

Semivolatile Organics (SHC Extractables):

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



Sample Delivery Group Summary

Alpha Job Number : L2109987

Received : 01-MAR-2021

Reviewer : Joseph Small

Account Name : Castleton Environmental, Inc.

Project Number : LUNA2101

Project Name : LUNA2101

Delivery Information

Samples Delivered By : Alpha Courier

Chain of Custody : Present

Cooler Information

Cooler	Seal/Seal#	Preservation	Temperature(°C)	Additional Information
NA	Present/Intact/na			

Condition Information

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

Volatile Organics/VPH

1) Reagent Water Vials Frozen by Client?	NA

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Mar 08 2021, 04:57 pm

Login Number: L2109987

Account: CASTLETONENV Castleton Environmental, Inc. Project: LUNA2101

Received: 01MAR21 Due Date: 08MAR21

Sample # Client ID Mat PR Collected

L2109987-01 1897-SS 11 S0 25FEB21 14:23

| ASP-B Package Due Date: 03/08/21

ASP-B, CAN-RENT, FLOW-RENT, T015-LL

L2109987-02 1897-IA 10 S0 26FEB21 14:24

Need SIM for 7 NYS DMCs Package Due Date: 03/08/21

CAN-RENT, FLOW-RENT, T015-LL, T015-SIM

L2109987-03 0A1 10 S0 26FEB21 14:20

Need SIM for 7 NYS DMCs Package Due Date: 03/08/21

CAN-RENT, FLOW-RENT, T015-LL, T015-SIM



AIR ANALYSIS

PAGE 1 OF 1

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

Client Information

Client: CASTLETON ENV
Address: 54 GEORGE ST
BRAYLON NY
Phone: 681-482-1818
Fax: 681-321-4349
Email: jessica.f@castletonenv.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: LUNA2101
Project Location: 1897 DEER PARK AVE
Project #: LUNA2101
Project Manager: J Ferngren
ALPHA Quote #:

Turn-Around Time

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

Date Due: Time:

Date Rec'd in Lab: 3/2/21

Report Information - Data Deliverables

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

ALPHA Job #: L2109987

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm
<u>NY</u>	<u>DOH</u>	

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☐

NY CAT B DELIVERABLES

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION						Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-15	TO-15	APH	Fixed	Sulfides		Sample Comments (i.e. PID)
		End Date	Start Time	End Time	Initial Vacuum	Final Vacuum													
09987-01	1897-SS	2/25/21	1620	1423	-30.25	-9.04	SV	JF	6L2922	01368		X							
02	1897-1A	2/26/21	1618	1424	-30.18	-9.90	AA	JF	6L2940	0112		X	X						
03	OA1	2/26/21	1627	1420	-29.98	-0.40	AA	JF	6L753	01929		X	X						
												</							

*SAMPLE MATRIX CODES

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

Container Type

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

Relinquished By:

Date/Time

Received By:

Date/Time:

Supporting Documentation

Project Name: LUNA2101

Lab Number: L2109987

Project Number: LUNA2101

Report Date: 03/08/21

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L2109987-01	1897-SS	01368	Flow 5	02/24/21	343499		-	-	-	Pass	3.0	3.0	0
L2109987-01	1897-SS	2922	6.0L Can	02/24/21	343499	L2107555-09	Pass	-29.0	-7.2	-	-	-	-
L2109987-02	1897-IA	0112	Flow 5	02/24/21	343499		-	-	-	Pass	3.0	3.6	18
L2109987-02	1897-IA	2940	6.0L Can	02/24/21	343499	L2107826-10	Pass	-29.0	-8.1	-	-	-	-
L2109987-03	OA1	01929	FLOW 5	02/24/21	343499		-	-	-	Pass	3.0	3.0	0
L2109987-03	OA1	753	6.0L Can	02/24/21	343499	L2107826-10	Pass	-29.0	2.4	-	-	-	-

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

Lab Number: L2107555
Report Date: 03/08/21

Air Canister Certification Results

Lab ID: L2107555-09
Client ID: CAN 2594 SHELF 58
Sample Location:
Matrix: Air
Analytical Method: 48,TO-15
Analytical Date: 02/18/21 23:11
Analyst: EW

Date Collected: 02/17/21 09:00
Date Received: 02/17/21
Field Prep: Not Specified

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



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

Lab Number: L2107555
Report Date: 03/08/21

Air Canister Certification Results

Lab ID: L2107555-09
 Client ID: CAN 2594 SHELF 58
 Sample Location:

Date Collected: 02/17/21 09:00
 Date Received: 02/17/21
 Field Prep: Not Specified

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



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

Lab Number: L2107555
Report Date: 03/08/21

Air Canister Certification Results

Lab ID: L2107555-09
Client ID: CAN 2594 SHELF 58
Sample Location:

Date Collected: 02/17/21 09:00
Date Received: 02/17/21
Field Prep: Not Specified

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



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

Lab Number: L2107555
Report Date: 03/08/21

Air Canister Certification Results

Lab ID: L2107555-09
 Client ID: CAN 2594 SHELF 58
 Sample Location:

Date Collected: 02/17/21 09:00
 Date Received: 02/17/21
 Field Prep: Not Specified

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

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds



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

Lab Number: L2107555
Report Date: 03/08/21

Air Canister Certification Results

Lab ID: L2107555-09
Client ID: CAN 2594 SHELF 58
Sample Location:

Date Collected: 02/17/21 09:00
Date Received: 02/17/21
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	85		60-140
Bromochloromethane	89		60-140
chlorobenzene-d5	87		60-140



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

Lab Number: L2107555
Report Date: 03/08/21

Air Canister Certification Results

Lab ID: L2107555-09
 Client ID: CAN 2594 SHELF 58
 Sample Location:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 02/18/21 23:11
 Analyst: EW

Date Collected: 02/17/21 09:00
 Date Received: 02/17/21
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acrolein	ND	0.050	--	ND	0.115	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1



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

Lab Number: L2107555
Report Date: 03/08/21

Air Canister Certification Results

Lab ID: L2107555-09
 Client ID: CAN 2594 SHELF 58
 Sample Location:

Date Collected: 02/17/21 09:00
 Date Received: 02/17/21
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1



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

Lab Number: L2107555
Report Date: 03/08/21

Air Canister Certification Results

Lab ID: L2107555-09
Client ID: CAN 2594 SHELF 58
Sample Location:

Date Collected: 02/17/21 09:00
Date Received: 02/17/21
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM								
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	85		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	85		60-140



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

Lab Number: L2107826
Report Date: 03/08/21

Air Canister Certification Results

Lab ID: L2107826-10
 Client ID: CAN 789 SHELF 53
 Sample Location:
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 02/19/21 06:55
 Analyst: EW

Date Collected: 02/18/21 09:00
 Date Received: 02/18/21
 Field Prep: Not Specified

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



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

Lab Number: L2107826
Report Date: 03/08/21

Air Canister Certification Results

Lab ID: L2107826-10
 Client ID: CAN 789 SHELF 53
 Sample Location:

Date Collected: 02/18/21 09:00
 Date Received: 02/18/21
 Field Prep: Not Specified

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



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

Lab Number: L2107826
Report Date: 03/08/21

Air Canister Certification Results

Lab ID: L2107826-10
Client ID: CAN 789 SHELF 53
Sample Location:

Date Collected: 02/18/21 09:00
Date Received: 02/18/21
Field Prep: Not Specified

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



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

Lab Number: L2107826
Report Date: 03/08/21

Air Canister Certification Results

Lab ID: L2107826-10
Client ID: CAN 789 SHELF 53
Sample Location:

Date Collected: 02/18/21 09:00
Date Received: 02/18/21
Field Prep: Not Specified

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

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds



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

Lab Number: L2107826
Report Date: 03/08/21

Air Canister Certification Results

Lab ID: L2107826-10
Client ID: CAN 789 SHELF 53
Sample Location:

Date Collected: 02/18/21 09:00
Date Received: 02/18/21
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	83		60-140
Bromochloromethane	87		60-140
chlorobenzene-d5	84		60-140



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

Lab Number: L2107826
Report Date: 03/08/21

Air Canister Certification Results

Lab ID: L2107826-10
 Client ID: CAN 789 SHELF 53
 Sample Location:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 02/19/21 06:55
 Analyst: EW

Date Collected: 02/18/21 09:00
 Date Received: 02/18/21
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acrolein	ND	0.050	--	ND	0.115	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1



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

Lab Number: L2107826
Report Date: 03/08/21

Air Canister Certification Results

Lab ID: L2107826-10
 Client ID: CAN 789 SHELF 53
 Sample Location:

Date Collected: 02/18/21 09:00
 Date Received: 02/18/21
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1



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

Lab Number: L2107826
Report Date: 03/08/21

Air Canister Certification Results

Lab ID: L2107826-10
Client ID: CAN 789 SHELF 53
Sample Location:

Date Collected: 02/18/21 09:00
Date Received: 02/18/21
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM								
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	83		60-140
bromochloromethane	87		60-140
chlorobenzene-d5	84		60-140



Organics

Volatile Organics in Air

TO-15 Low Level

Volatiles QC Summary

Laboratory Control Sample Summary

Form 3

Air Volatiles

Client : Castleton Environmental, Inc. Lab Number : L2109987
 Project Name : LUNA2101 Project Number : LUNA2101
 Matrix : AIR
 LCS Sample ID : WG1471270-3 Analysis Date : 03/05/21 12:36 File ID : r314338
 LCSD Sample ID : Analysis Date : File ID :

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ppbV)	Found (ppbV)	%R	True (ppbV)	Found (ppbV)	%R			
Dichlorodifluoromethane	10	9.44	94				-	70-130	-
Chloromethane	10	11.4	114				-	70-130	-
Freon-114	10	10.0	100				-	70-130	-
Vinyl chloride	10	11.2	112				-	70-130	-
1,3-Butadiene	10	11.2	112				-	70-130	-
Bromomethane	10	11.6	116				-	70-130	-
Chloroethane	10	12.5	125				-	70-130	-
Ethanol	50	44.9	90				-	40-160	-
Vinyl bromide	10	11.7	117				-	70-130	-
Acetone	50	45.1	90				-	40-160	-
Trichlorofluoromethane	10	11.2	112				-	70-130	-
Isopropanol	25	25.9	104				-	40-160	-
1,1-Dichloroethene	10	11.1	111				-	70-130	-
Tertiary butyl Alcohol	10	8.70	87				-	70-130	-
Methylene chloride	10	12.1	121				-	70-130	-
3-Chloropropene	10	12.8	128				-	70-130	-
Carbon disulfide	10	11.1	111				-	70-130	-
Freon-113	10	12.7	127				-	70-130	-
trans-1,2-Dichloroethene	10	9.32	93				-	70-130	-
1,1-Dichloroethane	10	11.5	115				-	70-130	-
Methyl tert butyl ether	10	10.0	100				-	70-130	-
2-Butanone	10	11.9	119				-	70-130	-
cis-1,2-Dichloroethene	10	11.2	112				-	70-130	-
Ethyl Acetate	10	11.4	114				-	70-130	-
Chloroform	10	9.82	98				-	70-130	-
Tetrahydrofuran	10	11.8	118				-	70-130	-



Laboratory Control Sample Summary

Form 3

Air Volatiles

Client : Castleton Environmental, Inc. Lab Number : L2109987
 Project Name : LUNA2101 Project Number : LUNA2101
 Matrix : AIR
 LCS Sample ID : WG1471270-3 Analysis Date : 03/05/21 12:36 File ID : r314338
 LCSD Sample ID : Analysis Date : File ID :

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ppbV)	Found (ppbV)	%R	True (ppbV)	Found (ppbV)	%R			
1,2-Dichloroethane	10	10.6	106				-	70-130	-
n-Hexane	10	11.1	111				-	70-130	-
1,1,1-Trichloroethane	10	12.0	120				-	70-130	-
Benzene	10	9.73	97				-	70-130	-
Carbon tetrachloride	10	10.5	105				-	70-130	-
Cyclohexane	10	10.9	109				-	70-130	-
1,2-Dichloropropane	10	12.5	125				-	70-130	-
Bromodichloromethane	10	10.5	105				-	70-130	-
1,4-Dioxane	10	11.8	118				-	70-130	-
Trichloroethene	10	11.4	114				-	70-130	-
2,2,4-Trimethylpentane	10	11.4	114				-	70-130	-
Heptane	10	12.6	126				-	70-130	-
cis-1,3-Dichloropropene	10	10.8	108				-	70-130	-
4-Methyl-2-pentanone	10	12.9	129				-	70-130	-
trans-1,3-Dichloropropene	10	9.15	92				-	70-130	-
1,1,2-Trichloroethane	10	11.8	118				-	70-130	-
Toluene	10	10.9	109				-	70-130	-
2-Hexanone	10	12.3	123				-	70-130	-
Dibromochloromethane	10	11.7	117				-	70-130	-
1,2-Dibromoethane	10	9.80	98				-	70-130	-
Tetrachloroethene	10	10.5	105				-	70-130	-
Chlorobenzene	10	10.1	101				-	70-130	-
Ethylbenzene	10	11.1	111				-	70-130	-
p/m-Xylene	20	22.7	114				-	70-130	-
Bromoform	10	11.4	114				-	70-130	-
Styrene	10	9.83	98				-	70-130	-



Laboratory Control Sample Summary

Form 3

Air Volatiles

Client : Castleton Environmental, Inc. Lab Number : L2109987
 Project Name : LUNA2101 Project Number : LUNA2101
 Matrix : AIR
 LCS Sample ID : WG1471270-3 Analysis Date : 03/05/21 12:36 File ID : r314338
 LCSD Sample ID : Analysis Date : File ID :

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ppbV)	Found (ppbV)	%R	True (ppbV)	Found (ppbV)	%R			
1,1,2,2-Tetrachloroethane	10	11.5	115				-	70-130	-
o-Xylene	10	11.4	114				-	70-130	-
4-Ethyltoluene	10	9.82	98				-	70-130	-
1,3,5-Trimethylbenzene	10	11.3	113				-	70-130	-
1,2,4-Trimethylbenzene	10	10.8	108				-	70-130	-
Benzyl chloride	10	12.3	123				-	70-130	-
1,3-Dichlorobenzene	10	10.7	107				-	70-130	-
1,4-Dichlorobenzene	10	11.0	110				-	70-130	-
1,2-Dichlorobenzene	10	10.7	107				-	70-130	-
1,2,4-Trichlorobenzene	10	13.4	134 Q				-	70-130	-
Hexachlorobutadiene	10	11.6	116				-	70-130	-

Method Blank Summary
Form 4
Air Volatiles

Client	: Castleton Environmental, Inc.	Lab Number	: L2109987
Project Name	: LUNA2101	Project Number	: LUNA2101
Lab Sample ID	: WG1471270-4	Lab File ID	: r314341
Instrument ID	: AIRPIANO3		
Matrix	: AIR	Analysis Date	: 03/05/21 15:36

Client Sample No.	Lab Sample ID	Analysis Date
WG1471270-3LCS	WG1471270-3	03/05/21 12:36
OA1	L2109987-03	03/05/21 17:26
IA-1DUP	WG1471270-5	03/05/21 20:05
1897-IA	L2109987-02	03/05/21 22:05
1897-SS	L2109987-01	03/06/21 01:21

Instrument Performance Check (Tune) Summary

Form 5

Air Volatiles

Bromofluorobenzene (BFB)

Client : Castleton Environmental, Inc.	Lab Number : L2109987
Project Name : LUNA2101	Project Number : LUNA2101
Instrument ID : AIRPIANO3	Analysis Date : 02/19/21 16:46
Tune Standard : WG1466756-1	Tune File ID : r314021_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	8.0 - 40.0% of mass 95	14.6
75	30.0 - 66.0% of mass 95	39.1
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.6 (.8)1
174	50.0 - 120.0% of mass 95	73.7
175	4.0 - 9.0% of mass 174	5.4 (7.3)1
176	93.0 - 101% of mass 174	72.5 (98.4)1
177	5.0 - 9.0% of mass 176	4.8 (6.6)2

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

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
STD0.2	R1403595-2	R314025	02/19/21 19:24
STD0.5	R1403595-1	R314026	02/19/21 20:04
STD1.0	R1403595-3	R314027	02/19/21 20:46
STD5.0	R1403595-4	R314028	02/19/21 21:25
STD010	R1403595-6	R314029	02/19/21 22:07
STD020	R1403595-5	R314030	02/19/21 22:45
STD050	R1403595-8	R314031	02/19/21 23:25
STD100	R1403595-7	R314032	02/20/21 00:07
ICV Quant	R1403595-9	R314035	02/20/21 11:29

Instrument Performance Check (Tune) Summary

Form 5

Air Volatiles

Bromofluorobenzene (BFB)

Client : Castleton Environmental, Inc.	Lab Number : L2109987
Project Name : LUNA2101	Project Number : LUNA2101
Instrument ID : AIRPIANO3	Analysis Date : 03/05/21 11:12
Tune Standard : WG1471270-1	Tune File ID : r314336_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	8.0 - 40.0% of mass 95	13.2
75	30.0 - 66.0% of mass 95	35.7
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.4 (.6)1
174	50.0 - 120.0% of mass 95	69.3
175	4.0 - 9.0% of mass 174	5 (7.2)1
176	93.0 - 101% of mass 174	67 (96.6)1
177	5.0 - 9.0% of mass 176	4.5 (6.7)2

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

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG1471270-2CCAL	WG1471270-2	R314338	03/05/21 12:36
WG1471270-3LCS	WG1471270-3	R314338	03/05/21 12:36
WG1471270-4BLANK	WG1471270-4	R314341	03/05/21 15:36
OA1	L2109987-03	R314343	03/05/21 17:26
WG1471270-5DUP	WG1471270-5	R314347	03/05/21 20:05
1897-IA	L2109987-02	R314350	03/05/21 22:05
1897-SS	L2109987-01	R314355	03/06/21 01:21

Internal Standard Area and RT Summary

Form 8a

Air Volatiles

Client : Castleton Environmental, Inc.
 Project Name : LUNA2101
 Instrument ID : AIRPIANO3
 Sample No : WG1471270-2

Lab Number : L2109987
 Project Number : LUNA2101
 Analysis Date : 03/05/21 12:36:00
 Lab File ID : R314338

	Bromochloromethane		1,4-Difluorobenzene		Chlorobenzene-d5	
	Area	RT	Area	RT	Area	RT
WG1471270-2	440496	9.61	1115642	11.88	185080	16.60
Upper Limit	616694	9.94	1561899	12.21	259112	16.93
Lower Limit	264298	9.28	669385	11.55	111048	16.27
Sample ID						
WG1471270-3 LCS	440496	9.61	1115642	11.88	185080	16.60
WG1471270-4 BLANK	401450	9.62	1022347	11.88	160955	16.57
OA1	387932	9.61	999974	11.87	163053	16.59
IA-1 DUP	388732	9.60	994571	11.87	165940	16.59
1897-IA	390242	9.60	992094	11.86	162780	16.59
1897-SS	421606	9.59	1055326	11.86	169613	16.58

Area Upper Limit = +40% of internal standard area
 Area Lower Limit = - 40% of internal standard area

RT Upper Limit = +0.33 minutes of internal standard RT
 RT Lower Limit = -0.33 minutes of internal standard RT

* Values outside of QC limits





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Volatile Organics in Air: TO-15 (AIR)

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

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

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Volatile Organics in Air: TO-15 (AIR)

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

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Dibromochloromethane	124-48-1	0.2	0.0614	ppbV	70-130			25	25			
Dichlorodifluoromethane	75-71-8	0.2	0.0583	ppbV	70-130			25	25			
Diethyl carbonate	105-58-8	20	20	ppbV	70-130			25	25			
Dimethyl carbonate	616-38-6	20	20	ppbV	70-130			25	25			
Ethyl Alcohol	64-17-5	5	0.733	ppbV	40-160			25	25			
Ethyl Acetate	141-78-6	0.5	0.122	ppbV	70-130			25	25			
Ethylbenzene	100-41-4	0.2	0.0432	ppbV	70-130			25	25			
Ethyl methyl carbonate	623-53-0	20	20	ppbV	70-130			25	25			
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	0.2	0.0656	ppbV	70-130			25	25			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	76-14-2	0.2	0.0591	ppbV	70-130			25	25			
Hexachlorobutadiene	87-68-3	0.2	0.0529	ppbV	70-130			25	25			
iso-Propyl Alcohol	67-63-0	0.5	0.478	ppbV	40-160			25	25			
Methylene chloride	75-09-2	0.5	0.134	ppbV	70-130			25	25			
4-Methyl-2-pentanone	108-10-1	0.5	0.0421	ppbV	70-130			25	25			
Methyl tert butyl ether	1634-04-4	0.2	0.0525	ppbV	70-130			25	25			
Methyl Methacrylate	80-62-6	0.5	0.0697	ppbV	40-160			25	25			
p/m-Xylene	179601-23-1	0.4	0.091	ppbV	70-130			25	25			
o-Xylene	95-47-6	0.2	0.0453	ppbV	70-130			25	25			
Xylene (Total)	1330-20-7	0.2	0.0453	ppbV				25	25			
Heptane	142-82-5	0.2	0.047	ppbV	70-130			25	25			
n-Heptane	142-82-5	0.2	0.047	ppbV	70-130			25	25			
n-Hexane	110-54-3	0.2	0.0364	ppbV	70-130			25	25			
Propylene	115-07-1	0.5	0.0599	ppbV	70-130			25	25			
Styrene	100-42-5	0.2	0.0434	ppbV	70-130			25	25			
Tetrachloroethene	127-18-4	0.2	0.0655	ppbV	70-130			25	25			
Thiophene	110-02-1	0.2	0.0389	ppbV	70-130			25	25			
Tetrahydrofuran	109-99-9	0.5	0.0568	ppbV	70-130			25	25			
Toluene	108-88-3	0.2	0.052	ppbV	70-130			25	25			
trans-1,2-Dichloroethene	156-60-5	0.2	0.0643	ppbV	70-130			25	25			
1,2-Dichloroethene (total)	540-59-0	0.2	0.0643	ppbV				25	25			
trans-1,3-Dichloropropene	10061-02-6	0.2	0.0436	ppbV	70-130			25	25			
1,3-Dichloropropene, Total	542-75-6	0.2	0.0409	ppbV				25	25			
Trichloroethene	79-01-6	0.2	0.0505	ppbV	70-130			25	25			
Trichlorofluoromethane	75-69-4	0.2	0.0686	ppbV	70-130			25	25			
Vinyl acetate	108-05-4	1	0.0479	ppbV	70-130			25	25			
Vinyl bromide	593-60-2	0.2	0.0717	ppbV	70-130			25	25			
Vinyl chloride	75-01-4	0.2	0.0627	ppbV	70-130			25	25			
Naphthalene	91-20-3	0.2	0.0885	ppbV	70-130			25	25			
Total HC As Hexane	NONE	10	0.0364	ppbV	70-130			25	25			
Total VOCs As Toluene	NONE	10	0.052	ppbV	70-130			25	25			
Propane	74-98-6	0.5	0.132	ppbV	70-130			25	25			
Acrylonitrile	107-13-1	0.5	0.0555	ppbV	70-130			25	25			

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Volatile Organics in Air: TO-15 (AIR)

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

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Acrolein	107-02-8	0.5	0.0596	ppbV	60-113			25	25			
1,1,1,2-Tetrachloroethane	630-20-6	0.2	0.0561	ppbV	70-130			25	25			
Isopropylbenzene	98-82-8	0.2	0.0491	ppbV	70-130			25	25			
1,2,3-Trichloropropane	96-18-4	0.2	0.061	ppbV	70-130			25	25			
Acetonitrile	75-05-8	0.2	0.082	ppbV	70-130			25	25			
Bromobenzene	108-86-1	0.2	0.0613	ppbV	70-130			25	25			
Chlorodifluoromethane	75-45-6	0.2	0.0584	ppbV	70-130			25	25			
Dichlorofluoromethane	75-43-4	0.2	0.0807	ppbV	70-130			25	25			
Dibromomethane	74-95-3	0.2	0.0563	ppbV	70-130			25	25			
Pentane	109-66-0	0.2	0.0659	ppbV	70-130			25	25			
Octane	111-65-9	0.2	0.0445	ppbV	70-130			25	25			
Tertiary-Amyl Methyl Ether	994-05-8	0.2	0.0476	ppbV	70-130			25	25			
o-Chlorotoluene	95-49-8	0.2	0.0486	ppbV	70-130			25	25			
p-Chlorotoluene	106-43-4	0.2	0.056	ppbV	70-130			25	25			
2,2-Dichloropropane	594-20-7	0.2	0.0458	ppbV	70-130			25	25			
1,1-Dichloropropene	563-58-6	0.2	0.0457	ppbV	70-130			25	25			
Isopropyl Ether	108-20-3	0.2	0.0621	ppbV	70-130			25	25			
Ethyl-Tert-Butyl Ether	637-92-3	0.2	0.0422	ppbV	70-130			25	25			
1,2,3-Trichlorobenzene	87-61-6	0.2	0.0715	ppbV	70-130			25	25			
Ethyl ether	60-29-7	0.2	0.0737	ppbV	70-130			25	25			
n-Butylbenzene	104-51-8	0.2	0.044	ppbV	70-130			25	25			
sec-Butylbenzene	135-98-8	0.2	0.0429	ppbV	70-130			25	25			
tert-Butylbenzene	98-06-6	0.2	0.042	ppbV	70-130			25	25			
1,2-Dibromo-3-chloropropane	96-12-8	0.2	0.0495	ppbV	70-130			25	25			
p-Isopropyltoluene	99-87-6	0.2	0.052	ppbV	70-130			25	25			
n-Propylbenzene	103-65-1	0.2	0.0419	ppbV	70-130			25	25			
1,3-Dichloropropane	142-28-9	0.2	0.106	ppbV	70-130			25	25			
Methanol	67-56-1	5	1.84	ppbV	70-130			25	25			
Acetaldehyde	75-07-0	2.5	0.444	ppbV	70-130			25	25			
Butane	106-97-8	0.2	0.0646	ppbV	70-130			25	25			
Nonane (C9)	111-84-2	0.2	0.0463	ppbV	70-130			25	25			
Decane (C10)	124-18-5	0.2	0.0404	ppbV	70-130			25	25			
Undecane	1120-21-4	0.2	0.0427	ppbV	70-130			25	25			
Indane	496-11-7	0.2	0.0507	ppbV	70-130			25	25			
Indene	95-13-6	0.2	0.0433	ppbV	70-130			25	25			
1-Methylnaphthalene	90-12-0	1	0.466	ppbV	70-130			25	25			
Dodecane (C12)	112-40-3	0.2	0.0658	ppbV	70-130			25	25			
Butyl Acetate	123-86-4	0.5	0.126	ppbV	70-130			25	25			
tert-Butyl Alcohol	75-65-0	0.5	0.0466	ppbV	70-130			25	25			
2-Methylnaphthalene	91-57-6	1	0.393	ppbV	70-130			25	25			
1,2-Dichloroethane-d4	17060-07-0										70-130	
Toluene-d8	2037-26-5										70-130	

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Volatile Organics in Air: TO-15 (AIR)

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

[illegible]

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Sol/L Solids only)
Please Note that the Information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



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Volatiles Sample Data

Results Summary Form 1 Volatile Organics in Air

Client : Castleton Environmental, Inc.
 Project Name : LUNA2101
 Lab ID : L2109987-01
 Client ID : 1897-SS
 Sample Location : 1897 DEER PARK AVE
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R314355
 Sample Amount : 250 ml

Lab Number : L2109987
 Project Number : LUNA2101
 Date Collected : 02/25/21 14:23
 Date Received : 03/01/21
 Date Analyzed : 03/06/21 01:21
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRPIANO3
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.491	0.200	--	2.43	0.989	--	
74-87-3	Chloromethane	0.527	0.200	--	1.09	0.413	--	
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	14.7	5.00	--	27.7	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	3.55	1.00	--	8.43	2.38	--	
75-69-4	Trichlorofluoromethane	0.236	0.200	--	1.33	1.12	--	
67-63-0	Isopropanol	4.61	0.500	--	11.3	1.23	--	
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	ND	0.500	--	ND	1.47	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : Castleton Environmental, Inc.
 Project Name : LUNA2101
 Lab ID : L2109987-01
 Client ID : 1897-SS
 Sample Location : 1897 DEER PARK AVE
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R314355
 Sample Amount : 250 ml

Lab Number : L2109987
 Project Number : LUNA2101
 Date Collected : 02/25/21 14:23
 Date Received : 03/01/21
 Date Analyzed : 03/06/21 01:21
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRPIANO3
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
71-43-2	Benzene	0.262	0.200	--	0.837	0.639	--	
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	0.834	0.200	--	3.14	0.754	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	0.853	0.400	--	3.71	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : Castleton Environmental, Inc.
 Project Name : LUNA2101
 Lab ID : L2109987-01
 Client ID : 1897-SS
 Sample Location : 1897 DEER PARK AVE
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R314355
 Sample Amount : 250 ml

Lab Number : L2109987
 Project Number : LUNA2101
 Date Collected : 02/25/21 14:23
 Date Received : 03/01/21
 Date Analyzed : 03/06/21 01:21
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRPIANO3
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	0.261	0.200	--	1.13	0.869	--	
622-96-8	4-Ethyltoluene	0.229	0.200	--	1.13	0.983	--	
108-67-8	1,3,5-Trimethylbenzene	0.594	0.200	--	2.92	0.983	--	
95-63-6	1,2,4-Trimethylbenzene	2.05	0.200	--	10.1	0.983	--	
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Results Summary

Form 1

Volatile Organics in Air

Client : Castleton Environmental, Inc.
 Project Name : LUNA2101
 Lab ID : L2109987-02
 Client ID : 1897-IA
 Sample Location : 1897 DEER PARK AVE
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R314350
 Sample Amount : 250 ml

Lab Number : L2109987
 Project Number : LUNA2101
 Date Collected : 02/26/21 14:24
 Date Received : 03/01/21
 Date Analyzed : 03/05/21 22:05
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRPIANO3
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.500	0.200	--	2.47	0.989	--	
74-87-3	Chloromethane	0.683	0.200	--	1.41	0.413	--	
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	180	5.00	--	339	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	5.74	1.00	--	13.6	2.38	--	
75-69-4	Trichlorofluoromethane	0.265	0.200	--	1.49	1.12	--	
67-63-0	Isopropanol	60.5	0.500	--	149	1.23	--	
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	0.506	0.500	--	1.49	1.47	--	
141-78-6	Ethyl Acetate	0.645	0.500	--	2.32	1.80	--	
67-66-3	Chloroform	0.250	0.200	--	1.22	0.977	--	
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	0.243	0.200	--	0.856	0.705	--	
71-43-2	Benzene	0.376	0.200	--	1.20	0.639	--	



Results Summary

Form 1

Volatile Organics in Air

Client : Castleton Environmental, Inc.
 Project Name : LUNA2101
 Lab ID : L2109987-02
 Client ID : 1897-IA
 Sample Location : 1897 DEER PARK AVE
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R314350
 Sample Amount : 250 ml

Lab Number : L2109987
 Project Number : LUNA2101
 Date Collected : 02/26/21 14:24
 Date Received : 03/01/21
 Date Analyzed : 03/05/21 22:05
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRPIANO3
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
142-82-5	Heptane	0.263	0.200	--	1.08	0.820	--	
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	0.506	0.200	--	1.91	0.754	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : Castleton Environmental, Inc.
 Project Name : LUNA2101
 Lab ID : L2109987-02
 Client ID : 1897-IA
 Sample Location : 1897 DEER PARK AVE
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R314350
 Sample Amount : 250 ml

Lab Number : L2109987
 Project Number : LUNA2101
 Date Collected : 02/26/21 14:24
 Date Received : 03/01/21
 Date Analyzed : 03/05/21 22:05
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRPIANO3
 GC Column : RTX-1

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

Results Summary

Form 1

Volatile Organics in Air

Client : Castleton Environmental, Inc.
 Project Name : LUNA2101
 Lab ID : L2109987-03
 Client ID : OA1
 Sample Location : 1897 DEER PARK AVE
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R314343
 Sample Amount : 250 ml

Lab Number : L2109987
 Project Number : LUNA2101
 Date Collected : 02/26/21 14:20
 Date Received : 03/01/21
 Date Analyzed : 03/05/21 17:26
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRPIANO3
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.500	0.200	--	2.47	0.989	--	
74-87-3	Chloromethane	0.665	0.200	--	1.37	0.413	--	
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	12.9	5.00	--	24.3	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	3.37	1.00	--	8.01	2.38	--	
75-69-4	Trichlorofluoromethane	0.257	0.200	--	1.44	1.12	--	
67-63-0	Isopropanol	4.84	0.500	--	11.9	1.23	--	
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	ND	0.500	--	ND	1.47	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
71-43-2	Benzene	0.265	0.200	--	0.847	0.639	--	



Results Summary

Form 1

Volatile Organics in Air

Client : Castleton Environmental, Inc.
 Project Name : LUNA2101
 Lab ID : L2109987-03
 Client ID : OA1
 Sample Location : 1897 DEER PARK AVE
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R314343
 Sample Amount : 250 ml

Lab Number : L2109987
 Project Number : LUNA2101
 Date Collected : 02/26/21 14:20
 Date Received : 03/01/21
 Date Analyzed : 03/05/21 17:26
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRPIANO3
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	0.414	0.200	--	1.56	0.754	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : Castleton Environmental, Inc.
 Project Name : LUNA2101
 Lab ID : L2109987-03
 Client ID : OA1
 Sample Location : 1897 DEER PARK AVE
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R314343
 Sample Amount : 250 ml

Lab Number : L2109987
 Project Number : LUNA2101
 Date Collected : 02/26/21 14:20
 Date Received : 03/01/21
 Date Analyzed : 03/05/21 17:26
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRPIANO3
 GC Column : RTX-1

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

Results Summary

Form 1

Volatile Organics in Air

Client : Castleton Environmental, Inc.
 Project Name : LUNA2101
 Lab ID : WG1471270-4
 Client ID : WG1471270-4BLANK
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R314341
 Sample Amount : 250 ml

Lab Number : L2109987
 Project Number : LUNA2101
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 03/05/21 15:36
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRPIANO3
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	ND	5.00	--	ND	9.42	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	ND	0.500	--	ND	1.23	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	ND	0.500	--	ND	1.47	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : Castleton Environmental, Inc.
 Project Name : LUNA2101
 Lab ID : WG1471270-4
 Client ID : WG1471270-4BLANK
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R314341
 Sample Amount : 250 ml

Lab Number : L2109987
 Project Number : LUNA2101
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 03/05/21 15:36
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRPIANO3
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : Castleton Environmental, Inc.
 Project Name : LUNA2101
 Lab ID : WG1471270-4
 Client ID : WG1471270-4BLANK
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R314341
 Sample Amount : 250 ml

Lab Number : L2109987
 Project Number : LUNA2101
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 03/05/21 15:36
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRPIANO3
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305T\
 Data File : r314343.D
 Acq On : 5 Mar 2021 5:26 PM
 Operator : AIRPIAN03:EW
 Sample : L2109987-03,3,250,250
 Misc : WG1471270,ICAL17647
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 07 09:56:06 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305T\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sun Mar 07 09:51:35 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\03\0305T\r314338.D
 Sub List : T015-NY-7-SIM - .

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

Internal Standards						
1) bromochloromethane	9.608	49	387932	10.000	ppbV	0.00
Standard Area = 440496			Recovery =		88.07%	
43) 1,4-difluorobenzene	11.873	114	999974	10.000	ppbV	0.00
Standard Area = 1115642			Recovery =		89.63%	
67) chlorobenzene-D5	16.592	54	163053	10.000	ppbV	0.00
Standard Area = 185080			Recovery =		88.10%	

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) dichlorodifluoromethane	4.024	85	14439	0.500	ppbV	100
6) chloromethane	4.204	50	10630	0.665	ppbV	99
7) Freon-114	4.336		0	N.D.		
10) 1,3-butadiene	4.630		0	N.D.		
13) bromomethane	0.000		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	5.347	31	197672	12.946	ppbV	88
17) vinyl bromide	0.000		0	N.D.		
19) acetone	5.923	43	90611M6	3.369	ppbV	
21) trichlorofluoromethane	6.120	101	5746	0.257	ppbV	98
22) isopropyl alcohol	6.253	45	167136	4.843	ppbV	98
27) tertiary butyl alcohol	7.010	59	4113	0.124	ppbV #	75
28) methylene chloride	7.058	49	2898	0.142	ppbV	96
29) 3-chloropropene	0.000		0	N.D.	d	
30) carbon disulfide	7.352		0	N.D.		
31) Freon 113	7.388	101	2712	0.096	ppbV	92
32) trans-1,2-dichloroethene	0.000		0	N.D.		
33) 1,1-dichloroethane	0.000		0	N.D.		
34) MTBE	0.000		0	N.D.	d	
36) 2-butanone	8.925	43	11868	0.243	ppbV	96
38) Ethyl Acetate	9.733		0	N.D.		
39) chloroform	9.775		0	N.D.		
40) Tetrahydrofuran	10.258		0	N.D.		
42) 1,2-dichloroethane	10.625		0	N.D.		
44) hexane	9.683	57	4682	0.120	ppbV #	52
50) benzene	11.440	78	19848	0.265	ppbV	98
53) cyclohexane	11.753		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305T\
 Data File : r314343.D
 Acq On : 5 Mar 2021 5:26 PM
 Operator : AIRPIAN03:EW
 Sample : L2109987-03,3,250,250
 Misc : WG1471270,ICAL17647
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 07 09:56:06 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305T\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sun Mar 07 09:51:35 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\03\0305T\r314338.D
 Sub List : T015-NY-7-SIM - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
56) 1,2-dichloropropane	0.000		0	N.D.		
57) bromodichloromethane	0.000		0	N.D.		
58) 1,4-dioxane	0.000		0	N.D.		
60) 2,2,4-trimethylpentane	12.720	57	10288	0.085	ppbV #	88
62) heptane	13.040	43	3610	0.073	ppbV #	91
63) cis-1,3-dichloropropene	0.000		0	N.D.		
64) 4-methyl-2-pentanone	13.758	43	3135	0.056	ppbV	94
65) trans-1,3-dichloropropene	0.000		0	N.D.		
66) 1,1,2-trichloroethane	0.000		0	N.D.		
68) toluene	14.817	91	33194	0.414	ppbV	100
72) 2-hexanone	0.000		0	N.D.	d	
74) dibromochloromethane	0.000		0	N.D.		
75) 1,2-dibromoethane	0.000		0	N.D.		
80) chlorobenzene	0.000		0	N.D.		
81) ethylbenzene	16.983	91	5489	0.057	ppbV	89
83) m+p-xylene	17.142	91	14548	0.189	ppbV	87
84) bromoform	0.000		0	N.D.		
85) styrene	17.475		0	N.D.		
86) 1,1,2,2-tetrachloroethane	0.000		0	N.D.		
87) o-xylene	17.567	91	4954	0.065	ppbV	85
96) 4-ethyl toluene	0.000		0	N.D.	d	
97) 1,3,5-trimethylbenzene	18.683		0	N.D.		
99) 1,2,4-trimethylbenzene	19.017	105	7112	0.078	ppbV #	65
101) Benzyl Chloride	19.017		0	N.D.		
102) 1,3-dichlorobenzene	0.000		0	N.D.		
103) 1,4-dichlorobenzene	0.000		0	N.D.		
107) 1,2-dichlorobenzene	0.000		0	N.D.		
115) 1,2,4-trichlorobenzene	0.000		0	N.D.		
119) hexachlorobutadiene	0.000		0	N.D.		

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

Sub List : T015-NY-7-SIM - .\Airpiano3\2021\03\0305T\r314338.D

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305T\

Data File : r314343.D

Acq On : 5 Mar 2021 5:26 PM

Operator : AIRPIANO3:EW

Sample : L2109987-03,3,250,250

Misc : WG1471270,ICAL17647

ALS Vial : 0 Sample Multiplier: 1

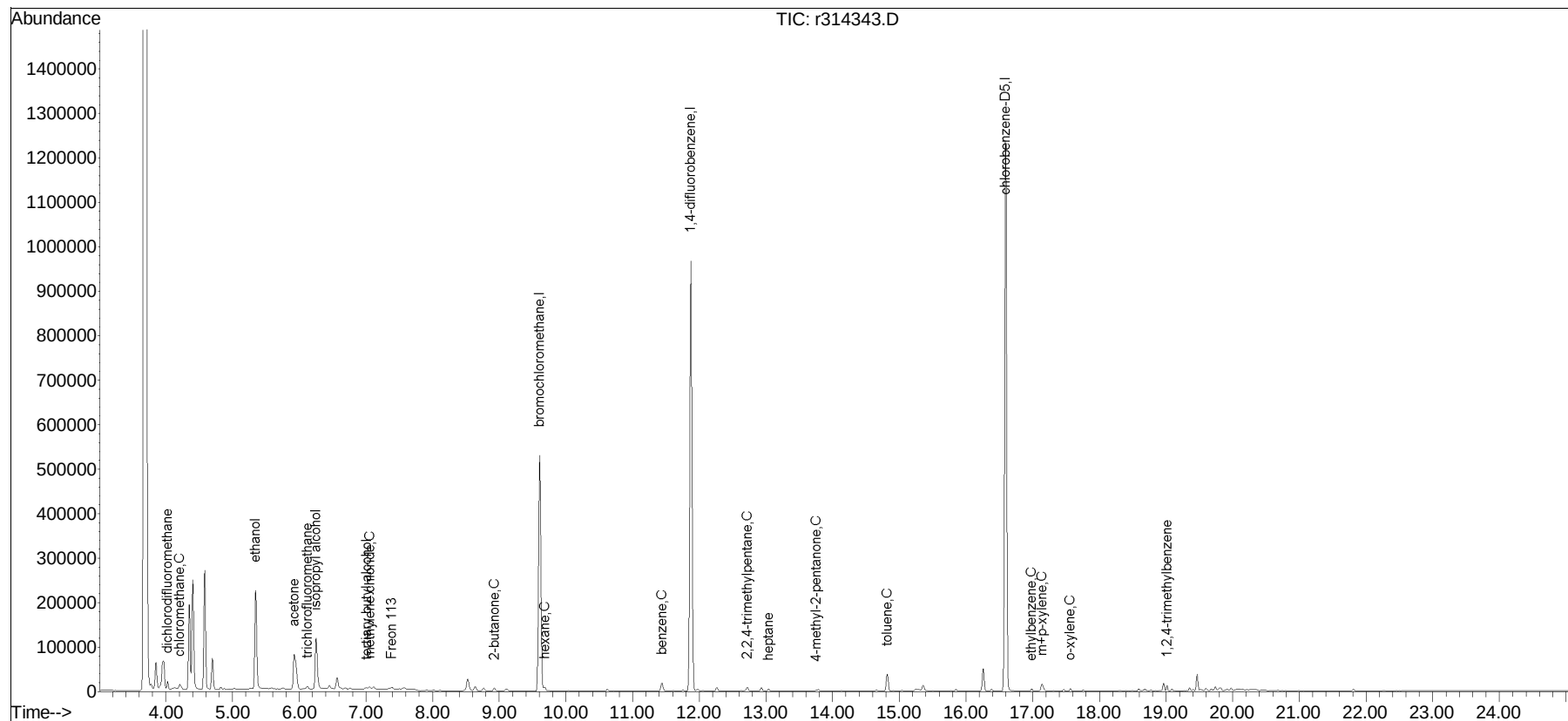
Quant Time: Mar 07 09:56:06 2021

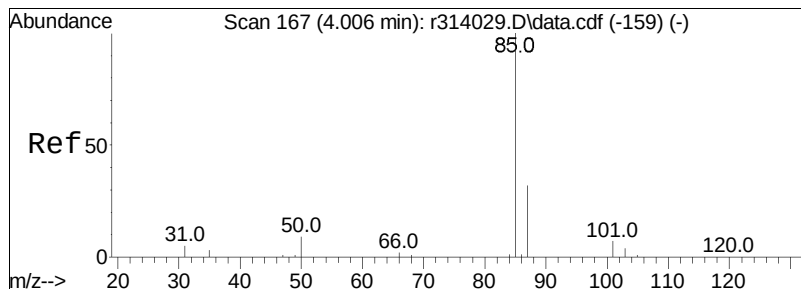
Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305T\TFS3_210219.M

Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis

QLast Update : Sun Mar 07 09:51:35 2021

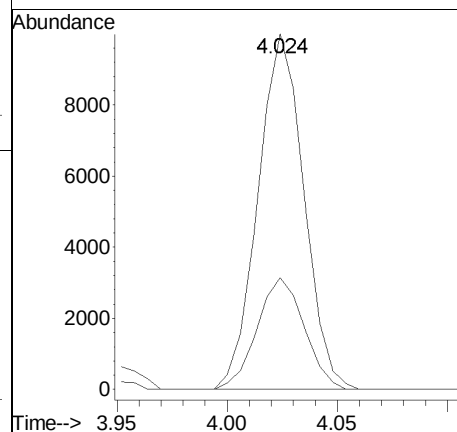
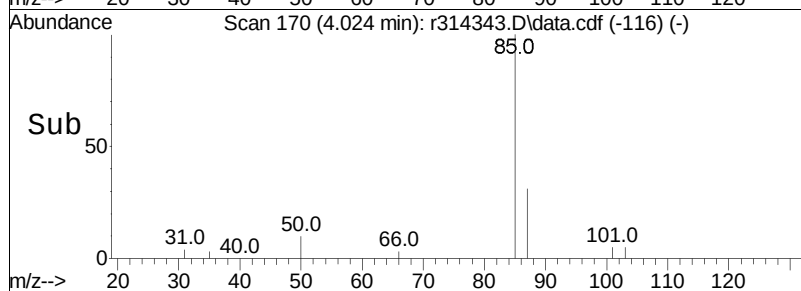
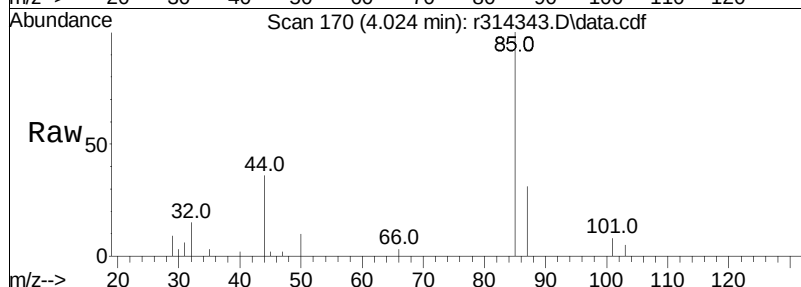
Response via : Initial Calibration

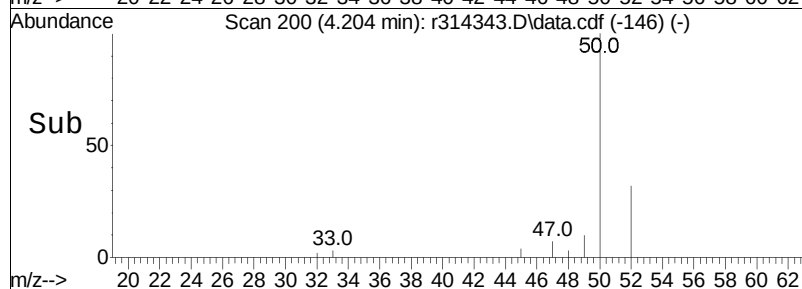
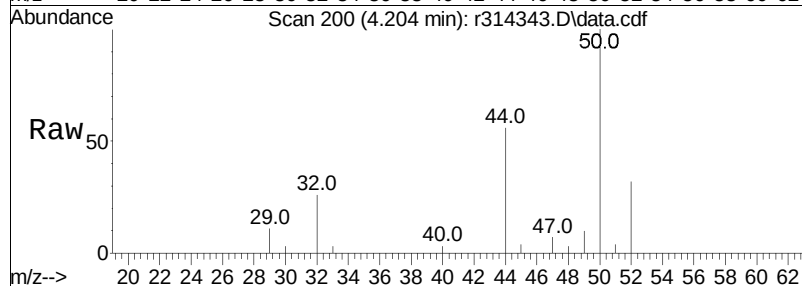
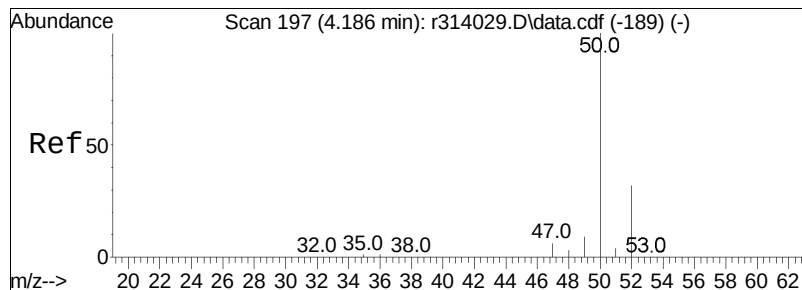




#5
 dichlorodifluoromethane
 Concen: 0.50 ppbV
 RT: 4.024 min Scan# 170
 Delta R.T. -0.006 min
 Lab File: r314343.D
 Acq: 5 Mar 2021 5:26 PM

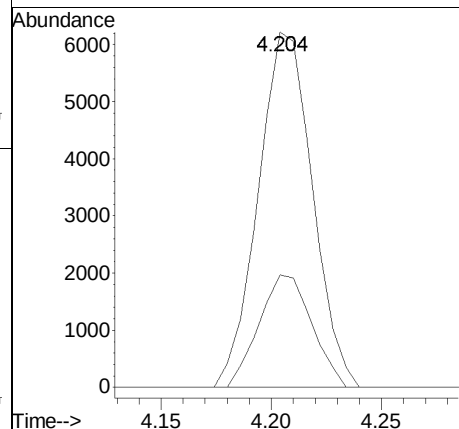
Tgt Ion: 85 Resp: 14439
 Ion Ratio Lower Upper
 85 100
 87 31.4 25.4 38.0

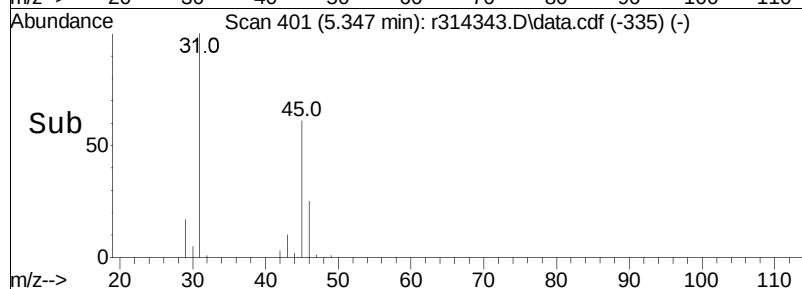
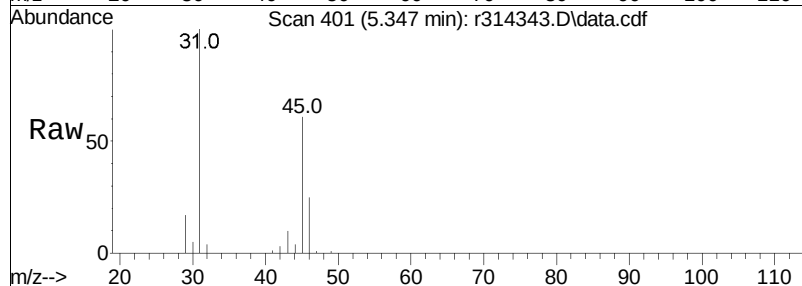
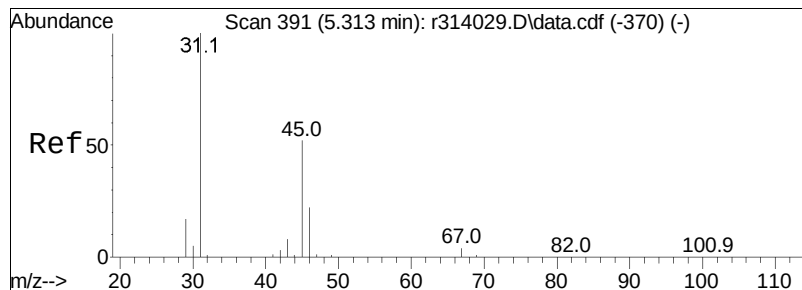




#6
 chloromethane
 Concen: 0.66 ppbV
 RT: 4.204 min Scan# 200
 Delta R.T. -0.006 min
 Lab File: r314343.D
 Acq: 5 Mar 2021 5:26 PM

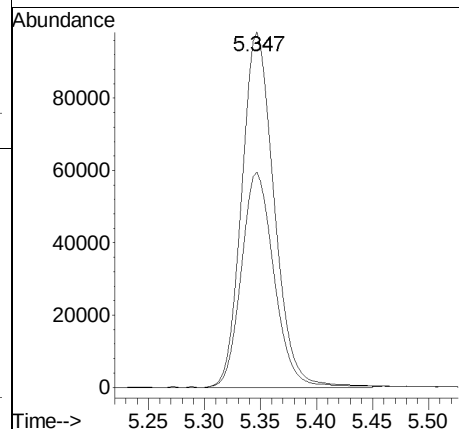
Tgt	Ion	Ratio	Lower	Upper
50	100			
52	31.7		26.0	39.0

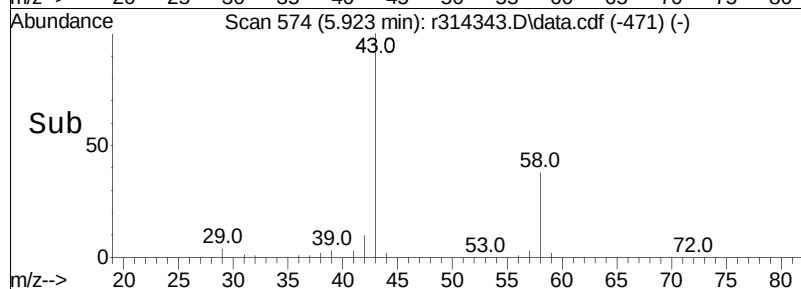
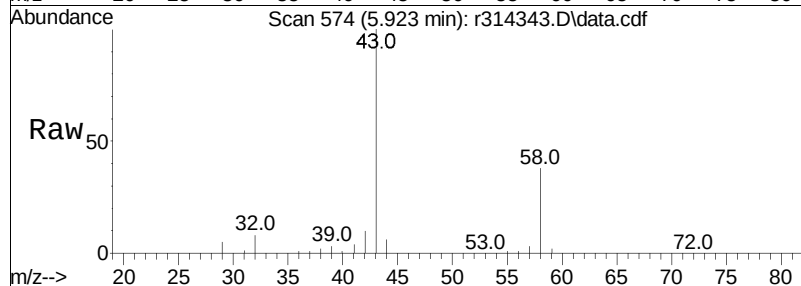
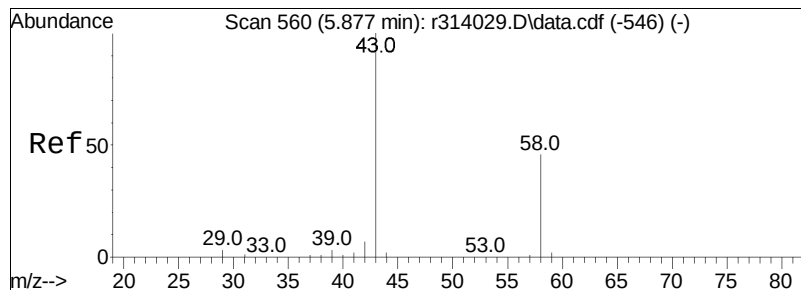




#15
ethanol
Concen: 12.95 ppbV
RT: 5.347 min Scan# 401
Delta R.T. 0.003 min
Lab File: r314343.D
Acq: 5 Mar 2021 5:26 PM

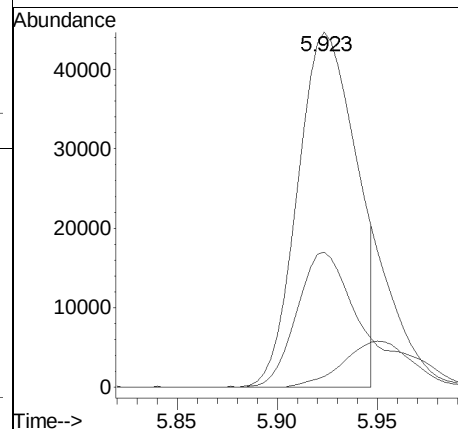
Tgt	Ion	Ratio	Lower	Upper
31	100			
45	60.6	41.9	62.9	

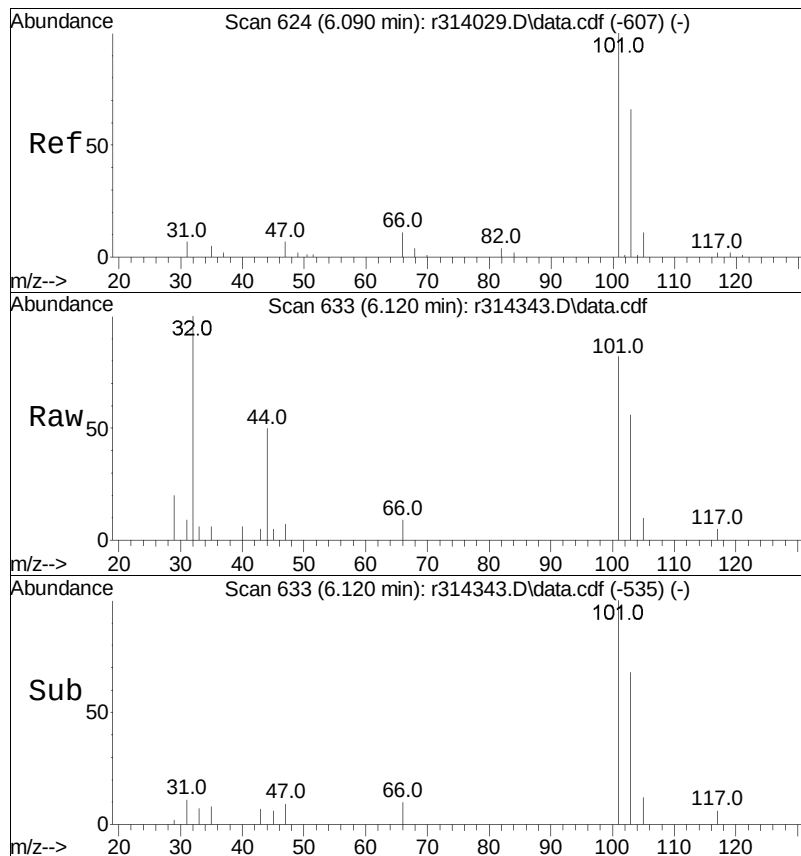




#19
acetone
Concen: 3.37 ppbV m
RT: 5.923 min Scan# 574
Delta R.T. 0.013 min
Lab File: r314343.D
Acq: 5 Mar 2021 5:26 PM

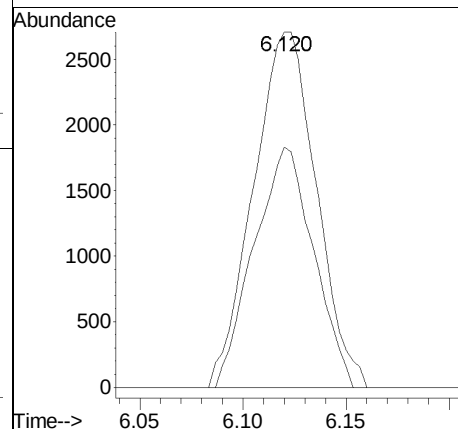
Tgt Ion	Ratio	Lower	Upper
43	100		
58	38.1	36.7	55.1
57	3.1	1.0	1.6#

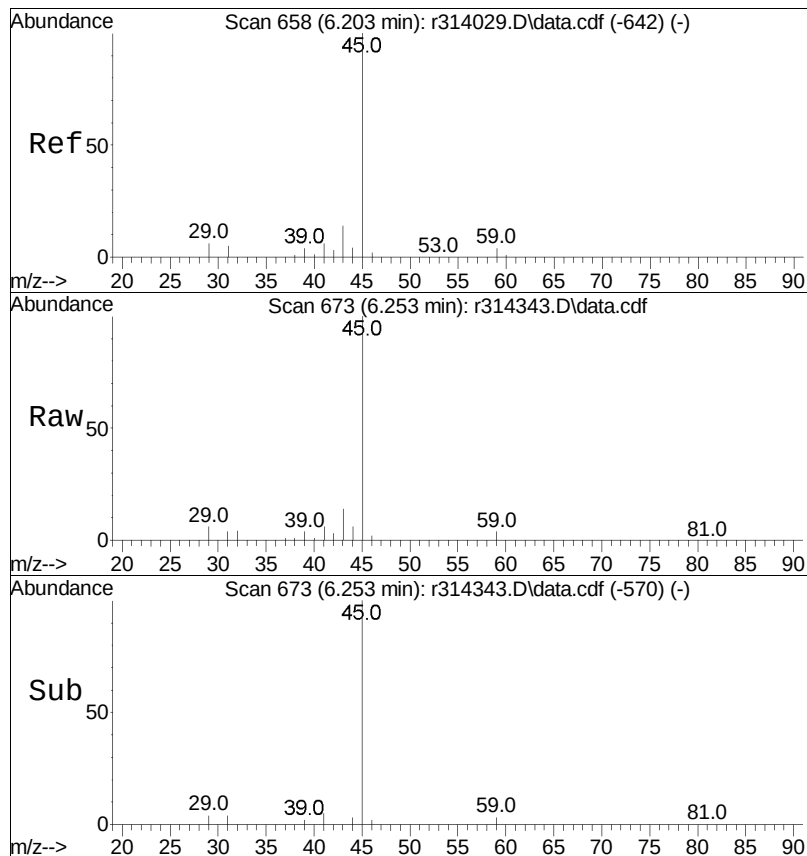




#21
trichlorofluoromethane
Concen: 0.26 ppbV
RT: 6.120 min Scan# 633
Delta R.T. -0.003 min
Lab File: r314343.D
Acq: 5 Mar 2021 5:26 PM

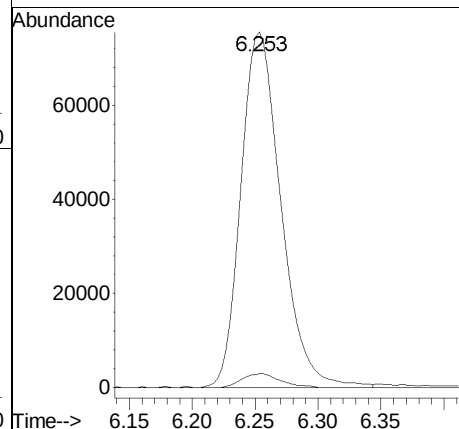
Tgt	Ion	Ratio	Lower	Upper
101	101	100		
103	67.6	52.6	78.8	

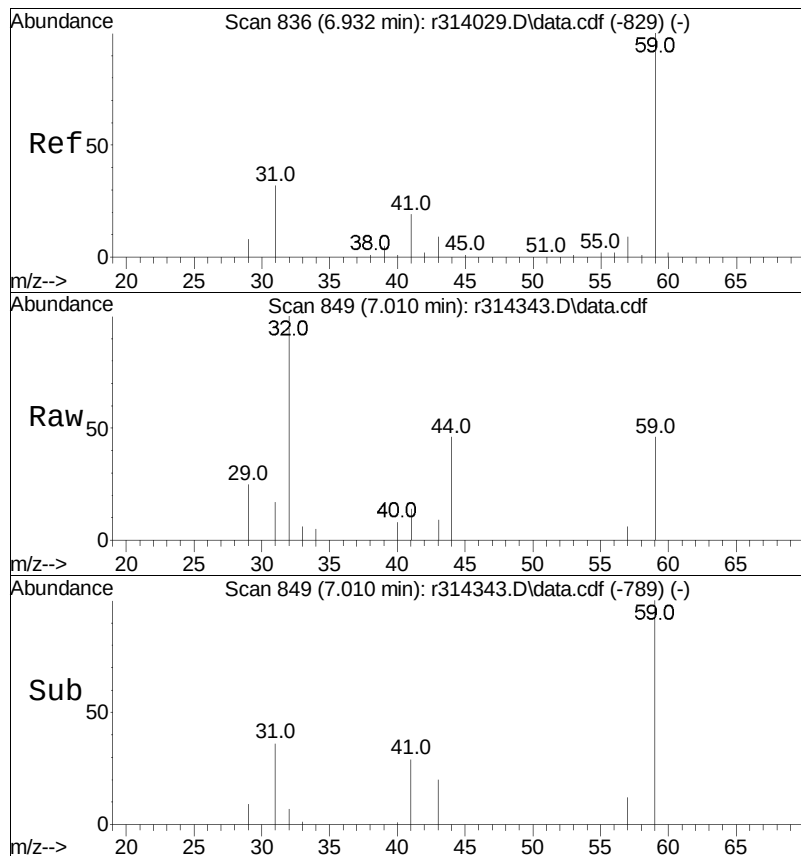




#22
 isopropyl alcohol
 Concen: 4.84 ppbV
 RT: 6.253 min Scan# 673
 Delta R.T. 0.013 min
 Lab File: r314343.D
 Acq: 5 Mar 2021 5:26 PM

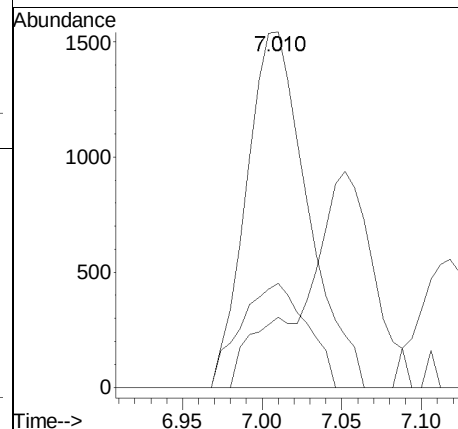
Tgt Ion	Ratio	Lower	Upper
45	100		
59	3.8	3.5	5.3

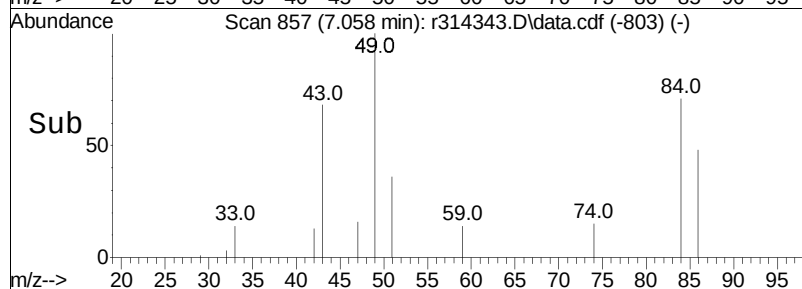
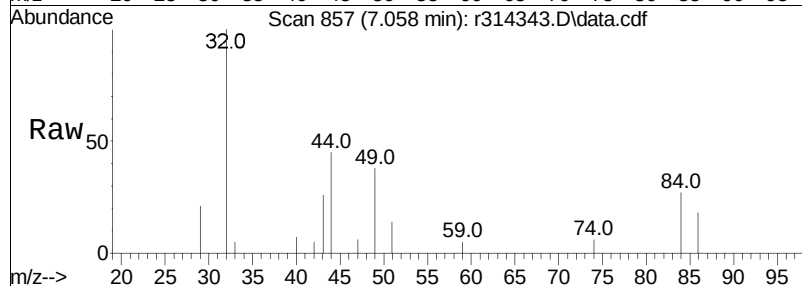
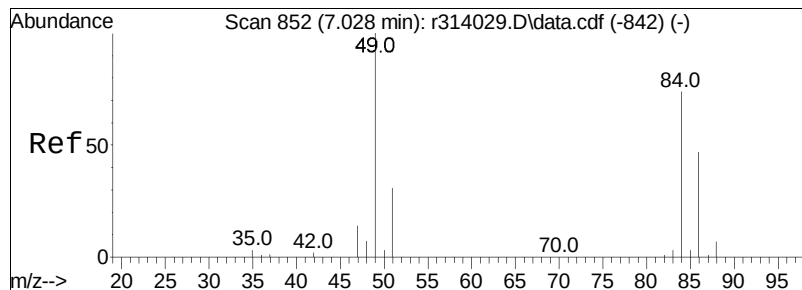




#27
 tertiary butyl alcohol
 Concen: 0.12 ppbV
 RT: 7.010 min Scan# 849
 Delta R.T. 0.036 min
 Lab File: r314343.D
 Acq: 5 Mar 2021 5:26 PM

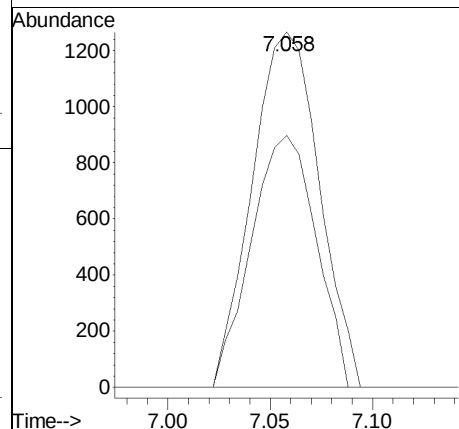
Tgt Ion:	59	Resp:	4113
Ion Ratio	Lower	Upper	
59	100		
41	29.3	15.0	22.6#
43	19.8	7.4	11.2#

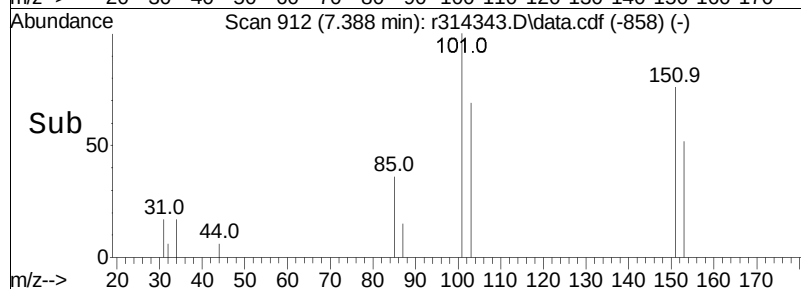
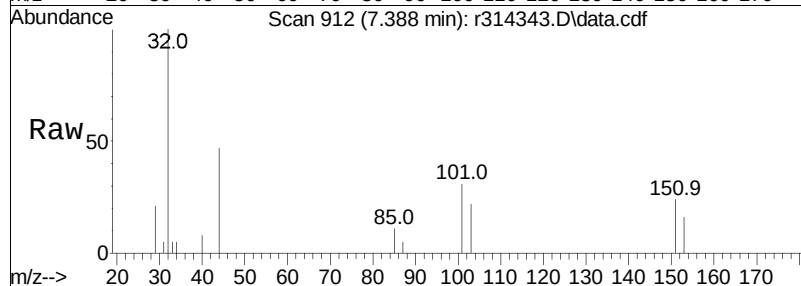
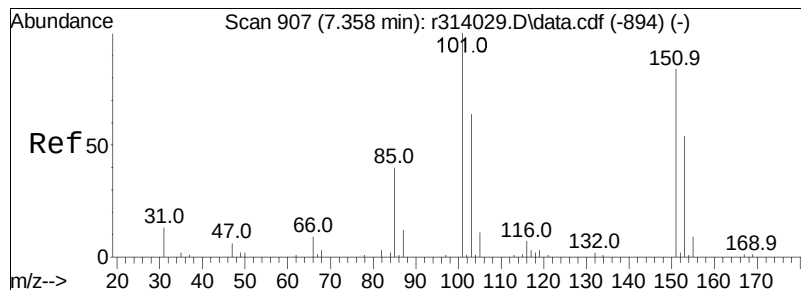




#28
 methylene chloride
 Concen: 0.14 ppbV
 RT: 7.058 min Scan# 857
 Delta R.T. -0.006 min
 Lab File: r314343.D
 Acq: 5 Mar 2021 5:26 PM

Tgt Ion:	49	84	Ratio	Lower	Upper
Resp:	2898				
Ion Ratio	100	70.9			
			59.5		89.3





#31

Freon 113

Concen: 0.10 ppbV

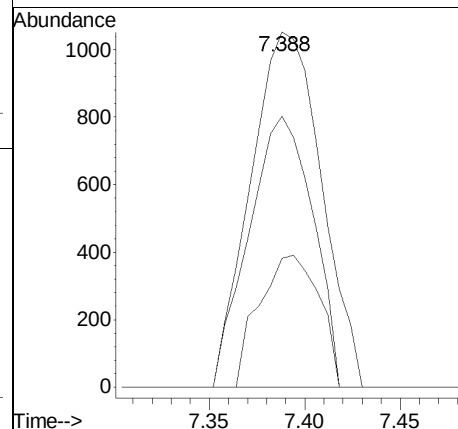
RT: 7.388 min Scan# 912

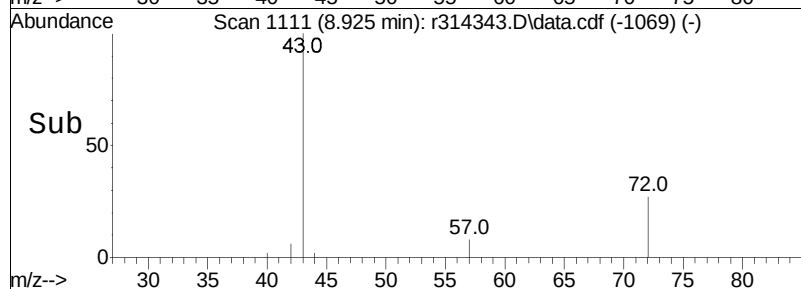
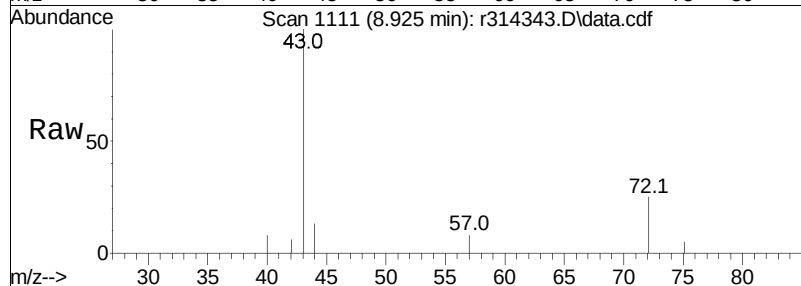
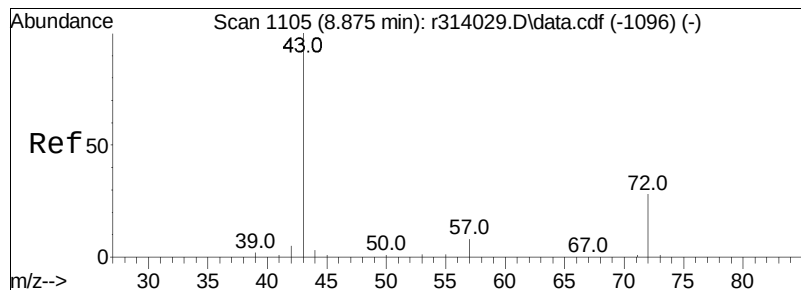
Delta R.T. -0.006 min

Lab File: r314343.D

Acq: 5 Mar 2021 5:26 PM

Tgt Ion:	101	Resp:	2712
Ion Ratio	Lower	Upper	
101	100		
85	36.3	31.7	47.5
151	76.3	67.4	101.0





#36

2-butanone

Concen: 0.24 ppbV

RT: 8.925 min Scan# 1111

Delta R.T. 0.017 min

Lab File: r314343.D

Acq: 5 Mar 2021 5:26 PM

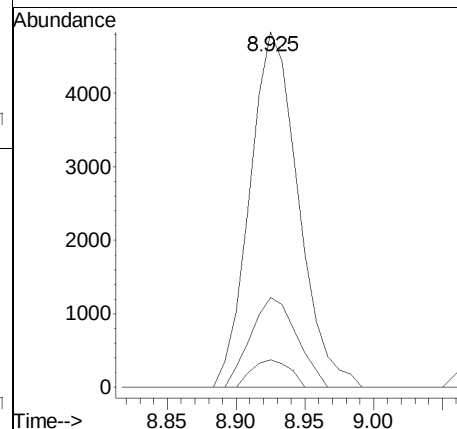
Tgt Ion: 43 Resp: 11868

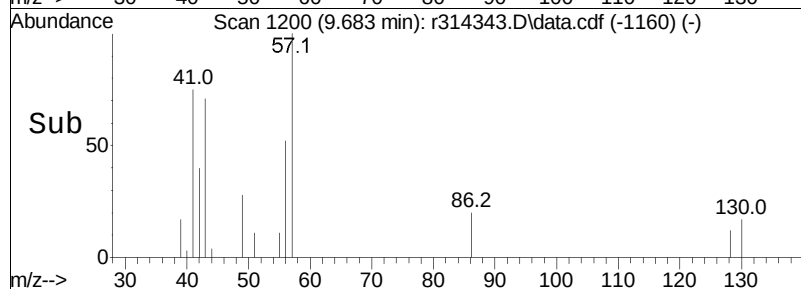
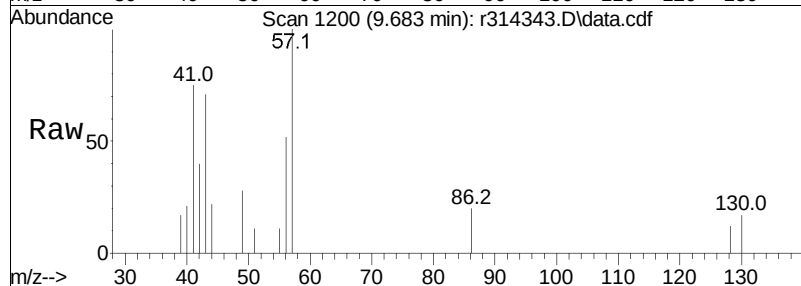
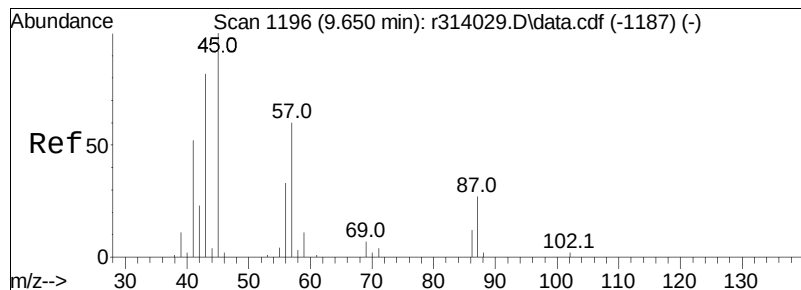
Ion Ratio Lower Upper

43 100

72 25.3 22.2 33.2

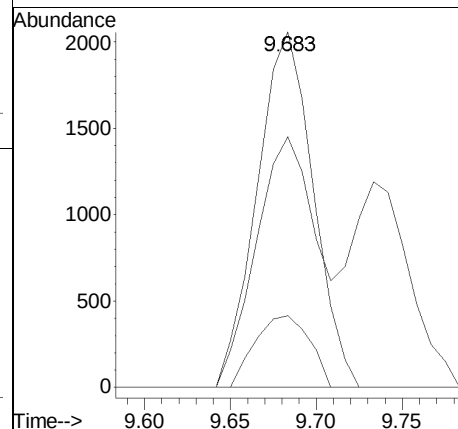
57 7.8 6.3 9.5

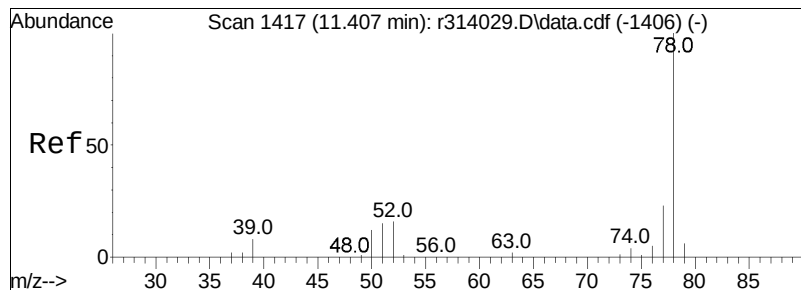




#44
hexane
Concen: 0.12 ppbV
RT: 9.683 min Scan# 1200
Delta R.T. 0.000 min
Lab File: r314343.D
Acq: 5 Mar 2021 5:26 PM

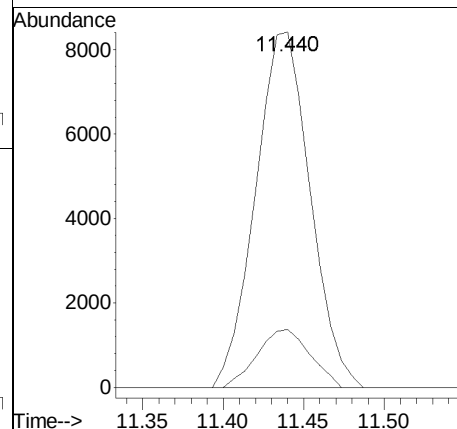
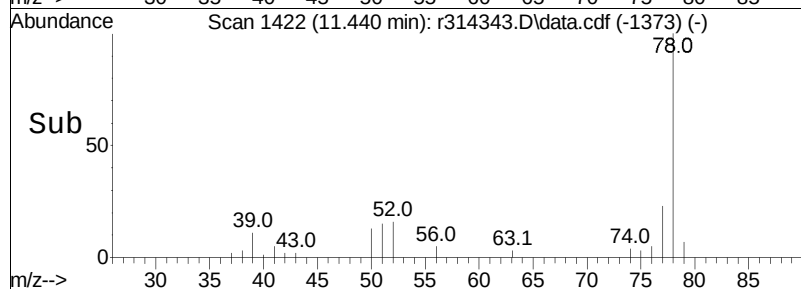
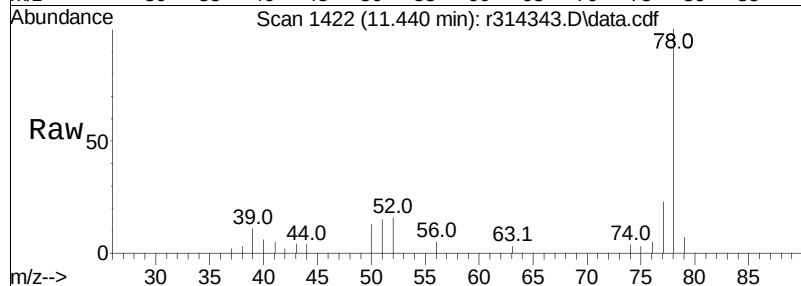
Tgt	Ion	Ratio	Lower	Upper
57	100			
43	70.5	108.5	162.7#	
86	20.2	16.0	24.0	

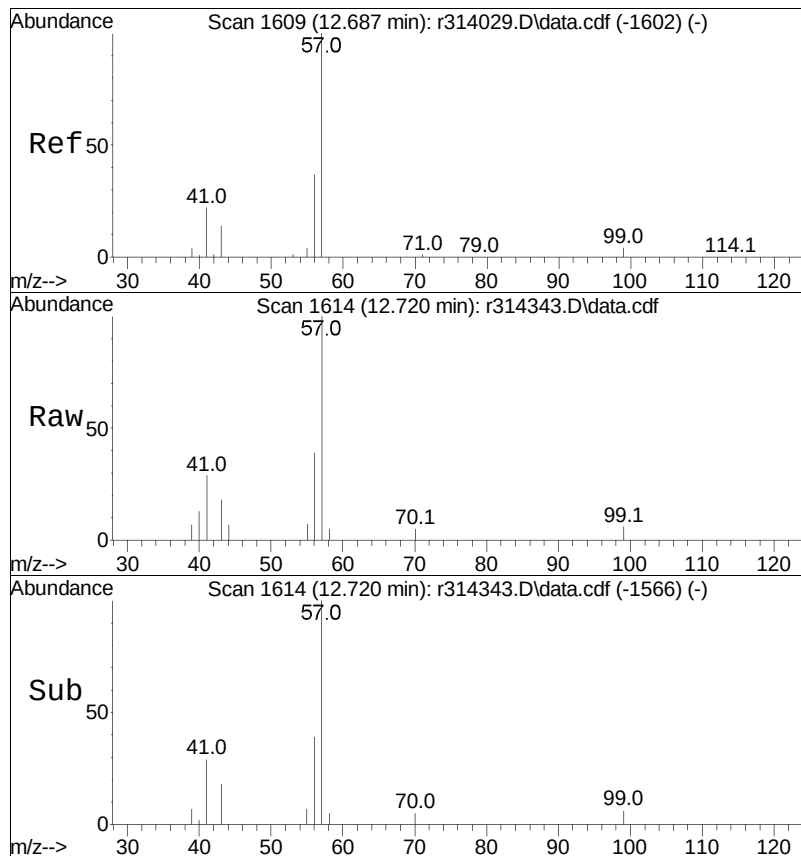




#50
benzene
Concen: 0.26 ppbV
RT: 11.440 min Scan# 1422
Delta R.T. 0.000 min
Lab File: r314343.D
Acq: 5 Mar 2021 5:26 PM

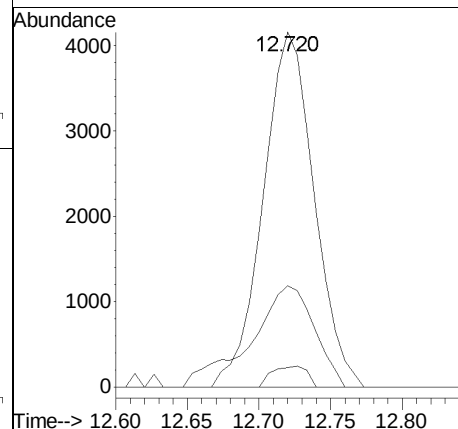
Tgt Ion	Ratio	Lower	Upper
78	100		
52	16.3	12.5	18.7

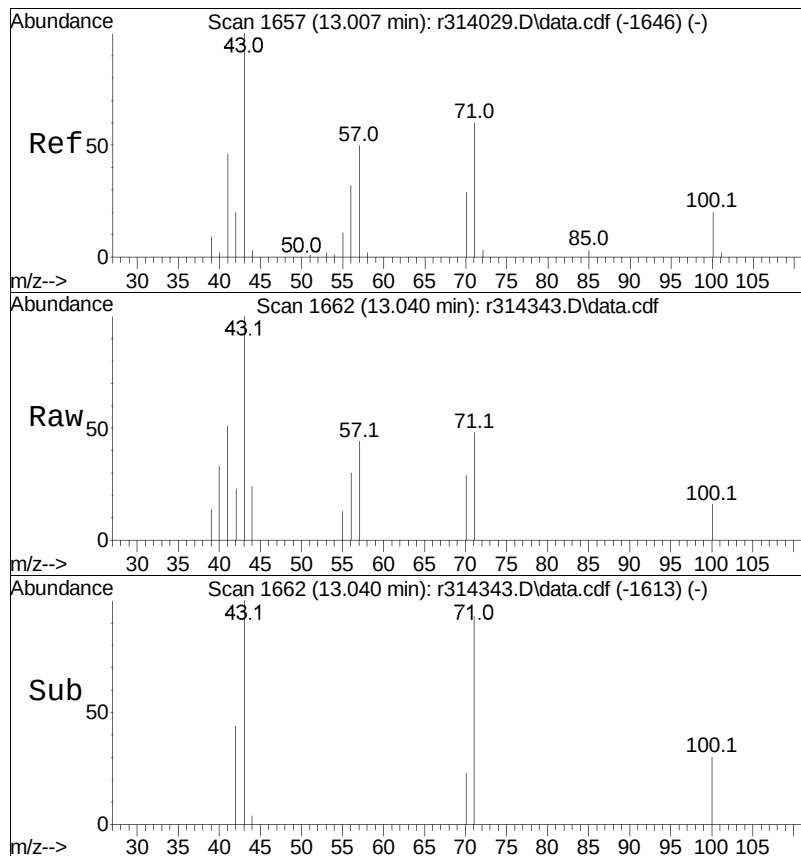




#60
 2,2,4-trimethylpentane
 Concen: 0.08 ppbV
 RT: 12.720 min Scan# 1614
 Delta R.T. -0.007 min
 Lab File: r314343.D
 Acq: 5 Mar 2021 5:26 PM

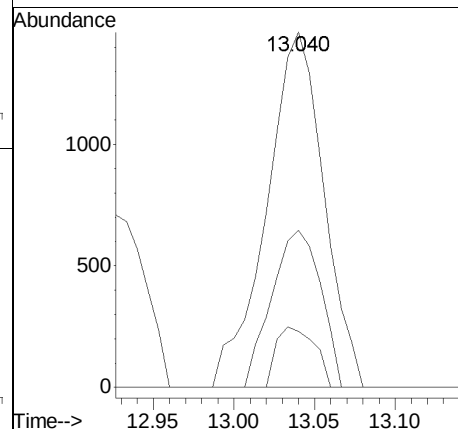
Tgt Ion	Ratio	Lower	Upper
57	100		
99	5.6	5.0	7.6
41	28.6	17.4	26.0#

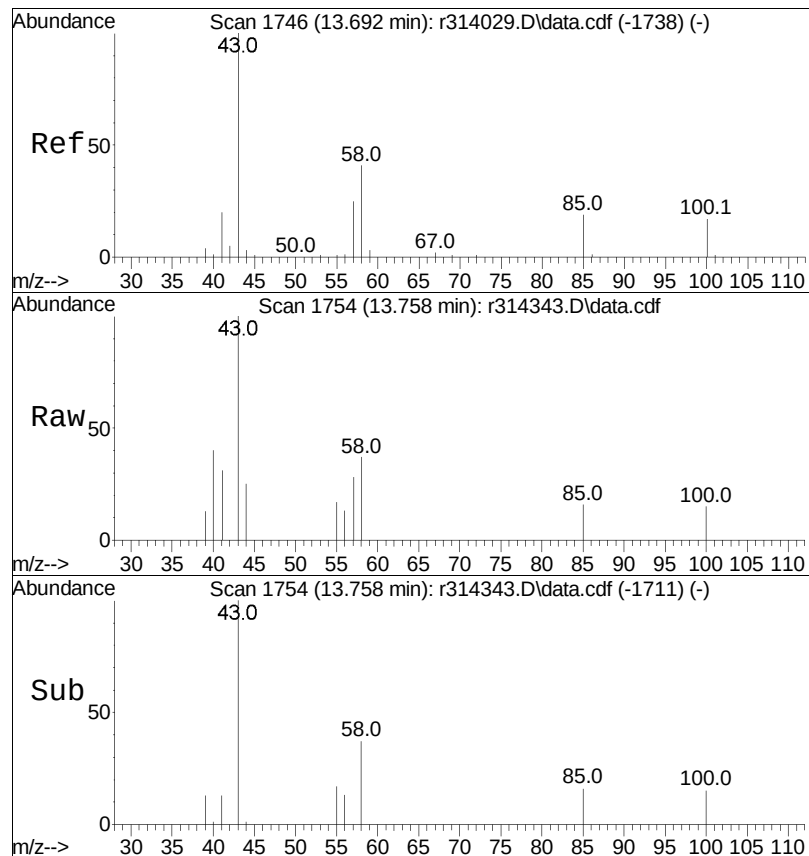




#62
 heptane
 Concen: 0.07 ppbV
 RT: 13.040 min Scan# 1662
 Delta R.T. 0.000 min
 Lab File: r314343.D
 Acq: 5 Mar 2021 5:26 PM

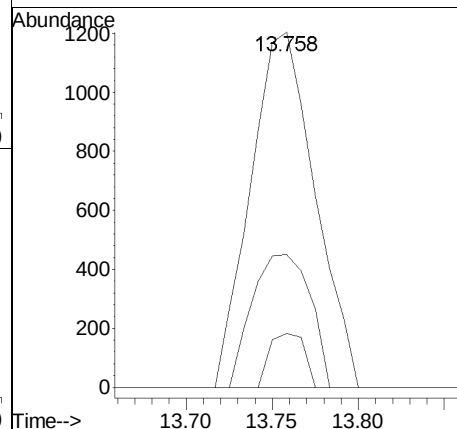
Tgt Ion:	43	Resp:	3610
Ion Ratio	Lower	Upper	
43	100		
57	44.2	40.2	60.2
100	15.7	16.4	24.6#

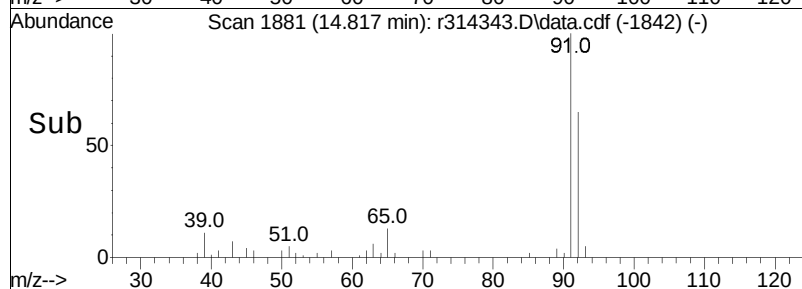
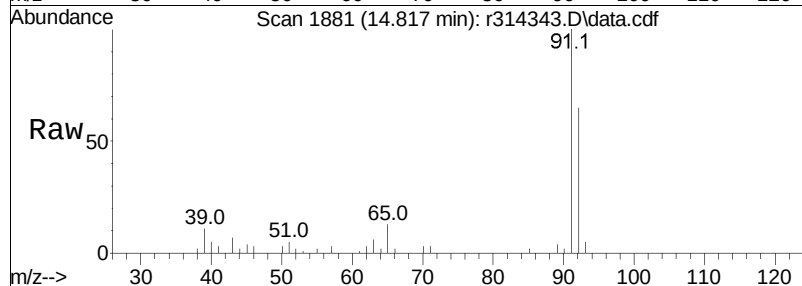
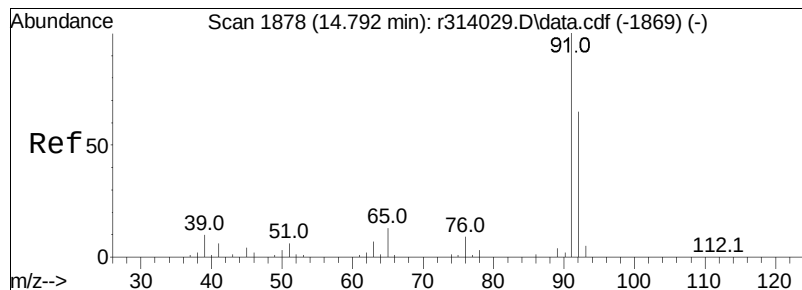




#64
 4-methyl-2-pentanone
 Concen: 0.06 ppbV
 RT: 13.758 min Scan# 1754
 Delta R.T. 0.025 min
 Lab File: r314343.D
 Acq: 5 Mar 2021 5:26 PM

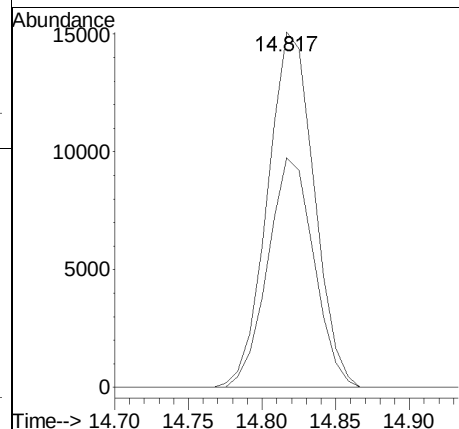
Tgt Ion:	43	Resp:	3135
Ion Ratio	Lower	Upper	
43	100		
58	37.4	33.1	49.7
100	15.2	13.4	20.2

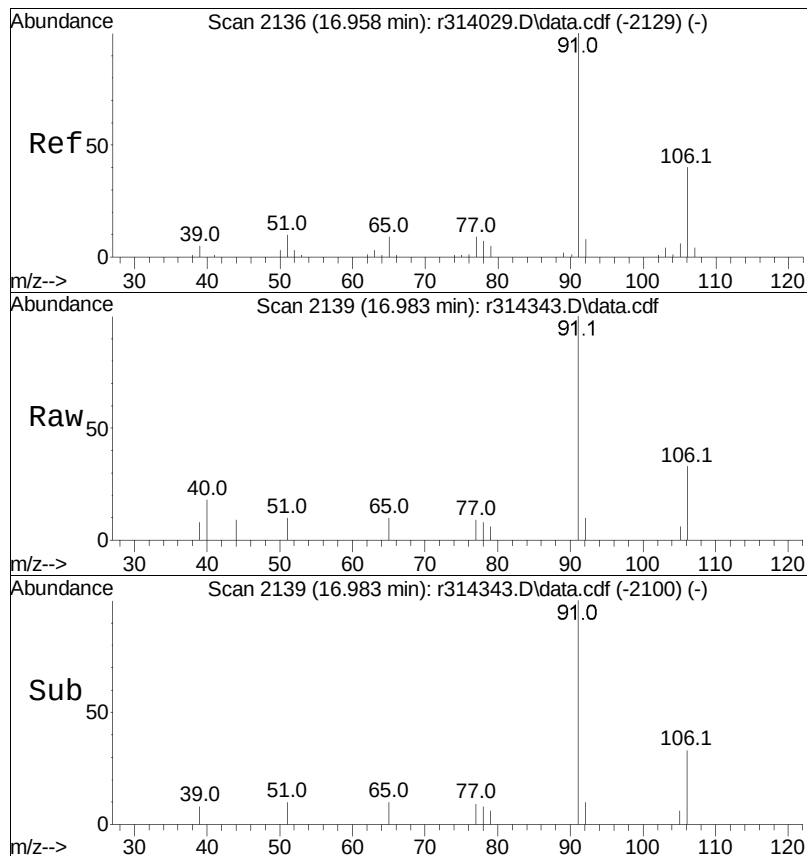




#68
toluene
Concen: 0.41 ppbV
RT: 14.817 min Scan# 1881
Delta R.T. -0.008 min
Lab File: r314343.D
Acq: 5 Mar 2021 5:26 PM

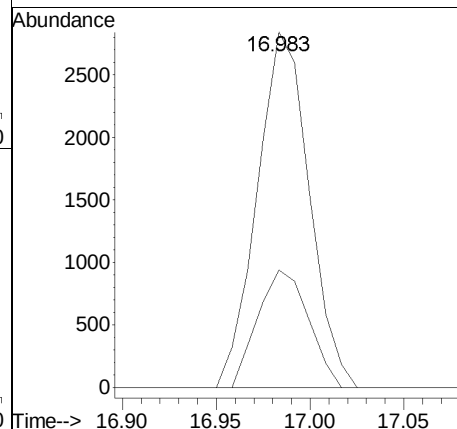
Tgt	Ion	Ratio	Lower	Upper
91	100			
92	64.6	51.8	77.8	

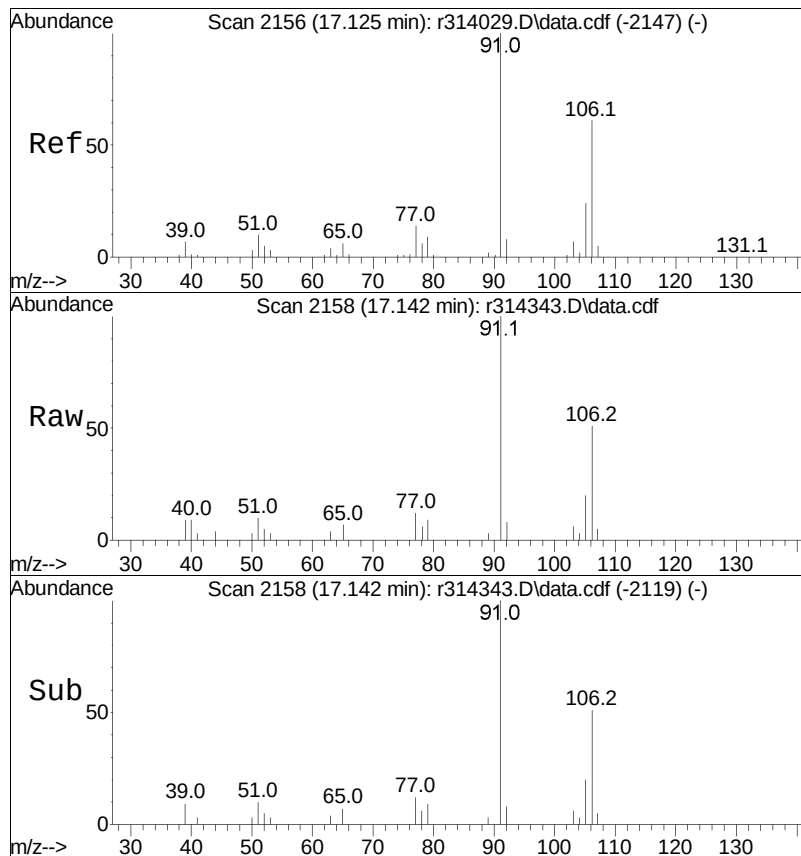




#81
ethylbenzene
Concen: 0.06 ppbV
RT: 16.983 min Scan# 2139
Delta R.T. -0.008 min
Lab File: r314343.D
Acq: 5 Mar 2021 5:26 PM

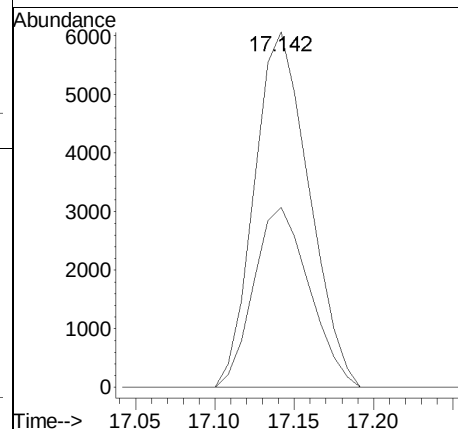
Tgt	Ion	Resp	Lower	Upper
91	100	5489		
106	33.1		31.8	47.8

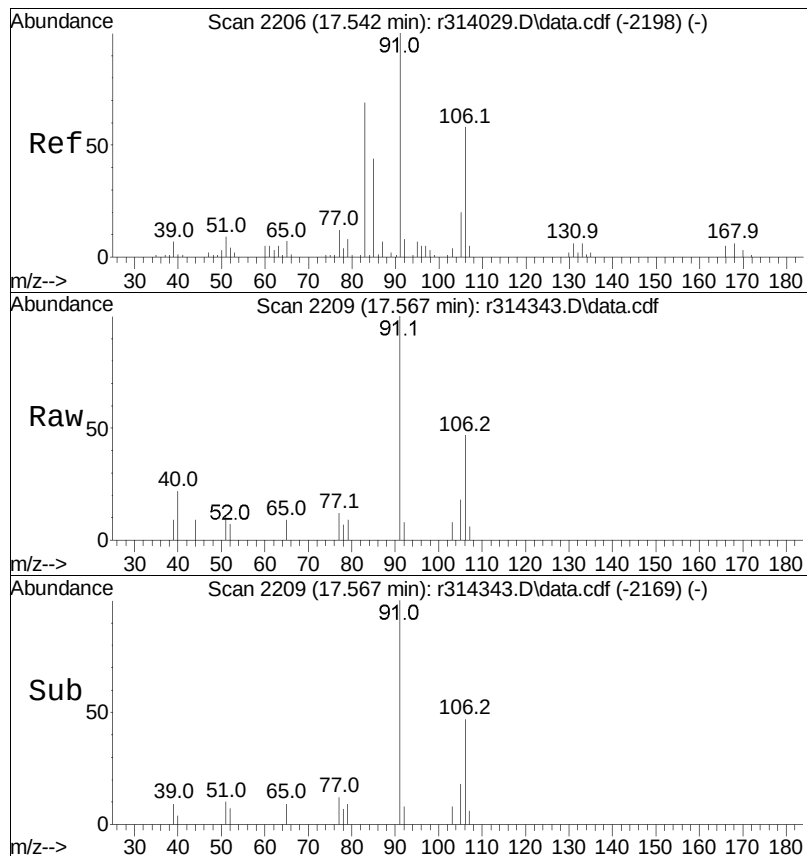




#83
 m+p-xylene
 Concen: 0.19 ppbV
 RT: 17.142 min Scan# 2158
 Delta R.T. -0.008 min
 Lab File: r314343.D
 Acq: 5 Mar 2021 5:26 PM

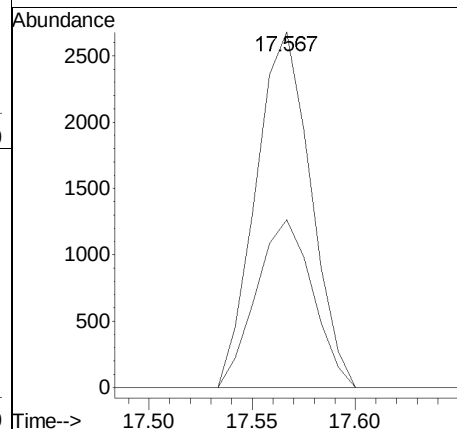
Tgt Ion:	91	Resp:	14548
Ion Ratio	Lower	Upper	
91	100		
106	50.7	48.7	73.1

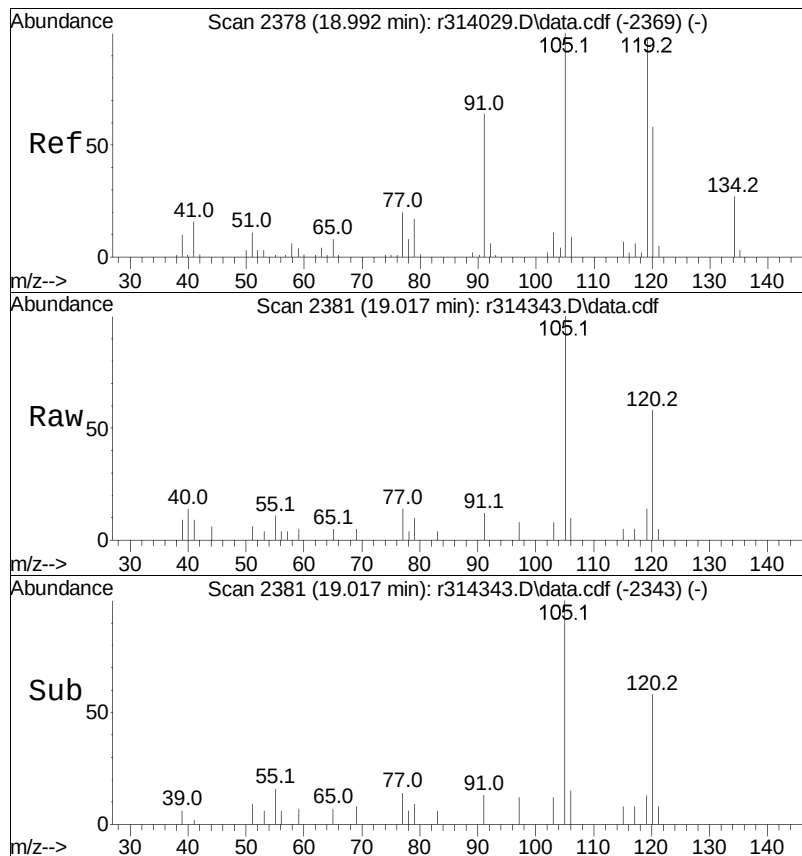




#87
 o-xylene
 Concen: 0.06 ppbV
 RT: 17.567 min Scan# 2209
 Delta R.T. 0.000 min
 Lab File: r314343.D
 Acq: 5 Mar 2021 5:26 PM

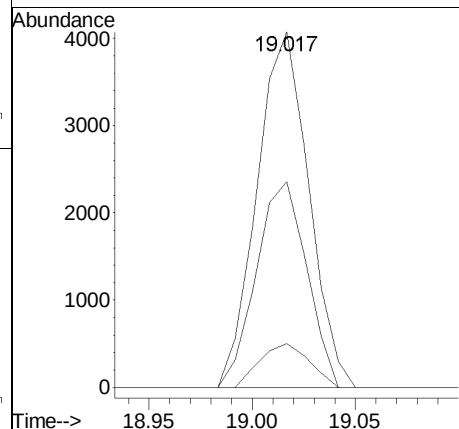
Tgt Ion:	91	Resp:	4954
Ion Ratio	Lower	Upper	
91	100		
106	47.2	46.7	70.1





#99
 1,2,4-trimethylbenzene
 Concen: 0.08 ppbV
 RT: 19.017 min Scan# 2381
 Delta R.T. 0.000 min
 Lab File: r314343.D
 Acq: 5 Mar 2021 5:26 PM

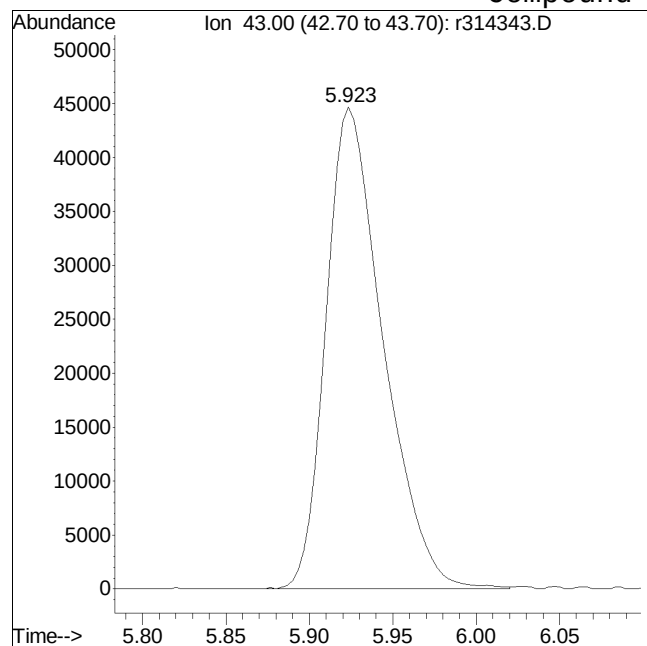
Tgt Ion:	105	Resp:	7112
Ion Ratio	Lower	Upper	
105	100		
120	57.9	46.1	69.1
91	12.3	51.5	77.3#



Manual Integration Report

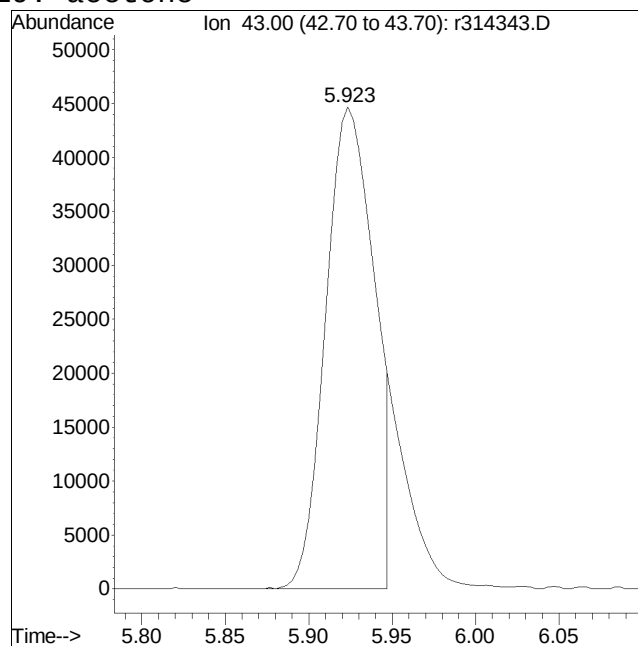
Data Path : 0:\Forensics\Data\AirpianoQMethod : TFS3_210219.M
Data File : r314343.D Operator : AIRPIAN03:EW
Date Inj'd : 3/5/2020 0:5: 6 Instrument :
Sample : L2109987-03,3,250,250 Quant Date : 3/7/2021 9:52 am

Compound #19: acetone



Original Peak Response = 106578

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



Manual Peak Response = 90611 M6

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305T\
 Data File : r314350.D
 Acq On : 5 Mar 2021 10:05 PM
 Operator : AIRPIAN03:EW
 Sample : L2109987-02,3,250,250
 Misc : WG1471270,ICAL17647
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 07 10:01:52 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305T\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sun Mar 07 09:51:35 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\03\0305T\r314338.D
 Sub List : T015-NY-7-SIM - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.600	49	390242	10.000	ppbV	0.00
Standard Area = 440496			Recovery =		88.59%	
43) 1,4-difluorobenzene	11.860	114	992094	10.000	ppbV	-0.02
Standard Area = 1115642			Recovery =		88.93%	
67) chlorobenzene-D5	16.592	54	162780	10.000	ppbV	0.00
Standard Area = 185080			Recovery =		87.95%	

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) dichlorodifluoromethane	4.018	85	14534	0.500	ppbV	97
6) chloromethane	4.198	50	10987	0.683	ppbV	99
7) Freon-114	4.330		0	N.D.		
10) 1,3-butadiene	4.624	54	1967	0.114	ppbV	84
13) bromomethane	0.000		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	5.333	31	2769676	180.320	ppbV	85
17) vinyl bromide	0.000		0	N.D.		
19) acetone	5.910	43	155286M6	5.739	ppbV	
21) trichlorofluoromethane	6.110	101	5965	0.265	ppbV	98
22) isopropyl alcohol	6.227	45	2100086	60.488	ppbV	99
27) tertiary butyl alcohol	0.000		0	N.D.	d	
28) methylene chloride	7.046	49	3041	0.148	ppbV	89
29) 3-chloropropene	0.000		0	N.D.	d	
30) carbon disulfide	7.340		0	N.D.		
31) Freon 113	7.376	101	2164	0.076	ppbV	91
32) trans-1,2-dichloroethene	0.000		0	N.D.		
33) 1,1-dichloroethane	0.000		0	N.D.		
34) MTBE	0.000		0	N.D.		
36) 2-butanone	8.908	43	24901	0.506	ppbV	94
38) Ethyl Acetate	9.717	61	5321	0.645	ppbV	72
39) chloroform	9.758	83	8636	0.250	ppbV	99
40) Tetrahydrofuran	10.233	42	3326	0.107	ppbV	94
42) 1,2-dichloroethane	10.608		0	N.D.		
44) hexane	9.667	57	9444	0.243	ppbV #	56
50) benzene	11.427	78	28004	0.376	ppbV	99
53) cyclohexane	11.747	56	4059	0.098	ppbV #	89

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305T\
 Data File : r314350.D
 Acq On : 5 Mar 2021 10:05 PM
 Operator : AIRPIAN03:EW
 Sample : L2109987-02,3,250,250
 Misc : WG1471270,ICAL17647
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 07 10:01:52 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305T\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sun Mar 07 09:51:35 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\03\0305T\r314338.D
 Sub List : T015-NY-7-SIM - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
56) 1,2-dichloropropane	0.000		0	N.D.		
57) bromodichloromethane	12.607		0	N.D.		
58) 1,4-dioxane	0.000		0	N.D.		
60) 2,2,4-trimethylpentane	12.707	57	17215	0.143	ppbV #	84
62) heptane	13.027	43	12878	0.263	ppbV	94
63) cis-1,3-dichloropropene	0.000		0	N.D.		
64) 4-methyl-2-pentanone	0.000		0	N.D.	d	
65) trans-1,3-dichloropropene	0.000		0	N.D.		
66) 1,1,2-trichloroethane	0.000		0	N.D.		
68) toluene	14.808	91	40503	0.506	ppbV	99
72) 2-hexanone	0.000		0	N.D.	d	
74) dibromochloromethane	0.000		0	N.D.		
75) 1,2-dibromoethane	0.000		0	N.D.		
80) chlorobenzene	16.642		0	N.D.		
81) ethylbenzene	16.975	91	7019	0.073	ppbV #	87
83) m+p-xylene	17.133	91	17103	0.222	ppbV	86
84) bromoform	0.000		0	N.D.		
85) styrene	17.467		0	N.D.		
86) 1,1,2,2-tetrachloroethane	0.000		0	N.D.	d	
87) o-xylene	17.558	91	7185	0.094	ppbV	89
96) 4-ethyl toluene	0.000		0	N.D.	d	
97) 1,3,5-trimethylbenzene	18.675		0	N.D.		
99) 1,2,4-trimethylbenzene	19.008	105	8465	0.093	ppbV #	64
101) Benzyl Chloride	0.000		0	N.D.	d	
102) 1,3-dichlorobenzene	0.000		0	N.D.		
103) 1,4-dichlorobenzene	0.000		0	N.D.		
107) 1,2-dichlorobenzene	0.000		0	N.D.		
115) 1,2,4-trichlorobenzene	0.000		0	N.D.		
119) hexachlorobutadiene	0.000		0	N.D.		

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

Sub List : T015-NY-7-SIM - .\Airpiano3\2021\03\0305T\r314338.D

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305T\

Data File : r314350.D

Acq On : 5 Mar 2021 10:05 PM

Operator : AIRPIANO3:EW

Sample : L2109987-02,3,250,250

Misc : WG1471270,ICAL17647

ALS Vial : 0 Sample Multiplier: 1

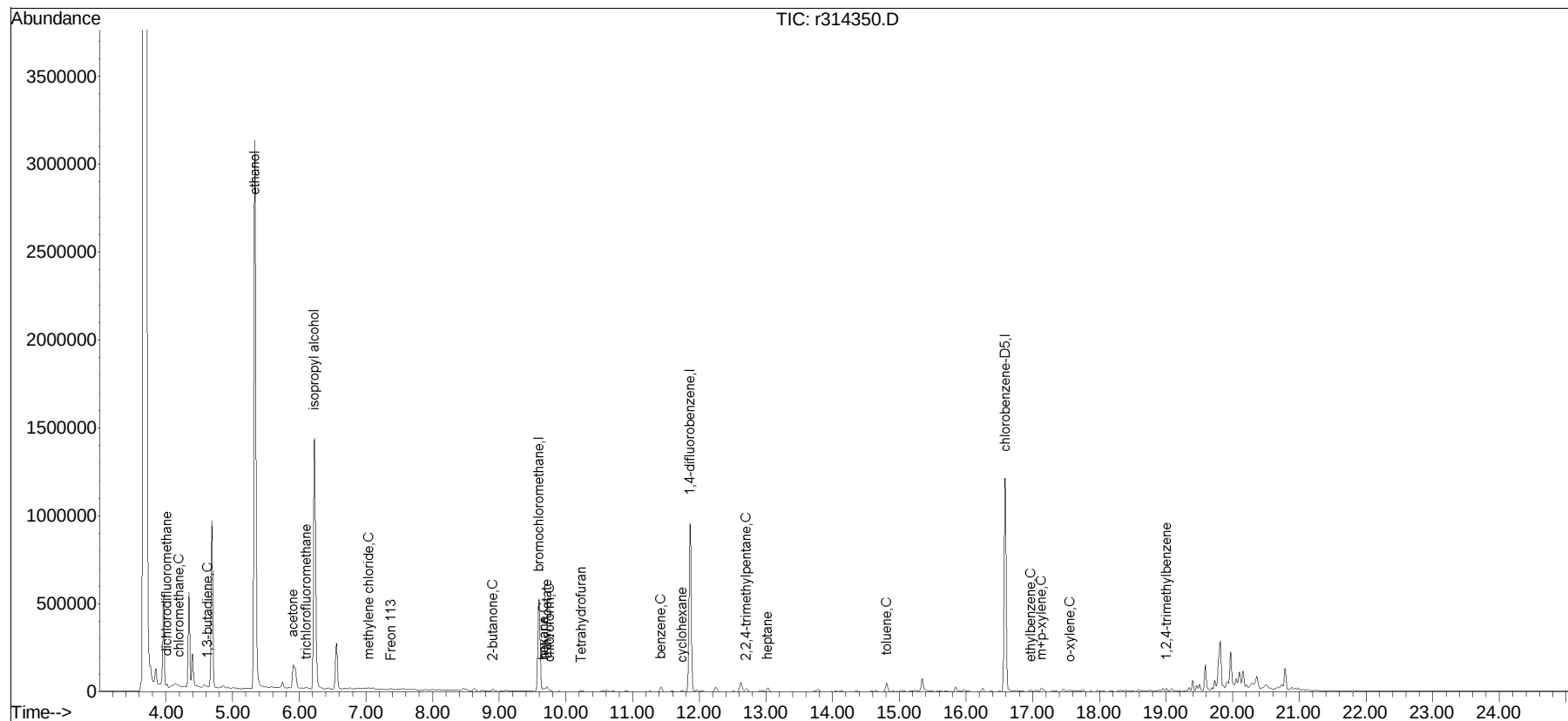
Quant Time: Mar 07 10:01:52 2021

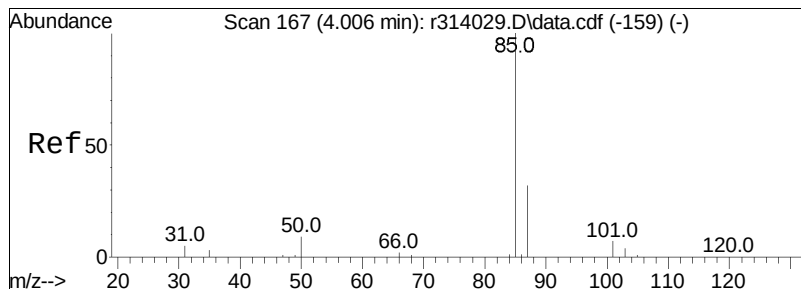
Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305T\TFS3_210219.M

Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis

QLast Update : Sun Mar 07 09:51:35 2021

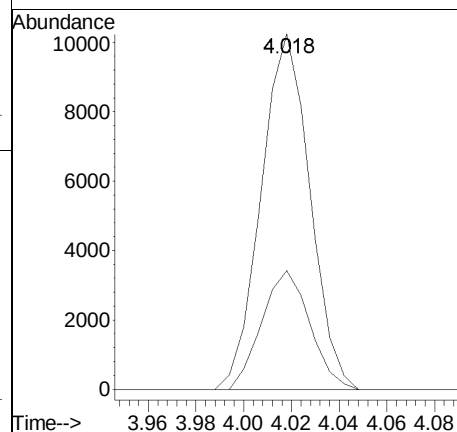
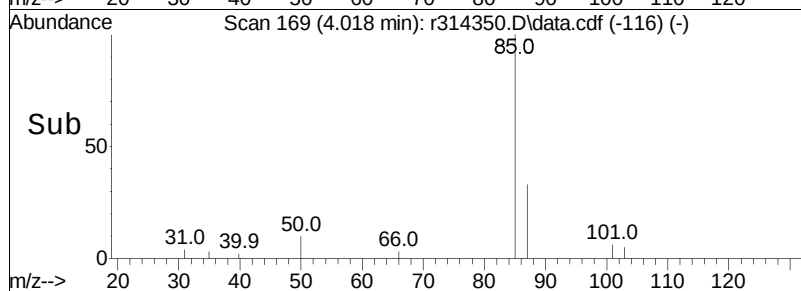
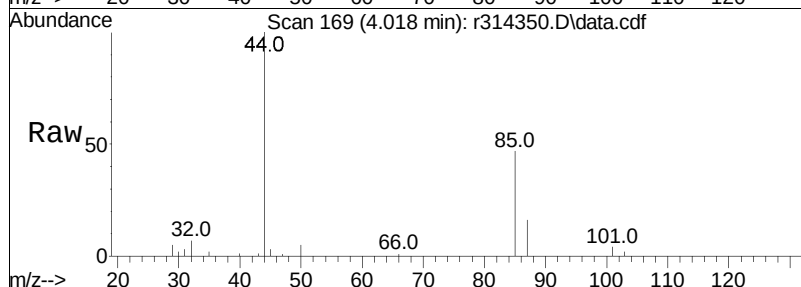
Response via : Initial Calibration

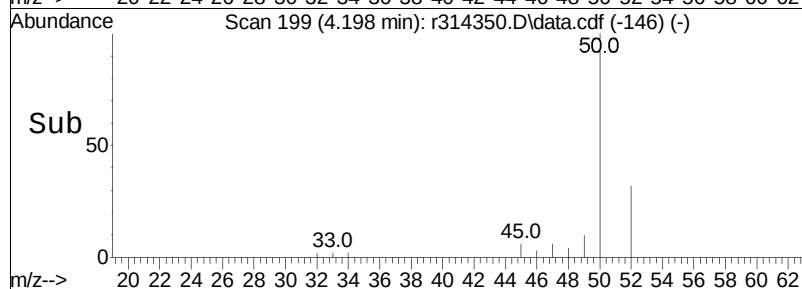
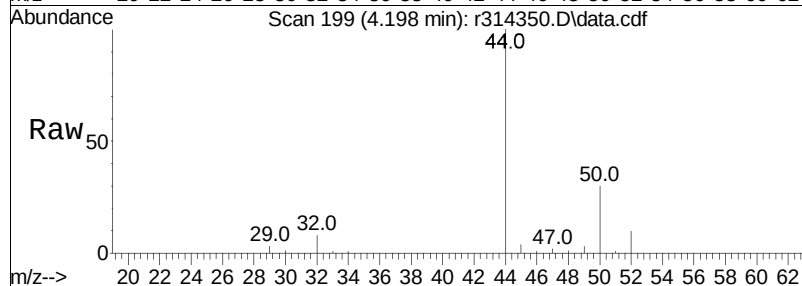
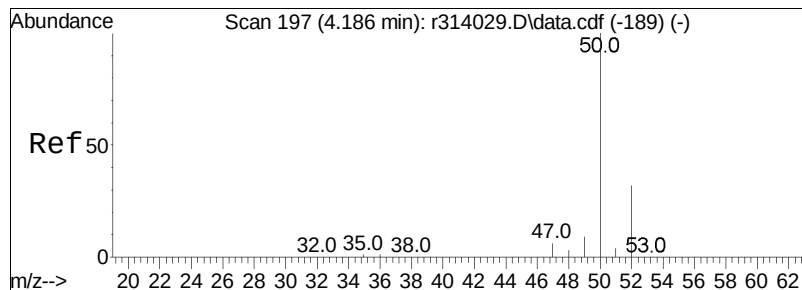




#5
 dichlorodifluoromethane
 Concen: 0.50 ppbV
 RT: 4.018 min Scan# 169
 Delta R.T. -0.012 min
 Lab File: r314350.D
 Acq: 5 Mar 2021 10:05 PM

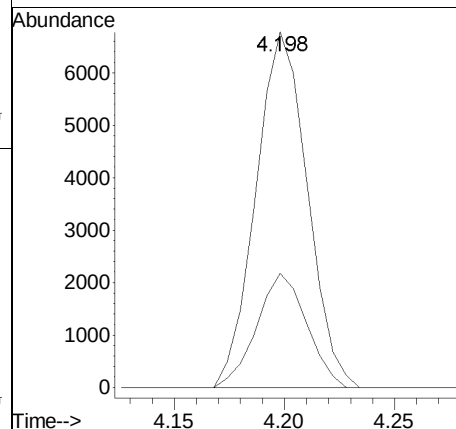
Tgt Ion: 85 Resp: 14534
 Ion Ratio Lower Upper
 85 100
 87 33.4 25.4 38.0

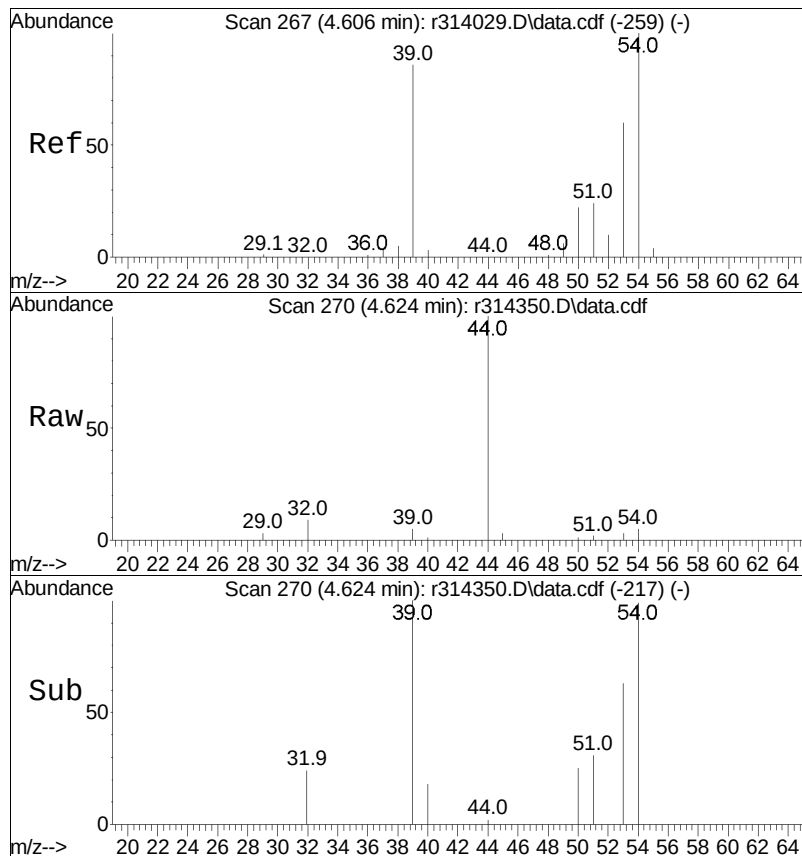




#6
chloromethane
Concen: 0.68 ppbV
RT: 4.198 min Scan# 199
Delta R.T. -0.012 min
Lab File: r314350.D
Acq: 5 Mar 2021 10:05 PM

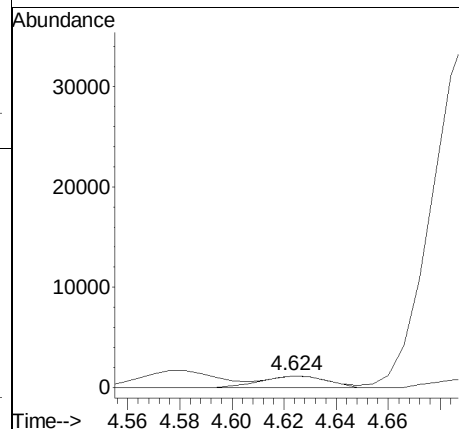
Tgt	Ion	Ratio	Lower	Upper
50	100			
52	32.1		26.0	39.0

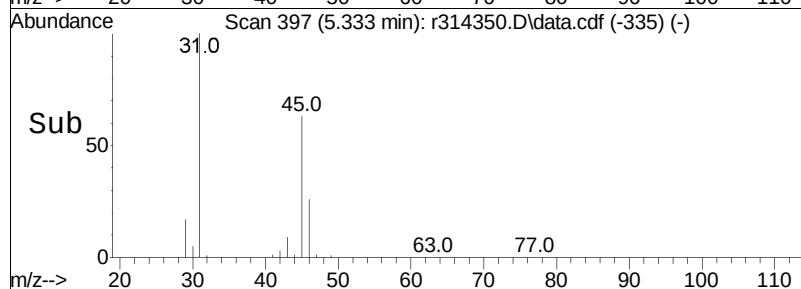
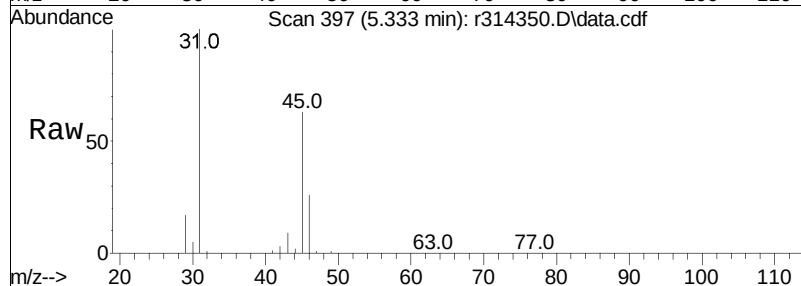
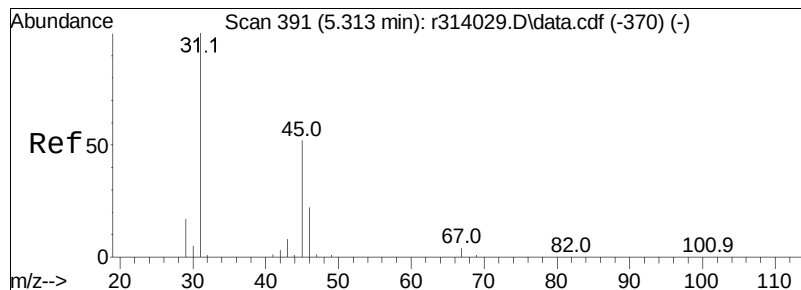




#10
 1,3-butadiene
 Concen: 0.11 ppbV
 RT: 4.624 min Scan# 270
 Delta R.T. -0.012 min
 Lab File: r314350.D
 Acq: 5 Mar 2021 10:05 PM

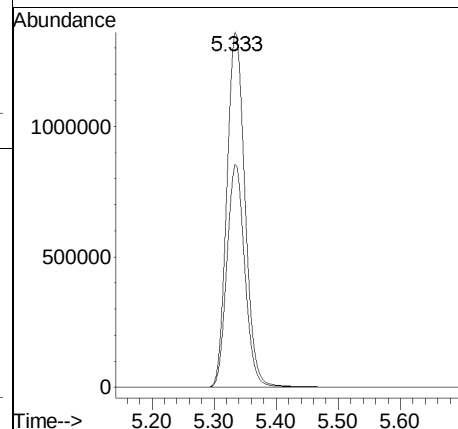
Tgt Ion	Ratio	Lower	Upper
54	100		
39	100.6	68.8	103.2

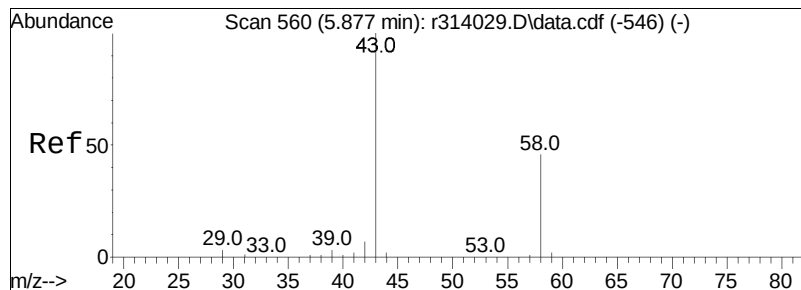




#15
ethanol
Concen: 180.32 ppbV
RT: 5.333 min Scan# 397
Delta R.T. -0.010 min
Lab File: r314350.D
Acq: 5 Mar 2021 10:05 PM

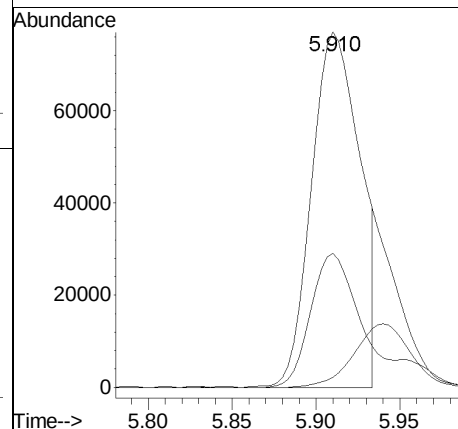
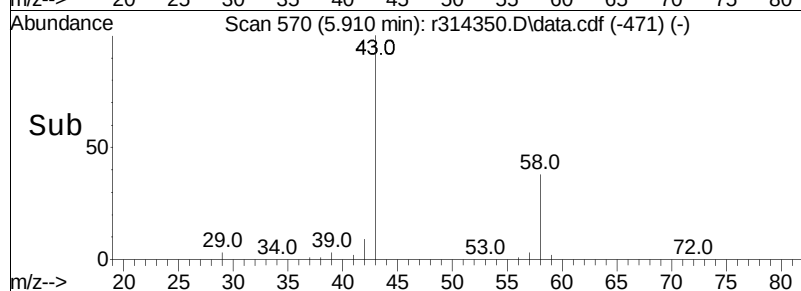
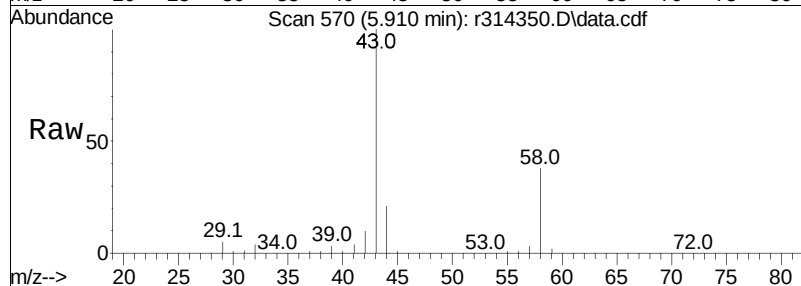
Tgt	Ion	Resp	Lower	Upper
31	100	2769676		
45	62.8		41.9	62.9

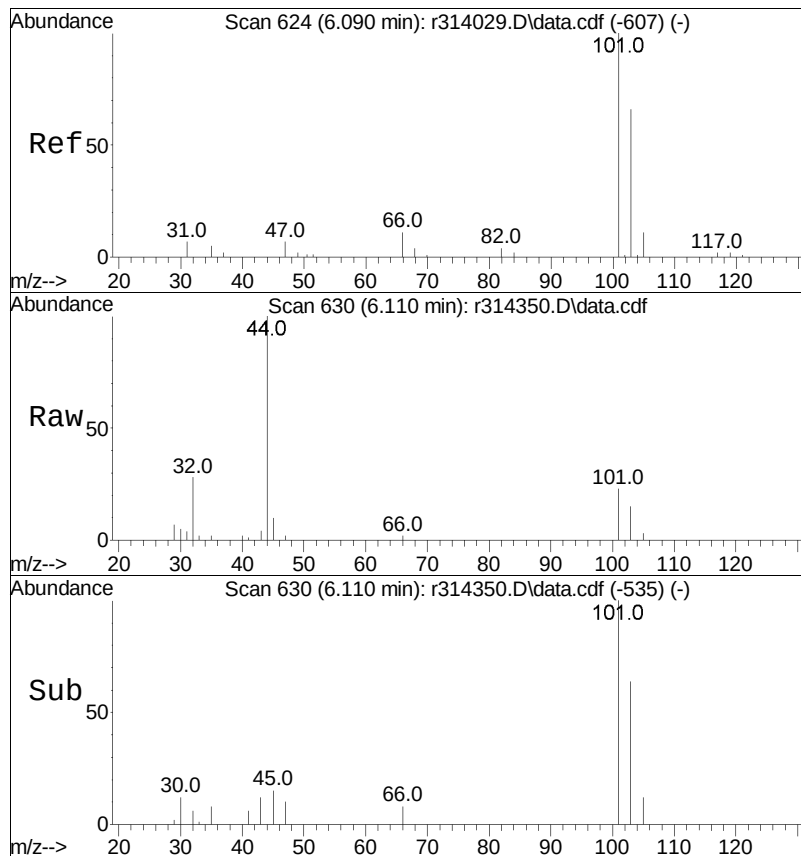




#19
acetone
Concen: 5.74 ppbV m
RT: 5.910 min Scan# 570
Delta R.T. 0.000 min
Lab File: r314350.D
Acq: 5 Mar 2021 10:05 PM

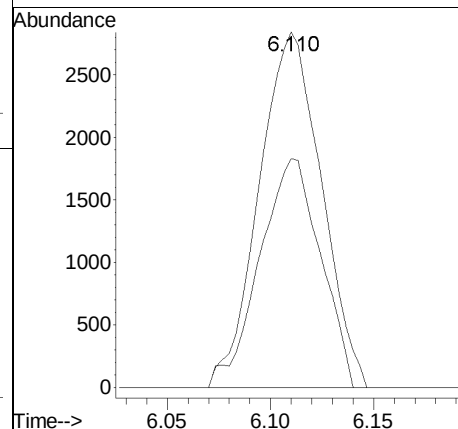
Tgt Ion	Ratio	Lower	Upper
43	100		
58	37.7	36.7	55.1
57	2.8	1.0	1.6#

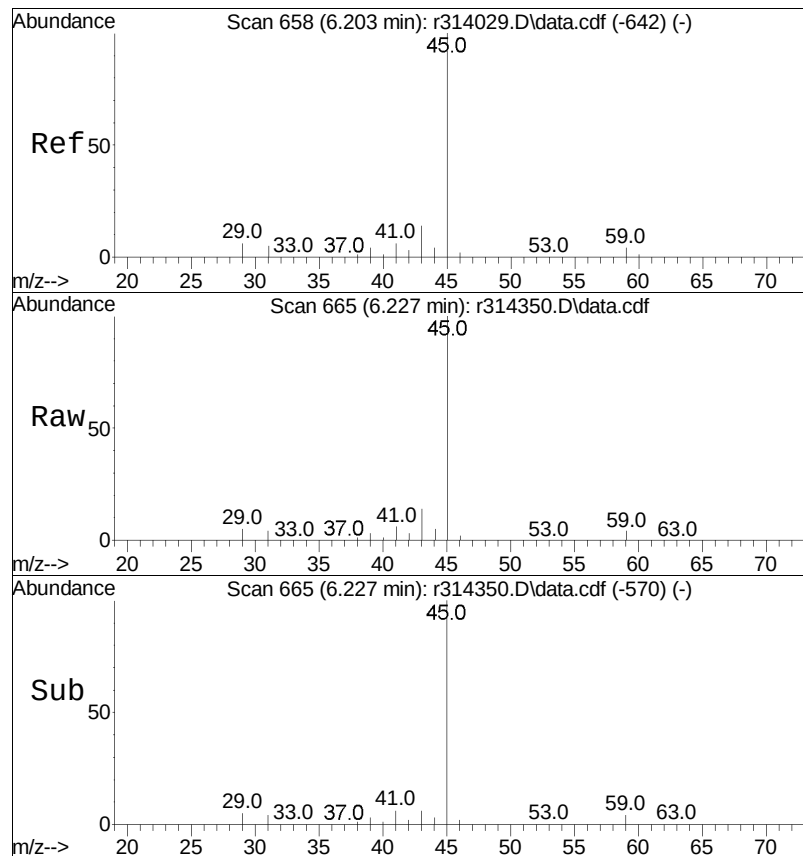




#21
trichlorofluoromethane
Concen: 0.26 ppbV
RT: 6.110 min Scan# 630
Delta R.T. -0.013 min
Lab File: r314350.D
Acq: 5 Mar 2021 10:05 PM

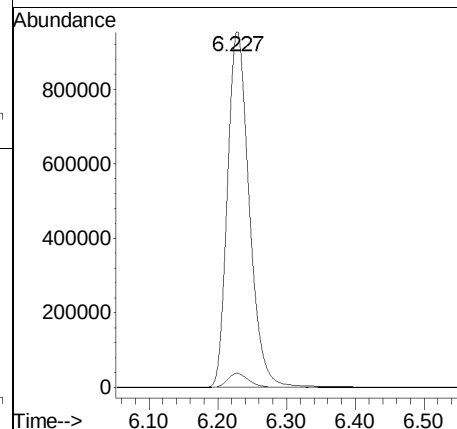
Tgt Ion	Ratio	Lower	Upper
101	100		
103	64.4	52.6	78.8

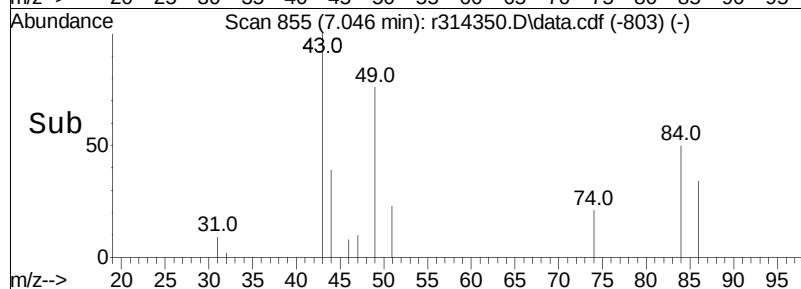
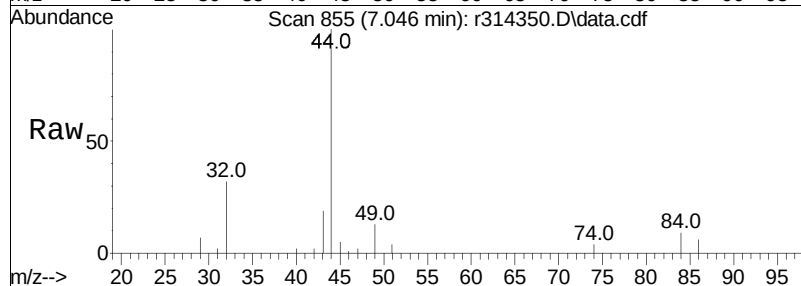
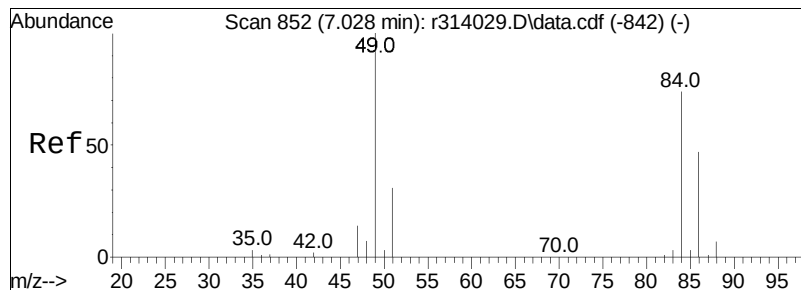




#22
 isopropyl alcohol
 Concen: 60.49 ppbV
 RT: 6.227 min Scan# 665
 Delta R.T. -0.013 min
 Lab File: r314350.D
 Acq: 5 Mar 2021 10:05 PM

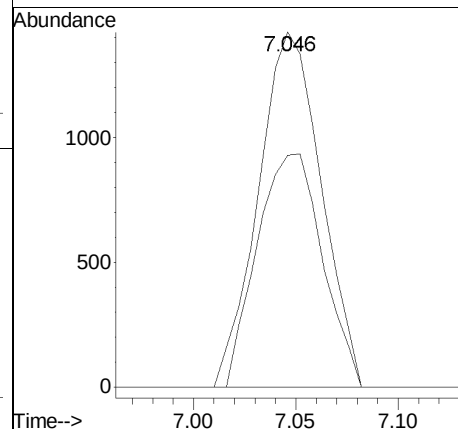
Tgt Ion	Ratio	Lower	Upper
45	100		
59	4.0	3.5	5.3

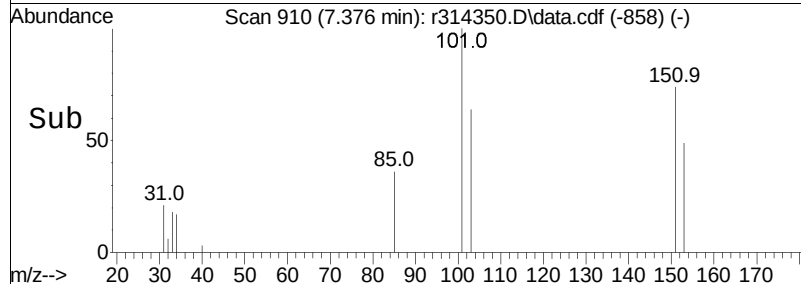
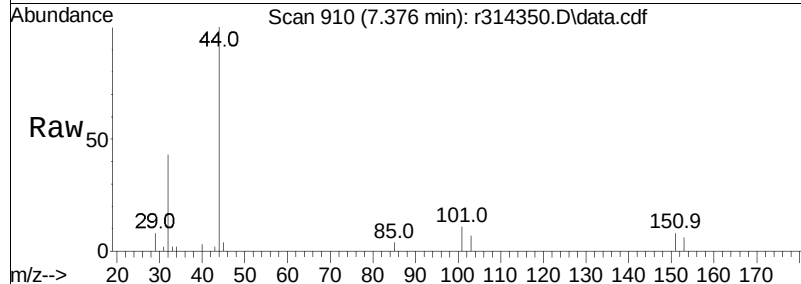
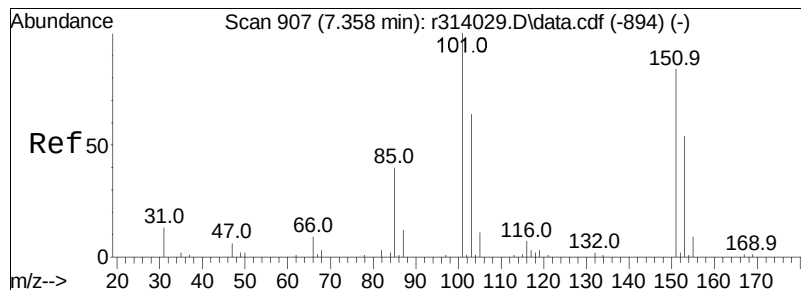




#28
 methylene chloride
 Concen: 0.15 ppbV
 RT: 7.046 min Scan# 855
 Delta R.T. -0.018 min
 Lab File: r314350.D
 Acq: 5 Mar 2021 10:05 PM

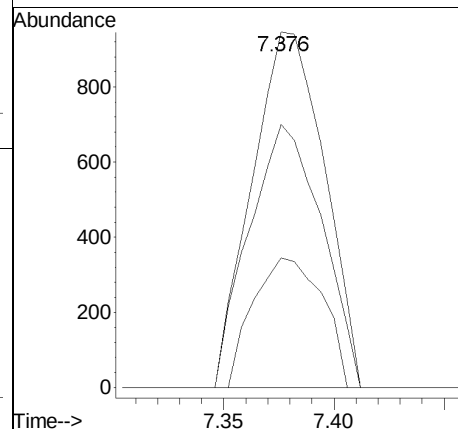
Tgt Ion:	49	84	Ratio	Lower	Upper
Resp:	3041				
Ion Ratio	100	65.3			
			59.5	89.3	

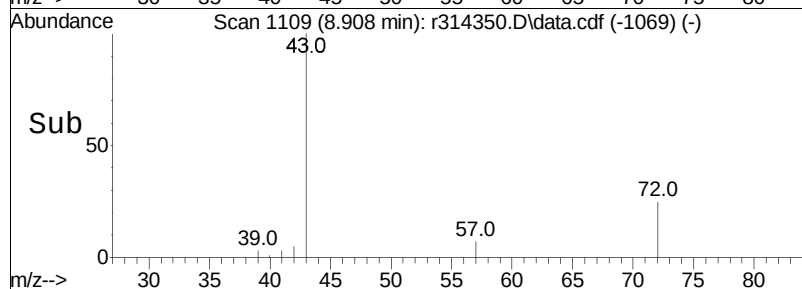
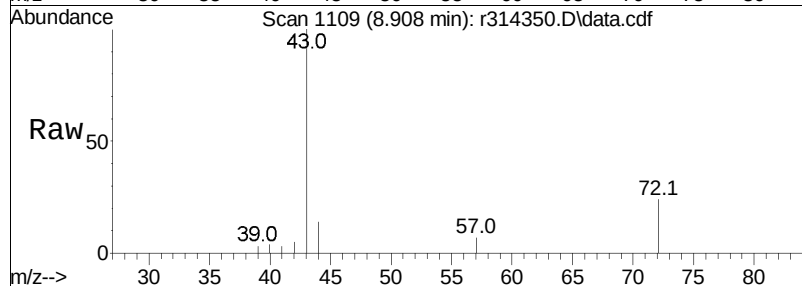
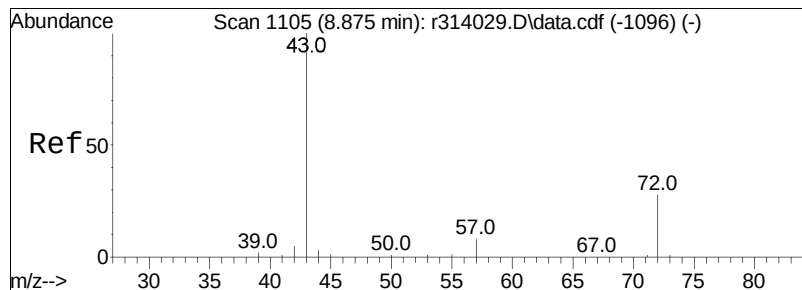




#31
 Freon 113
 Concen: 0.08 ppbV
 RT: 7.376 min Scan# 910
 Delta R.T. -0.018 min
 Lab File: r314350.D
 Acq: 5 Mar 2021 10:05 PM

Tgt Ion:	101	Resp:	2164
Ion Ratio	Lower	Upper	
101	100		
85	36.5	31.7	47.5
151	74.0	67.4	101.0





#36

2-butanone

Concen: 0.51 ppbV

RT: 8.908 min Scan# 1109

Delta R.T. 0.000 min

Lab File: r314350.D

Acq: 5 Mar 2021 10:05 PM

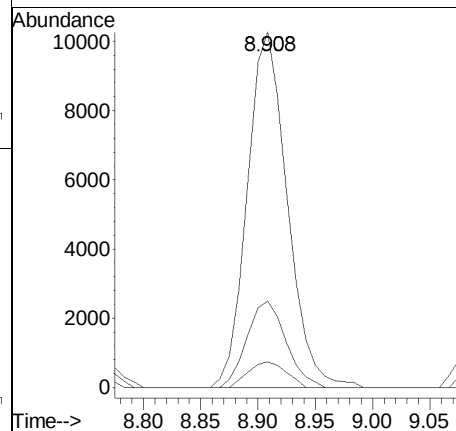
Tgt Ion: 43 Resp: 24901

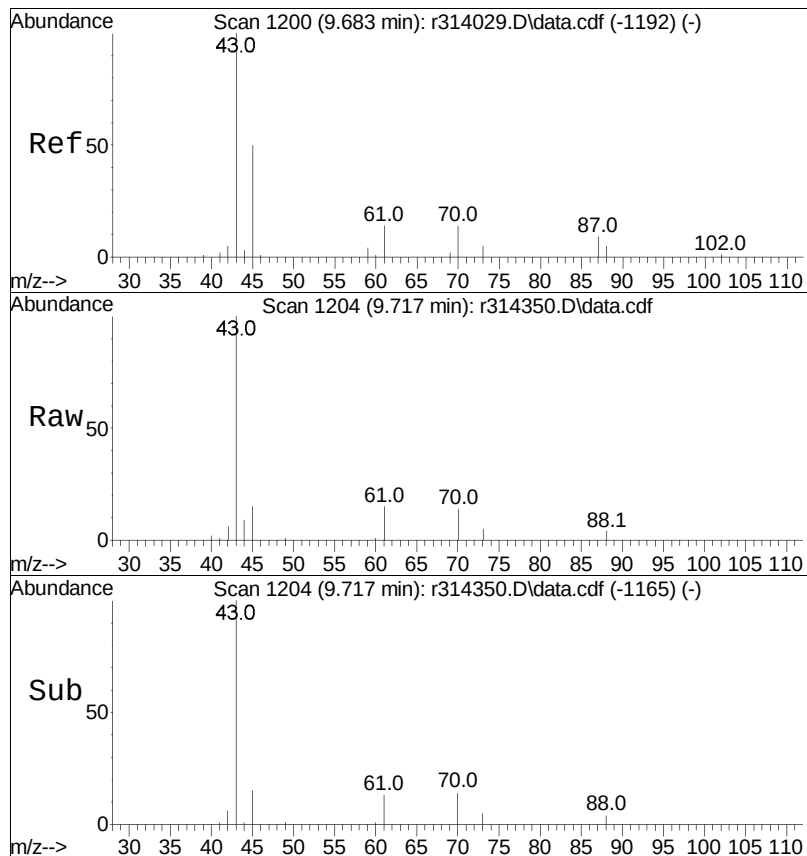
Ion Ratio Lower Upper

43 100

72 24.3 22.2 33.2

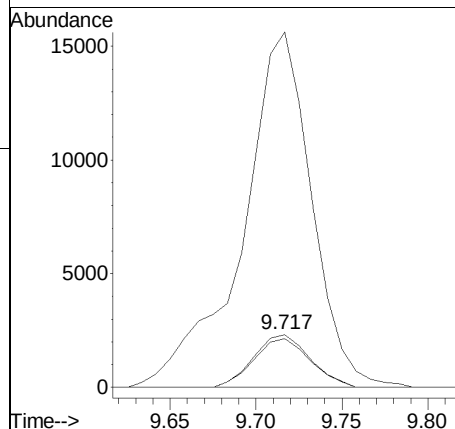
57 7.2 6.3 9.5

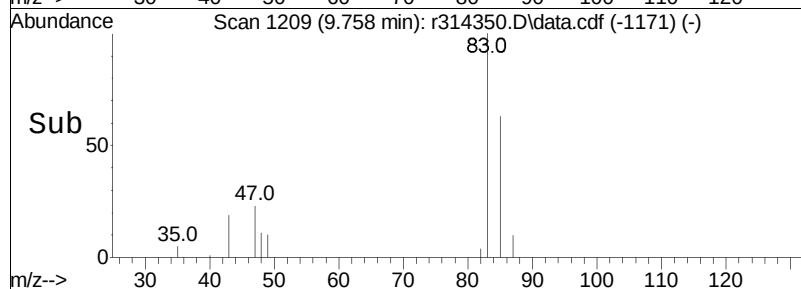
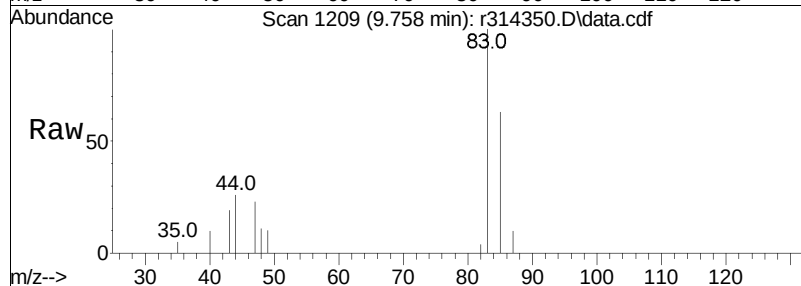
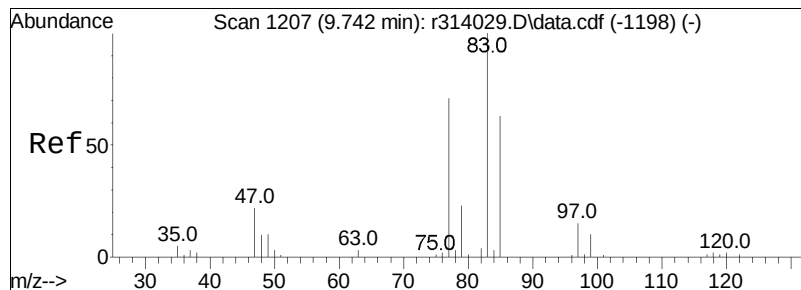




#38
 Ethyl Acetate
 Concen: 0.64 ppbV
 RT: 9.717 min Scan# 1204
 Delta R.T. -0.008 min
 Lab File: r314350.D
 Acq: 5 Mar 2021 10:05 PM

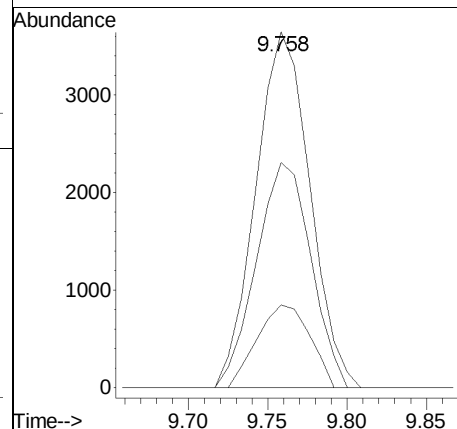
Tgt Ion:	61	Resp:	5321
Ion Ratio	Lower	Upper	
61	100		
70	92.7	80.3	120.5
43	674.1	632.9	949.3

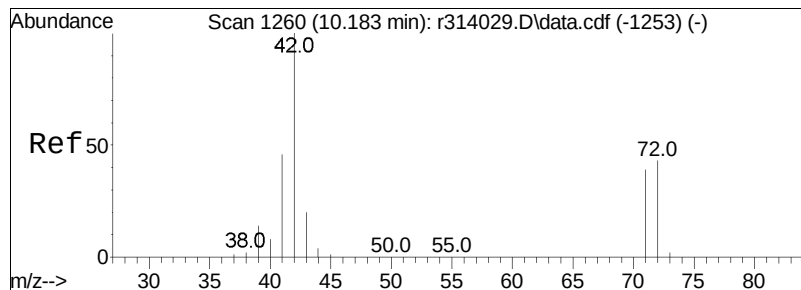




#39
chloroform
Concen: 0.25 ppbV
RT: 9.758 min Scan# 1209
Delta R.T. -0.017 min
Lab File: r314350.D
Acq: 5 Mar 2021 10:05 PM

Tgt	Ion	Ratio	Resp	Lower	Upper
83	100		8636		
85	63.3			50.9	76.3
47	23.2			17.8	26.6





#40

Tetrahydrofuran

Concen: 0.11 ppbV

RT: 10.233 min Scan# 1266

Delta R.T. 0.008 min

Lab File: r314350.D

Acq: 5 Mar 2021 10:05 PM

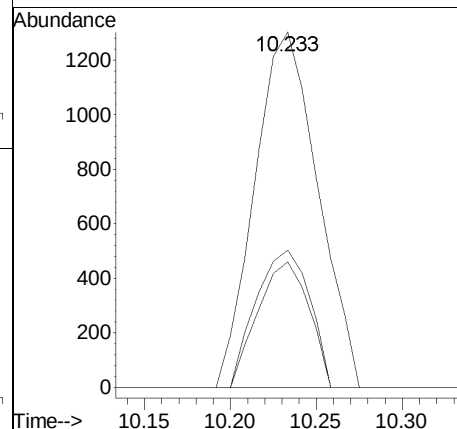
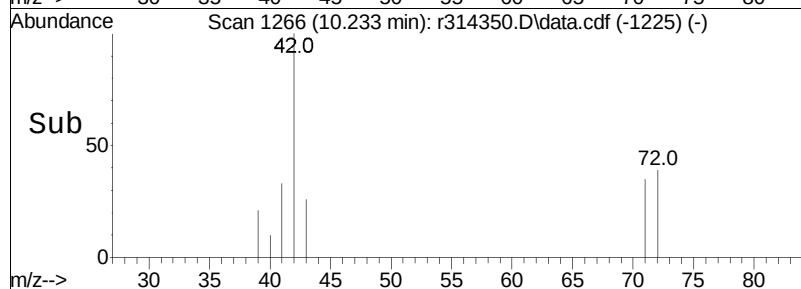
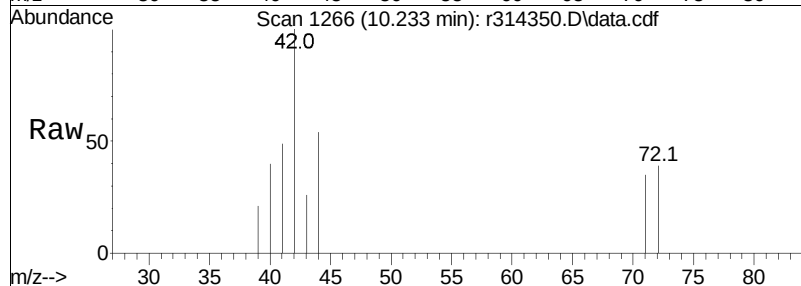
Tgt Ion: 42 Resp: 3326

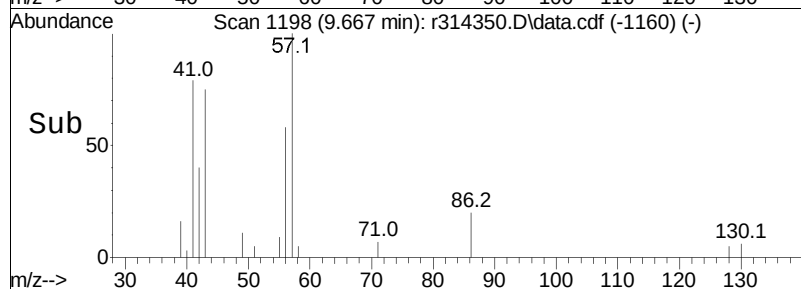
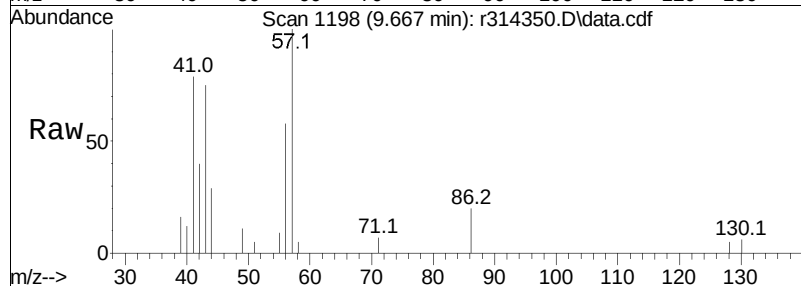
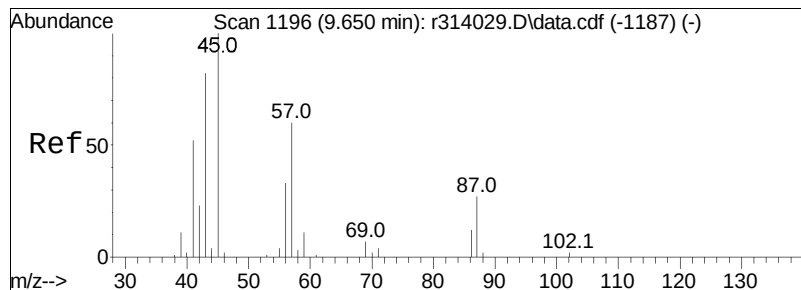
Ion Ratio Lower Upper

42 100

71 35.3 31.0 46.6

72 38.6 34.1 51.1





#44

hexane

Concen: 0.24 ppbV

RT: 9.667 min Scan# 1198

Delta R.T. -0.017 min

Lab File: r314350.D

Acq: 5 Mar 2021 10:05 PM

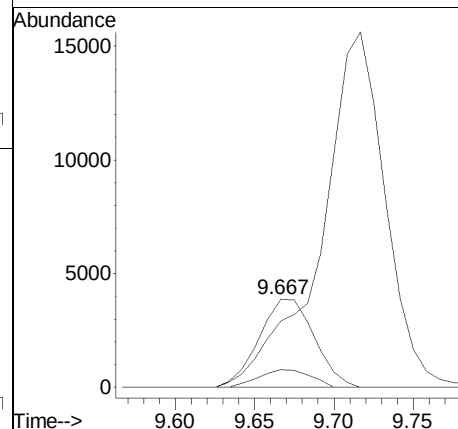
Tgt Ion: 57 Resp: 9444

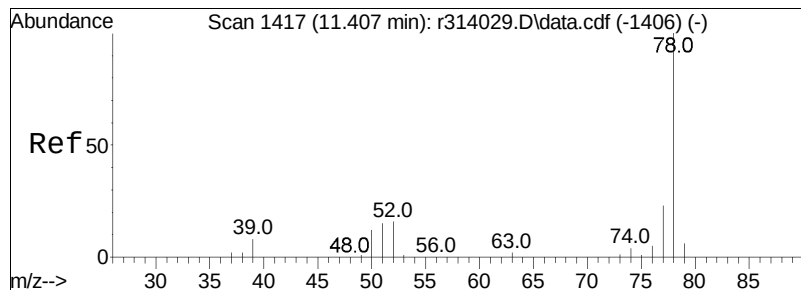
Ion Ratio Lower Upper

57 100

43 75.3 108.5 162.7#

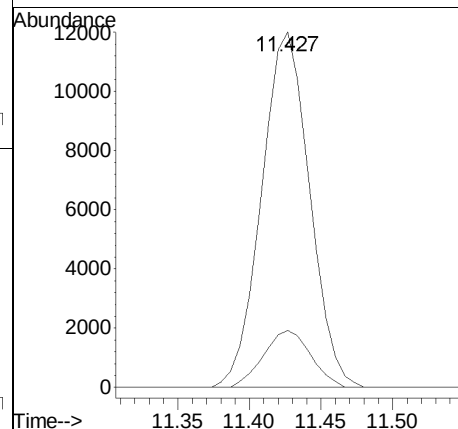
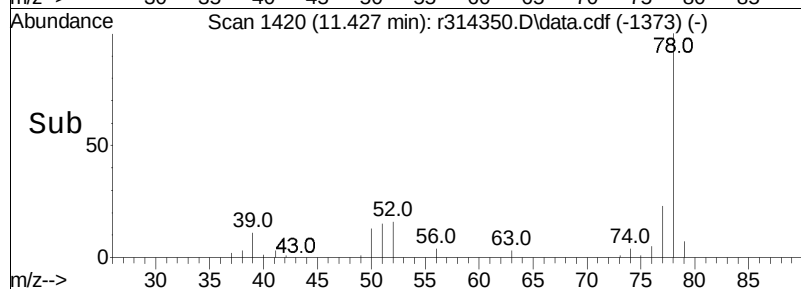
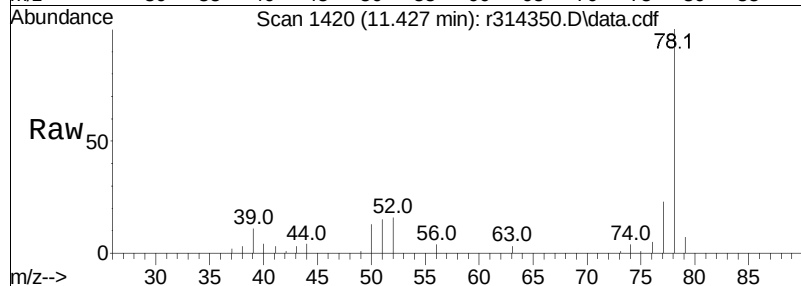
86 20.2 16.0 24.0

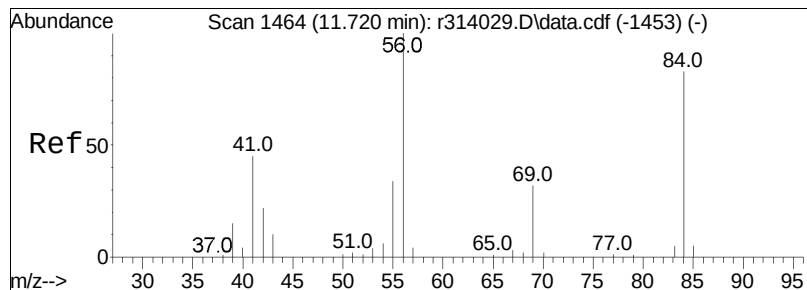




#50
benzene
Concen: 0.38 ppbV
RT: 11.427 min Scan# 1420
Delta R.T. -0.013 min
Lab File: r314350.D
Acq: 5 Mar 2021 10:05 PM

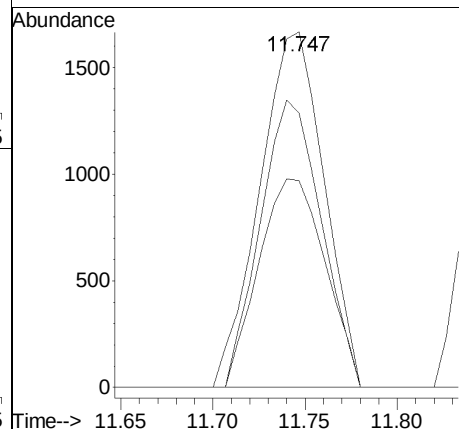
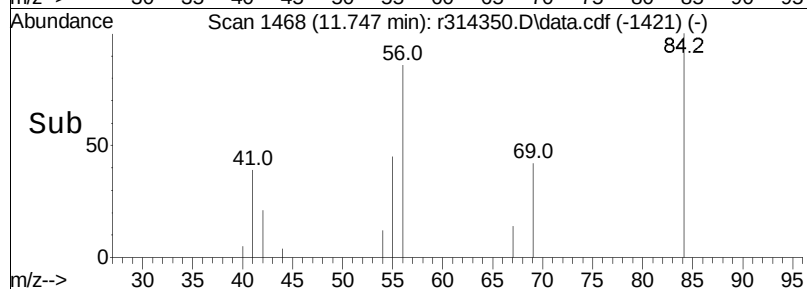
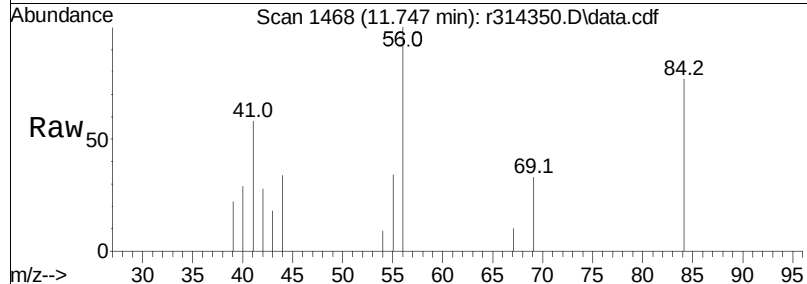
Tgt Ion	Ratio	Lower	Upper
78	100		
52	16.0	12.5	18.7

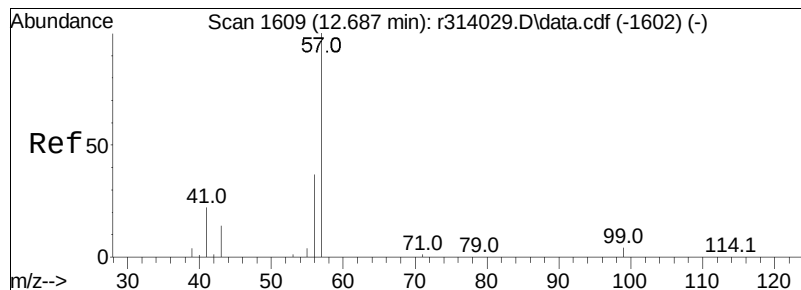




#53
cyclohexane
Concen: 0.10 ppbV
RT: 11.747 min Scan# 1468
Delta R.T. -0.013 min
Lab File: r314350.D
Acq: 5 Mar 2021 10:05 PM

Tgt Ion	Ratio	Lower	Upper
56	100		
84	77.2	66.5	99.7
41	58.2	36.3	54.5





#60

2,2,4-trimethylpentane

Concen: 0.14 ppbV

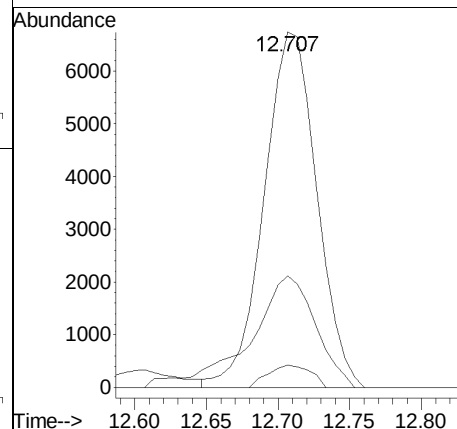
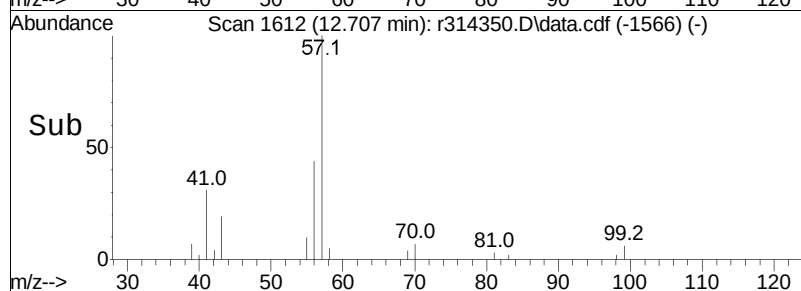
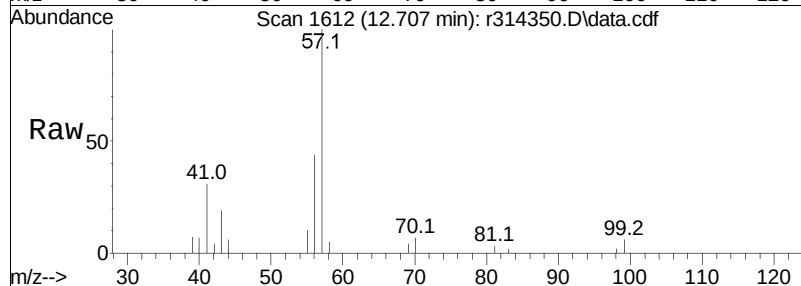
RT: 12.707 min Scan# 1612

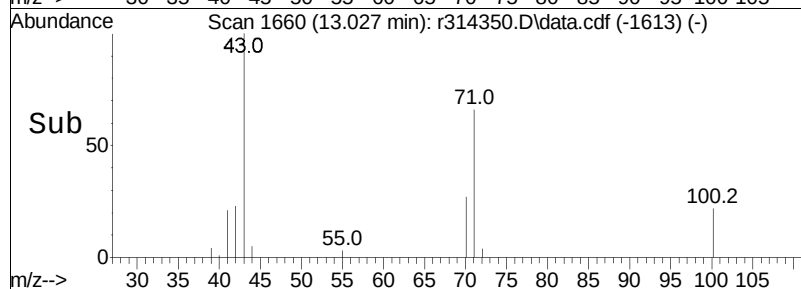
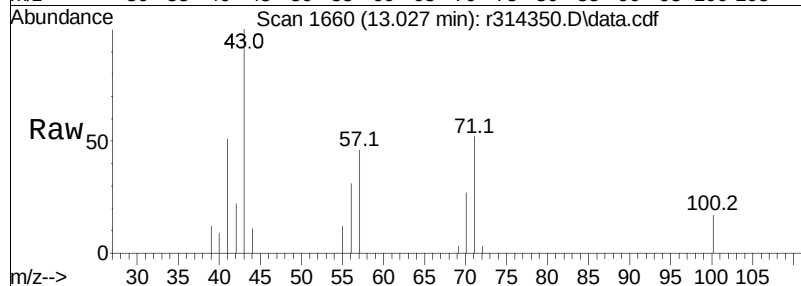
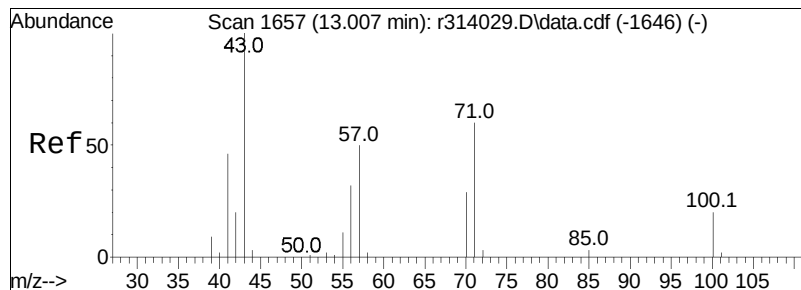
Delta R.T. -0.020 min

Lab File: r314350.D

Acq: 5 Mar 2021 10:05 PM

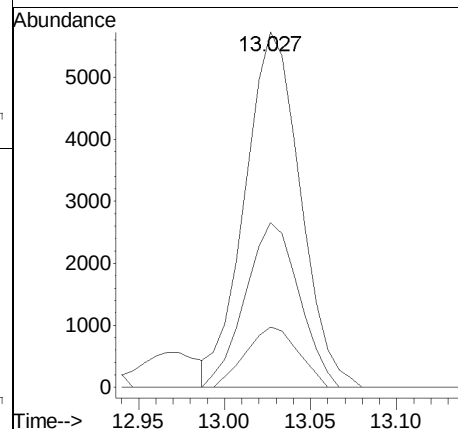
Tgt Ion	Ratio	Lower	Upper
57	100		
99	6.3	5.0	7.6
41	31.4	17.4	26.0

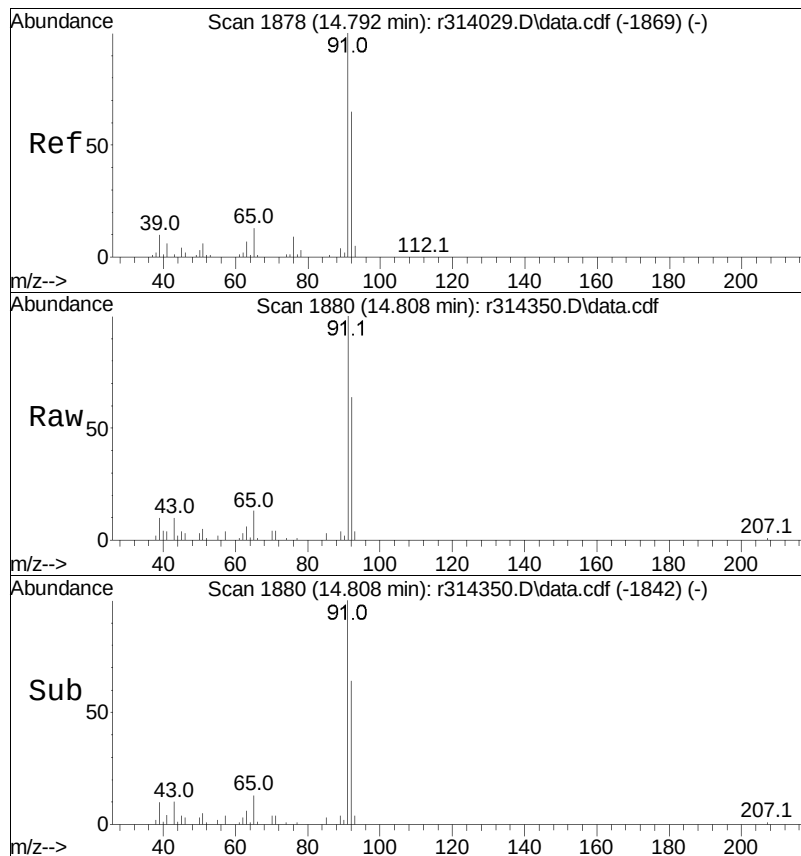




#62
 heptane
 Concen: 0.26 ppbV
 RT: 13.027 min Scan# 1660
 Delta R.T. -0.013 min
 Lab File: r314350.D
 Acq: 5 Mar 2021 10:05 PM

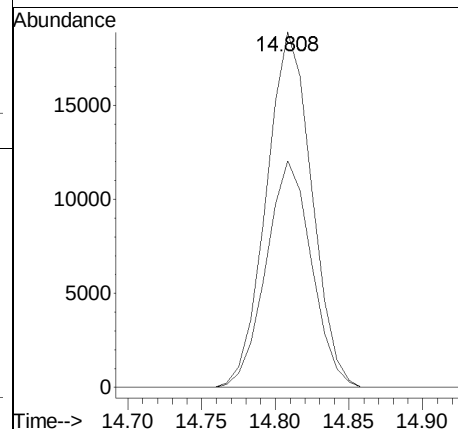
Tgt Ion	Ratio	Lower	Upper
43	100		
57	46.4	40.2	60.2
100	17.0	16.4	24.6

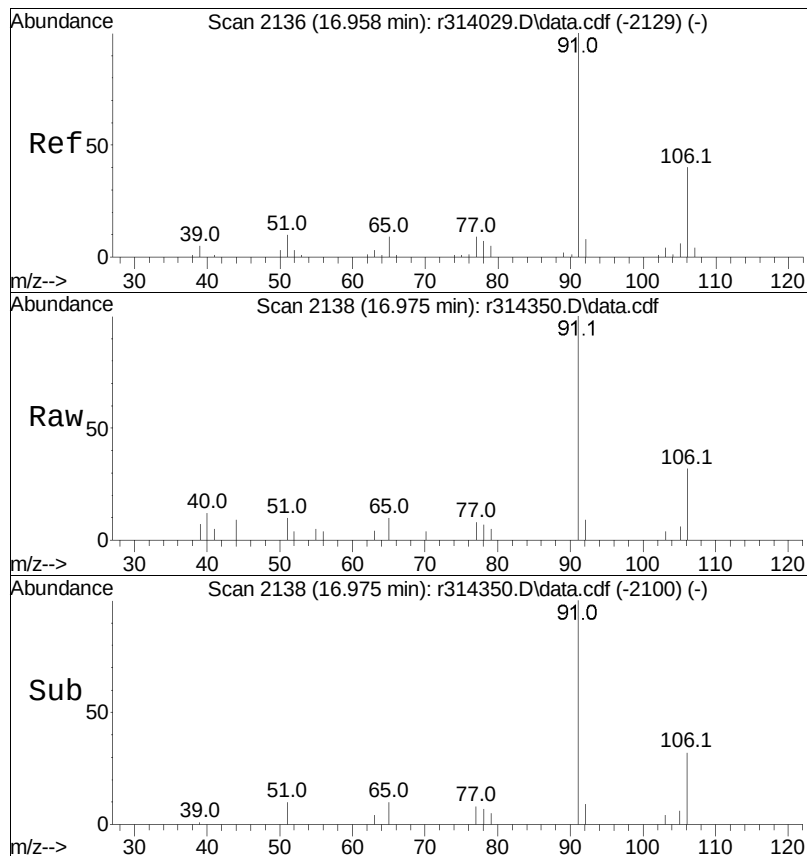




#68
toluene
Concen: 0.51 ppbV
RT: 14.808 min Scan# 1880
Delta R.T. -0.017 min
Lab File: r314350.D
Acq: 5 Mar 2021 10:05 PM

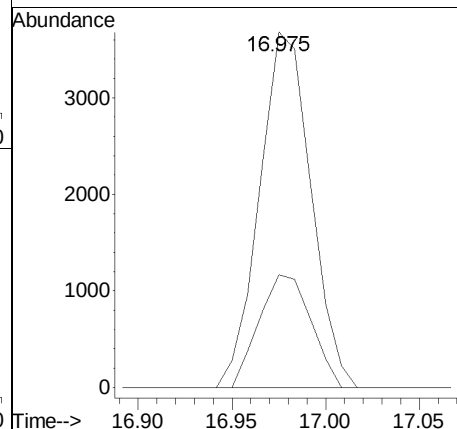
Tgt Ion:	91	Resp:	40503
Ion Ratio	Lower	Upper	
91	100		
92	63.8	51.8	77.8

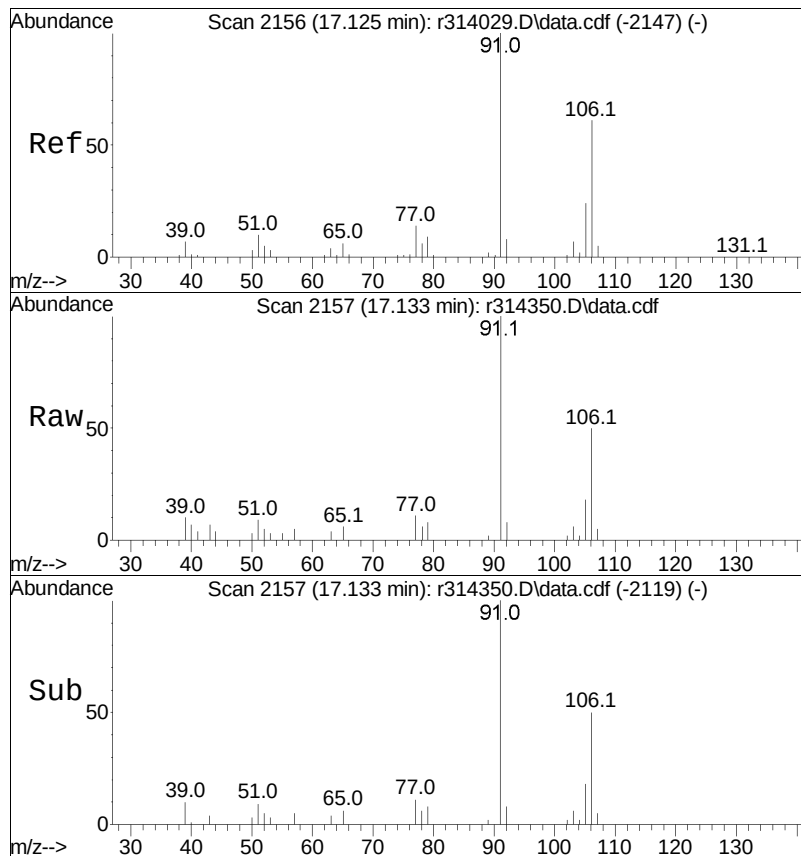




#81
ethylbenzene
Concen: 0.07 ppbV
RT: 16.975 min Scan# 2138
Delta R.T. -0.017 min
Lab File: r314350.D
Acq: 5 Mar 2021 10:05 PM

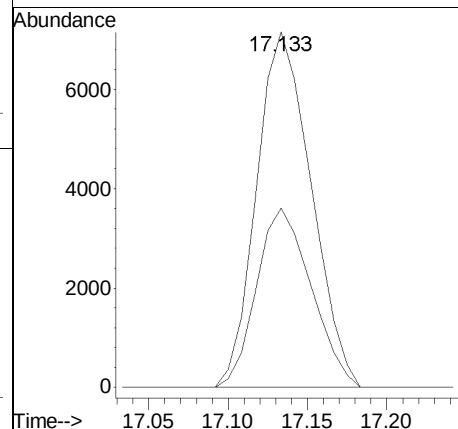
Tgt	Ion	Resp	Lower	Upper
91	100	7019		
106	31.7	31.8	47.8#	

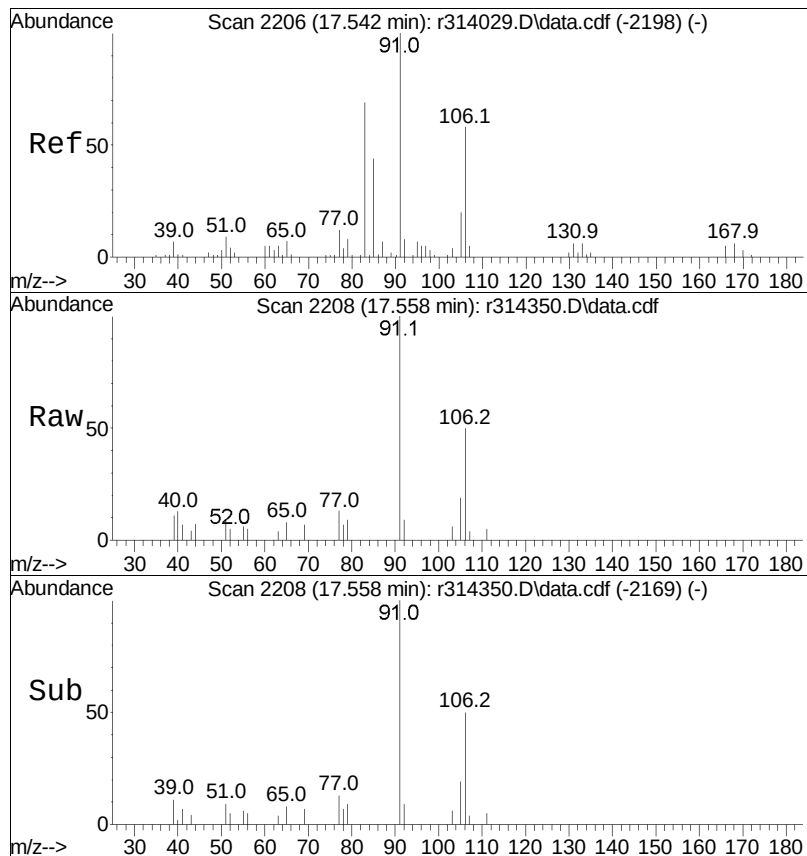




#83
 m+p-xylene
 Concen: 0.22 ppbV
 RT: 17.133 min Scan# 2157
 Delta R.T. -0.017 min
 Lab File: r314350.D
 Acq: 5 Mar 2021 10:05 PM

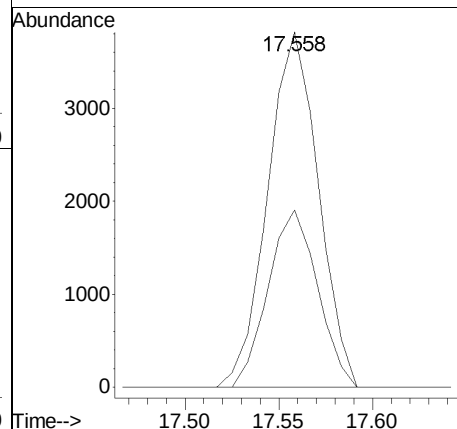
Tgt	Ion	Resp	Lower	Upper
91	100	17103		
106	50.5	48.7	73.1	

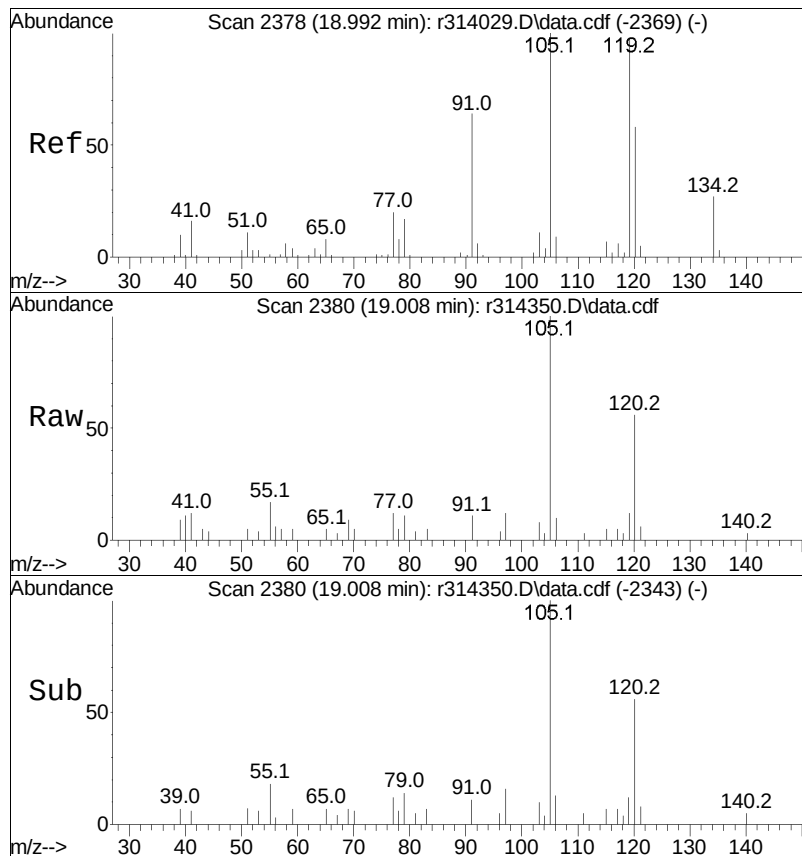




#87
 o-xylene
 Concen: 0.09 ppbV
 RT: 17.558 min Scan# 2208
 Delta R.T. -0.008 min
 Lab File: r314350.D
 Acq: 5 Mar 2021 10:05 PM

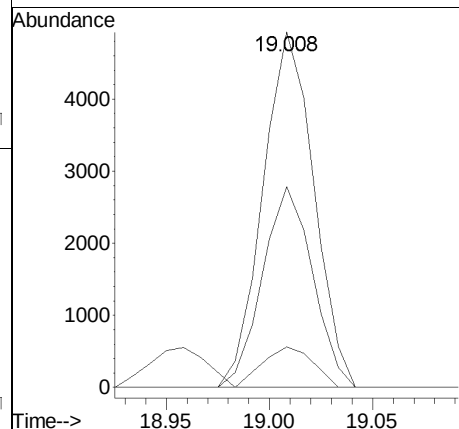
Tgt Ion	Ratio	Lower	Upper
91	100		
106	49.9	46.7	70.1





#99
 1,2,4-trimethylbenzene
 Concen: 0.09 ppbV
 RT: 19.008 min Scan# 2380
 Delta R.T. -0.008 min
 Lab File: r314350.D
 Acq: 5 Mar 2021 10:05 PM

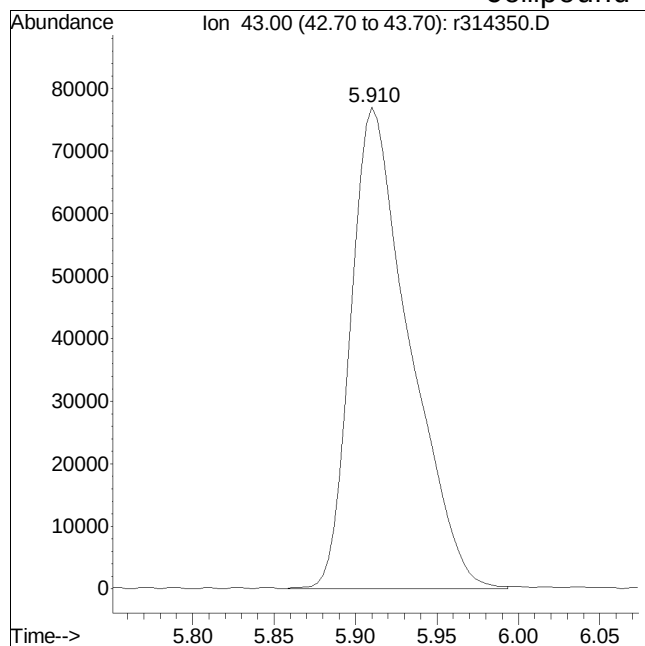
Tgt Ion:	105	Resp:	8465
Ion Ratio	Lower	Upper	
105	100		
120	56.4	46.1	69.1
91	11.4	51.5	77.3#



Manual Integration Report

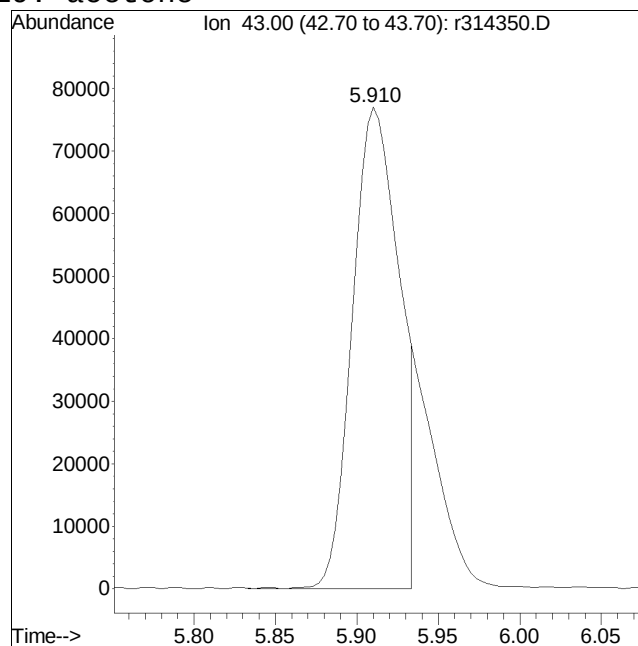
Data Path : 0:\Forensics\Data\AirpianoQMethod : TFS3_210219.M
Data File : r314350.D Operator : AIRPIAN03:EW
Date Inj'd : 3/5/2020 0:0: 5 Instrument :
Sample : L2109987-02,3,250,250 Quant Date : 3/7/2021 9:53 am

Compound #19: acetone



Original Peak Response = 192628

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



Manual Peak Response = 155286 M6

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305T\
 Data File : r314355.D
 Acq On : 6 Mar 2021 1:21 AM
 Operator : AIRPIAN03:EW
 Sample : L2109987-01,3,250,250
 Misc : WG1471270,ICAL17647
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 07 10:08:18 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305T\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sun Mar 07 09:51:35 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\03\0305T\r314338.D
 Sub List : T015-NY - .

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

Internal Standards						
1) bromochloromethane	9.592	49	421606	10.000	ppbV	-0.02
Standard Area = 440496			Recovery =		95.71%	
43) 1,4-difluorobenzene	11.860	114	1055326	10.000	ppbV	#-0.02
Standard Area = 1115642			Recovery =		94.59%	
67) chlorobenzene-D5	16.583	54	169613	10.000	ppbV	-0.02
Standard Area = 185080			Recovery =		91.64%	

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) dichlorodifluoromethane	4.018	85	15423	0.491	ppbV	99
6) chloromethane	4.198	50	9158	0.527	ppbV	98
7) Freon-114	4.324		0	N.D.		
9) vinyl chloride	0.000		0	N.D.		
10) 1,3-butadiene	4.624		0	N.D.		
13) bromomethane	0.000		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	5.333	31	243884	14.697	ppbV	87
17) vinyl bromide	0.000		0	N.D.		
19) acetone	5.910	43	103730M6	3.549	ppbV	
21) trichlorofluoromethane	6.107	101	5741	0.236	ppbV	96
22) isopropyl alcohol	6.237	45	172879	4.609	ppbV	98
26) 1,1-dichloroethene	0.000		0	N.D.		
27) tertiary butyl alcohol	6.986	59	6279	0.174	ppbV #	84
28) methylene chloride	7.046	49	3285	0.148	ppbV	95
29) 3-chloropropene	0.000		0	N.D.	d	
30) carbon disulfide	7.334		0	N.D.		
31) Freon 113	7.376	101	2520	0.082	ppbV	92
32) trans-1,2-dichloroethene	0.000		0	N.D.		
33) 1,1-dichloroethane	0.000		0	N.D.		
34) MTBE	0.000		0	N.D.		
36) 2-butanone	8.908	43	15538	0.292	ppbV	93
37) cis-1,2-dichloroethene	0.000		0	N.D.		
38) Ethyl Acetate	0.000		0	N.D.		
39) chloroform	9.758	83	2458	0.066	ppbV	94
40) Tetrahydrofuran	10.233	42	3763	0.112	ppbV	94
42) 1,2-dichloroethane	10.600		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305T\
 Data File : r314355.D
 Acq On : 6 Mar 2021 1:21 AM
 Operator : AIRPIAN03:EW
 Sample : L2109987-01,3,250,250
 Misc : WG1471270,ICAL17647
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 07 10:08:18 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305T\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sun Mar 07 09:51:35 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\03\0305T\r314338.D
 Sub List : T015-NY - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
44) hexane	9.667	57	6695	0.162	ppbV	#	59
48) 1,1,1-trichloroethane	0.000		0	N.D.			
50) benzene	11.420	78	20708	0.262	ppbV		99
52) carbon tetrachloride	11.593	117	1621	0.065	ppbV		95
53) cyclohexane	11.740	56	2903	0.066	ppbV	#	88
56) 1,2-dichloropropane	0.000		0	N.D.			
57) bromodichloromethane	0.000		0	N.D.			
58) 1,4-dioxane	12.680		0	N.D.			
59) trichloroethene	0.000		0	N.D.			
60) 2,2,4-trimethylpentane	12.707	57	14879	0.116	ppbV	#	88
62) heptane	13.027	43	7161	0.137	ppbV		94
63) cis-1,3-dichloropropene	0.000		0	N.D.			
64) 4-methyl-2-pentanone	13.733	43	3028	0.051	ppbV	#	85
65) trans-1,3-dichloropropene	0.000		0	N.D.			
66) 1,1,2-trichloroethane	0.000		0	N.D.			
68) toluene	14.808	91	69557	0.834	ppbV		99
72) 2-hexanone	0.000		0	N.D.	d		
74) dibromochloromethane	0.000		0	N.D.			
75) 1,2-dibromoethane	0.000		0	N.D.			
78) tetrachloroethene	15.975	166	3340	0.093	ppbV		95
80) chlorobenzene	0.000		0	N.D.	d		
81) ethylbenzene	16.975	91	17164	0.171	ppbV		91
83) m+p-xylene	17.125	91	68447	0.853	ppbV		86
84) bromoform	0.000		0	N.D.			
85) styrene	17.458		0	N.D.			
86) 1,1,2,2-tetrachloroethane	0.000		0	N.D.	d		
87) o-xylene	17.558	91	20825	0.261	ppbV		86
96) 4-ethyl toluene	18.608	105	28785M6	0.229	ppbV		
97) 1,3,5-trimethylbenzene	18.675	105	60508	0.594	ppbV		95
99) 1,2,4-trimethylbenzene	19.008	105	194870	2.046	ppbV	#	61
101) Benzyl Chloride	0.000		0	N.D.	d		
102) 1,3-dichlorobenzene	0.000		0	N.D.			
103) 1,4-dichlorobenzene	0.000		0	N.D.			
107) 1,2-dichlorobenzene	0.000		0	N.D.			
115) 1,2,4-trichlorobenzene	0.000		0	N.D.			
119) hexachlorobutadiene	0.000		0	N.D.			

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

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305T\
 Data File : r314355.D
 Acq On : 6 Mar 2021 1:21 AM
 Operator : AIRPIAN03:EW
 Sample : L2109987-01,3,250,250
 Misc : WG1471270,ICAL17647
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 07 10:08:18 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305T\TFS3_210219.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sun Mar 07 09:51:35 2021
 Response via : Initial Calibration

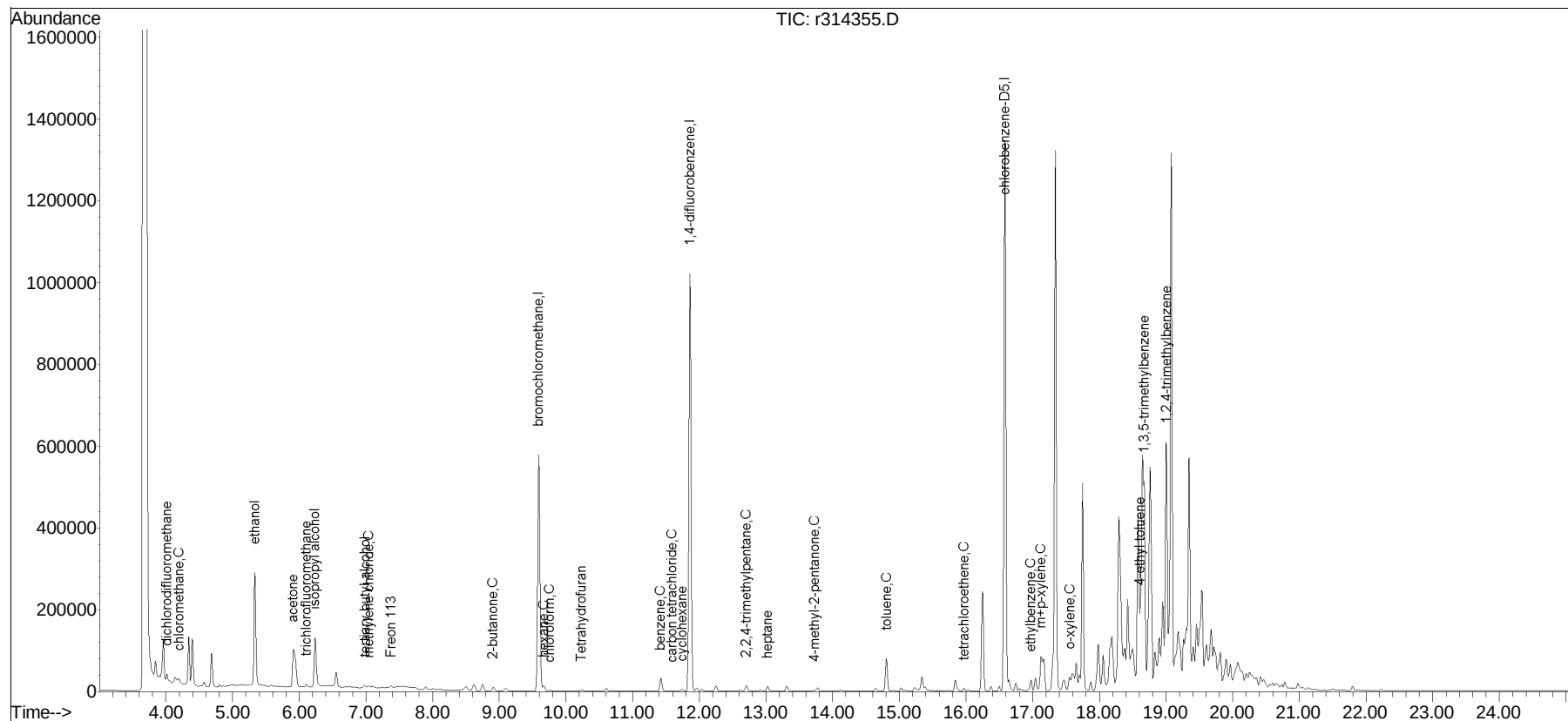
CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\03\0305T\r314338.D
 Sub List : T015-NY - .

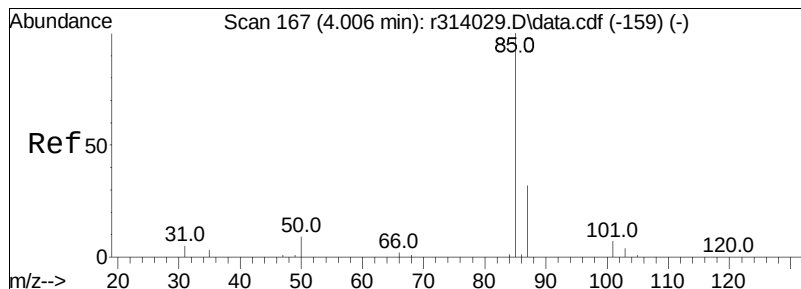
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Sub List : T015-NY - .s\Data\Airpiano3\2021\03\0305T\r314338.D

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305T\
Data File : r314355.D
Acq On : 6 Mar 2021 1:21 AM
Operator : AIRPIANO3:EW
Sample : L2109987-01,3,250,250
Misc : WG1471270,ICAL17647
ALS Vial : 0 Sample Multiplier: 1

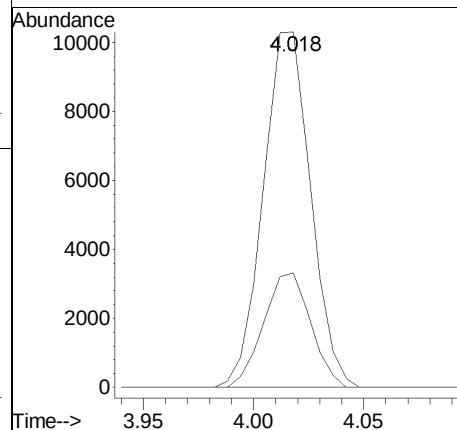
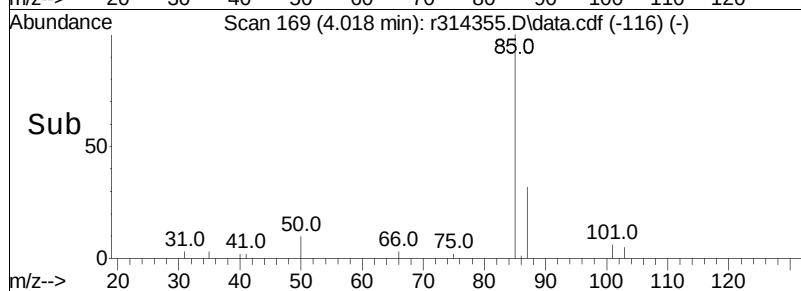
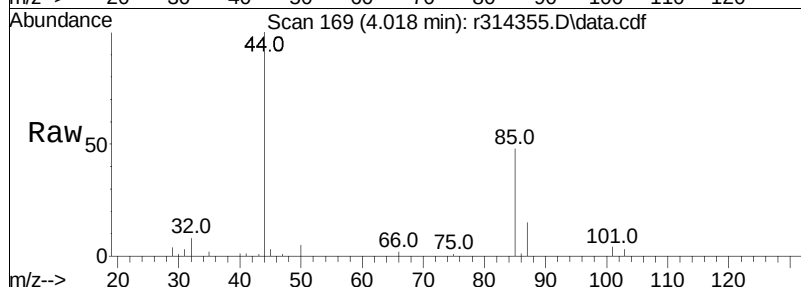
Quant Time: Mar 07 10:08:18 2021
Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305T\TFS3_210219.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Sun Mar 07 09:51:35 2021
Response via : Initial Calibration

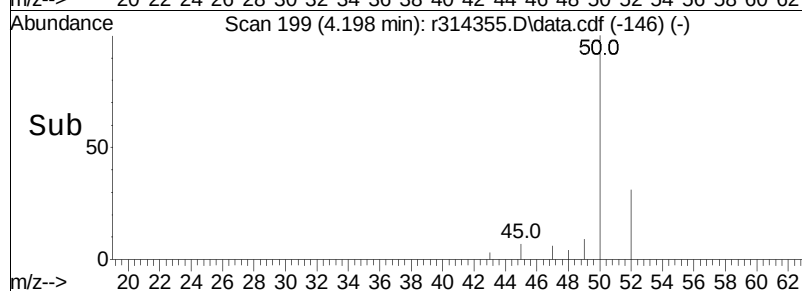
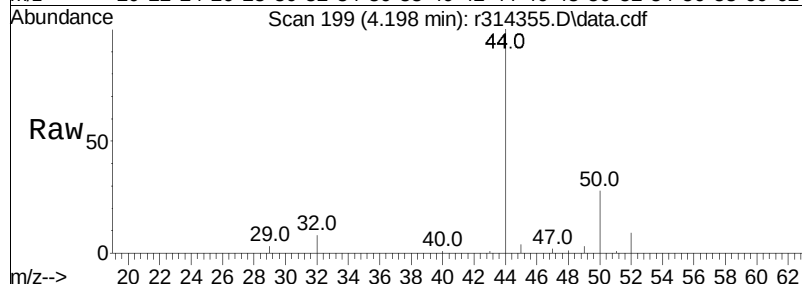
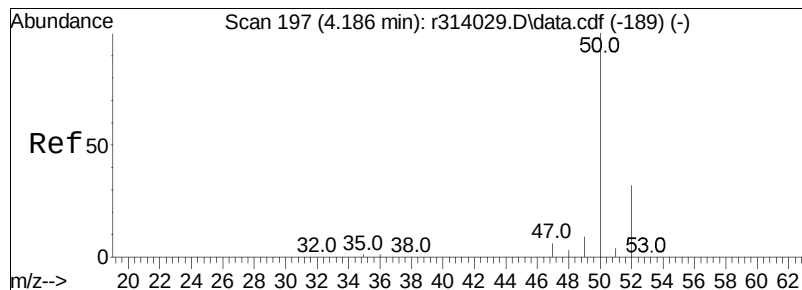




#5
dichlorodifluoromethane
Concen: 0.49 ppbV
RT: 4.018 min Scan# 169
Delta R.T. -0.012 min
Lab File: r314355.D
Acq: 6 Mar 2021 1:21 AM

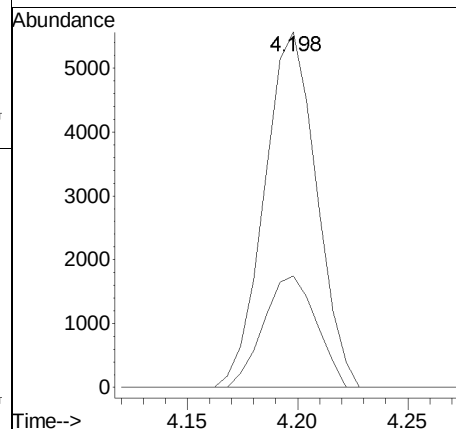
Tgt Ion: 85 Resp: 15423
Ion Ratio Lower Upper
85 100
87 32.2 25.4 38.0

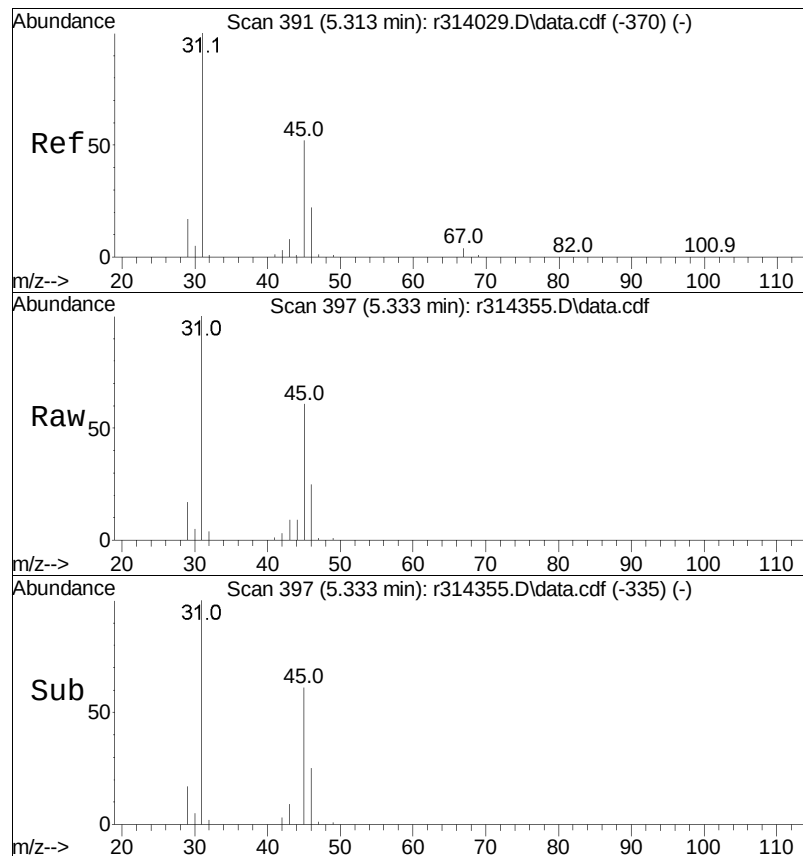




#6
chloromethane
Concen: 0.53 ppbV
RT: 4.198 min Scan# 199
Delta R.T. -0.012 min
Lab File: r314355.D
Acq: 6 Mar 2021 1:21 AM

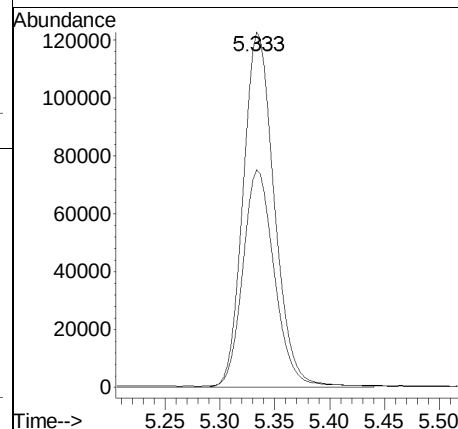
Tgt	Ion	Ratio	Lower	Upper
50	100			
52	31.3		26.0	39.0

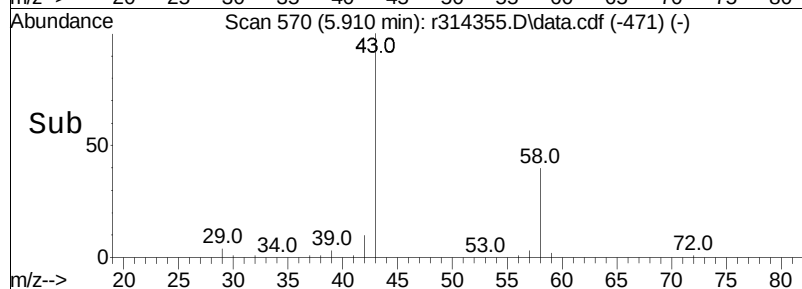
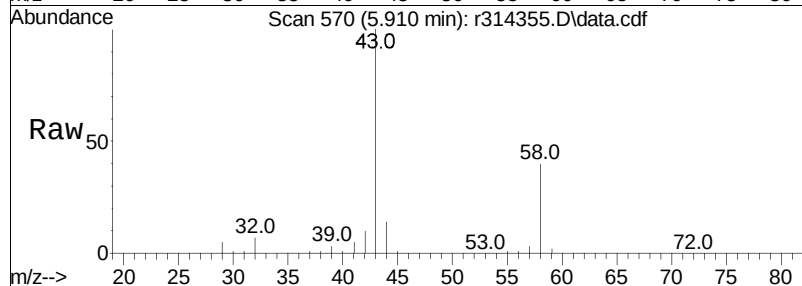
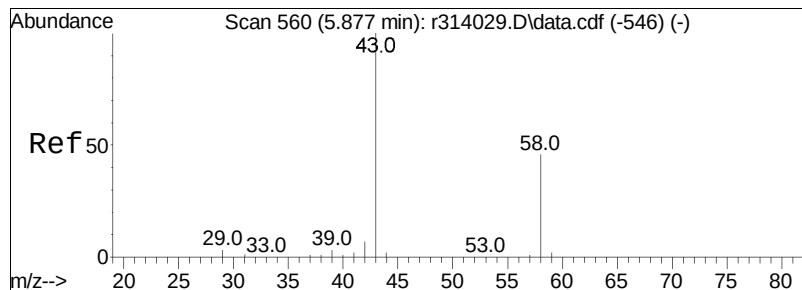




#15
ethanol
Concen: 14.70 ppbV
RT: 5.333 min Scan# 397
Delta R.T. -0.010 min
Lab File: r314355.D
Acq: 6 Mar 2021 1:21 AM

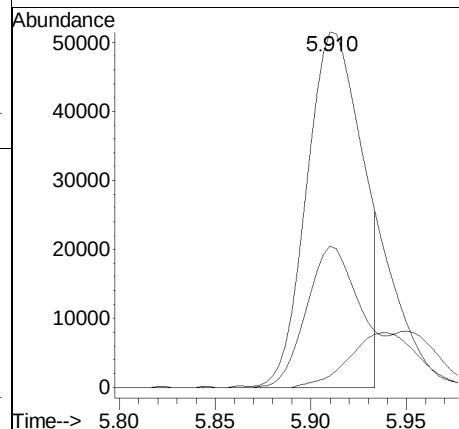
Tgt Ion	Ratio	Lower	Upper
31	100		
45	61.2	41.9	62.9

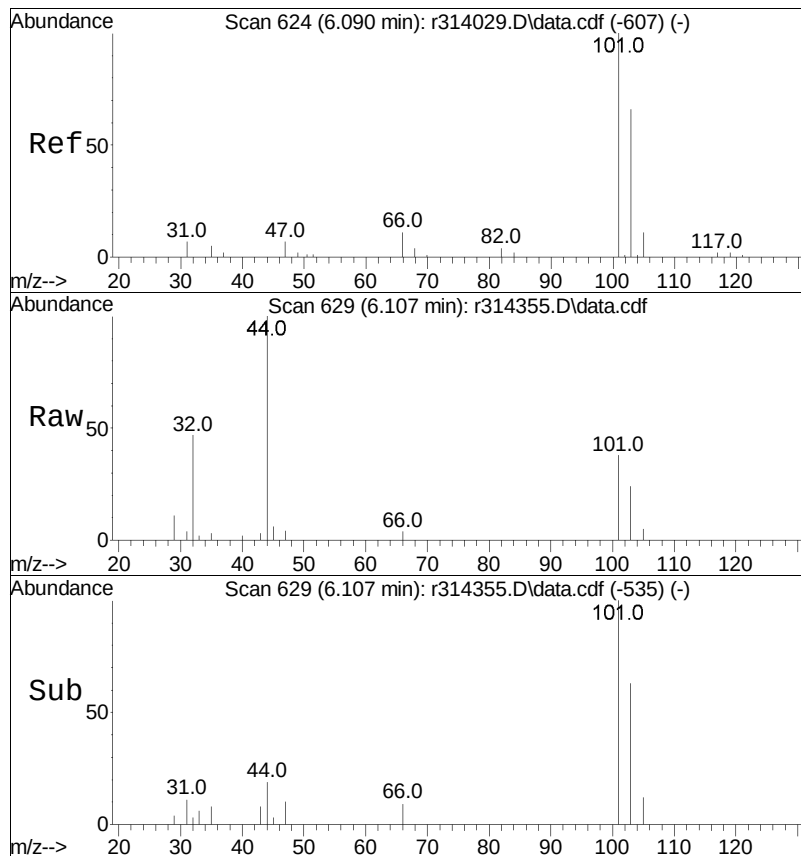




#19
acetone
Concen: 3.55 ppbV m
RT: 5.910 min Scan# 570
Delta R.T. 0.000 min
Lab File: r314355.D
Acq: 6 Mar 2021 1:21 AM

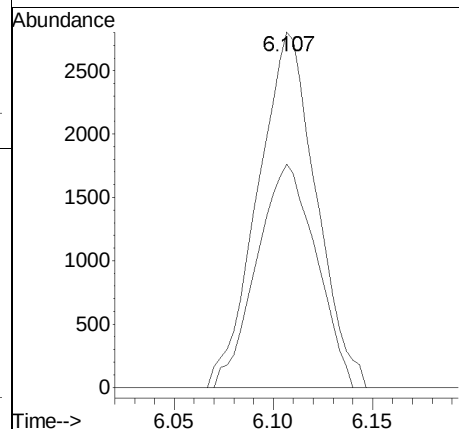
Tgt Ion	Ratio	Lower	Upper
43	100		
58	39.8	36.7	55.1
57	3.3	1.0	1.6

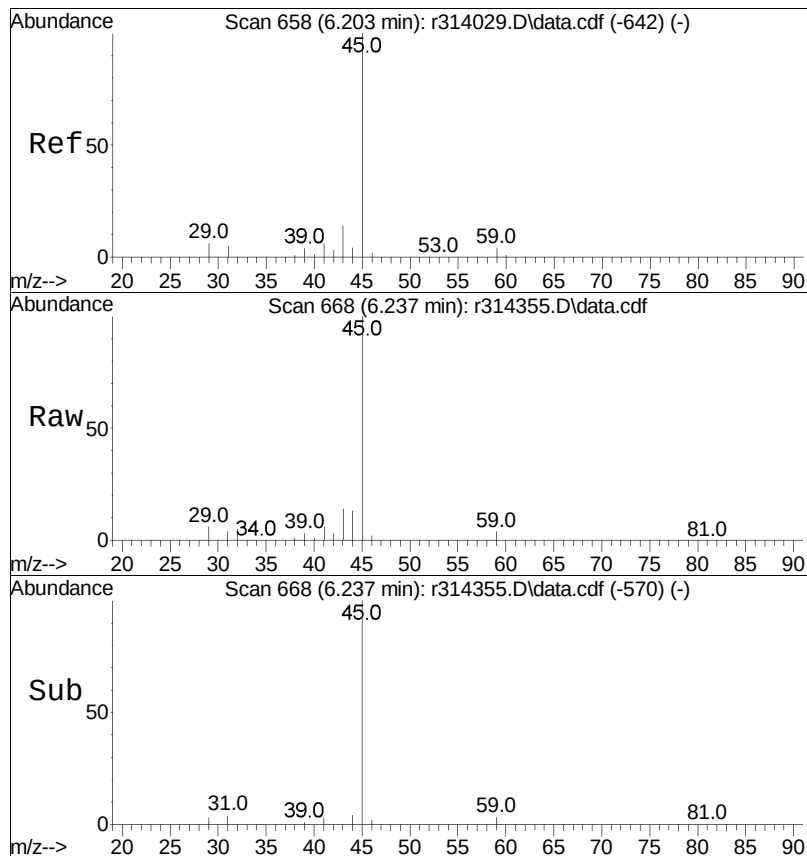




#21
trichlorofluoromethane
Concen: 0.24 ppbV
RT: 6.107 min Scan# 629
Delta R.T. -0.017 min
Lab File: r314355.D
Acq: 6 Mar 2021 1:21 AM

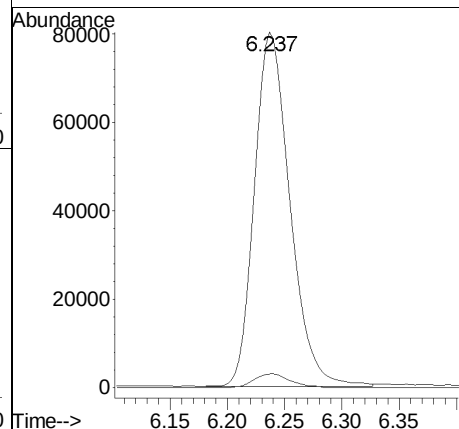
Tgt Ion	Ratio	Lower	Upper
101	100		
103	62.9	52.6	78.8

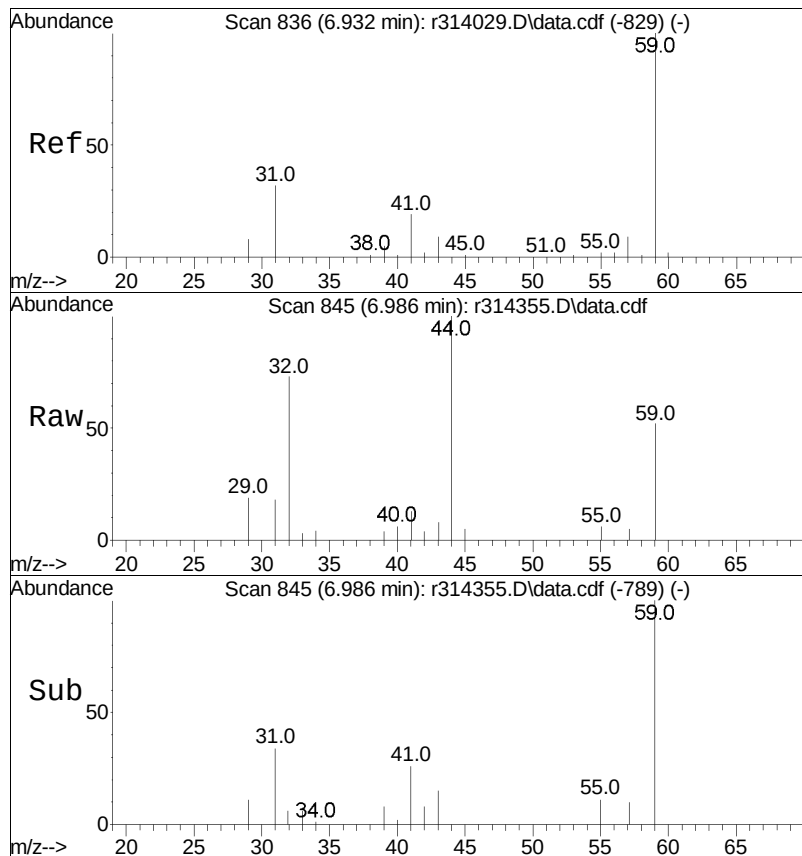




#22
 isopropyl alcohol
 Concen: 4.61 ppbV
 RT: 6.237 min Scan# 668
 Delta R.T. -0.003 min
 Lab File: r314355.D
 Acq: 6 Mar 2021 1:21 AM

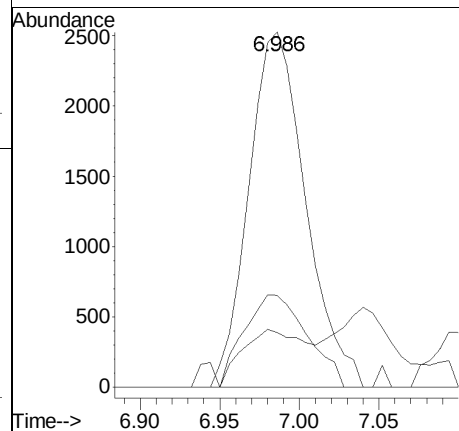
Tgt Ion	Ratio	Lower	Upper
45	100		
59	3.8	3.5	5.3

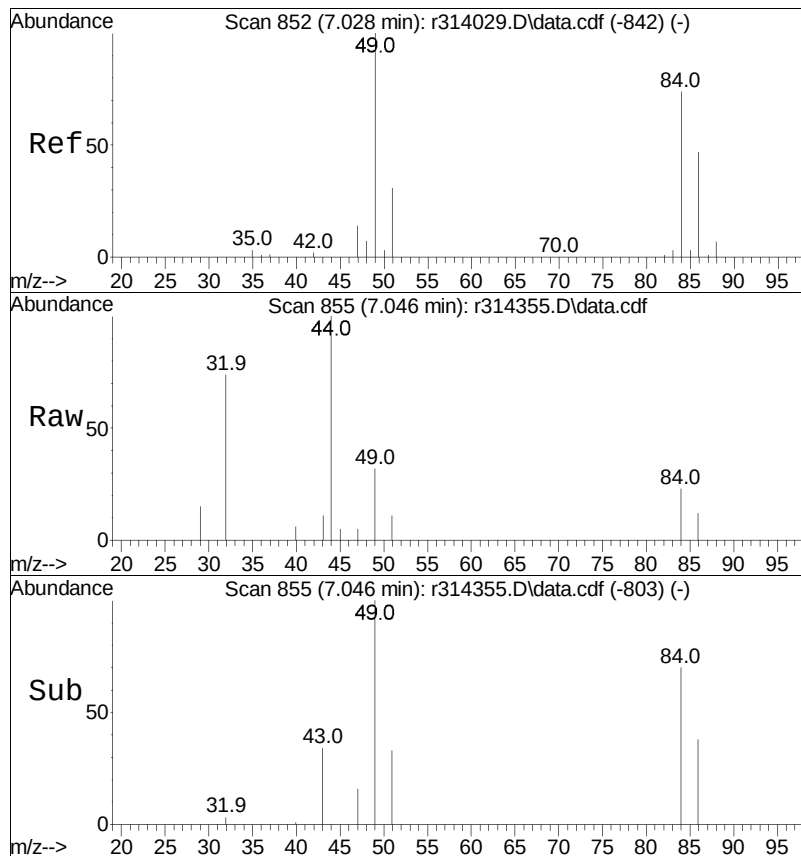




#27
 tertiary butyl alcohol
 Concen: 0.17 ppbV
 RT: 6.986 min Scan# 845
 Delta R.T. 0.012 min
 Lab File: r314355.D
 Acq: 6 Mar 2021 1:21 AM

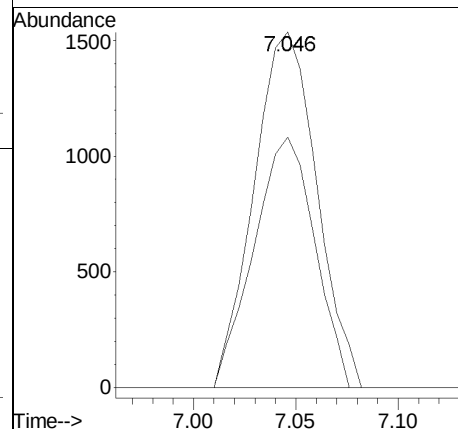
Tgt Ion:	59	Resp:	6279
Ion Ratio	Lower	Upper	
59	100		
41	25.9	15.0	22.6#
43	15.4	7.4	11.2#

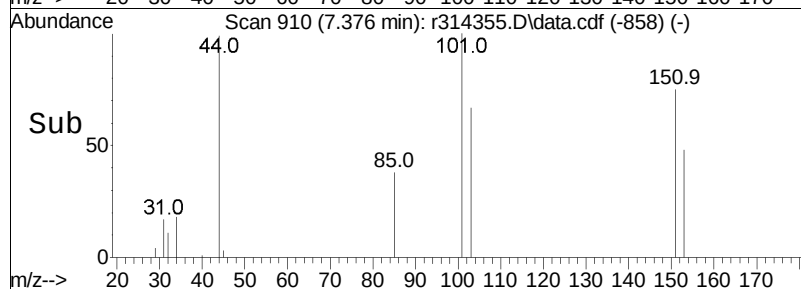
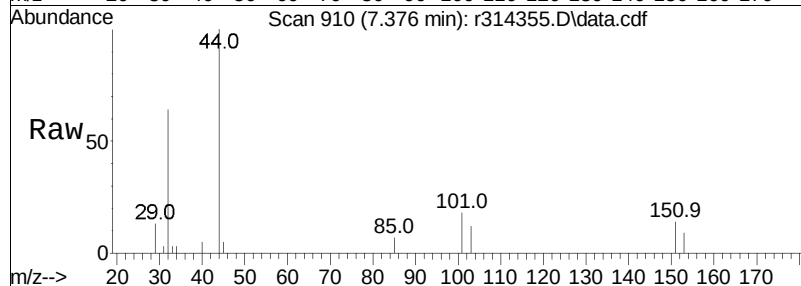
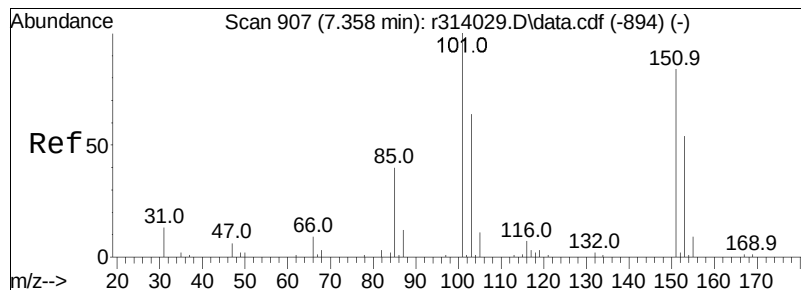




#28
 methylene chloride
 Concen: 0.15 ppbV
 RT: 7.046 min Scan# 855
 Delta R.T. -0.018 min
 Lab File: r314355.D
 Acq: 6 Mar 2021 1:21 AM

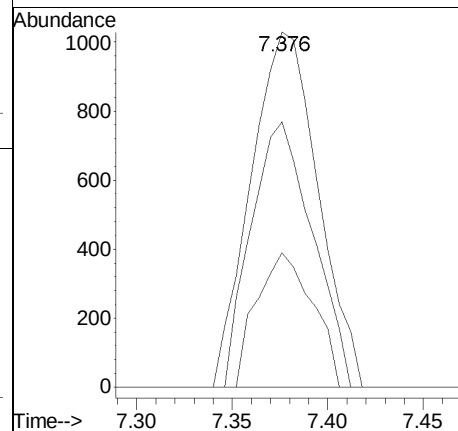
Tgt Ion:	49	84	Ratio	Lower	Upper
Resp:	3285				
Ion Ratio	100	70.5			
		59.5			
				89.3	

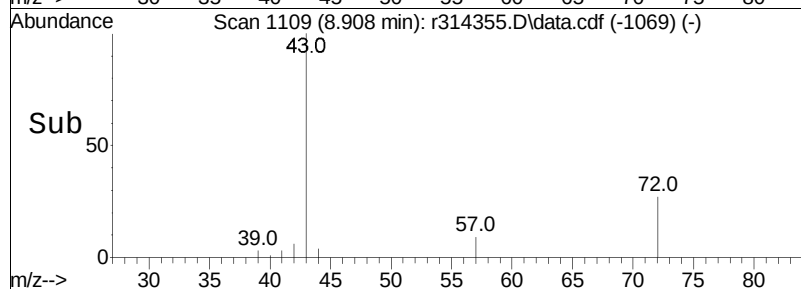
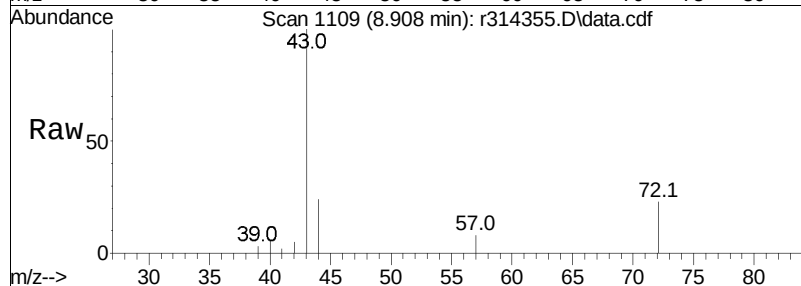
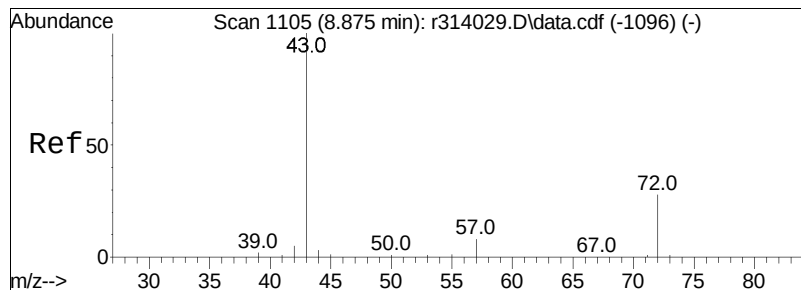




#31
 Freon 113
 Concen: 0.08 ppbV
 RT: 7.376 min Scan# 910
 Delta R.T. -0.018 min
 Lab File: r314355.D
 Acq: 6 Mar 2021 1:21 AM

Tgt Ion	Ratio	Lower	Upper
101	100		
85	37.9	31.7	47.5
151	74.7	67.4	101.0





#36

2-butanone

Concen: 0.29 ppbV

RT: 8.908 min Scan# 1109

Delta R.T. 0.000 min

Lab File: r314355.D

Acq: 6 Mar 2021 1:21 AM

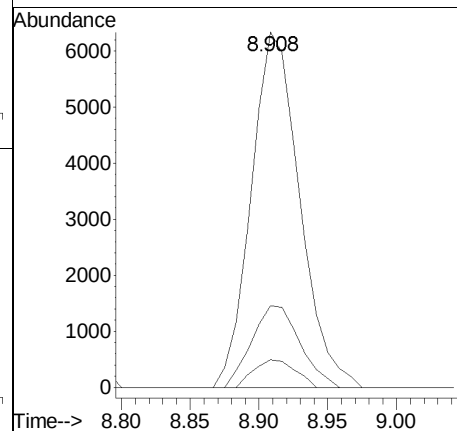
Tgt Ion: 43 Resp: 15538

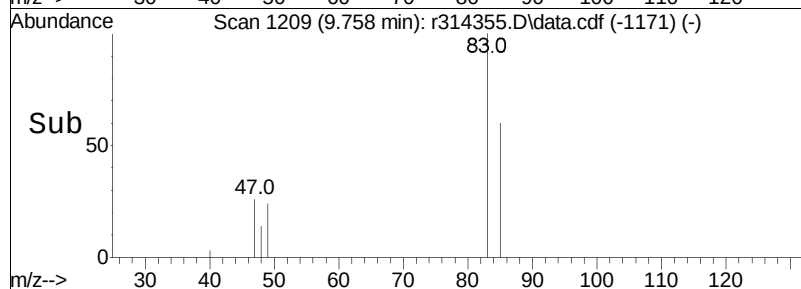
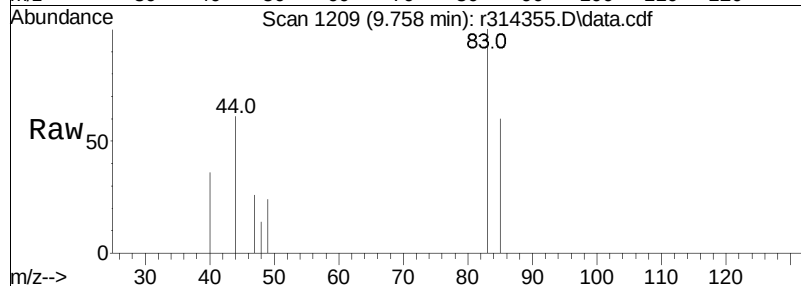
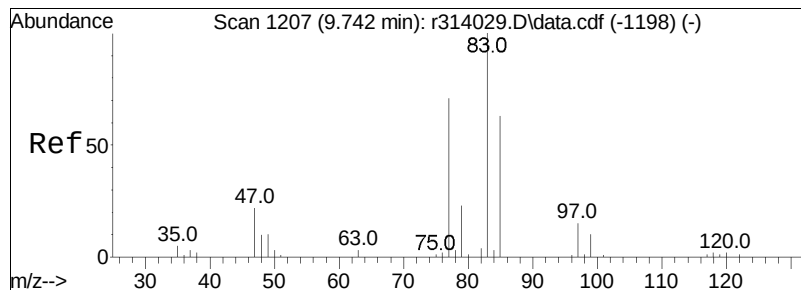
Ion Ratio Lower Upper

43 100

72 23.0 22.2 33.2

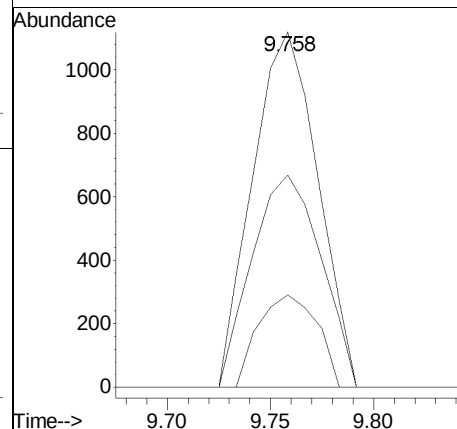
57 7.8 6.3 9.5

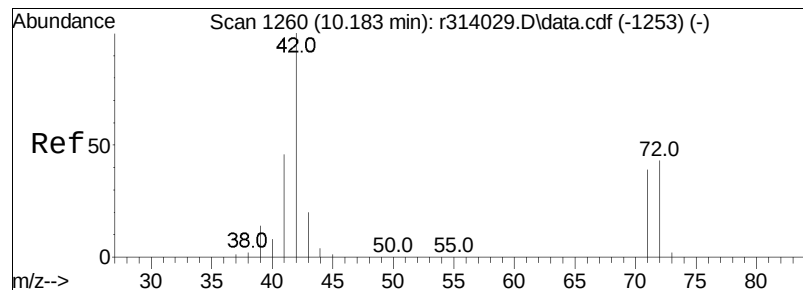




#39
chloroform
Concen: 0.07 ppbV
RT: 9.758 min Scan# 1209
Delta R.T. -0.017 min
Lab File: r314355.D
Acq: 6 Mar 2021 1:21 AM

Tgt Ion	Ratio	Lower	Upper
83	100		
85	59.7	50.9	76.3
47	26.0	17.8	26.6





#40

Tetrahydrofuran

Concen: 0.11 ppbV

RT: 10.233 min Scan# 1266

Delta R.T. 0.008 min

Lab File: r314355.D

Acq: 6 Mar 2021 1:21 AM

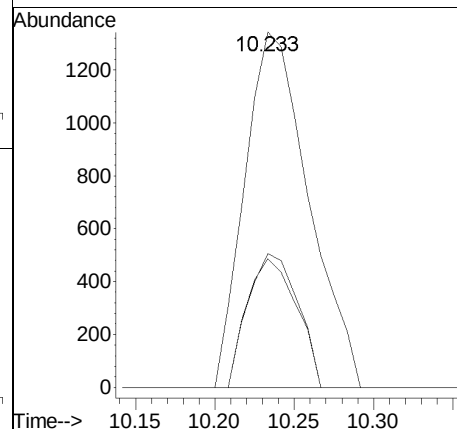
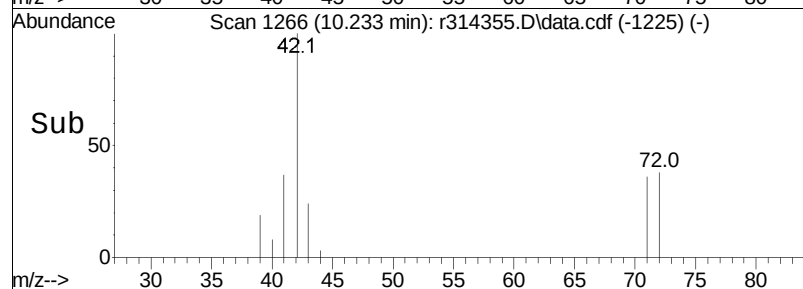
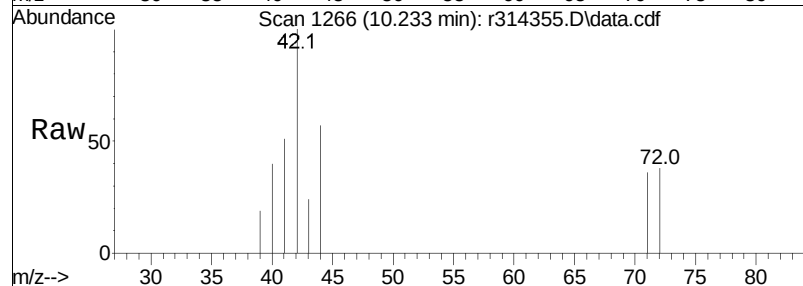
Tgt Ion: 42 Resp: 3763

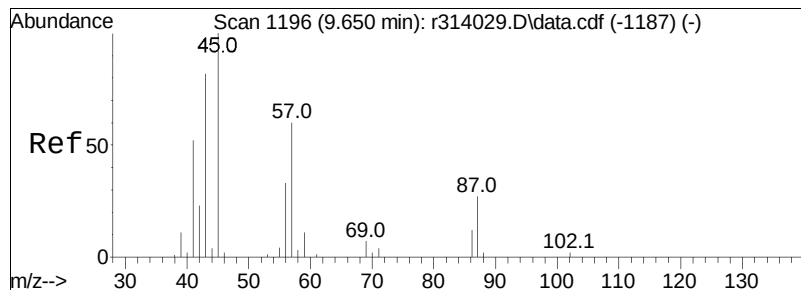
Ion Ratio Lower Upper

42 100

71 36.3 31.0 46.6

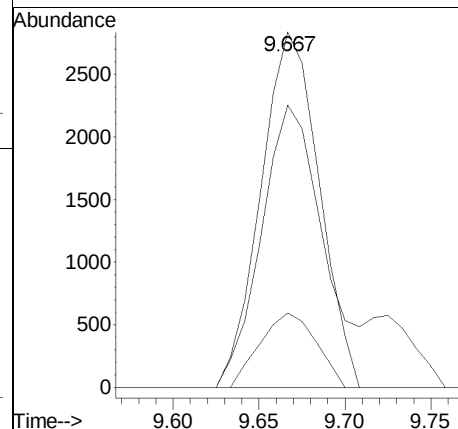
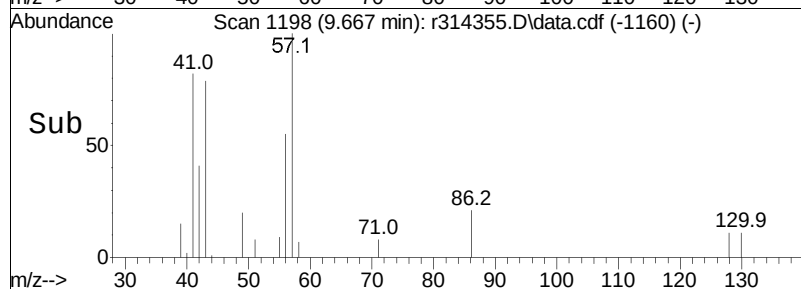
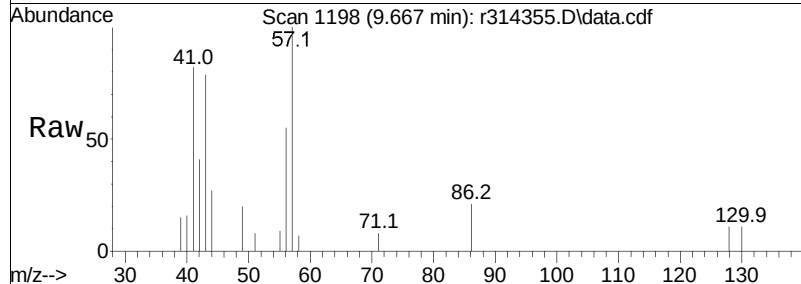
72 37.7 34.1 51.1

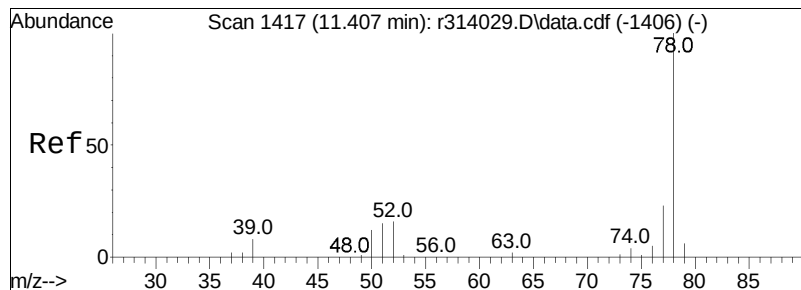




#44
hexane
Concen: 0.16 ppbV
RT: 9.667 min Scan# 1198
Delta R.T. -0.017 min
Lab File: r314355.D
Acq: 6 Mar 2021 1:21 AM

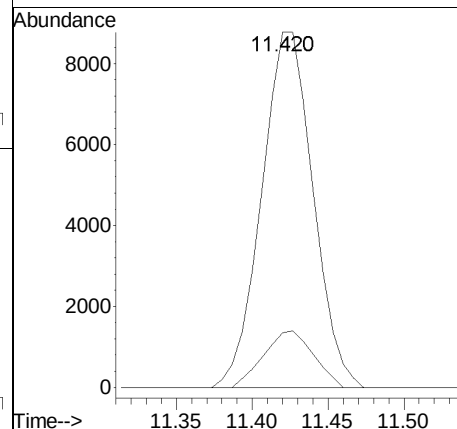
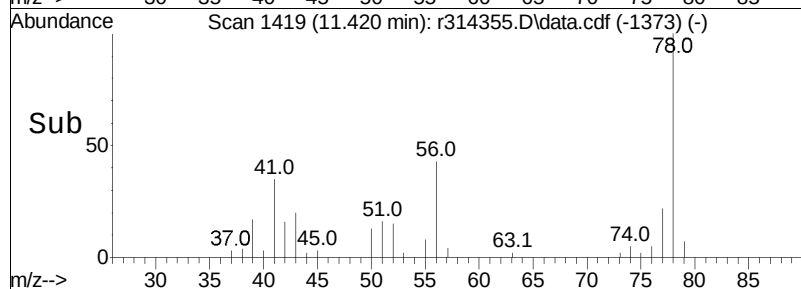
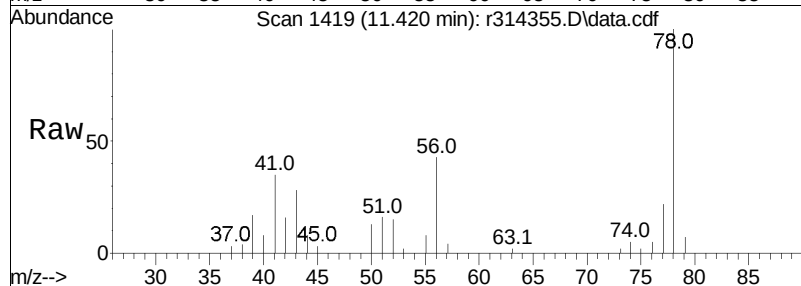
Tgt Ion	Ratio	Lower	Upper
57	100		
43	79.4	108.5	162.7#
86	21.0	16.0	24.0

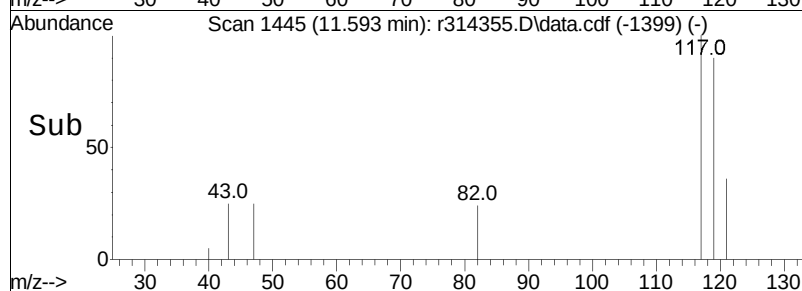
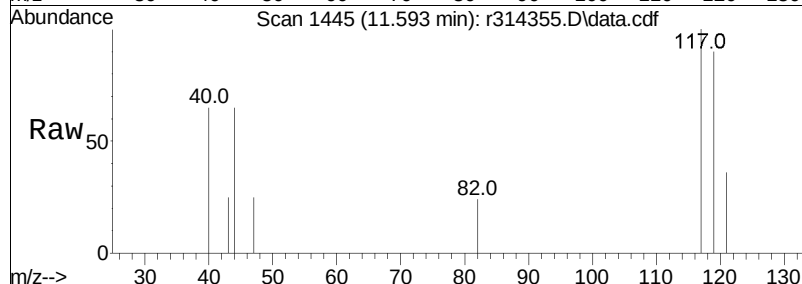
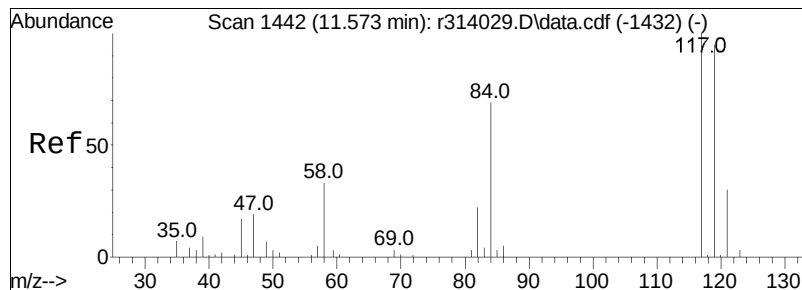




#50
benzene
Concen: 0.26 ppbV
RT: 11.420 min Scan# 1419
Delta R.T. -0.020 min
Lab File: r314355.D
Acq: 6 Mar 2021 1:21 AM

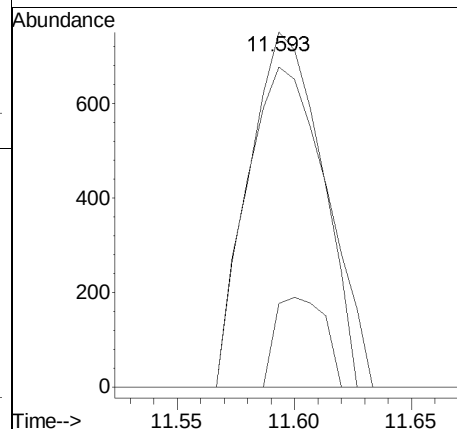
Tgt Ion	Ratio	Lower	Upper
78	100		
52	15.4	12.5	18.7

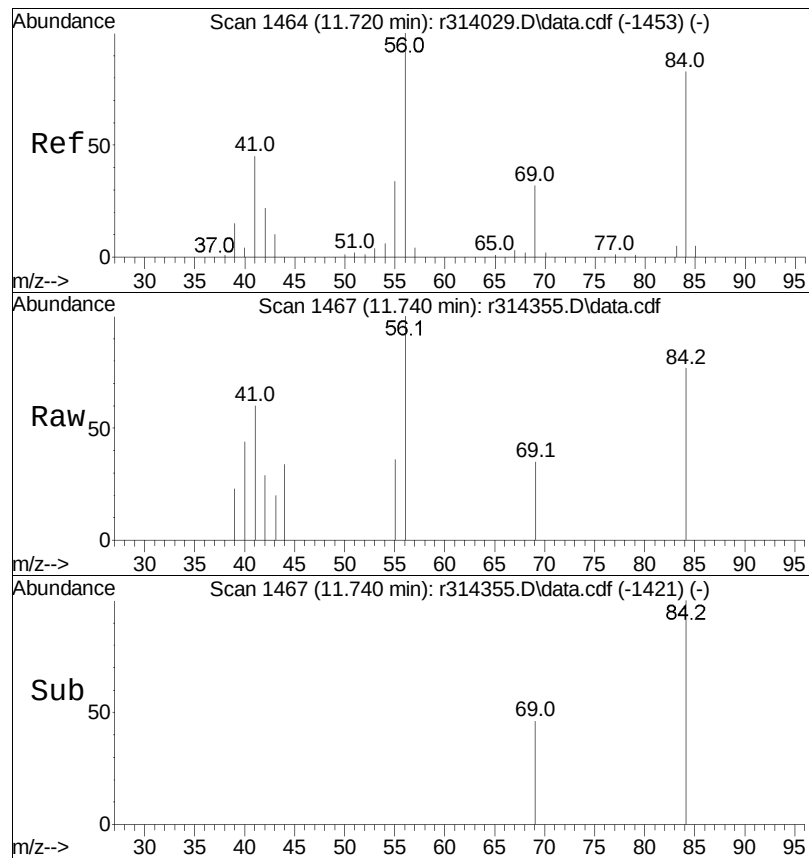




#52
 carbon tetrachloride
 Concen: 0.06 ppbV
 RT: 11.593 min Scan# 1445
 Delta R.T. -0.020 min
 Lab File: r314355.D
 Acq: 6 Mar 2021 1:21 AM

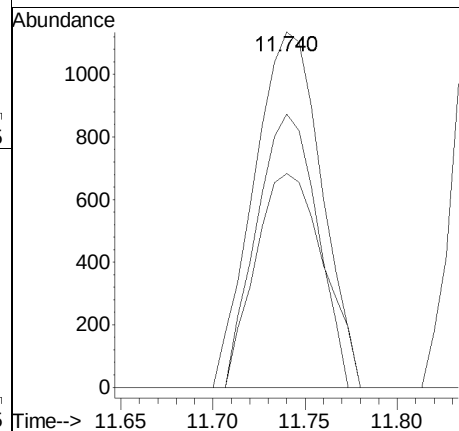
Tgt Ion	Ratio	Lower	Upper
117	100		
119	90.1	76.1	114.1
82	23.6	17.9	26.9

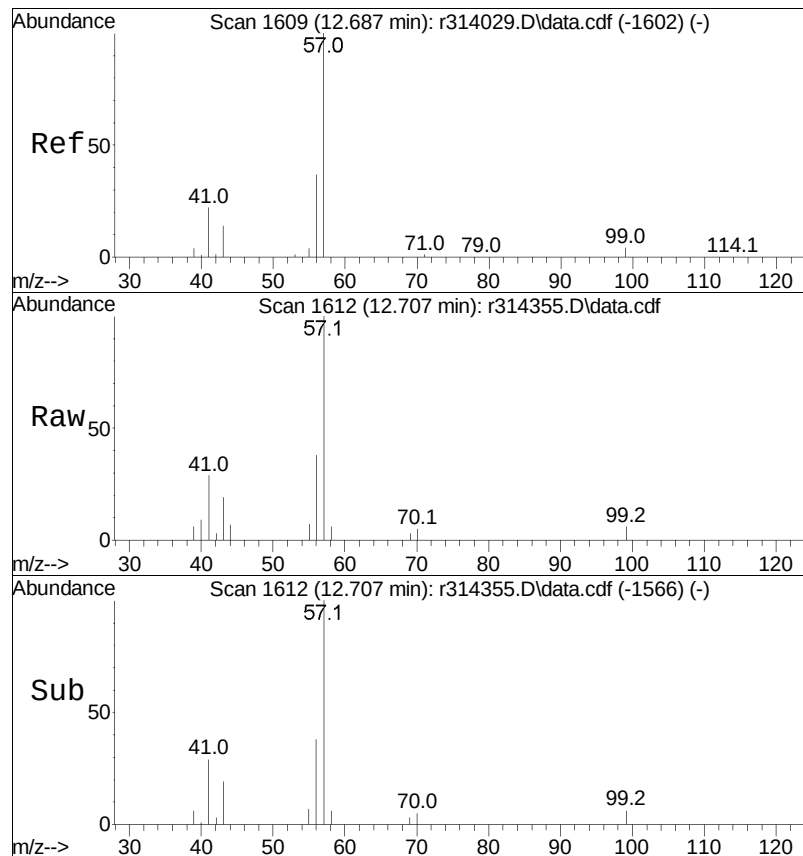




#53
cyclohexane
Concen: 0.07 ppbV
RT: 11.740 min Scan# 1467
Delta R.T. -0.020 min
Lab File: r314355.D
Acq: 6 Mar 2021 1:21 AM

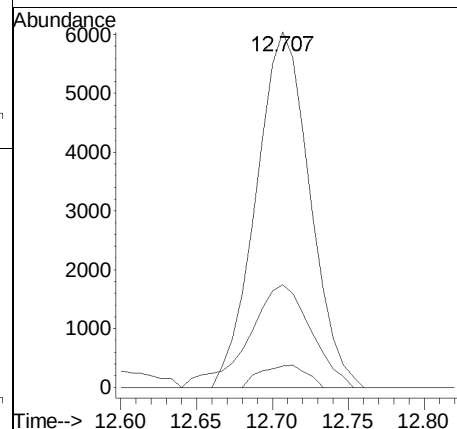
Tgt	Ion: 56	Resp:	2903
Ion	Ratio	Lower	Upper
56	100		
84	76.9	66.5	99.7
41	60.2	36.3	54.5#

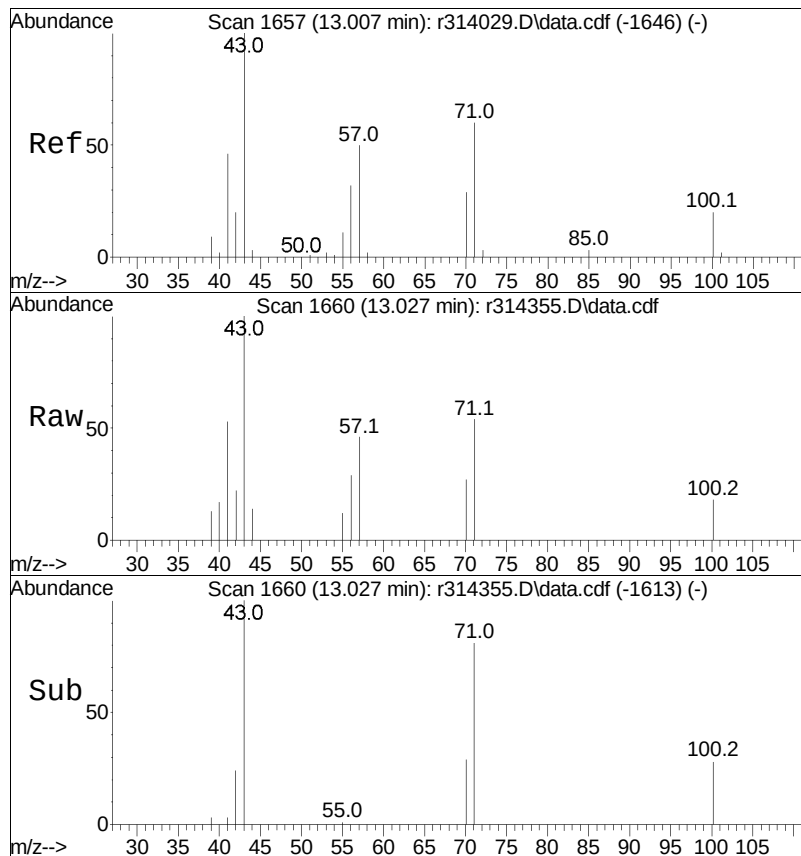




#60
 2,2,4-trimethylpentane
 Concen: 0.12 ppbV
 RT: 12.707 min Scan# 1612
 Delta R.T. -0.020 min
 Lab File: r314355.D
 Acq: 6 Mar 2021 1:21 AM

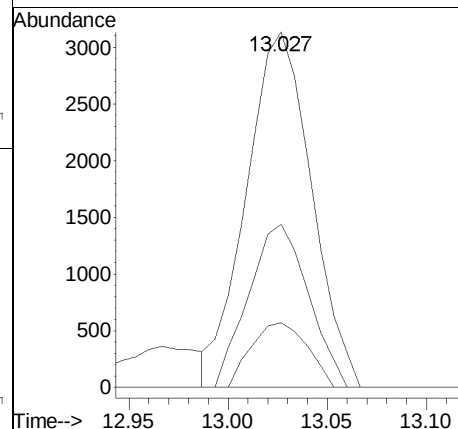
Tgt Ion:	57	Resp:	14879
Ion Ratio	Lower	Upper	
57	100		
99	6.0	5.0	7.6
41	28.9	17.4	26.0#

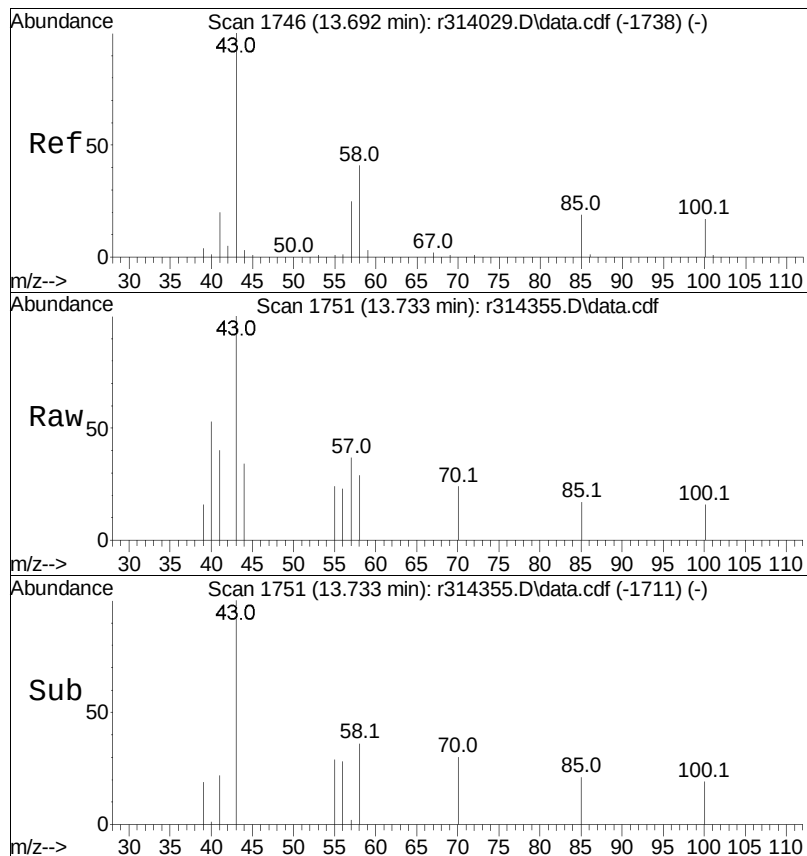




#62
 heptane
 Concen: 0.14 ppbV
 RT: 13.027 min Scan# 1660
 Delta R.T. -0.013 min
 Lab File: r314355.D
 Acq: 6 Mar 2021 1:21 AM

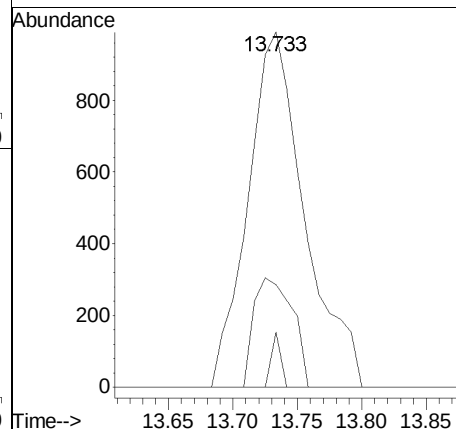
Tgt Ion:	43	Resp:	7161
Ion Ratio	Lower	Upper	
43	100		
57	45.9	40.2	60.2
100	18.2	16.4	24.6

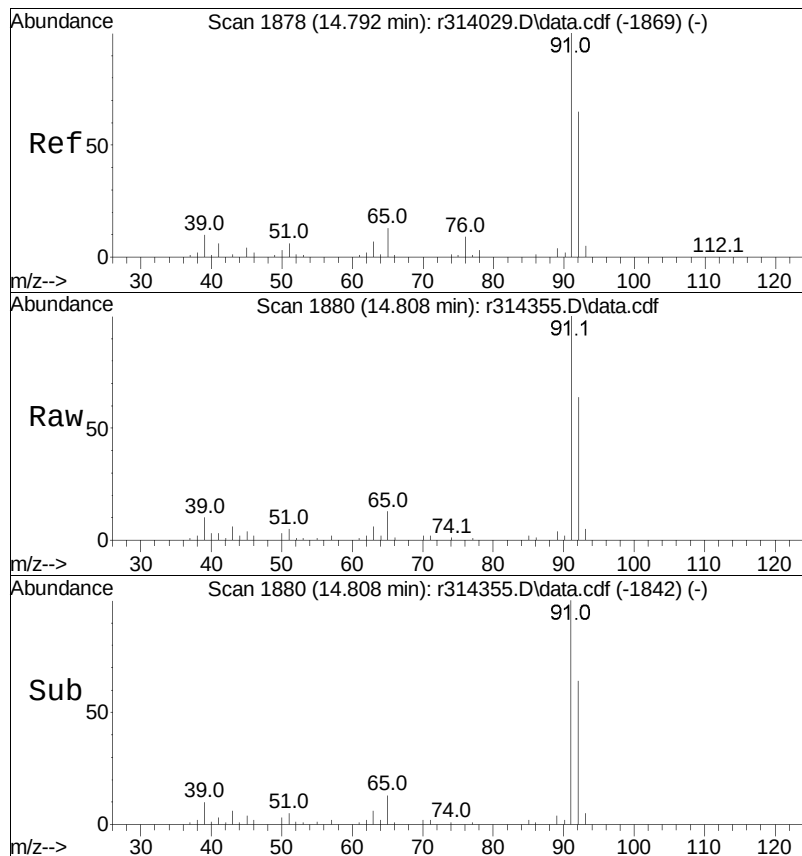




#64
 4-methyl-2-pentanone
 Concen: 0.05 ppbV
 RT: 13.733 min Scan# 1751
 Delta R.T. 0.000 min
 Lab File: r314355.D
 Acq: 6 Mar 2021 1:21 AM

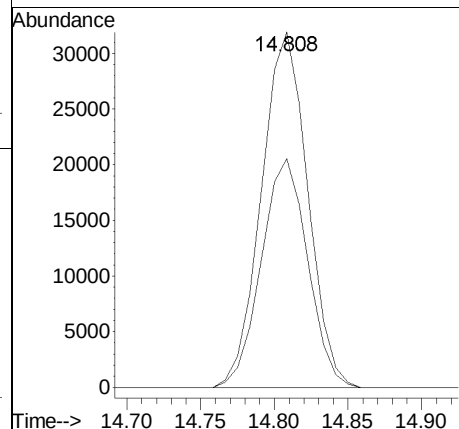
Tgt Ion:	43	Resp:	3028
Ion Ratio	Lower	Upper	
43	100		
58	28.9	33.1	49.7#
100	15.6	13.4	20.2

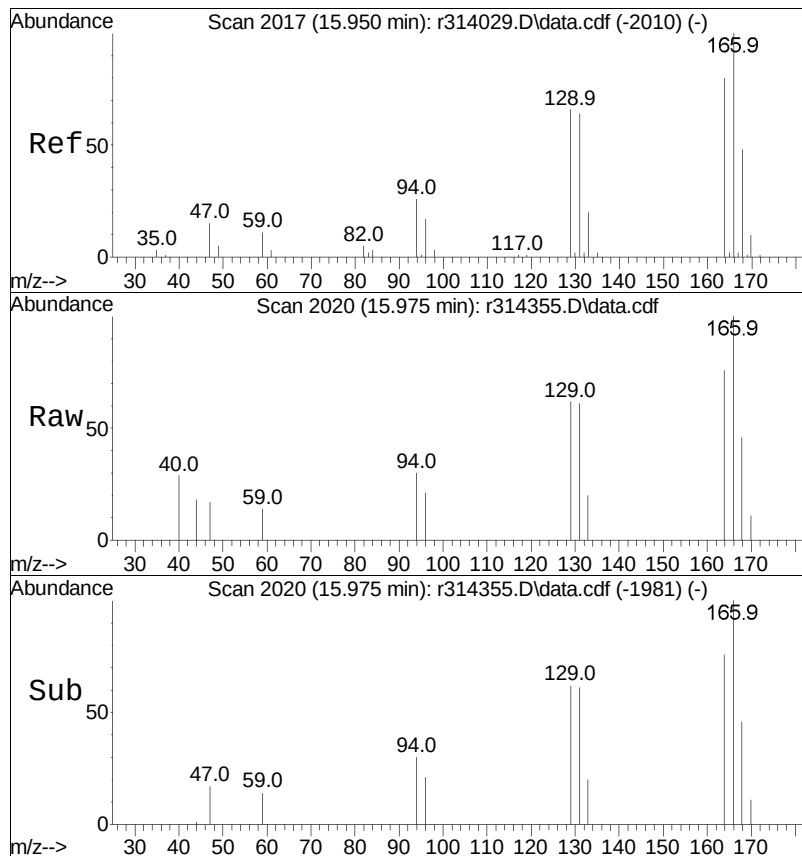




#68
toluene
Concen: 0.83 ppbV
RT: 14.808 min Scan# 1880
Delta R.T. -0.017 min
Lab File: r314355.D
Acq: 6 Mar 2021 1:21 AM

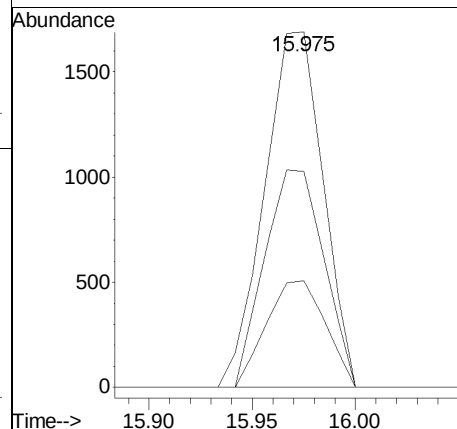
Tgt	Ion	Ratio	Lower	Upper
91	100			
92	64.4	51.8	77.8	

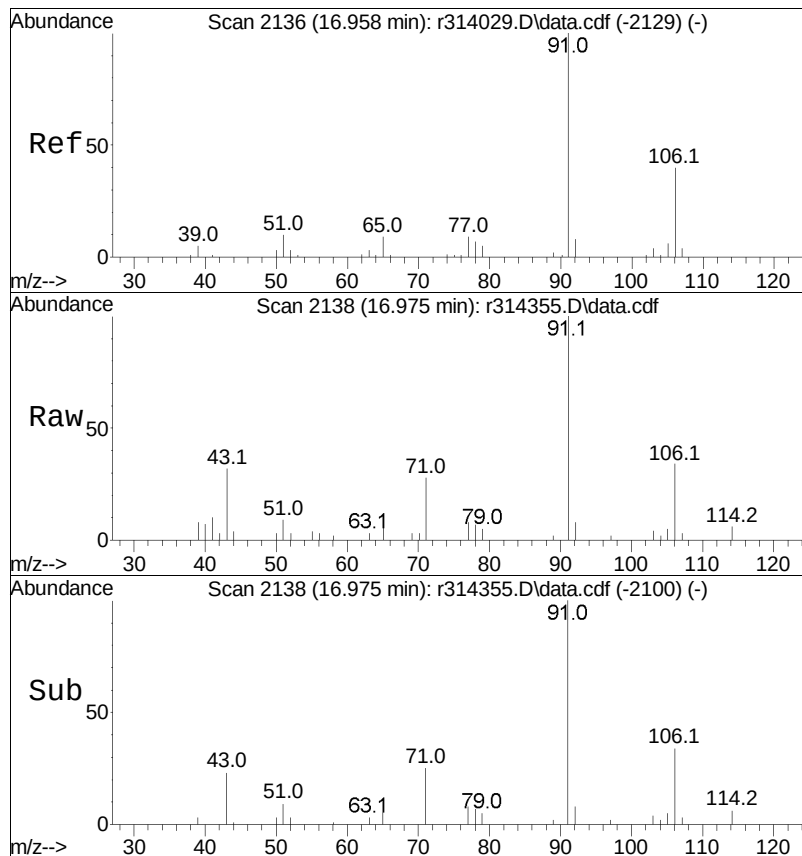




#78
 tetrachloroethene
 Concen: 0.09 ppbV
 RT: 15.975 min Scan# 2020
 Delta R.T. -0.008 min
 Lab File: r314355.D
 Acq: 6 Mar 2021 1:21 AM

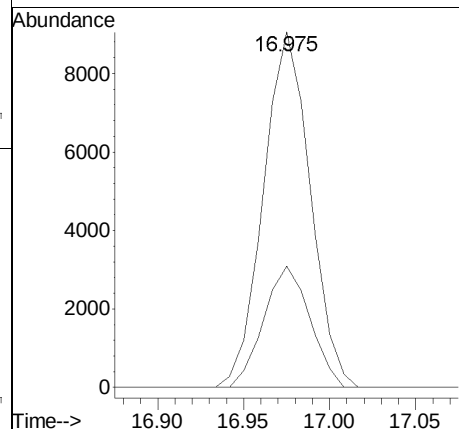
Tgt	Ion:166	Resp:	3340
Ion	Ratio	Lower	Upper
166	100		
131	60.8	51.0	76.4
94	30.0	21.0	31.6

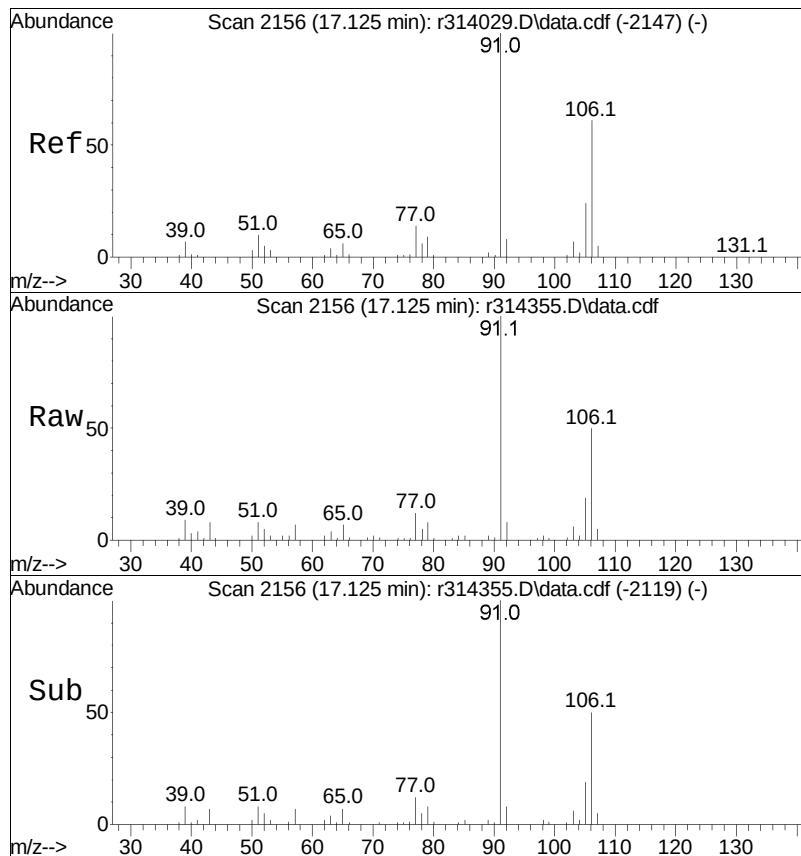




#81
ethylbenzene
Concen: 0.17 ppbV
RT: 16.975 min Scan# 2138
Delta R.T. -0.017 min
Lab File: r314355.D
Acq: 6 Mar 2021 1:21 AM

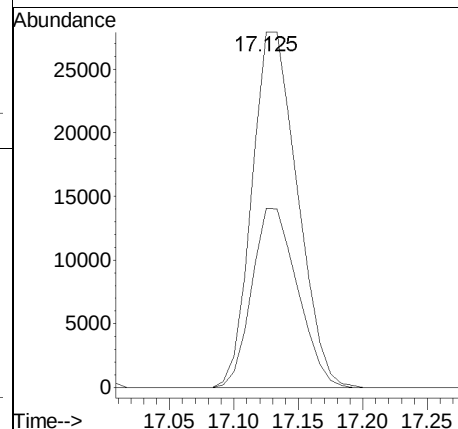
Tgt	Ion	Resp	Lower	Upper
91	100	17164		
106	34.1	31.8	47.8	

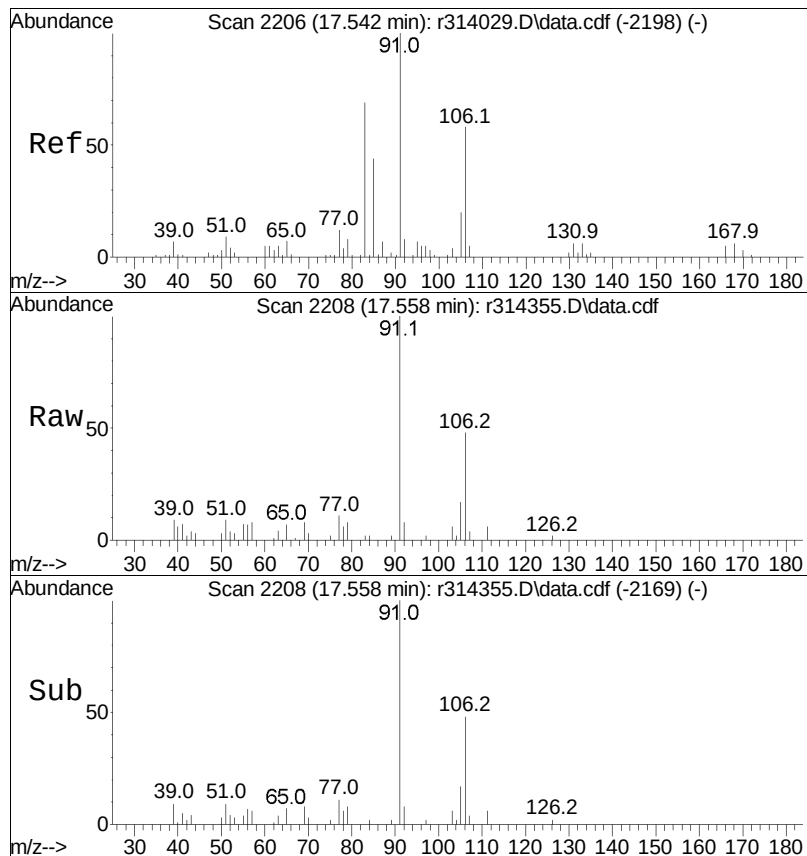




#83
 m+p-xylene
 Concen: 0.85 ppbV
 RT: 17.125 min Scan# 2156
 Delta R.T. -0.025 min
 Lab File: r314355.D
 Acq: 6 Mar 2021 1:21 AM

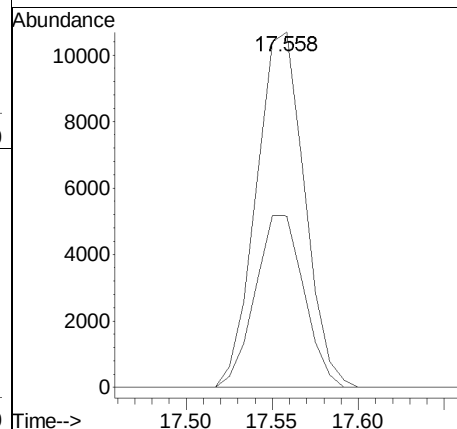
Tgt	Ion	Resp	Lower	Upper
91	100	68447		
106	50.5	48.7	73.1	

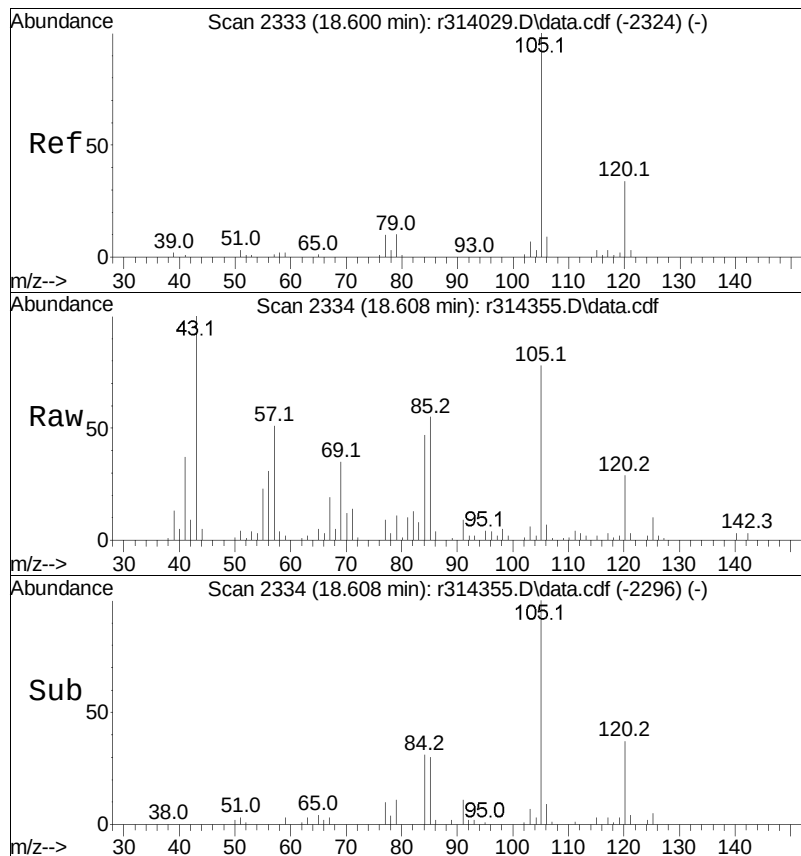




#87
 o-xylene
 Concen: 0.26 ppbV
 RT: 17.558 min Scan# 2208
 Delta R.T. -0.008 min
 Lab File: r314355.D
 Acq: 6 Mar 2021 1:21 AM

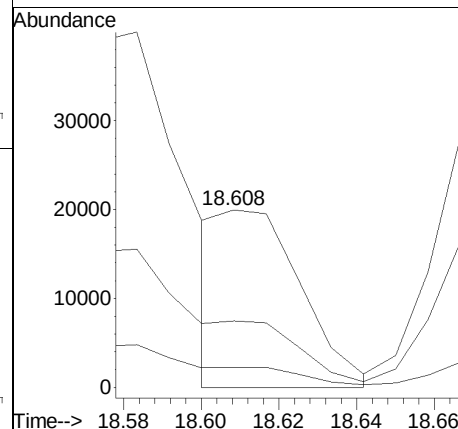
Tgt Ion:	91	106	Ratio	Lower	Upper
Resp:	20825				
Ion Ratio	100	48.2		46.7	70.1

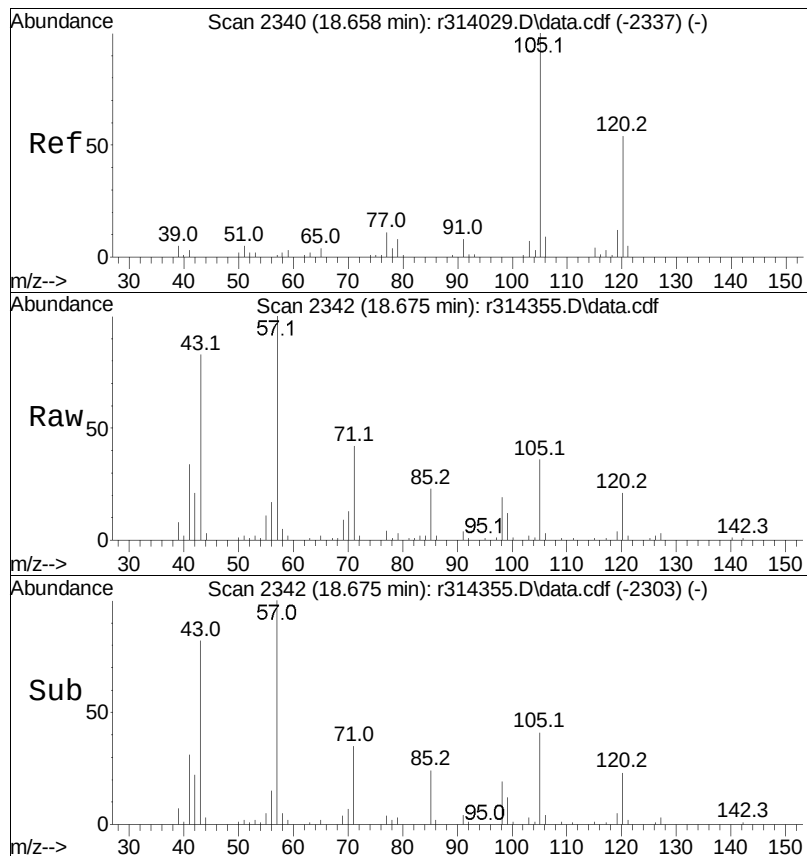




#96
 4-ethyl toluene
 Concen: 0.23 ppbV m
 RT: 18.608 min Scan# 2334
 Delta R.T. -0.017 min
 Lab File: r314355.D
 Acq: 6 Mar 2021 1:21 AM

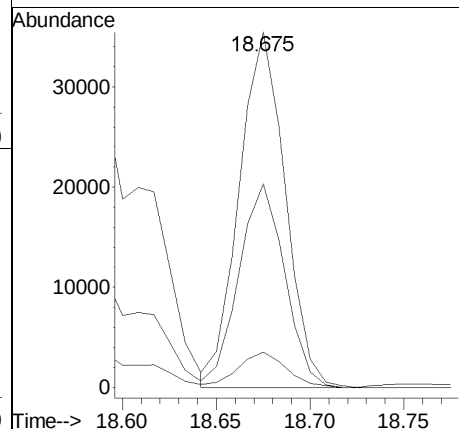
Tgt Ion:	105	Resp:	28785
Ion Ratio	Lower	Upper	
105	100		
120	37.5	27.2	40.8
91	11.2	7.3	10.9#

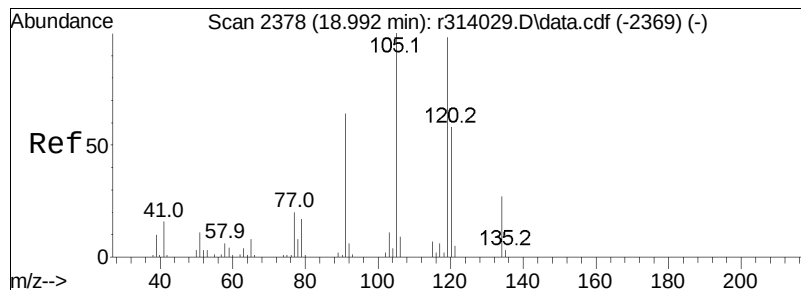




#97
 1,3,5-trimethylbenzene
 Concen: 0.59 ppbV
 RT: 18.675 min Scan# 2342
 Delta R.T. -0.008 min
 Lab File: r314355.D
 Acq: 6 Mar 2021 1:21 AM

Tgt Ion	105	120	91	Ratio	Lower	Upper
Resp:	60508					
105	100					
120	57.3	42.8			64.2	
91	9.9	6.8			10.2	





#99

1,2,4-trimethylbenzene

Concen: 2.05 ppbV

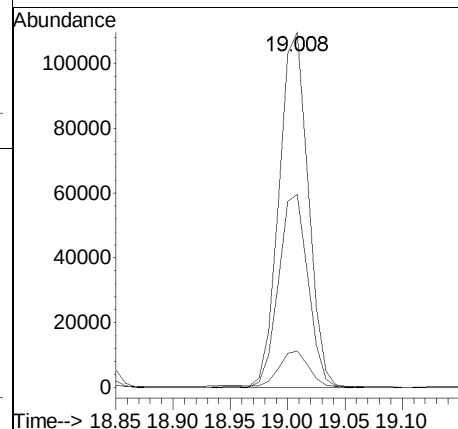
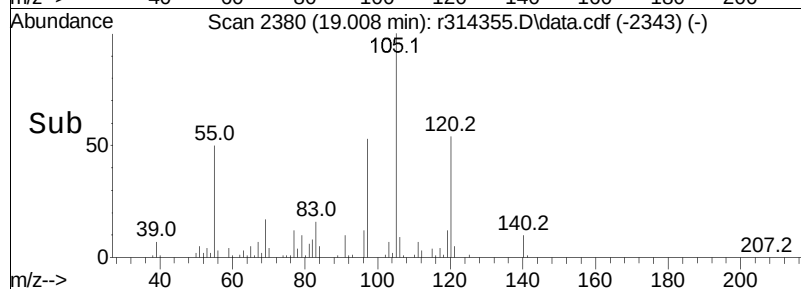
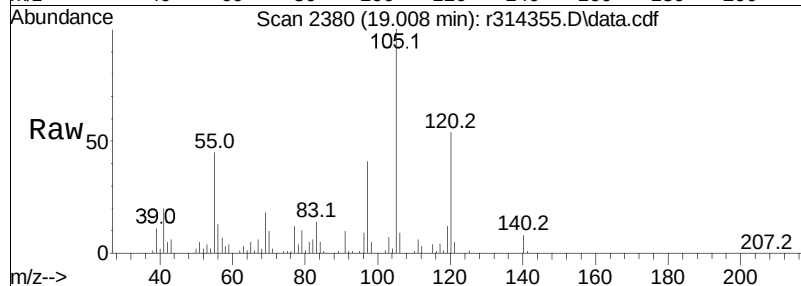
RT: 19.008 min Scan# 2380

Delta R.T. -0.008 min

Lab File: r314355.D

Acq: 6 Mar 2021 1:21 AM

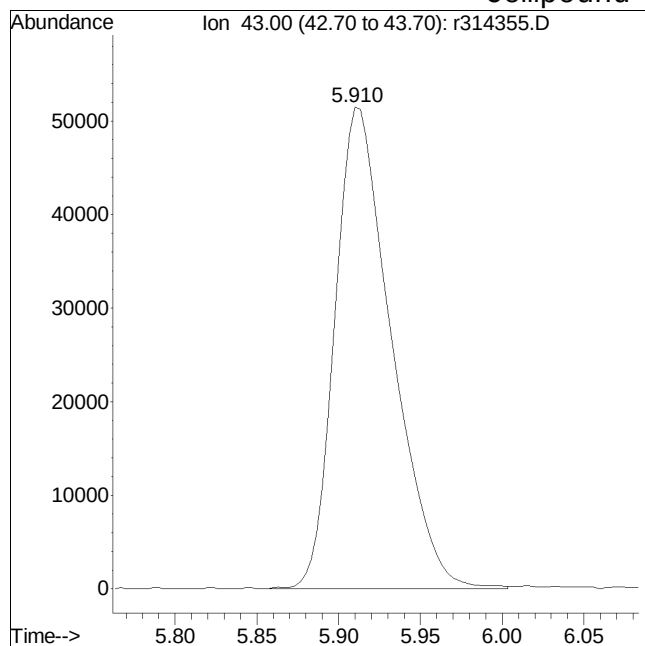
Tgt Ion:	105	Resp:	194870
Ion Ratio	Lower	Upper	
105	100		
120	54.3	46.1	69.1
91	10.3	51.5	77.3#



Manual Integration Report

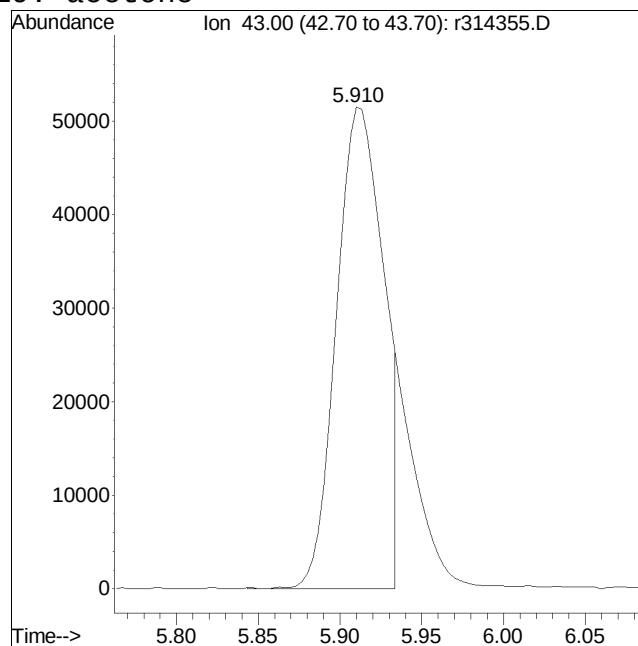
Data Path : 0:\Forensics\Data\AirpianoQMethod : TFS3_210219.M
Data File : r314355.D Operator : AIRPIAN03:EW
Date Inj'd : 3/6/2020 0:1: 1 Instrument :
Sample : L2109987-01,3,250,250 Quant Date : 3/7/2021 9:53 am

Compound #19: acetone



Original Peak Response = 124060

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

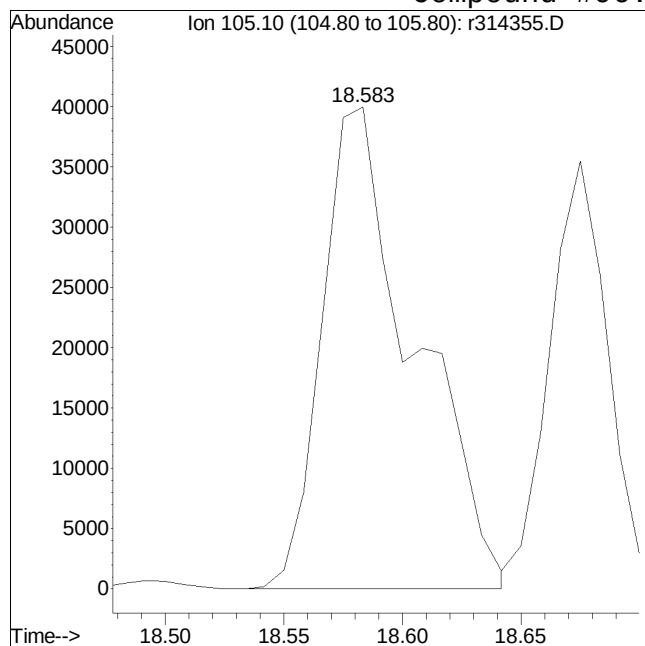


Manual Peak Response = 103730 M6

Manual Integration Report

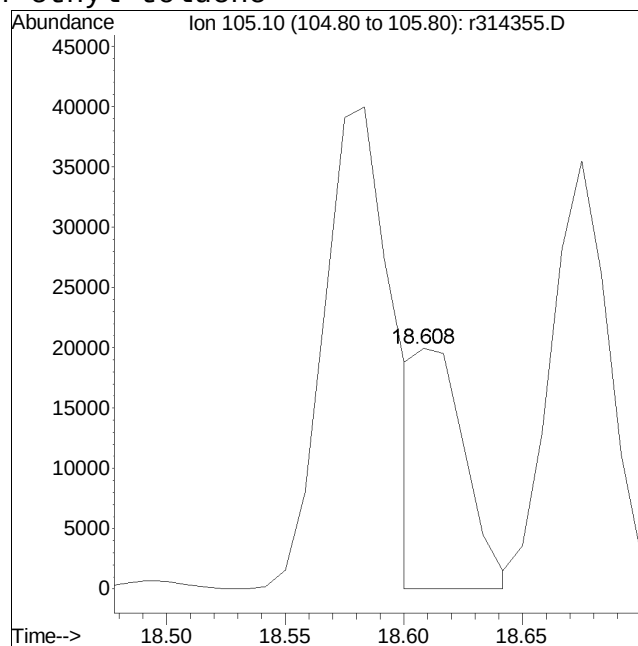
Data Path : 0:\Forensics\Data\AirpianoQMethod : TFS3_210219.M
Data File : r314355.D Operator : AIRPIAN03:EW
Date Inj'd : 3/6/2020 0:1: 1 Instrument :
Sample : L2109987-01,3,250,250 Quant Date : 3/7/2021 9:53 am

Compound #96: 4-ethyl toluene



Original Peak Response = 107951

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



Manual Peak Response = 28785 M6

Volatiles Standards Data

Initial Calibration

Initial Calibration Summary

Form 6

Air Volatiles

Client : Castleton Environmental, Inc.
 Project Name : LUNA2101
 Instrument ID : AIRPIANO3
 Calibration dates : 02/19/21 19:24 02/20/21 00:07

Lab Number : L2109987
 Project Number : LUNA2101
 Ical Ref : ICAL17647

Calibration Files

0.2 =r314025.D 0.5 =r314026.D 1.0 =r314027.D 5.0 =r314028.D 10 =r314029.D 20 =r314030.D
 50 =r314031.D 100 =r314032.D

Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
1) I bromochloromethane	-----ISTD-----									
2) chlorodifluoromethane	0.825	0.827	0.821	0.737	0.704	0.688	0.633	0.575	0.726	13.02
3) propylene		0.545	0.547	0.487	0.466	0.448	0.422	0.374	0.470	13.40
4) propane		0.690	0.694	0.605	0.583	0.569	0.518	0.464	0.589	14.30
5) dichlorodifluoromethane	0.875	0.886	0.862	0.776	0.737	0.695	0.610	0.515	0.744	17.99
6) C chloromethane	0.477	0.461	0.464	0.416	0.399	0.389	0.361	0.330	0.412	12.73
7) Freon-114	1.183	1.213	1.199	1.068	1.005	0.948	0.794		1.059	14.64
8) C methanol			0.255	0.206	0.197	0.183	0.167	0.148	0.193	19.25
9) C vinyl chloride	0.536	0.533	0.531	0.482	0.462	0.450	0.411	0.370	0.472	12.96
10) C 1,3-butadiene	0.492	0.502	0.500	0.455	0.436	0.419	0.386	0.348	0.442	12.73
11) butane	0.914	0.902	0.864	0.775	0.735	0.718	0.658	0.588	0.769	15.25
12) C acetaldehyde		0.311	0.299	0.252	0.236	0.222	0.184	0.146	0.236	24.97
13) C bromomethane	0.410	0.404	0.403	0.363	0.347	0.335	0.300	0.262	0.353	15.16
14) C chloroethane	0.281	0.286	0.285	0.257	0.246	0.242	0.224	0.222	0.255	10.27
15) ethanol			0.509	0.406	0.423	0.391	0.345	0.287	0.394	19.05
16) dichlorofluoromethane	1.114	1.067	1.065	0.912	0.853	0.821	0.713	0.624	0.896	19.81
17) C vinyl bromide	0.442	0.442	0.448	0.403	0.386	0.365	0.324	0.277	0.386	15.97
18) C acrolein		0.273	0.267	0.232	0.224	0.220	0.206	0.193	0.231	12.90
19) acetone	0.852	0.846	0.835	0.718	0.677	0.640	0.542	0.436	0.693	21.89
20) C acetonitrile	0.534	0.501	0.489	0.429	0.418	0.404	0.370	0.331	0.434	15.89
21) trichlorofluoromethane	0.668	0.681	0.667	0.607	0.571	0.538	0.475	0.410	0.577	17.03
22) isopropyl alcohol	1.051	1.042	1.019	0.906	0.868	0.839	0.747	0.646	0.890	16.39
23) C acrylonitrile	0.480	0.474	0.464	0.419	0.406	0.398	0.373	0.344	0.420	11.80
24) pentane	1.057	1.028	0.994	0.891	0.832	0.832	0.757	0.676	0.883	15.28
25) ethyl ether	0.864	0.860	0.851	0.860	0.844	0.818	0.789	0.726	0.827	5.80
26) C 1,1-dichloroethene	0.662	0.689	0.677	0.611	0.585	0.559	0.499	0.437	0.590	15.10
27) tertiary butyl alcohol		1.005	0.981	0.896	0.859	0.829	0.755	0.676	0.858	13.68
28) C methylene chloride		0.615	0.607	0.545	0.521	0.506	0.461	0.418	0.525	13.72
29) C 3-chloropropene	0.845	0.804	0.793	0.723	0.694	0.670	0.613	0.558	0.712	13.86
30) C carbon disulfide	1.698	1.721	1.685	1.557	1.492	1.417	1.253	1.068	1.487	15.66
31) Freon 113	0.841	0.850	0.850	0.764	0.726	0.688	0.598	0.496	0.727	17.72
32) trans-1,2-dichloroethene	0.921	0.906	0.817	0.825	0.806	0.772	0.652	0.600	0.787	14.27
33) C 1,1-dichloroethane	1.058	1.049	1.056	0.950	0.923	0.895	0.820	0.728	0.935	12.84
34) C MTBE	1.735	1.771	1.775	1.606	1.568	1.489	1.350	1.185	1.560	13.56
35) C vinyl acetate			1.499	1.326	1.319	1.304	1.231	1.131	1.302	9.34
36) C 2-butanone		1.444	1.444	1.292	1.268	1.220	1.125	1.027	1.260	12.23



Initial Calibration Summary

Form 6

Air Volatiles

Client : Castleton Environmental, Inc.
 Project Name : LUNA2101
 Instrument ID : AIRPIANO3
 Calibration dates : 02/19/21 19:24 02/20/21 00:07

Lab Number : L2109987
 Project Number : LUNA2101
 Ical Ref : ICAL17647

Calibration Files

0.2 =r314025.D 0.5 =r314026.D 1.0 =r314027.D 5.0 =r314028.D 10 =r314029.D 20 =r314030.D
 50 =r314031.D 100 =r314032.D

	Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
37)	cis-1,2-dichloroethene	0.782	0.781	0.770	0.697	0.681	0.655	0.597	0.526	0.686	13.48
38)	Ethyl Acetate		0.235	0.233	0.220	0.218	0.209	0.192	0.174	0.212	10.49
39) C	chloroform	1.021	1.032	1.013	0.919	0.885	0.847	0.742	0.627	0.885	16.31
40)	Tetrahydrofuran	0.879	0.903	0.881	0.801	0.790	0.768	0.715	0.660	0.800	10.71
41)	2,2-dichloropropane	0.877	0.880	0.880	0.786	0.766	0.732	0.650	0.549	0.765	15.65
42) C	1,2-dichloroethane	0.588	0.577	0.575	0.516	0.500	0.476	0.431	0.376	0.505	15.01
43) I	1,4-difluorobenzene	-----ISTD-----									
44) C	hexane	0.450	0.449	0.447	0.405	0.395	0.375	0.330	0.283	0.392	15.48
45)	diisopropyl ether	0.243	0.234	0.233	0.208	0.205	0.199	0.183	0.166	0.209	12.84
46)	tert-butyl ethyl ether	0.712	0.720	0.716	0.650	0.637	0.618	0.561	0.501	0.639	12.30
47) s	1,2-dichloroethane-D4	0.221	0.225	0.226	0.224	0.220	0.219	0.212	0.206	0.219	3.14
48) C	1,1,1-trichloroethane	0.293	0.293	0.290	0.265	0.258	0.247	0.246	0.219	0.264	10.10
49)	1,1-dichloropropene	0.337	0.345	0.340	0.308	0.302	0.292	0.273	0.252	0.306	10.94
50) C	benzene	0.899	0.872	0.840	0.738	0.722	0.698	0.644	0.587	0.750	14.81
51)	thiophene	0.459	0.469	0.467	0.406	0.398	0.396	0.367	0.336	0.412	11.82
52) C	carbon tetrachloride	0.254	0.265	0.262	0.243	0.241	0.234	0.213	0.187	0.237	11.04
53)	cyclohexane	0.459	0.466	0.464	0.426	0.418	0.403	0.372	0.341	0.419	10.82
54)	tert-amyl methyl ether	0.724	0.726	0.723	0.658	0.642	0.627	0.579	0.528	0.651	11.20
55)	dibromomethane	0.209	0.201	0.199	0.177	0.172	0.165	0.147	0.129	0.175	15.86
56) C	1,2-dichloropropane	0.260	0.264	0.258	0.236	0.232	0.226	0.208	0.187	0.234	11.43
57)	bromodichloromethane	0.399	0.403	0.406	0.375	0.366	0.351	0.320	0.284	0.363	11.89
58) C	1,4-dioxane	0.183	0.181	0.180	0.168	0.165	0.159	0.145	0.128	0.164	11.84
59) C	trichloroethene	0.293	0.292	0.296	0.267	0.257	0.246	0.223	0.197	0.259	13.86
60) C	2,2,4-trimethylpentane	1.378	1.413	1.385	1.272	1.231	1.161	1.022	0.874	1.217	15.66
61)	methyl methacrylate		0.427	0.424	0.382	0.376	0.374	0.350	0.323	0.379	9.81
62)	heptane	0.554	0.547	0.545	0.500	0.489	0.472	0.440	0.404	0.494	11.00
63) C	cis-1,3-dichloropropene	0.391	0.396	0.394	0.364	0.359	0.351	0.328	0.305	0.361	9.07
64) C	4-methyl-2-pentanone		0.620	0.626	0.583	0.570	0.551	0.514	0.475	0.563	9.73
65)	trans-1,3-dichloropropene	0.351	0.358	0.361	0.337	0.330	0.325	0.304	0.283	0.331	8.24
66) C	1,1,2-trichloroethane	0.263	0.262	0.262	0.238	0.233	0.227	0.209	0.187	0.235	11.75
67) I	chlorobenzene-D5	-----ISTD-----									
68) C	toluene	6.041	5.725	5.538	4.977	4.810	4.595	4.108	3.558	4.919	17.05
69) s	toluene-D8	6.102	6.103	6.145	6.243	6.135	6.283	6.282	6.291	6.198	1.36
70)	2-methylthiophene	4.411	4.307	4.292	3.814	3.713	3.650	3.328	2.958	3.809	13.44
71)	1,3-dichloropropane	2.773	2.746	2.754	2.530	2.460	2.424	2.261	2.077	2.503	10.07
72)	2-hexanone	3.393	3.477	3.545	3.429	3.373	3.282	3.090	2.763	3.294	7.73



Initial Calibration Summary

Form 6

Air Volatiles

Client : Castleton Environmental, Inc.
 Project Name : LUNA2101
 Instrument ID : AIRPIANO3
 Calibration dates : 02/19/21 19:24 02/20/21 00:07

Lab Number : L2109987
 Project Number : LUNA2101
 Ical Ref : ICAL17647

Calibration Files

0.2 =r314025.D 0.5 =r314026.D 1.0 =r314027.D 5.0 =r314028.D 10 =r314029.D 20 =r314030.D
 50 =r314031.D 100 =r314032.D

	Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
73)	3-methylthiophene	4.483	4.377	4.423	3.922	3.777	3.729	3.359	2.859	3.866	14.67
74)	dibromochloromethane	2.118	2.106	2.089	2.057	2.010	1.931	1.767	1.532	1.951	10.54
75) C	1,2-dibromoethane	2.523	2.467	2.499	2.311	2.245	2.167	1.996	1.747	2.244	12.04
76)	butyl acetate		0.783	0.800	0.800	0.799	0.797	0.766	0.718	0.780	3.86
77)	octane	2.375	2.352	2.357	2.173	2.111	2.065	1.917	1.724	2.134	10.88
78) C	tetrachloroethene	2.412	2.403	2.356	2.198	2.113	2.042	1.855	1.595	2.122	13.56
79)	1,1,1,2-tetrachloroethane	1.720	1.656	1.668	1.591	1.536	1.493	1.334	1.114	1.514	13.34
80) C	chlorobenzene	4.454	4.398	4.379	4.080	3.971	3.815	3.406	2.771	3.909	14.81
81) C	ethylbenzene	6.763	6.717	6.713	6.179	5.930	5.690	5.019	4.252	5.908	15.26
82)	2-ethylthiophene	4.826	4.774	4.829	4.255	4.100	4.049	3.654	3.132	4.202	14.48
83) C	m+p-xylene	5.566	5.514	5.479	5.051	4.801	4.514	3.844	3.095	4.733	18.71
84) C	bromoform	1.875	1.991	2.032	2.040	2.014	1.993	1.782	1.501	1.904	9.74
85) C	styrene	4.529	4.654	4.718	4.450	4.326	4.208	3.862	3.281	4.253	11.23
86) C	1,1,2,2-tetrachloroethane	3.940	3.887	3.913	3.617	3.439	3.236	2.746	2.134	3.364	19.09
87) C	o-xylene	5.646	5.531	5.573	5.043	4.797	4.430	3.679	2.888	4.699	21.09
88)	1,2,3-trichloropropane	3.170	3.181	3.184	2.952	2.859	2.808	2.587	2.313	2.882	10.86
89)	nonane	4.781	4.775	4.821	4.434	4.289	4.178	3.816	3.245	4.292	12.79
90) s	bromofluorobenzene	4.017	4.037	4.079	4.140	4.161	4.324	4.297	4.404	4.182	3.43
91) C	isopropylbenzene	7.836	7.510	7.719	7.075	6.777	6.455	5.589	4.482	6.681	17.29
92)	bromobenzene	4.205	4.183	4.203	3.865	3.776	3.692	3.344	2.847	3.764	12.69
93)	2-chlorotoluene	2.199	2.065	2.073	1.909	1.839	1.789	1.607	1.448	1.866	13.49
94)	n-propylbenzene	2.327	2.347	2.377	2.232	2.175	2.113	1.909	1.602	2.135	12.36
95)	4-chlorotoluene	1.875	1.866	1.909	1.783	1.743	1.699	1.586	1.365	1.728	10.48
96)	4-ethyl toluene	8.417	8.315	8.581	8.085	7.748	7.242	6.132	4.740	7.408	18.08
97)	1,3,5-trimethylbenzene	7.002	6.908	6.932	6.420	6.154	5.828	4.951	3.859	6.007	18.46
98)	tert-butylbenzene	7.021	7.009	6.996	6.311	5.949	5.478	4.296	3.080	5.767	24.89
99)	1,2,4-trimethylbenzene	6.697	6.658	6.813	6.303	5.953	5.478	4.141	2.875	5.615	25.17
100)	decane	5.335	5.417	5.496	5.137	4.918	4.617	3.893	3.143	4.745	17.55
101) C	Benzyl Chloride	3.170	3.422	3.886	4.320	4.416	4.309	3.811	3.051	3.798	14.13
102)	1,3-dichlorobenzene	3.910	3.901	4.131	3.791	3.681	3.639	3.067	2.305	3.553	16.67
103) C	1,4-dichlorobenzene	3.500	3.752	3.645	3.756	3.664	3.399	3.041	2.432	3.399	13.43
104)	sec-butylbenzene	9.836	9.796	9.960	9.060	8.643	8.079	6.589	4.882	8.356	21.54
105)	1,2,3-trimethylbenzene	7.199	7.161	7.201	6.504	6.114	5.603	4.210	2.891	5.860	26.88
106)	p-isopropyltoluene	8.544	8.356	8.578	7.694	7.230	6.595	5.040	3.462	6.937	26.55
107)	1,2-dichlorobenzene	3.518	3.710	3.825	3.614	3.497	3.349	2.988	2.446	3.368	13.38
108)	n-butylbenzene	6.439	6.471	6.700	6.302	6.191	5.767	4.843	3.888	5.825	16.72



Initial Calibration Summary

Form 6

Air Volatiles

Client : Castleton Environmental, Inc.
 Project Name : LUNA2101
 Instrument ID : AIRPIANO3
 Calibration dates : 02/19/21 19:24 02/20/21 00:07

Lab Number : L2109987
 Project Number : LUNA2101
 Ical Ref : ICAL17647

Calibration Files

0.2 =r314025.D 0.5 =r314026.D 1.0 =r314027.D 5.0 =r314028.D 10 =r314029.D 20 =r314030.D
 50 =r314031.D 100 =r314032.D

	Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
109)	indan	6.959	7.007	7.300	6.628	6.332	5.974	4.951	3.865	6.127	19.17
110)	indene	4.997	5.197	5.577	5.351	5.209	5.024	4.266	3.383	4.876	14.64
111) C	1,2-dibromo-3-chloropr...	1.390	1.422	1.502	1.547	1.571	1.517	1.379	1.157	1.436	9.30
112)	undecane	5.618	5.776	5.967	5.853	5.600	5.187	4.183	3.321	5.188	18.21
113)	1,2,4,5-tetramethylben...	6.969	7.313	7.429	6.962	6.709	6.363	5.337	4.132	6.402	17.61
114)	dodecane	4.998	5.480	5.787	6.175	6.057	5.407	4.205	3.316	5.178	18.93
115) C	1,2,4-trichlorobenzene	1.601	1.815	2.124	2.461	2.687	2.525	2.468	2.122	2.225	16.96
116)	naphthalene	5.626	5.707	6.046	6.850	7.090	6.649	6.081	5.121	6.146	10.95
117)	1,2,3-trichlorobenzene	2.003	2.264	2.475	2.793	2.953	2.780	2.608	2.211	2.511	13.18
118)	benzothiophene	4.253	4.946	5.800	6.884	7.769	7.644	7.102	5.713	6.264	20.52
119) C	hexachlorobutadiene	2.601	2.834	2.856	2.872	2.803	2.451	2.070	1.552	2.505	18.87
120)	2-methylnaphthalene			1.023	0.718	0.872	1.199	1.363	1.373	1.091	24.49
121)	1-methylnaphthalene			2.729	2.389	2.684	3.667	3.676	3.176	3.054	17.70

Response Factor Report

Method Path : O:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Method File : TFS3_210219.M
 Title : T0-14A/T0-15 SIM/Full Scan Analysis
 Last Update : Sat Feb 20 12:59:05 2021
 Response Via : Initial Calibration

Calibration Files

0.2 =r314025.D 0.5 =r314026.D 1.0 =r314027.D 5.0 =r314028.D 10 =r314029.D 20 =r314030.D
 50 =r314031.D 100 =r314032.D

Compound		0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD

1) I	bromochloromethane	-----ISTD-----									
2)	chlorodifluoro...	0.825	0.827	0.821	0.737	0.704	0.688	0.633	0.575	0.726	13.02
3)	propylene	0.545	0.547	0.487	0.466	0.448	0.422	0.374	0.470	0.470	13.40
4)	propane	0.690	0.694	0.605	0.583	0.569	0.518	0.464	0.589	0.589	14.30
5)	dichlorodifluo...	0.875	0.886	0.862	0.776	0.737	0.695	0.610	0.515	0.744	17.99
6) C	chloromethane	0.477	0.461	0.464	0.416	0.399	0.389	0.361	0.330	0.412	12.73
7)	Freon-114	1.183	1.213	1.199	1.068	1.005	0.948	0.794	1.059	1.059	14.64
8) C	methanol			0.255	0.206	0.197	0.183	0.167	0.148	0.193	19.25
9) C	vinyl chloride	0.536	0.533	0.531	0.482	0.462	0.450	0.411	0.370	0.472	12.96
10) C	1,3-butadiene	0.492	0.502	0.500	0.455	0.436	0.419	0.386	0.348	0.442	12.73
11)	butane	0.914	0.902	0.864	0.775	0.735	0.718	0.658	0.588	0.769	15.25
12) C	acetaldehyde		0.311	0.299	0.252	0.236	0.222	0.184	0.146	0.236	24.97
13) C	bromomethane	0.410	0.404	0.403	0.363	0.347	0.335	0.300	0.262	0.353	15.16
14) C	chloroethane	0.281	0.286	0.285	0.257	0.246	0.242	0.224	0.222	0.255	10.27
15)	ethanol			0.509	0.406	0.423	0.391	0.345	0.287	0.394	19.05
16)	dichlorofluoro...	1.114	1.067	1.065	0.912	0.853	0.821	0.713	0.624	0.896	19.81
17) C	vinyl bromide	0.442	0.442	0.448	0.403	0.386	0.365	0.324	0.277	0.386	15.97
18) C	acrolein		0.273	0.267	0.232	0.224	0.220	0.206	0.193	0.231	12.90
19)	acetone	0.852	0.846	0.835	0.718	0.677	0.640	0.542	0.436	0.693	21.89
20) C	acetonitrile	0.534	0.501	0.489	0.429	0.418	0.404	0.370	0.331	0.434	15.89
21)	trichlorofluor...	0.668	0.681	0.667	0.607	0.571	0.538	0.475	0.410	0.577	17.03
22)	isopropyl alcohol	1.051	1.042	1.019	0.906	0.868	0.839	0.747	0.646	0.890	16.39
23) C	acrylonitrile	0.480	0.474	0.464	0.419	0.406	0.398	0.373	0.344	0.420	11.80
24)	pentane	1.057	1.028	0.994	0.891	0.832	0.832	0.757	0.676	0.883	15.28
25)	ethyl ether	0.864	0.860	0.851	0.860	0.844	0.818	0.789	0.726	0.827	5.80
26) C	1,1-dichloroet...	0.662	0.689	0.677	0.611	0.585	0.559	0.499	0.437	0.590	15.10
27)	tertiary butyl...		1.005	0.981	0.896	0.859	0.829	0.755	0.676	0.858	13.68
28) C	methylene chlo...		0.615	0.607	0.545	0.521	0.506	0.461	0.418	0.525	13.72
29) C	3-chloropropene	0.845	0.804	0.793	0.723	0.694	0.670	0.613	0.558	0.712	13.86
30) C	carbon disulfide	1.698	1.721	1.685	1.557	1.492	1.417	1.253	1.068	1.487	15.66
31)	Freon 113	0.841	0.850	0.850	0.764	0.726	0.688	0.598	0.496	0.727	17.72

Response Factor Report

Method Path : O:\Forensics\Data\Airpiano3\2021\02\0219T_I\
Method File : TFS3_210219.M
Title : T0-14A/T0-15 SIM/Full Scan Analysis
Last Update : Sat Feb 20 12:59:05 2021
Response Via : Initial Calibration

Calibration Files

0.2 =r314025.D 0.5 =r314026.D 1.0 =r314027.D 5.0 =r314028.D 10 =r314029.D 20 =r314030.D
50 =r314031.D 100 =r314032.D

Compound		0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
32)	trans-1,2-dich...	0.921	0.906	0.817	0.825	0.806	0.772	0.652	0.600	0.787	14.27
33) C	1,1-dichloroet...	1.058	1.049	1.056	0.950	0.923	0.895	0.820	0.728	0.935	12.84
34) C	MTBE	1.735	1.771	1.775	1.606	1.568	1.489	1.350	1.185	1.560	13.56
35) C	vinyl acetate		1.499	1.326	1.319	1.304	1.231	1.131	1.302		9.34
36) C	2-butanone	1.444	1.444	1.292	1.268	1.220	1.125	1.027	1.260		12.23
37)	cis-1,2-dichlo...	0.782	0.781	0.770	0.697	0.681	0.655	0.597	0.526	0.686	13.48
38)	Ethyl Acetate	0.235	0.233	0.220	0.218	0.209	0.192	0.174	0.212		10.49
39) C	chloroform	1.021	1.032	1.013	0.919	0.885	0.847	0.742	0.627	0.885	16.31
40)	Tetrahydrofuran	0.879	0.903	0.881	0.801	0.790	0.768	0.715	0.660	0.800	10.71
41)	2,2-dichloropr...	0.877	0.880	0.880	0.786	0.766	0.732	0.650	0.549	0.765	15.65
42) C	1,2-dichloroet...	0.588	0.577	0.575	0.516	0.500	0.476	0.431	0.376	0.505	15.01
43) I	1,4-difluorobenzene	-----ISTD-----									
44) C	hexane	0.450	0.449	0.447	0.405	0.395	0.375	0.330	0.283	0.392	15.48
45)	diisopropyl ether	0.243	0.234	0.233	0.208	0.205	0.199	0.183	0.166	0.209	12.84
46)	tert-butyl eth...	0.712	0.720	0.716	0.650	0.637	0.618	0.561	0.501	0.639	12.30
47) s	1,2-dichloroet...	0.221	0.225	0.226	0.224	0.220	0.219	0.212	0.206	0.219	3.14
48) C	1,1,1-trichlor...	0.293	0.293	0.290	0.265	0.258	0.247	0.246	0.219	0.264	10.10
49)	1,1-dichloropr...	0.337	0.345	0.340	0.308	0.302	0.292	0.273	0.252	0.306	10.94
50) C	benzene	0.899	0.872	0.840	0.738	0.722	0.698	0.644	0.587	0.750	14.81
51)	thiophene	0.459	0.469	0.467	0.406	0.398	0.396	0.367	0.336	0.412	11.82
52) C	carbon tetrach...	0.254	0.265	0.262	0.243	0.241	0.234	0.213	0.187	0.237	11.04
53)	cyclohexane	0.459	0.466	0.464	0.426	0.418	0.403	0.372	0.341	0.419	10.82
54)	tert-amyl meth...	0.724	0.726	0.723	0.658	0.642	0.627	0.579	0.528	0.651	11.20
55)	dibromomethane	0.209	0.201	0.199	0.177	0.172	0.165	0.147	0.129	0.175	15.86
56) C	1,2-dichloropr...	0.260	0.264	0.258	0.236	0.232	0.226	0.208	0.187	0.234	11.43
57)	bromodichlorom...	0.399	0.403	0.406	0.375	0.366	0.351	0.320	0.284	0.363	11.89
58) C	1,4-dioxane	0.183	0.181	0.180	0.168	0.165	0.159	0.145	0.128	0.164	11.84
59) C	trichloroethene	0.293	0.292	0.296	0.267	0.257	0.246	0.223	0.197	0.259	13.86
60) C	2,2,4-trimethy...	1.378	1.413	1.385	1.272	1.231	1.161	1.022	0.874	1.217	15.66
61)	methyl methacr...		0.427	0.424	0.382	0.376	0.374	0.350	0.323	0.379	9.81
62)	heptane	0.554	0.547	0.545	0.500	0.489	0.472	0.440	0.404	0.494	11.00

Response Factor Report

Method Path : O:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Method File : TFS3_210219.M
 Title : T0-14A/T0-15 SIM/Full Scan Analysis
 Last Update : Sat Feb 20 12:59:05 2021
 Response Via : Initial Calibration

Calibration Files

0.2 =r314025.D 0.5 =r314026.D 1.0 =r314027.D 5.0 =r314028.D 10 =r314029.D 20 =r314030.D
 50 =r314031.D 100 =r314032.D

	Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
63)	C cis-1,3-dichlo...	0.391	0.396	0.394	0.364	0.359	0.351	0.328	0.305	0.361	9.07
64)	C 4-methyl-2-pen...	0.620	0.626	0.583	0.570	0.551	0.514	0.475	0.563		9.73
65)	trans-1,3-dich...	0.351	0.358	0.361	0.337	0.330	0.325	0.304	0.283	0.331	8.24
66)	C 1,1,2-trichlor...	0.263	0.262	0.262	0.238	0.233	0.227	0.209	0.187	0.235	11.75
67)	I chlorobenzene-D5	-----ISTD-----									
68)	C toluene	6.041	5.725	5.538	4.977	4.810	4.595	4.108	3.558	4.919	17.05
69)	s toluene-D8	6.102	6.103	6.145	6.243	6.135	6.283	6.282	6.291	6.198	1.36
70)	2-methylthiophene	4.411	4.307	4.292	3.814	3.713	3.650	3.328	2.958	3.809	13.44
71)	1,3-dichloropr...	2.773	2.746	2.754	2.530	2.460	2.424	2.261	2.077	2.503	10.07
72)	2-hexanone	3.393	3.477	3.545	3.429	3.373	3.282	3.090	2.763	3.294	7.73
73)	3-methylthiophene	4.483	4.377	4.423	3.922	3.777	3.729	3.359	2.859	3.866	14.67
74)	dibromochlorom...	2.118	2.106	2.089	2.057	2.010	1.931	1.767	1.532	1.951	10.54
75)	C 1,2-dibromoethane	2.523	2.467	2.499	2.311	2.245	2.167	1.996	1.747	2.244	12.04
76)	butyl acetate	0.783	0.800	0.800	0.799	0.797	0.766	0.718	0.780		3.86
77)	octane	2.375	2.352	2.357	2.173	2.111	2.065	1.917	1.724	2.134	10.88
78)	C tetrachloroethene	2.412	2.403	2.356	2.198	2.113	2.042	1.855	1.595	2.122	13.56
79)	1,1,1,2-tetrac...	1.720	1.656	1.668	1.591	1.536	1.493	1.334	1.114	1.514	13.34
80)	C chlorobenzene	4.454	4.398	4.379	4.080	3.971	3.815	3.406	2.771	3.909	14.81
81)	C ethylbenzene	6.763	6.717	6.713	6.179	5.930	5.690	5.019	4.252	5.908	15.26
82)	2-ethylthiophene	4.826	4.774	4.829	4.255	4.100	4.049	3.654	3.132	4.202	14.48
83)	C m+p-xylene	5.566	5.514	5.479	5.051	4.801	4.514	3.844	3.095	4.733	18.71
84)	C bromoform	1.875	1.991	2.032	2.040	2.014	1.993	1.782	1.501	1.904	9.74
85)	C styrene	4.529	4.654	4.718	4.450	4.326	4.208	3.862	3.281	4.253	11.23
86)	C 1,1,2,2-tetrac...	3.940	3.887	3.913	3.617	3.439	3.236	2.746	2.134	3.364	19.09
87)	C o-xylene	5.646	5.531	5.573	5.043	4.797	4.430	3.679	2.888	4.699	21.09
88)	1,2,3-trichlor...	3.170	3.181	3.184	2.952	2.859	2.808	2.587	2.313	2.882	10.86
89)	nonane	4.781	4.775	4.821	4.434	4.289	4.178	3.816	3.245	4.292	12.79
90)	s bromofluoroben...	4.017	4.037	4.079	4.140	4.161	4.324	4.297	4.404	4.182	3.43
91)	C isopropylbenzene	7.836	7.510	7.719	7.075	6.777	6.455	5.589	4.482	6.681	17.29
92)	bromobenzene	4.205	4.183	4.203	3.865	3.776	3.692	3.344	2.847	3.764	12.69
93)	2-chlorotoluene	2.199	2.065	2.073	1.909	1.839	1.789	1.607	1.448	1.866	13.49

Response Factor Report

Method Path : O:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Method File : TFS3_210219.M
 Title : T0-14A/T0-15 SIM/Full Scan Analysis
 Last Update : Sat Feb 20 12:59:05 2021
 Response Via : Initial Calibration

Calibration Files

0.2 =r314025.D 0.5 =r314026.D 1.0 =r314027.D 5.0 =r314028.D 10 =r314029.D 20 =r314030.D
 50 =r314031.D 100 =r314032.D

Compound		0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
94)	n-propylbenzene	2.327	2.347	2.377	2.232	2.175	2.113	1.909	1.602	2.135	12.36
95)	4-chlorotoluene	1.875	1.866	1.909	1.783	1.743	1.699	1.586	1.365	1.728	10.48
96)	4-ethyl toluene	8.417	8.315	8.581	8.085	7.748	7.242	6.132	4.740	7.408	18.08
97)	1,3,5-trimethy...	7.002	6.908	6.932	6.420	6.154	5.828	4.951	3.859	6.007	18.46
98)	tert-butylbenzene	7.021	7.009	6.996	6.311	5.949	5.478	4.296	3.080	5.767	24.89
99)	1,2,4-trimethy...	6.697	6.658	6.813	6.303	5.953	5.478	4.141	2.875	5.615	25.17
100)	decane	5.335	5.417	5.496	5.137	4.918	4.617	3.893	3.143	4.745	17.55
101) C	Benzyl Chloride	3.170	3.422	3.886	4.320	4.416	4.309	3.811	3.051	3.798	14.13
102)	1,3-dichlorobe...	3.910	3.901	4.131	3.791	3.681	3.639	3.067	2.305	3.553	16.67
103) C	1,4-dichlorobe...	3.500	3.752	3.645	3.756	3.664	3.399	3.041	2.432	3.399	13.43
104)	sec-butylbenzene	9.836	9.796	9.960	9.060	8.643	8.079	6.589	4.882	8.356	21.54
105)	1,2,3-trimethy...	7.199	7.161	7.201	6.504	6.114	5.603	4.210	2.891	5.860	26.88
106)	p-isopropyltol...	8.544	8.356	8.578	7.694	7.230	6.595	5.040	3.462	6.937	26.55
107)	1,2-dichlorobe...	3.518	3.710	3.825	3.614	3.497	3.349	2.988	2.446	3.368	13.38
108)	n-butylbenzene	6.439	6.471	6.700	6.302	6.191	5.767	4.843	3.888	5.825	16.72
109)	indan	6.959	7.007	7.300	6.628	6.332	5.974	4.951	3.865	6.127	19.17
110)	indene	4.997	5.197	5.577	5.351	5.209	5.024	4.266	3.383	4.876	14.64
111) C	1,2-dibromo-3-...	1.390	1.422	1.502	1.547	1.571	1.517	1.379	1.157	1.436	9.30
112)	undecane	5.618	5.776	5.967	5.853	5.600	5.187	4.183	3.321	5.188	18.21
113)	1,2,4,5-tetram...	6.969	7.313	7.429	6.962	6.709	6.363	5.337	4.132	6.402	17.61
114)	dodecane	4.998	5.480	5.787	6.175	6.057	5.407	4.205	3.316	5.178	18.93
115) C	1,2,4-trichlor...	1.601	1.815	2.124	2.461	2.687	2.525	2.468	2.122	2.225	16.96
116)	naphthalene	5.626	5.707	6.046	6.850	7.090	6.649	6.081	5.121	6.146	10.95
117)	1,2,3-trichlor...	2.003	2.264	2.475	2.793	2.953	2.780	2.608	2.211	2.511	13.18
118)	benzothiophene	4.253	4.946	5.800	6.884	7.769	7.644	7.102	5.713	6.264	20.52
119) C	hexachlorobuta...	2.601	2.834	2.856	2.872	2.803	2.451	2.070	1.552	2.505	18.87
120)	2-methylnaphth...		1.023	0.718	0.872	1.199	1.363	1.373	1.091		24.49
121)	1-methylnaphth...		2.729	2.389	2.684	3.667	3.676	3.176	3.054		17.70

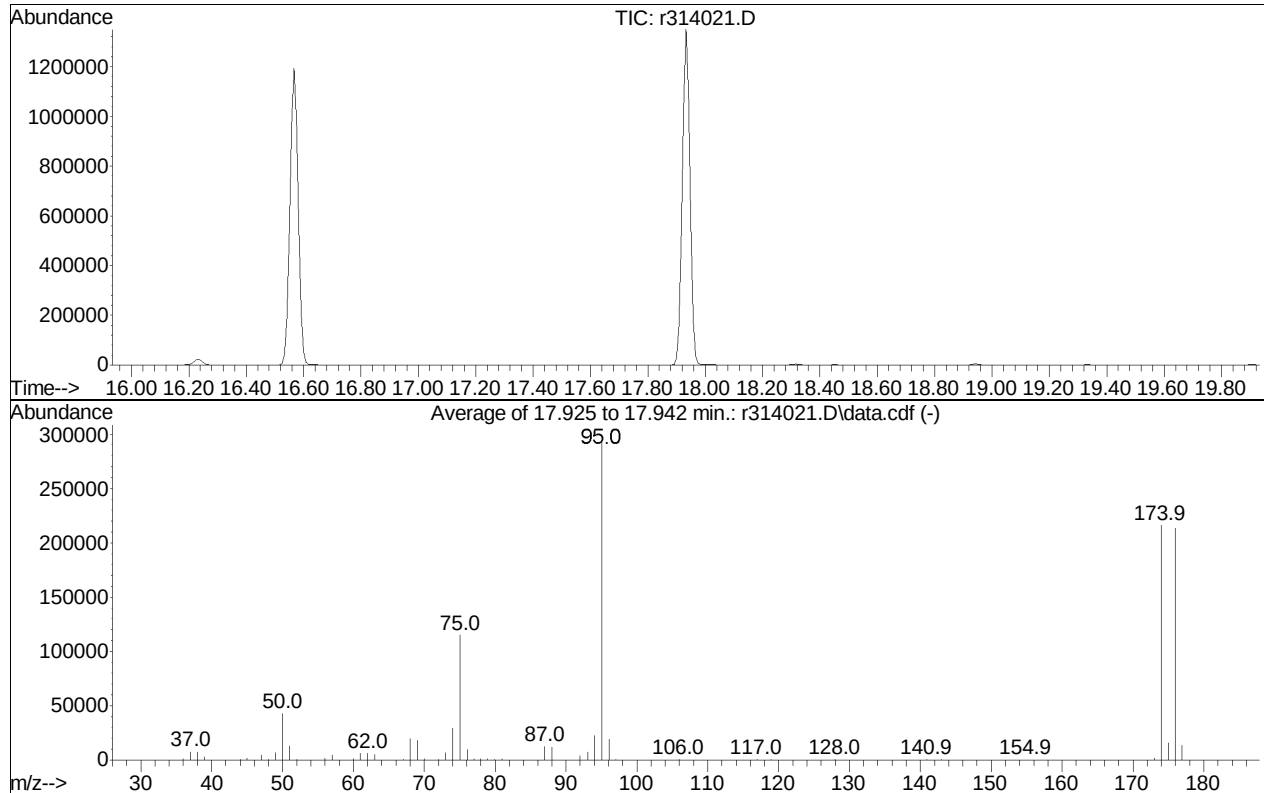
(#) = Out of Range

BFB

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314021.D
 Acq On : 19 Feb 2021 4:46 PM
 Operator : AIRPIANO3:AR
 Sample : WG1466756-1
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Integration File: rteint.p

Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Title : T0-14A/T0-15 SIM/Full Scan Analysis
 Last Update : Sat Feb 20 12:59:05 2021



AutoFind: Scans 2252, 2253, 2254; Background Corrected with Scan 2245

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	14.6	42836	PASS
75	95	30	66	39.1	114970	PASS
95	95	100	100	100.0	294098	PASS
96	95	5	9	6.7	19586	PASS
173	174	0.00	2	0.8	1779	PASS
174	95	50	120	73.7	216653	PASS
175	174	4	9	7.3	15896	PASS
176	174	93	101	98.4	213253	PASS
177	176	5	9	6.6	13982	PASS

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314025.D
 Acq On : 19 Feb 2021 7:24 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-LLTD0.2
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:56:25 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 07:56:22 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default - All compounds listed

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

Internal Standards						
1) bromochloromethane	9.567	49	355396	10.000	ppbV	0.00
Standard Area = 367527			Recovery =		96.70%	
43) 1,4-difluorobenzene	11.840	114	981672	10.000	ppbV	0.00
Standard Area = 999261			Recovery =		98.24%	
67) chlorobenzene-D5	16.567	54	154096	10.000	ppbV	0.00
Standard Area = 156386			Recovery =		98.54%	
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	10.458	65	217430	10.082	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		100.82%	
69) toluene-D8	14.675	98	940363	9.946	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		99.46%	
90) bromofluorobenzene	17.933	95	618986	9.654	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		96.54%	
Target Compounds						
					Qvalue	
2) chlorodifluoromethane	3.892	51	5867	0.234	ppbV	97
3) propylene	3.922	41	3824M6	0.231	ppbV	
4) propane	3.946	29	5055	0.244	ppbV #	96
5) dichlorodifluoromethane	4.000	85	6219	0.237	ppbV	99
6) chloromethane	4.186	50	3390	0.239	ppbV	96
7) Freon-114	4.312	85	8410	0.236	ppbV	99
8) methanol	4.378	31	10000	1.427	ppbV #	79
9) vinyl chloride	4.444	62	3813	0.232	ppbV	99
10) 1,3-butadiene	4.606	54	3494	0.226	ppbV	99
11) butane	4.672	43	6495	0.249	ppbV	97
12) acetaldehyde	4.330	29	11152	1.332	ppbV	97
13) bromomethane	4.924	94	2916	0.237	ppbV	99
14) chloroethane	5.140	64	1997	0.228	ppbV	96
15) ethanol	5.320	31	21721	1.444	ppbV	98
16) dichlorofluoromethane	5.283	67	7921	0.261	ppbV	100
17) vinyl bromide	5.570	106	3142	0.229	ppbV	97
18) acrolein	5.727	56	2299	0.289	ppbV #	70
19) acetone	5.893	43	30276	1.258	ppbV #	100
20) acetonitrile	5.567	41	3793	0.255	ppbV #	85
21) trichlorofluoromethane	6.087	101	4747	0.234	ppbV	98
22) isopropyl alcohol	6.227	45	18668	0.605	ppbV	100
23) acrylonitrile	6.460	53	3413	0.237	ppbV	99
24) pentane	6.533	43	7515	0.254	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314025.D
 Acq On : 19 Feb 2021 7:24 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-LLTD0.2
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:56:25 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 07:56:22 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	6.587	31	6144	0.205	ppbV	97
26) 1,1-dichloroethene	6.854	61	4703	0.226	ppbV	97
27) tertiary butyl alcohol	6.968	59	7271	0.238	ppbV #	92
28) methylene chloride	7.022	49	4513	0.244	ppbV	99
29) 3-chloropropene	7.160	41	6003	0.243	ppbV	100
30) carbon disulfide	7.316	76	12072	0.228	ppbV #	44
31) Freon 113	7.352	101	5979	0.232	ppbV	97
32) trans-1,2-dichloroethene	8.150	61	6546	0.229	ppbV	98
33) 1,1-dichloroethane	8.383	63	7521	0.229	ppbV	96
34) MTBE	8.492	73	12335	0.221	ppbV	98
35) vinyl acetate	8.608	43	10615	0.226	ppbV	99
36) 2-butanone	8.892	43	10553	0.234	ppbV	99
37) cis-1,2-dichloroethene	9.383	61	5556	0.230	ppbV	96
38) Ethyl Acetate	9.700	61	1771	0.228	ppbV	78
39) chloroform	9.733	83	7254	0.231	ppbV	99
40) Tetrahydrofuran	10.208	42	6248	0.223	ppbV	99
41) 2,2-dichloropropane	9.750	77	6231	0.229	ppbV	96
42) 1,2-dichloroethane	10.583	62	4181	0.235	ppbV	99
44) hexane	9.650	57	8826	0.228	ppbV #	77
45) diisopropyl ether	9.667	87	4780	0.237	ppbV	98
46) tert-butyl ethyl ether	10.292	59	13972	0.223	ppbV	98
48) 1,1,1-trichloroethane	10.875	97	5743	0.227	ppbV	98
49) 1,1-dichloropropene	11.240	75	6619	0.224	ppbV	97
50) benzene	11.400	78	17650	0.249	ppbV	97
51) thiophene	11.547	84	9003	0.230	ppbV	99
52) carbon tetrachloride	11.573	117	4988	0.211	ppbV	95
53) cyclohexane	11.720	56	9010	0.219	ppbV	99
54) tert-amyl methyl ether	12.127	73	14207	0.225	ppbV	99
55) dibromomethane	12.320	93	4105	0.243	ppbV	97
56) 1,2-dichloropropane	12.360	63	5096	0.224	ppbV	100
57) bromodichloromethane	12.587	83	7838	0.218	ppbV	97
58) 1,4-dioxane	12.653	88	3602	0.223	ppbV	91
59) trichloroethene	12.633	130	5758	0.229	ppbV	97
60) 2,2,4-trimethylpentane	12.687	57	27046M6	0.224	ppbV	
61) methyl methacrylate	12.893	41	8241	0.223	ppbV	99
62) heptane	13.007	43	10880	0.227	ppbV	100
63) cis-1,3-dichloropropene	13.650	75	7680	0.218	ppbV	97
64) 4-methyl-2-pentanone	13.708	43	12039	0.215	ppbV	98
65) trans-1,3-dichloropropene	14.275	75	6898	0.213	ppbV	97
66) 1,1,2-trichloroethane	14.475	97	5173	0.226	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314025.D
 Acq On : 19 Feb 2021 7:24 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-LLTD0.2
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:56:25 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 07:56:22 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	14.783	91	18617	0.251	ppbV	98
70) 2-methylthiophene	14.858	97	13595	0.238	ppbV	99
71) 1,3-dichloropropane	14.817	76	8547	0.225	ppbV	98
72) 2-hexanone	15.083	43	10457	0.201	ppbV	99
73) 3-methylthiophene	15.050	97	13817	0.237	ppbV	99
74) dibromochloromethane	15.233	129	6528	0.211	ppbV	99
75) 1,2-dibromoethane	15.483	107	7777	0.225	ppbV	100
76) butyl acetate	15.742	73	2498	0.203	ppbV	99
77) octane	15.825	85	7321	0.225	ppbV	100
78) tetrachloroethene	15.950	166	7434	0.228	ppbV	99
79) 1,1,1,2-tetrachloroethane	16.592	131	5302	0.224	ppbV	95
80) chlorobenzene	16.608	112	13726	0.224	ppbV	97
81) ethylbenzene	16.958	91	20843	0.228	ppbV	100
82) 2-ethylthiophene	17.000	97	14872	0.235	ppbV	98
83) m+p-xylene	17.125	91	34310	0.464	ppbV	99
84) bromoform	17.192	173	5778	0.186	ppbV	99
85) styrene	17.450	104	13958	0.209	ppbV	98
86) 1,1,2,2-tetrachloroethane	17.542	83	12144	0.229	ppbV	99
87) o-xylene	17.542	91	17402	0.235	ppbV	96
88) 1,2,3-trichloropropane	17.658	75	9771	0.222	ppbV	98
89) nonane	17.733	43	14735	0.223	ppbV	100
91) isopropylbenzene	18.050	105	24150	0.231	ppbV	98
92) bromobenzene	18.125	77	12961	0.223	ppbV	98
93) 2-chlorotoluene	18.450	126	6776	0.239	ppbV	99
94) n-propylbenzene	18.483	120	7173	0.214	ppbV	90
95) 4-chlorotoluene	18.508	126	5780	0.215	ppbV	94
96) 4-ethyl toluene	18.600	105	25941	0.217	ppbV	99
97) 1,3,5-trimethylbenzene	18.658	105	21579	0.228	ppbV	99
98) tert-butylbenzene	18.992	119	21637	0.236	ppbV	99
99) 1,2,4-trimethylbenzene	18.992	105	20640	0.225	ppbV	97
100) decane	19.067	57	16442	0.217	ppbV	97
101) Benzyl Chloride	19.108	91	9769	0.144	ppbV	100
102) 1,3-dichlorobenzene	19.117	146	12049	0.212	ppbV	99
103) 1,4-dichlorobenzene	19.175	146	10788	0.191	ppbV	100
104) sec-butylbenzene	19.208	105	30315	0.228	ppbV	97
105) 1,2,3-trimethylbenzene	19.333	105	22186	0.235	ppbV	99
106) p-isopropyltoluene	19.325	119	26332	0.236	ppbV	98
107) 1,2-dichlorobenzene	19.450	146	10843	0.201	ppbV	99
108) n-butylbenzene	19.667	91	19843	0.208	ppbV	97
109) indan	19.500	117	21448	0.220	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314025.D
 Acq On : 19 Feb 2021 7:24 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-LLTD0.2
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:56:25 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 07:56:22 2021
 Response via : Initial Calibration

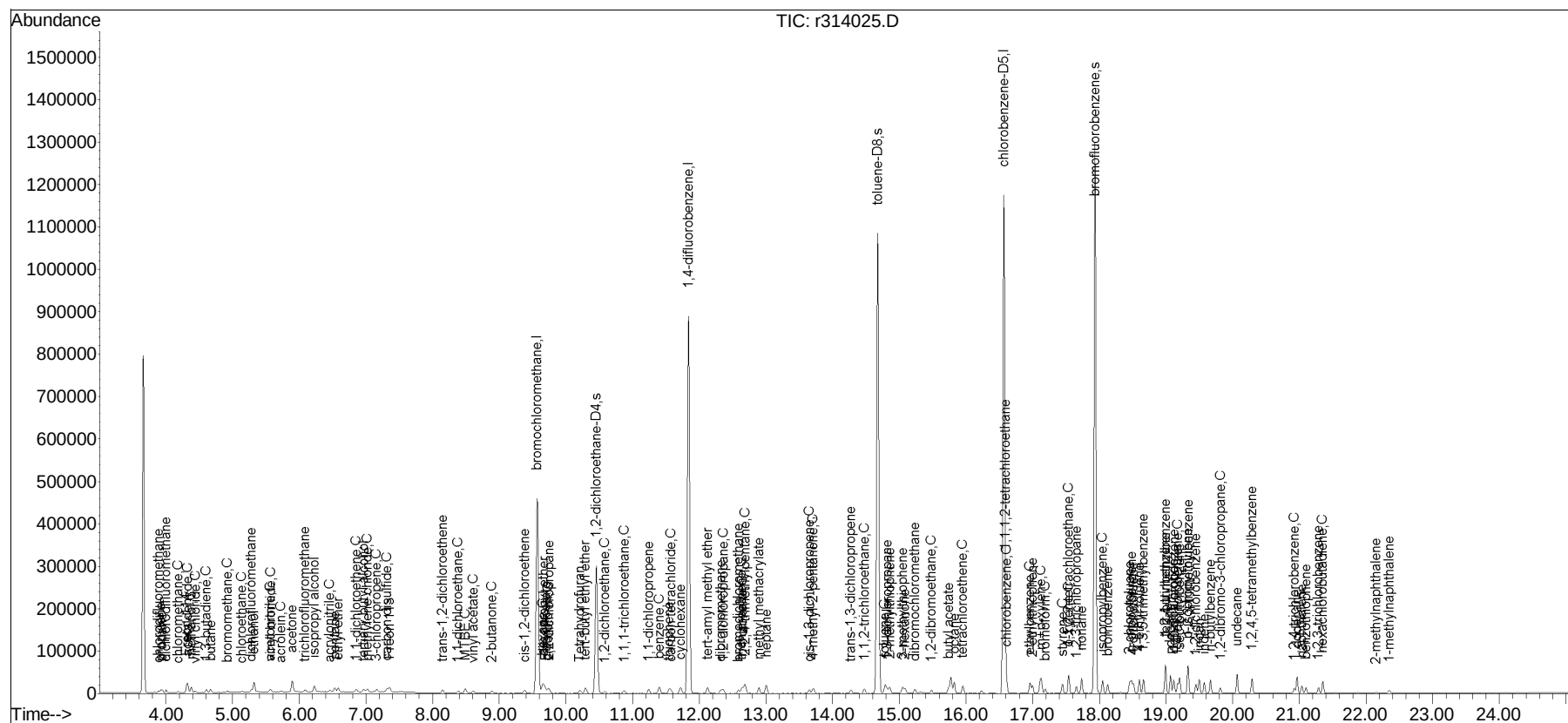
CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	19.575	115	15399	0.192	ppbV	100
111) 1,2-dibromo-3-chloropr...	19.817	75	4285	0.177	ppbV	91
112) undecane	20.067	57	17315	0.201	ppbV	99
113) 1,2,4,5-tetramethylben...	20.292	119	21477	0.208	ppbV	99
114) dodecane	20.967	57	15404	0.165	ppbV	99
115) 1,2,4-trichlorobenzene	20.925	180	4934	0.119	ppbV	96
116) naphthalene	21.033	128	17340	0.159	ppbV	100
117) 1,2,3-trichlorobenzene	21.283	180	6174	0.136	ppbV	99
118) benzothiophene	21.100	134	13106	0.109	ppbV	99
119) hexachlorobutadiene	21.350	225	8016	0.186	ppbV	97
120) 2-methylnaphthalene	22.150	142	1725	0.128	ppbV	93
121) 1-methylnaphthalene	22.350	142	5412	0.131	ppbV	98

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

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Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
Data File : r314025.D
Acq On    : 19 Feb 2021    7:24 PM
Operator  : AIRPIANO3:AR
Sample    : IT015-LLTD0.2
Misc      : WG1466756
ALS Vial  : 0    Sample Multiplier: 1
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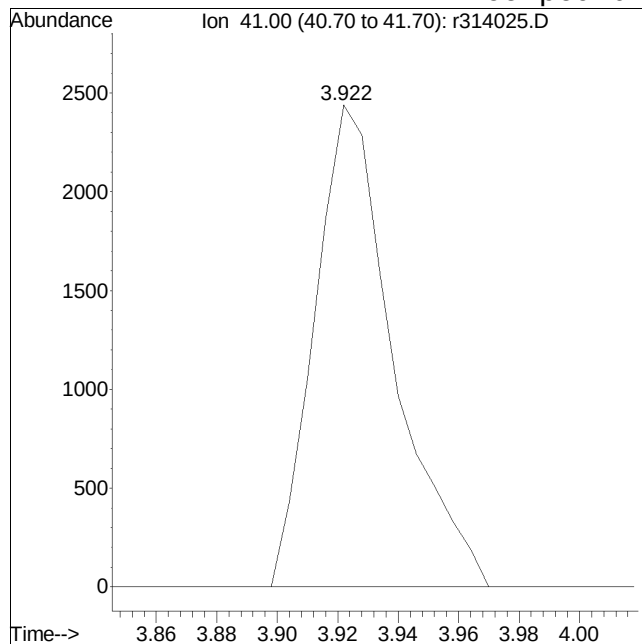
Quant Time: Feb 20 12:56:25 2021
Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Feb 20 07:56:22 2021
Response via : Initial Calibration



Manual Integration/Negative Proof Report

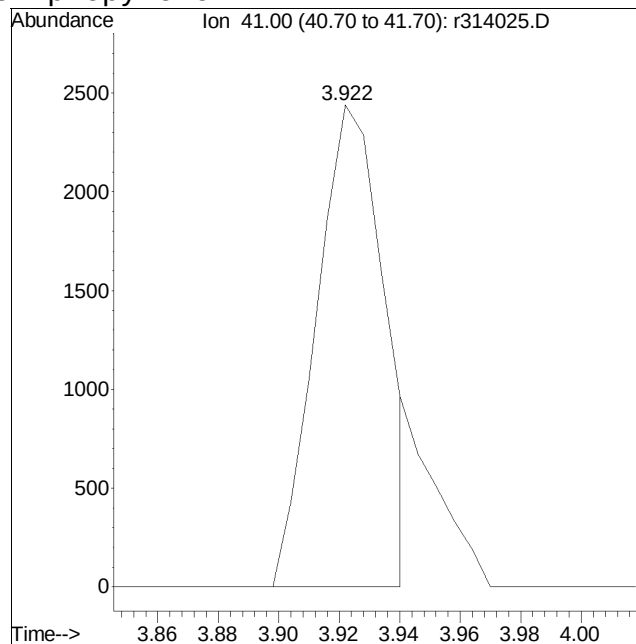
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TFS3_210219.M
Data File : r314025.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:7: 4 Instrument :
Sample : IT015-LLTD0.2 Quant Date : 2/20/2021 7:57 am

Compound #3: propylene



Original Peak Response = 4439

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

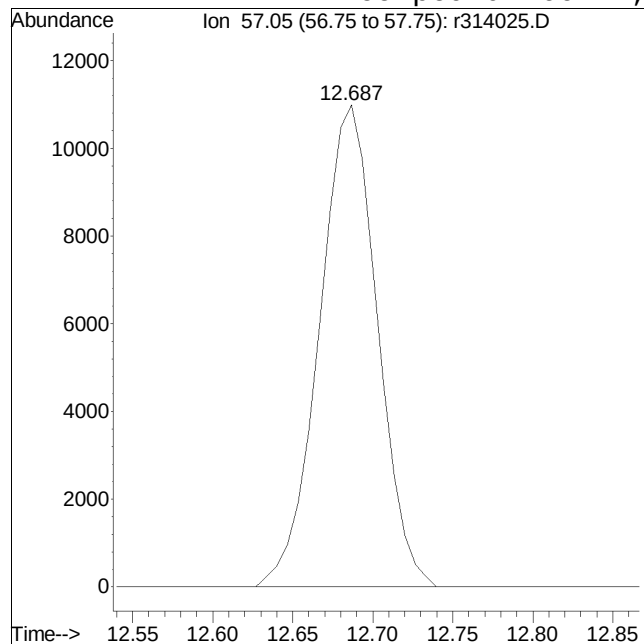


Manual Peak Response = 3824 M6

Manual Integration/Negative Proof Report

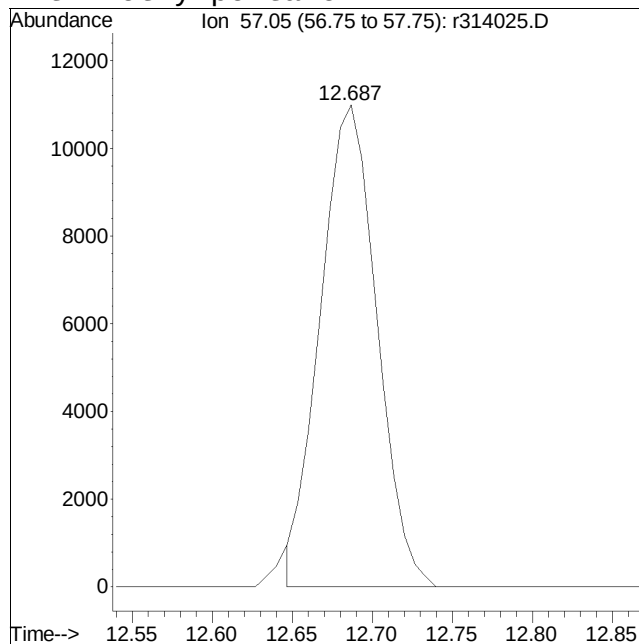
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TFS3_210219.M
Data File : r314025.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:7: 4 Instrument :
Sample : IT015-LLTD0.2 Quant Date : 2/20/2021 7:57 am

Compound #60: 2,2,4-trimethylpentane



Original Peak Response = 27718

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



Manual Peak Response = 27046 M6

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314026.D
 Acq On : 19 Feb 2021 8:04 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-LLSTD0.5
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:56:56 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 07:56:22 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default - All compounds listed

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

Internal Standards						
1) bromochloromethane	9.575	49	350649	10.000	ppbV	0.00
Standard Area = 367527			Recovery =	95.41%		
43) 1,4-difluorobenzene	11.840	114	967749	10.000	ppbV	0.00
Standard Area = 999261			Recovery =	96.85%		
67) chlorobenzene-D5	16.567	54	155422	10.000	ppbV	0.00
Standard Area = 156386			Recovery =	99.38%		
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	10.458	65	217837	10.246	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	102.46%		
69) toluene-D8	14.675	98	948575	9.948	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	99.48%		
90) bromofluorobenzene	17.933	95	627454	9.703	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	97.03%		
Target Compounds						
					Qvalue	
2) chlorodifluoromethane	3.892	51	14505	0.587	ppbV	97
3) propylene	3.922	41	9553M6	0.585	ppbV	
4) propane	3.952	29	12099	0.592	ppbV	99
5) dichlorodifluoromethane	4.006	85	15541	0.601	ppbV	99
6) chloromethane	4.186	50	8080	0.577	ppbV	95
7) Freon-114	4.312	85	21272	0.604	ppbV	99
8) methanol	4.384	31	22990	3.326	ppbV	90
9) vinyl chloride	4.444	62	9351	0.577	ppbV	98
10) 1,3-butadiene	4.606	54	8802	0.576	ppbV	100
11) butane	4.672	43	15822	0.614	ppbV	99
12) acetaldehyde	4.330	29	27229	3.297	ppbV	99
13) bromomethane	4.924	94	7085	0.583	ppbV	97
14) chloroethane	5.146	64	5010	0.580	ppbV	99
15) ethanol	5.320	31	50394	3.395	ppbV	99
16) dichlorofluoromethane	5.283	67	18699	0.625	ppbV	98
17) vinyl bromide	5.570	106	7751	0.573	ppbV	95
18) acrolein	5.727	56	4785	0.610	ppbV #	86
19) acetone	5.890	43	74166	3.124	ppbV	99
20) acetonitrile	5.567	41	8792	0.600	ppbV	96
21) trichlorofluoromethane	6.090	101	11942	0.596	ppbV	94
22) isopropyl alcohol	6.220	45	45654	1.500	ppbV	100
23) acrylonitrile	6.460	53	8309	0.584	ppbV	97
24) pentane	6.533	43	18016	0.618	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314026.D
 Acq On : 19 Feb 2021 8:04 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-LLSTD0.5
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:56:56 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 07:56:22 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	6.583	31	15073	0.509	ppbV	99
26) 1,1-dichloroethene	6.860	61	12075	0.589	ppbV	100
27) tertiary butyl alcohol	6.962	59	17616	0.585	ppbV	96
28) methylene chloride	7.022	49	10788	0.591	ppbV	99
29) 3-chloropropene	7.166	41	14089	0.579	ppbV	99
30) carbon disulfide	7.316	76	30180	0.577	ppbV #	79
31) Freon 113	7.358	101	14897	0.585	ppbV	99
32) trans-1,2-dichloroethene	8.150	61	15889	0.562	ppbV	97
33) 1,1-dichloroethane	8.392	63	18390	0.568	ppbV	99
34) MTBE	8.483	73	31056	0.565	ppbV	99
35) vinyl acetate	8.608	43	26487	0.573	ppbV	100
36) 2-butanone	8.883	43	25324	0.569	ppbV	99
37) cis-1,2-dichloroethene	9.383	61	13697	0.574	ppbV	99
38) Ethyl Acetate	9.692	61	4114	0.537	ppbV	99
39) chloroform	9.733	83	18088	0.583	ppbV	99
40) Tetrahydrofuran	10.208	42	15838	0.572	ppbV	99
41) 2,2-dichloropropane	9.750	77	15434	0.574	ppbV	96
42) 1,2-dichloroethane	10.583	62	10112	0.577	ppbV	99
44) hexane	9.650	57	21703	0.568	ppbV	82
45) diisopropyl ether	9.667	87	11334	0.570	ppbV	98
46) tert-butyl ethyl ether	10.292	59	34849	0.565	ppbV	100
48) 1,1,1-trichloroethane	10.875	97	14192	0.569	ppbV	99
49) 1,1-dichloropropene	11.240	75	16708	0.573	ppbV	99
50) benzene	11.400	78	42172	0.604	ppbV	100
51) thiophene	11.547	84	22674	0.589	ppbV	98
52) carbon tetrachloride	11.573	117	12804	0.550	ppbV	99
53) cyclohexane	11.720	56	22568	0.558	ppbV	100
54) tert-amyl methyl ether	12.120	73	35150	0.566	ppbV	99
55) dibromomethane	12.327	93	9739	0.585	ppbV	96
56) 1,2-dichloropropane	12.360	63	12759	0.569	ppbV	97
57) bromodichloromethane	12.587	83	19514	0.551	ppbV	98
58) 1,4-dioxane	12.647	88	8771	0.550	ppbV	97
59) trichloroethene	12.640	130	14119	0.569	ppbV	99
60) 2,2,4-trimethylpentane	12.687	57	68350M6	0.574	ppbV	
61) methyl methacrylate	12.893	41	20644	0.567	ppbV	98
62) heptane	13.007	43	26483	0.560	ppbV	99
63) cis-1,3-dichloropropene	13.650	75	19171	0.552	ppbV	100
64) 4-methyl-2-pentanone	13.708	43	29979	0.544	ppbV	100
65) trans-1,3-dichloropropene	14.275	75	17322	0.542	ppbV	99
66) 1,1,2-trichloroethane	14.475	97	12682	0.562	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314026.D
 Acq On : 19 Feb 2021 8:04 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-LLSTD0.5
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:56:56 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 07:56:22 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	14.783	91	44493	0.595	ppbV	99
70) 2-methylthiophene	14.858	97	33467	0.580	ppbV	99
71) 1,3-dichloropropane	14.817	76	21343	0.558	ppbV	99
72) 2-hexanone	15.083	43	27019	0.515	ppbV	99
73) 3-methylthiophene	15.050	97	34013	0.579	ppbV	99
74) dibromochloromethane	15.233	129	16368	0.524	ppbV	97
75) 1,2-dibromoethane	15.483	107	19168	0.549	ppbV	100
76) butyl acetate	15.733	73	6081	0.490	ppbV	97
77) octane	15.825	85	18281	0.557	ppbV	100
78) tetrachloroethene	15.950	166	18677	0.569	ppbV	99
79) 1,1,1,2-tetrachloroethane	16.592	131	12867	0.539	ppbV	99
80) chlorobenzene	16.608	112	34178	0.554	ppbV	99
81) ethylbenzene	16.958	91	52201	0.566	ppbV	97
82) 2-ethylthiophene	17.000	97	37096	0.582	ppbV	99
83) m+p-xylene	17.125	91	85704	1.149	ppbV	97
84) bromoform	17.192	173	15473	0.494	ppbV	97
85) styrene	17.442	104	36163	0.538	ppbV	99
86) 1,1,2,2-tetrachloroethane	17.542	83	30210	0.565	ppbV	99
87) o-xylene	17.542	91	42979	0.576	ppbV	97
88) 1,2,3-trichloropropane	17.650	75	24720	0.556	ppbV	99
89) nonane	17.733	43	37109	0.557	ppbV	100
91) isopropylbenzene	18.050	105	58360	0.554	ppbV	100
92) bromobenzene	18.125	77	32504	0.554	ppbV	98
93) 2-chlorotoluene	18.450	126	16046	0.561	ppbV	99
94) n-propylbenzene	18.483	120	18237	0.540	ppbV	93
95) 4-chlorotoluene	18.508	126	14503	0.535	ppbV	93
96) 4-ethyl toluene	18.600	105	64619	0.537	ppbV	99
97) 1,3,5-trimethylbenzene	18.658	105	53685	0.561	ppbV	99
98) tert-butylbenzene	18.992	119	54467	0.589	ppbV	98
99) 1,2,4-trimethylbenzene	18.992	105	51742	0.559	ppbV	98
100) decane	19.067	57	42093	0.551	ppbV	98
101) Benzyl Chloride	19.108	91	26590	0.387	ppbV	98
102) 1,3-dichlorobenzene	19.117	146	30313	0.530	ppbV	99
103) 1,4-dichlorobenzene	19.175	146	29160	0.512	ppbV	99
104) sec-butylbenzene	19.200	105	76128	0.567	ppbV	98
105) 1,2,3-trimethylbenzene	19.333	105	55650	0.586	ppbV	99
106) p-isopropyltoluene	19.325	119	64932	0.578	ppbV	98
107) 1,2-dichlorobenzene	19.450	146	28830	0.530	ppbV	99
108) n-butylbenzene	19.667	91	50287	0.523	ppbV	98
109) indan	19.492	117	54452	0.553	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314026.D
 Acq On : 19 Feb 2021 8:04 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-LLSTD0.5
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:56:56 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 07:56:22 2021
 Response via : Initial Calibration

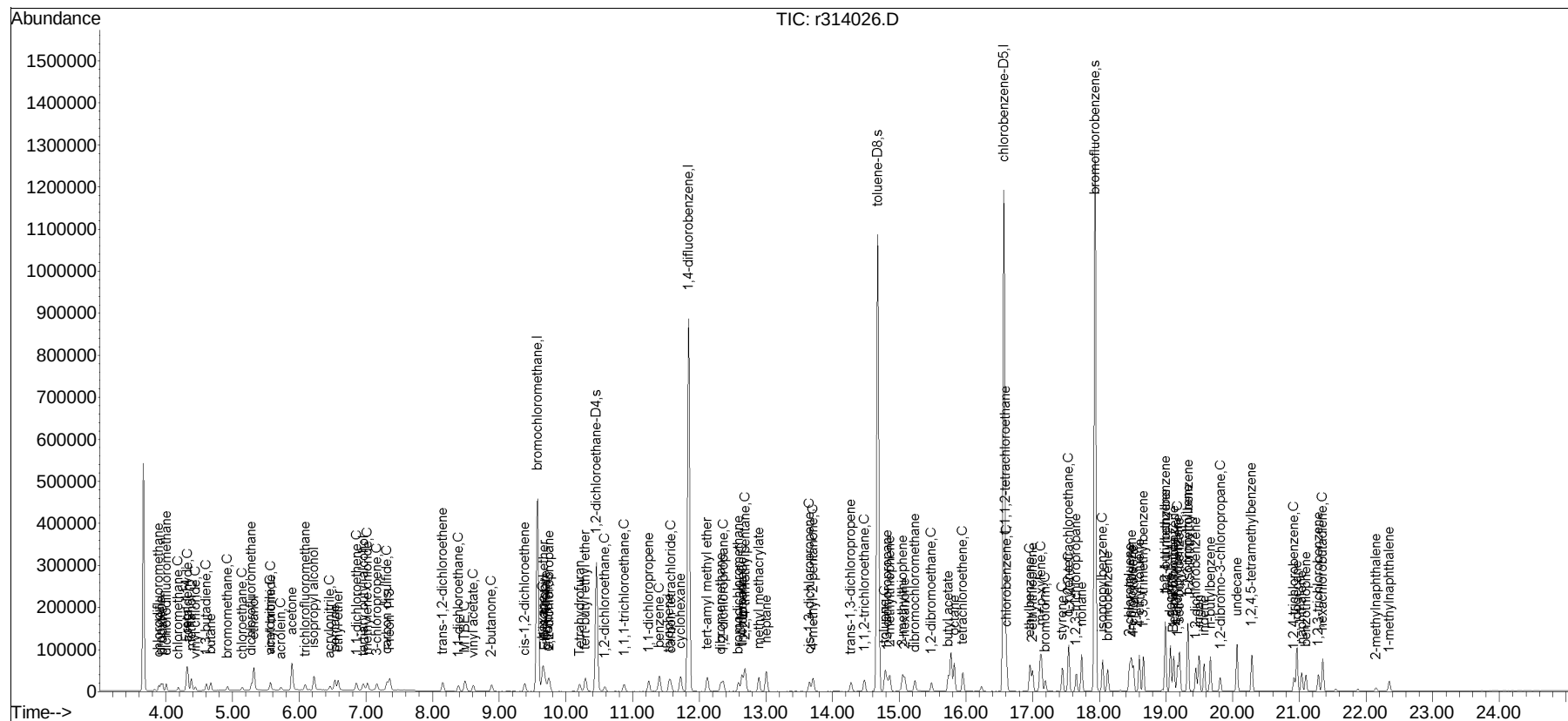
CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110)	indene	19.575	115	40384	0.499	ppbV	100
111)	1,2-dibromo-3-chloropr...	19.817	75	11050	0.453	ppbV	90
112)	undecane	20.067	57	44882	0.516	ppbV	99
113)	1,2,4,5-tetramethylben...	20.283	119	56832	0.545	ppbV	99
114)	dodecane	20.967	57	42582	0.452	ppbV	97
115)	1,2,4-trichlorobenzene	20.917	180	14103	0.338	ppbV	98
116)	naphthalene	21.033	128	44349	0.402	ppbV	100
117)	1,2,3-trichlorobenzene	21.283	180	17594	0.383	ppbV	100
118)	benzothiophene	21.100	134	38435	0.318	ppbV	99
119)	hexachlorobutadiene	21.350	225	22022	0.506	ppbV	99
120)	2-methylnaphthalene	22.150	142	6635	0.490	ppbV	98
121)	1-methylnaphthalene	22.350	142	17660	0.423	ppbV	97

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

```
Data Path   : O:\Forensics\Data\Airpiano3\2021\02\0219T_I\
Data File  : r314026.D
Acq On     : 19 Feb 2021    8:04 PM
Operator   : AIRPIANO3:AR
Sample     : IT015-LLSTD0.5
Misc       : WG1466756
ALS Vial   : 0    Sample Multiplier: 1
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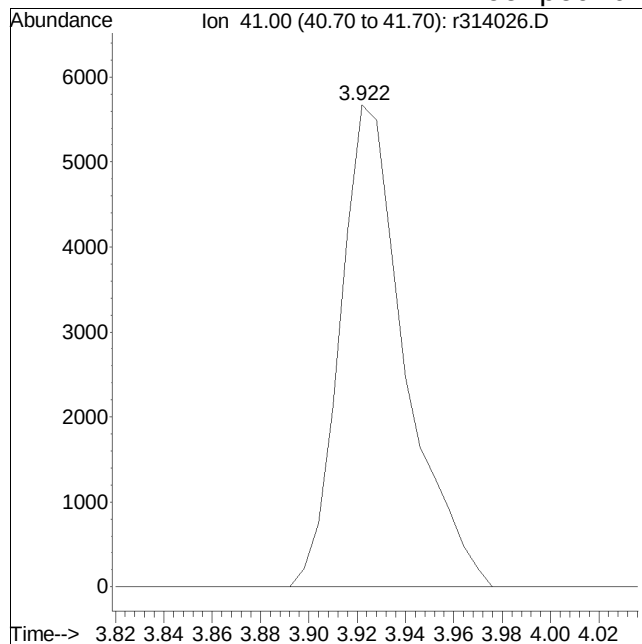
Quant Time: Feb 20 12:56:56 2021
Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Feb 20 07:56:22 2021
Response via : Initial Calibration



Manual Integration/Negative Proof Report

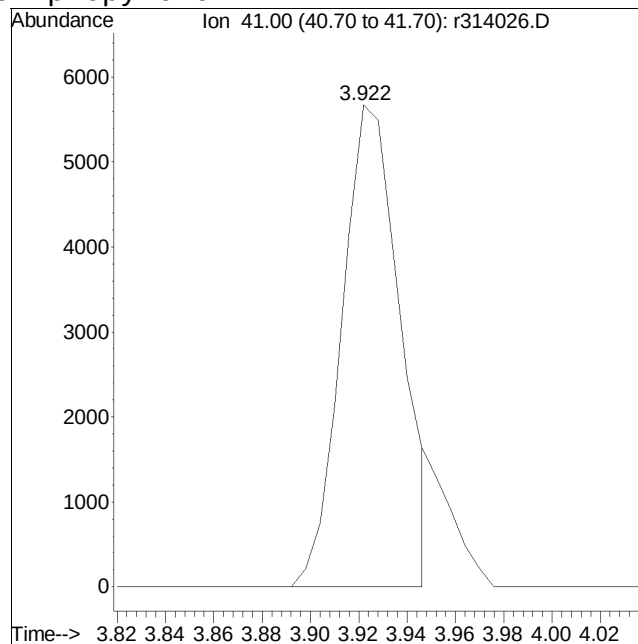
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TFS3_210219.M
Data File : r314026.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:8: 4 Instrument :
Sample : IT015-LLSTD0.5 Quant Date : 2/20/2021 7:57 am

Compound #3: propylene



Original Peak Response = 10599

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

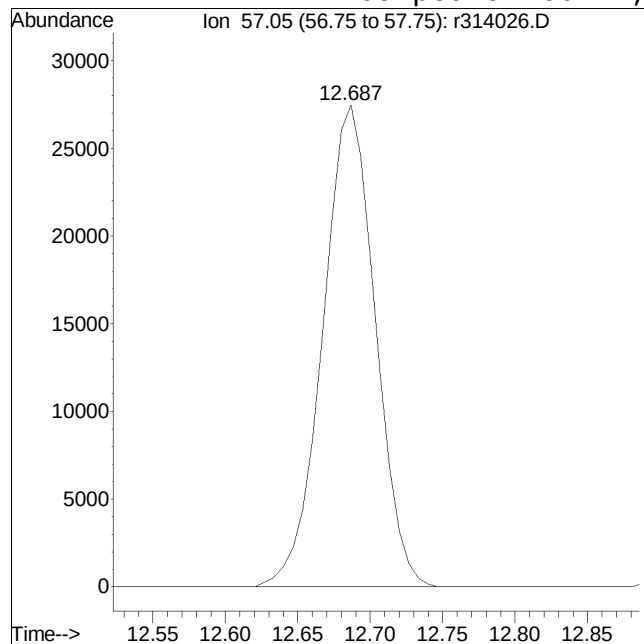


Manual Peak Response = 9553 M6

Manual Integration/Negative Proof Report

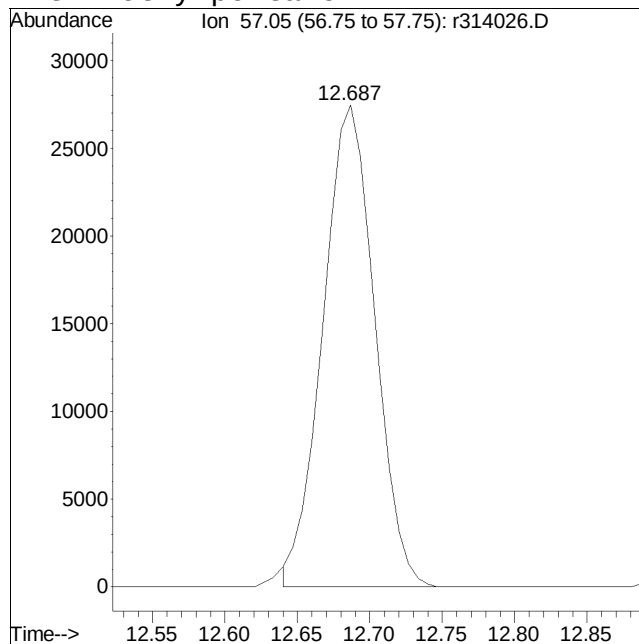
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TFS3_210219.M
Data File : r314026.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:8: 4 Instrument :
Sample : IT015-LLSTD0.5 Quant Date : 2/20/2021 7:57 am

Compound #60: 2,2,4-trimethylpentane



Original Peak Response = 69144

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



Manual Peak Response = 68350 M6

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314027.D
 Acq On : 19 Feb 2021 8:46 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-LLSTD1.0
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:57:15 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 07:56:22 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default - All compounds listed

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

Internal Standards						
1) bromochloromethane	9.575	49	353607	10.000	ppbV	0.00
Standard Area = 367527			Recovery =	96.21%		
43) 1,4-difluorobenzene	11.840	114	970408	10.000	ppbV	0.00
Standard Area = 999261			Recovery =	97.11%		
67) chlorobenzene-D5	16.567	54	155211	10.000	ppbV	0.00
Standard Area = 156386			Recovery =	99.25%		
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	10.458	65	219515	10.297	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	102.97%		
69) toluene-D8	14.675	98	953763	10.016	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.16%		
90) bromofluorobenzene	17.933	95	633074	9.803	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	98.03%		
Target Compounds						
					Qvalue	
2) chlorodifluoromethane	3.892	51	29046	1.167	ppbV	98
3) propylene	3.922	41	19332M6	1.173	ppbV	
4) propane	3.946	29	24537	1.190	ppbV	98
5) dichlorodifluoromethane	4.000	85	30482	1.170	ppbV	100
6) chloromethane	4.180	50	16417	1.163	ppbV	100
7) Freon-114	4.312	85	42382	1.193	ppbV	99
8) methanol	4.378	31	45156	6.478	ppbV	95
9) vinyl chloride	4.438	62	18774	1.150	ppbV	99
10) 1,3-butadiene	4.606	54	17681	1.148	ppbV	99
11) butane	4.672	43	30538	1.175	ppbV	99
12) acetaldehyde	4.324	29	52836	6.343	ppbV	98
13) bromomethane	4.924	94	14257	1.163	ppbV	96
14) chloroethane	5.140	64	10087	1.157	ppbV	99
15) ethanol	5.313	31	89982	6.012	ppbV	100
16) dichlorofluoromethane	5.283	67	37645	1.248	ppbV	99
17) vinyl bromide	5.570	106	15836	1.161	ppbV	98
18) acrolein	5.723	56	9424	1.191	ppbV #	93
19) acetone	5.887	43	147659	6.167	ppbV	99
20) acetonitrile	5.563	41	17274	1.169	ppbV	99
21) trichlorofluoromethane	6.087	101	23573	1.167	ppbV	99
22) isopropyl alcohol	6.213	45	90118	2.936	ppbV	99
23) acrylonitrile	6.460	53	16392	1.142	ppbV	100
24) pentane	6.533	43	35151M6	1.195	ppbV	

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314027.D
 Acq On : 19 Feb 2021 8:46 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-LLSTD1.0
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:57:15 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 07:56:22 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	6.580	31	30082	1.007	ppbV	100
26) 1,1-dichloroethene	6.860	61	23926	1.157	ppbV	98
27) tertiary butyl alcohol	6.950	59	34698	1.142	ppbV	97
28) methylene chloride	7.022	49	21464	1.165	ppbV	99
29) 3-chloropropene	7.166	41	28026	1.142	ppbV	99
30) carbon disulfide	7.316	76	59584	1.129	ppbV #	90
31) Freon 113	7.358	101	30050	1.171	ppbV	99
32) trans-1,2-dichloroethene	8.150	61	28884	1.014	ppbV	100
33) 1,1-dichloroethane	8.383	63	37356	1.145	ppbV	100
34) MTBE	8.483	73	62768	1.132	ppbV	99
35) vinyl acetate	8.608	43	52999	1.136	ppbV	100
36) 2-butanone	8.883	43	51052	1.138	ppbV	99
37) cis-1,2-dichloroethene	9.383	61	27240	1.132	ppbV	97
38) Ethyl Acetate	9.692	61	8248	1.068	ppbV	95
39) chloroform	9.733	83	35819	1.145	ppbV	100
40) Tetrahydrofuran	10.200	42	31139	1.115	ppbV	100
41) 2,2-dichloropropane	9.750	77	31117	1.148	ppbV	99
42) 1,2-dichloroethane	10.583	62	20340	1.151	ppbV	100
44) hexane	9.650	57	43387	1.132	ppbV	88
45) diisopropyl ether	9.658	87	22575	1.132	ppbV	97
46) tert-butyl ethyl ether	10.292	59	69473	1.124	ppbV	99
48) 1,1,1-trichloroethane	10.875	97	28096	1.123	ppbV	99
49) 1,1-dichloropropene	11.240	75	32981	1.127	ppbV	100
50) benzene	11.400	78	81524	1.164	ppbV	100
51) thiophene	11.553	84	45284	1.172	ppbV	100
52) carbon tetrachloride	11.573	117	25401	1.088	ppbV	99
53) cyclohexane	11.720	56	45013	1.109	ppbV	99
54) tert-amyl methyl ether	12.120	73	70188	1.127	ppbV	99
55) dibromomethane	12.327	93	19278	1.155	ppbV	99
56) 1,2-dichloropropane	12.360	63	25013	1.112	ppbV	100
57) bromodichloromethane	12.587	83	39351	1.108	ppbV	99
58) 1,4-dioxane	12.647	88	17506	1.094	ppbV	98
59) trichloroethene	12.640	130	28707	1.153	ppbV	99
60) 2,2,4-trimethylpentane	12.687	57	134444M6	1.126	ppbV	
61) methyl methacrylate	12.893	41	41155	1.127	ppbV	99
62) heptane	13.007	43	52842	1.114	ppbV	100
63) cis-1,3-dichloropropene	13.650	75	38193	1.097	ppbV	99
64) 4-methyl-2-pentanone	13.700	43	60791	1.100	ppbV	99
65) trans-1,3-dichloropropene	14.275	75	35080	1.094	ppbV	100
66) 1,1,2-trichloroethane	14.475	97	25464	1.126	ppbV	100

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314027.D
 Acq On : 19 Feb 2021 8:46 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-LLSTD1.0
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:57:15 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 07:56:22 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	14.792	91	85959	1.151	ppbV	99
70) 2-methylthiophene	14.858	97	66617	1.156	ppbV	99
71) 1,3-dichloropropane	14.817	76	42745	1.119	ppbV	100
72) 2-hexanone	15.083	43	55029	1.051	ppbV	99
73) 3-methylthiophene	15.050	97	68643	1.171	ppbV	99
74) dibromochloromethane	15.233	129	32430	1.040	ppbV	100
75) 1,2-dibromoethane	15.483	107	38782	1.113	ppbV	100
76) butyl acetate	15.733	73	12424	1.002	ppbV	94
77) octane	15.825	85	36585	1.116	ppbV	99
78) tetrachloroethene	15.950	166	36569	1.115	ppbV	98
79) 1,1,1,2-tetrachloroethane	16.592	131	25895	1.087	ppbV	100
80) chlorobenzene	16.608	112	67969	1.103	ppbV	98
81) ethylbenzene	16.958	91	104187	1.132	ppbV	99
82) 2-ethylthiophene	17.000	97	74948	1.178	ppbV	98
83) m+p-xylene	17.125	91	170068	2.282	ppbV	100
84) bromoform	17.192	173	31541	1.009	ppbV	98
85) styrene	17.450	104	73231	1.091	ppbV	100
86) 1,1,2,2-tetrachloroethane	17.542	83	60727	1.138	ppbV	99
87) o-xylene	17.542	91	86505	1.162	ppbV	97
88) 1,2,3-trichloropropane	17.650	75	49415	1.114	ppbV	99
89) nonane	17.733	43	74823	1.124	ppbV	100
91) isopropylbenzene	18.050	105	119812	1.139	ppbV	99
92) bromobenzene	18.125	77	65239	1.113	ppbV	99
93) 2-chlorotoluene	18.450	126	32179	1.128	ppbV	99
94) n-propylbenzene	18.483	120	36894	1.093	ppbV	92
95) 4-chlorotoluene	18.508	126	29636	1.096	ppbV	94
96) 4-ethyl toluene	18.600	105	133180	1.107	ppbV	98
97) 1,3,5-trimethylbenzene	18.658	105	107599	1.127	ppbV	99
98) tert-butylbenzene	18.992	119	108588	1.176	ppbV	98
99) 1,2,4-trimethylbenzene	18.992	105	105751	1.145	ppbV	98
100) decane	19.067	57	85297	1.117	ppbV	99
101) Benzyl Chloride	19.108	91	60319	0.880	ppbV	98
102) 1,3-dichlorobenzene	19.117	146	64119	1.122	ppbV	99
103) 1,4-dichlorobenzene	19.175	146	56574	0.995	ppbV	99
104) sec-butylbenzene	19.200	105	154586	1.152	ppbV	98
105) 1,2,3-trimethylbenzene	19.333	105	111772	1.178	ppbV	100
106) p-isopropyltoluene	19.325	119	133136	1.186	ppbV	97
107) 1,2-dichlorobenzene	19.450	146	59368	1.094	ppbV	98
108) n-butylbenzene	19.667	91	103993	1.082	ppbV	97
109) indan	19.500	117	113311	1.153	ppbV	100

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314027.D
 Acq On : 19 Feb 2021 8:46 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-LLSTD1.0
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:57:15 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 07:56:22 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default - All compounds listed

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

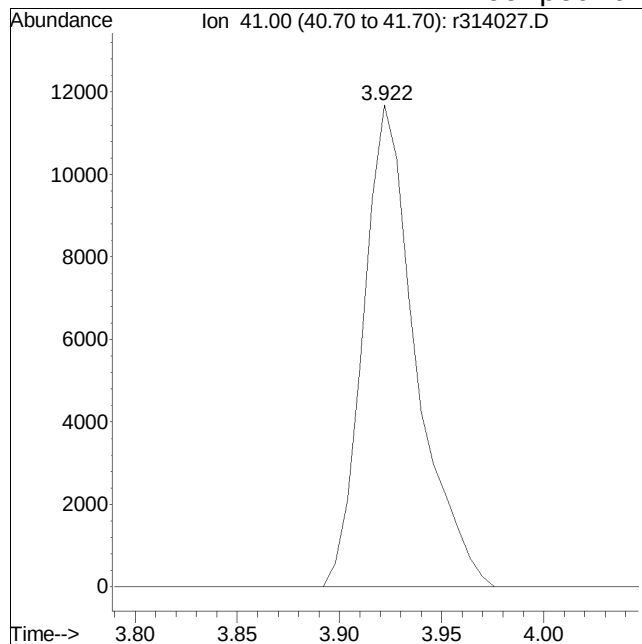
110)	indene	19.575	115	86568	1.071	ppbV	99
111)	1,2-dibromo-3-chloropr...	19.817	75	23320	0.957	ppbV	91
112)	undecane	20.067	57	92621	1.066	ppbV	99
113)	1,2,4,5-tetramethylben...	20.292	119	115305	1.107	ppbV	98
114)	dodecane	20.967	57	89818	0.955	ppbV	98
115)	1,2,4-trichlorobenzene	20.917	180	32968	0.790	ppbV	99
116)	naphthalene	21.033	128	93843	0.853	ppbV	100
117)	1,2,3-trichlorobenzene	21.283	180	38412	0.838	ppbV	99
118)	benzothiophene	21.100	134	90015	0.746	ppbV	99
119)	hexachlorobutadiene	21.350	225	44322	1.019	ppbV	99
120)	2-methylnaphthalene	22.150	142	15883	1.174	ppbV	97
121)	1-methylnaphthalene	22.350	142	42353	1.016	ppbV	97

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

Manual Integration/Negative Proof Report

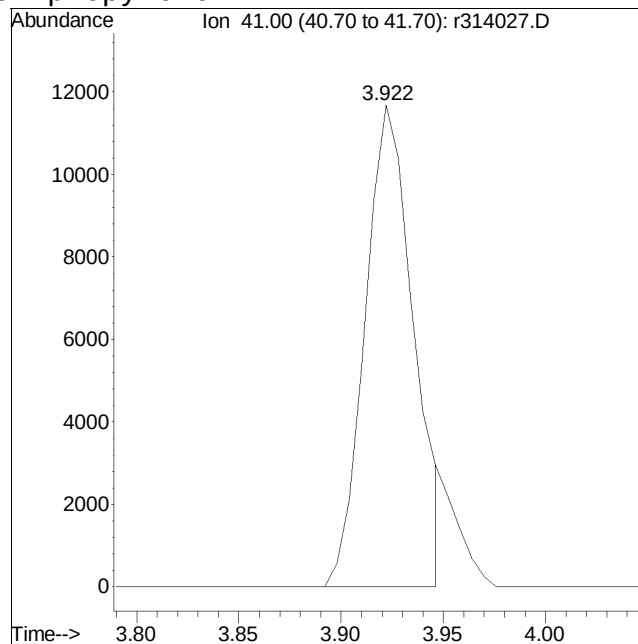
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TFS3_210219.M
Data File : r314027.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:8: 6 Instrument :
Sample : IT015-LLSTD1.0 Quant Date : 2/20/2021 7:57 am

Compound #3: propylene



Original Peak Response = 20986

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

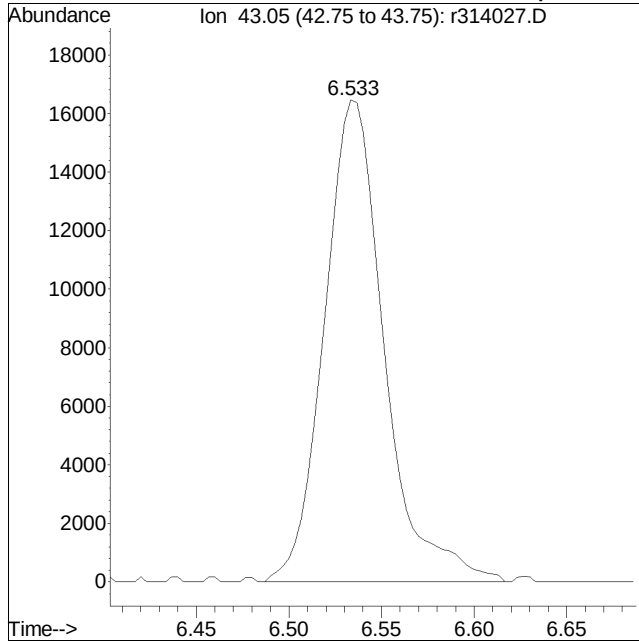


Manual Peak Response = 19332 M6

Manual Integration/Negative Proof Report

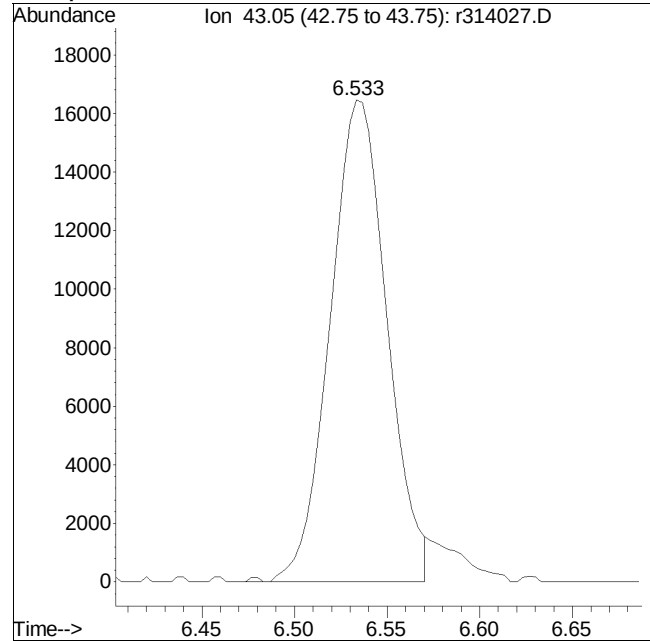
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Data File : r314027.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:8: 6 Instrument :
Sample : IT015-LLSTD1.0 Quant Date : 2/20/2021 7:57 am

Compound #24: pentane



Original Peak Response = 37082

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

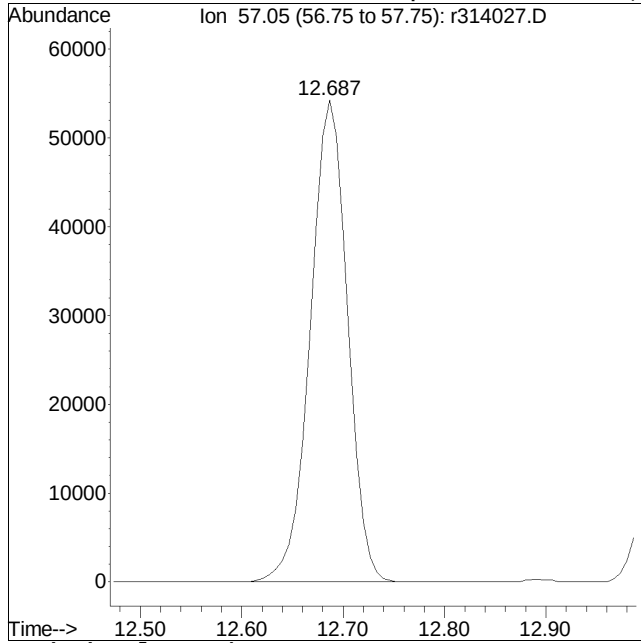


Manual Peak Response = 35151 M6

Manual Integration/Negative Proof Report

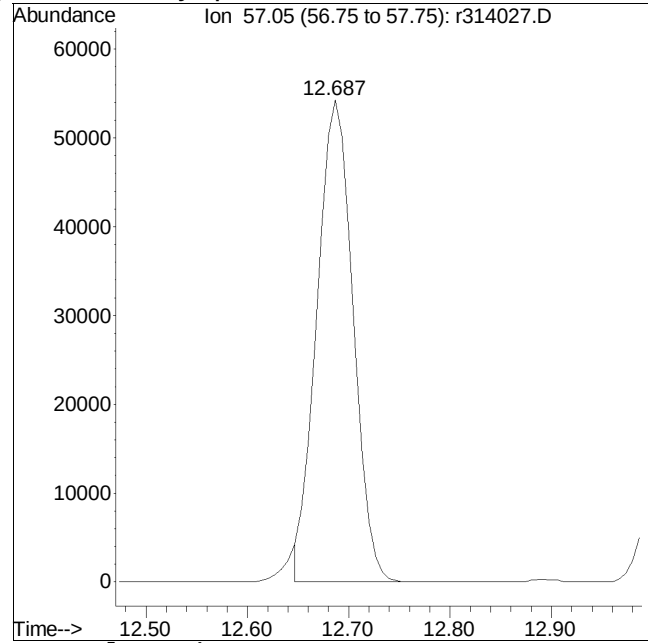
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TFS3_210219.M
Data File : r314027.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:8: 6 Instrument :
Sample : IT015-LLSTD1.0 Quant Date : 2/20/2021 7:57 am

Compound #60: 2,2,4-trimethylpentane



Original Peak Response = 138219

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



Manual Peak Response = 134444 M6

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314028.D
 Acq On : 19 Feb 2021 9:25 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-LLSTD5.0
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:57:29 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 07:56:22 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default - All compounds listed

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

Internal Standards						
1) bromochloromethane	9.575	49	358766	10.000	ppbV	0.00
Standard Area = 367527			Recovery =		97.62%	
43) 1,4-difluorobenzene	11.840	114	979976	10.000	ppbV	0.00
Standard Area = 999261			Recovery =		98.07%	
67) chlorobenzene-D5	16.567	54	153569	10.000	ppbV	0.00
Standard Area = 156386			Recovery =		98.20%	
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	10.458	65	219120	10.178	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		101.78%	
69) toluene-D8	14.675	98	958773	10.176	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		101.76%	
90) bromofluorobenzene	17.933	95	635732	9.949	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		99.49%	
Target Compounds						
					Qvalue	
2) chlorodifluoromethane	3.892	51	132118	5.230	ppbV	100
3) propylene	3.922	41	87372M6	5.227	ppbV	
4) propane	3.952	29	108526	5.187	ppbV	99
5) dichlorodifluoromethane	4.006	85	139268	5.267	ppbV	99
6) chloromethane	4.186	50	74618	5.210	ppbV	100
7) Freon-114	4.312	85	191574	5.314	ppbV	100
8) methanol	4.378	31	184526	26.091	ppbV	99
9) vinyl chloride	4.444	62	86392	5.214	ppbV	100
10) 1,3-butadiene	4.606	54	81579	5.221	ppbV	99
11) butane	4.672	43	139004	5.273	ppbV	100
12) acetaldehyde	4.324	29	225945	26.736	ppbV	99
13) bromomethane	4.924	94	65056	5.231	ppbV	100
14) chloroethane	5.146	64	46128	5.216	ppbV	100
15) ethanol	5.313	31	364344	23.991	ppbV	99
16) dichlorofluoromethane	5.287	67	163579	5.345	ppbV	100
17) vinyl bromide	5.570	106	72233	5.221	ppbV	98
18) acrolein	5.723	56	41678	5.191	ppbV	99
19) acetone	5.880	43	644006	26.512	ppbV	99
20) acetonitrile	5.563	41	76996	5.137	ppbV	99
21) trichlorofluoromethane	6.090	101	108893	5.315	ppbV	99
22) isopropyl alcohol	6.207	45	406283	13.047	ppbV	100
23) acrylonitrile	6.460	53	75094	5.156	ppbV	99
24) pentane	6.537	43	159829M6	5.358	ppbV	

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314028.D
 Acq On : 19 Feb 2021 9:25 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-LLSTD5.0
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:57:29 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 07:56:22 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	6.577	31	154350	5.095	ppbV	100
26) 1,1-dichloroethene	6.860	61	109666	5.228	ppbV	99
27) tertiary butyl alcohol	6.938	59	160812	5.216	ppbV	99
28) methylene chloride	7.028	49	97833	5.235	ppbV	100
29) 3-chloropropene	7.166	41	129667	5.206	ppbV	100
30) carbon disulfide	7.316	76	279367	5.218	ppbV	99
31) Freon 113	7.358	101	137091	5.265	ppbV	99
32) trans-1,2-dichloroethene	8.158	61	148024	5.122	ppbV	99
33) 1,1-dichloroethane	8.392	63	170446	5.147	ppbV	100
34) MTBE	8.475	73	288041	5.120	ppbV	100
35) vinyl acetate	8.608	43	237803	5.026	ppbV	100
36) 2-butanone	8.875	43	231686	5.092	ppbV	100
37) cis-1,2-dichloroethene	9.383	61	124979	5.119	ppbV	99
38) Ethyl Acetate	9.683	61	39496	5.042	ppbV	96
39) chloroform	9.733	83	164764	5.190	ppbV	99
40) Tetrahydrofuran	10.183	42	143723	5.074	ppbV	100
41) 2,2-dichloropropane	9.750	77	141031	5.129	ppbV	99
42) 1,2-dichloroethane	10.583	62	92598	5.165	ppbV	99
44) hexane	9.650	57	198485	5.127	ppbV	100
45) diisopropyl ether	9.658	87	101891	5.062	ppbV	97
46) tert-butyl ethyl ether	10.283	59	318551	5.104	ppbV	100
48) 1,1,1-trichloroethane	10.875	97	129757	5.138	ppbV	100
49) 1,1-dichloropropene	11.240	75	150993	5.110	ppbV	99
50) benzene	11.400	78	361686	5.114	ppbV	100
51) thiophene	11.553	84	198920	5.099	ppbV	100
52) carbon tetrachloride	11.573	117	118951	5.046	ppbV	100
53) cyclohexane	11.720	56	208796	5.094	ppbV	100
54) tert-amyl methyl ether	12.113	73	322278	5.124	ppbV	100
55) dibromomethane	12.327	93	86800	5.151	ppbV	100
56) 1,2-dichloropropane	12.360	63	115827	5.097	ppbV	100
57) bromodichloromethane	12.587	83	183829	5.126	ppbV	100
58) 1,4-dioxane	12.633	88	82322	5.095	ppbV	99
59) trichloroethene	12.640	130	130795	5.201	ppbV	99
60) 2,2,4-trimethylpentane	12.687	57	623396M6	5.168	ppbV	
61) methyl methacrylate	12.887	41	187034	5.073	ppbV	99
62) heptane	13.007	43	244963	5.116	ppbV	100
63) cis-1,3-dichloropropene	13.650	75	178217	5.069	ppbV	100
64) 4-methyl-2-pentanone	13.692	43	285571	5.116	ppbV	100
65) trans-1,3-dichloropropene	14.275	75	165140	5.100	ppbV	100
66) 1,1,2-trichloroethane	14.475	97	116828	5.114	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314028.D
 Acq On : 19 Feb 2021 9:25 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-LLSTD5.0
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:57:29 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 07:56:22 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	14.792	91	382141	5.173	ppbV	100
70) 2-methylthiophene	14.858	97	292818	5.135	ppbV	100
71) 1,3-dichloropropane	14.817	76	194247	5.142	ppbV	100
72) 2-hexanone	15.075	43	263323	5.083	ppbV	99
73) 3-methylthiophene	15.050	97	301156	5.192	ppbV	100
74) dibromochloromethane	15.233	129	157955	5.118	ppbV	99
75) 1,2-dibromoethane	15.483	107	177467	5.147	ppbV	100
76) butyl acetate	15.725	73	61452	5.010	ppbV	98
77) octane	15.825	85	166825	5.145	ppbV	99
78) tetrachloroethene	15.950	166	168784	5.201	ppbV	99
79) 1,1,1,2-tetrachloroethane	16.592	131	122151	5.180	ppbV	99
80) chlorobenzene	16.608	112	313274	5.138	ppbV	100
81) ethylbenzene	16.958	91	474476	5.210	ppbV	100
82) 2-ethylthiophene	17.000	97	326691	5.189	ppbV	100
83) m+p-xylene	17.125	91	775750	10.522	ppbV	98
84) bromoform	17.192	173	156658	5.064	ppbV	99
85) styrene	17.442	104	341672	5.143	ppbV	99
86) 1,1,2,2-tetrachloroethane	17.542	83	277749	5.260	ppbV	100
87) o-xylene	17.542	91	387251	5.256	ppbV	99
88) 1,2,3-trichloropropane	17.650	75	226680	5.164	ppbV	99
89) nonane	17.733	43	340436	5.169	ppbV	100
91) isopropylbenzene	18.050	105	543284	5.220	ppbV	100
92) bromobenzene	18.125	77	296773	5.118	ppbV	98
93) 2-chlorotoluene	18.450	126	146565	5.191	ppbV	100
94) n-propylbenzene	18.483	120	171376	5.131	ppbV	96
95) 4-chlorotoluene	18.508	126	136935	5.117	ppbV	94
96) 4-ethyl toluene	18.600	105	620796	5.217	ppbV	98
97) 1,3,5-trimethylbenzene	18.658	105	492937	5.216	ppbV	99
98) tert-butylbenzene	18.992	119	484552	5.304	ppbV	99
99) 1,2,4-trimethylbenzene	18.992	105	483992	5.295	ppbV	99
100) decane	19.067	57	394465	5.223	ppbV	100
101) Benzyl Chloride	19.108	91	331720	4.892	ppbV	99
102) 1,3-dichlorobenzene	19.117	146	291107	5.150	ppbV	99
103) 1,4-dichlorobenzene	19.175	146	288434	5.125	ppbV	99
104) sec-butylbenzene	19.200	105	695630	5.241	ppbV	99
105) 1,2,3-trimethylbenzene	19.333	105	499398	5.319	ppbV	100
106) p-isopropyltoluene	19.325	119	590759	5.321	ppbV	99
107) 1,2-dichlorobenzene	19.450	146	277489	5.167	ppbV	99
108) n-butylbenzene	19.667	91	483870	5.090	ppbV	100
109) indan	19.500	117	508951	5.234	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314028.D
 Acq On : 19 Feb 2021 9:25 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-LLSTD5.0
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:57:29 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 07:56:22 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default - All compounds listed

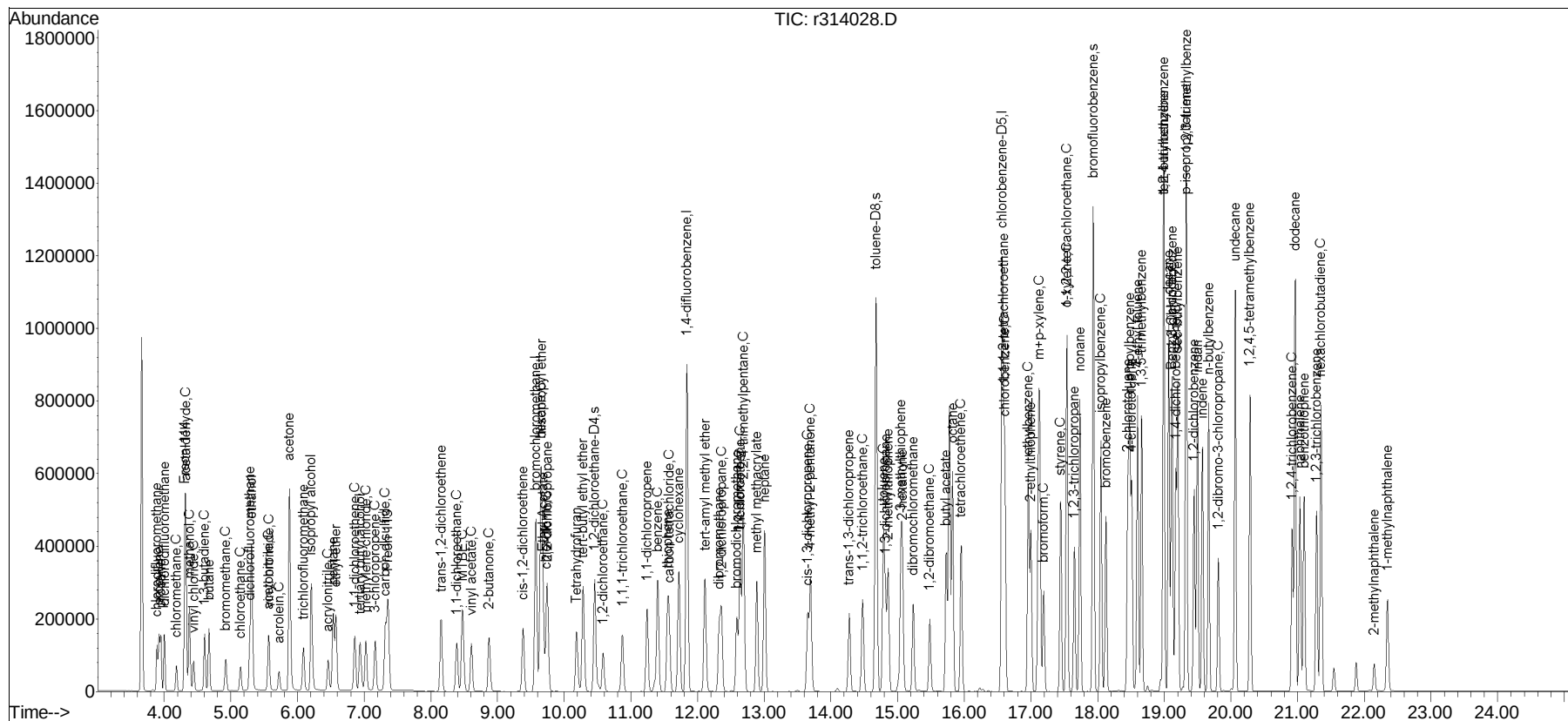
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	19.575	115	410906	5.137	ppbV	100
111) 1,2-dibromo-3-chloropr...	19.808	75	118820	4.926	ppbV	98
112) undecane	20.067	57	449408	5.226	ppbV	99
113) 1,2,4,5-tetramethylben...	20.283	119	534581	5.189	ppbV	100
114) dodecane	20.967	57	474144	5.098	ppbV	98
115) 1,2,4-trichlorobenzene	20.917	180	188989	4.579	ppbV	100
116) naphthalene	21.033	128	525951	4.830	ppbV	99
117) 1,2,3-trichlorobenzene	21.283	180	214484	4.730	ppbV	99
118) benzothiophene	21.100	134	528549	4.430	ppbV	99
119) hexachlorobutadiene	21.350	225	220490	5.122	ppbV	99
120) 2-methylnaphthalene	22.150	142	55111	4.116	ppbV	100
121) 1-methylnaphthalene	22.350	142	183467	4.450	ppbV	99

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

Sub List : Default - All compounds listed21\02\0219T_I\r314029.D

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
Data File : r314028.D
Acq On : 19 Feb 2021 9:25 PM
Operator : AIRPIANO3:AR
Sample : IT015-LLSTD5.0
Misc : WG1466756
ALS Vial : 0 Sample Multiplier: 1

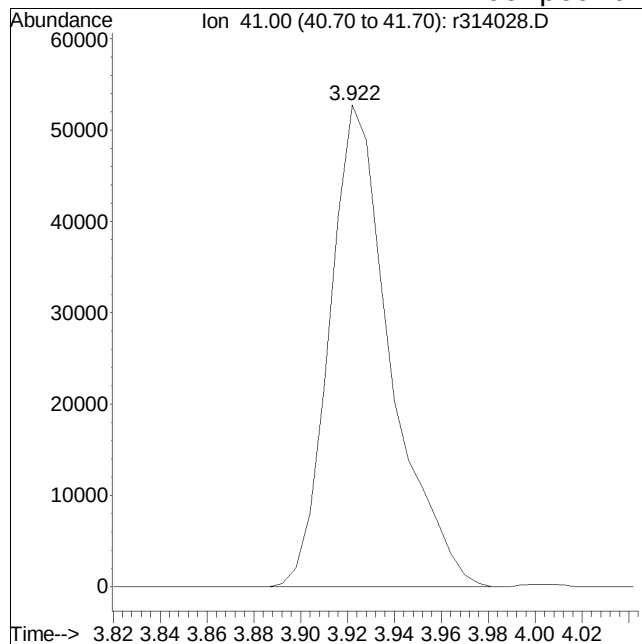
Quant Time: Feb 20 12:57:29 2021
Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Sat Feb 20 07:56:22 2021
Response via : Initial Calibration



Manual Integration/Negative Proof Report

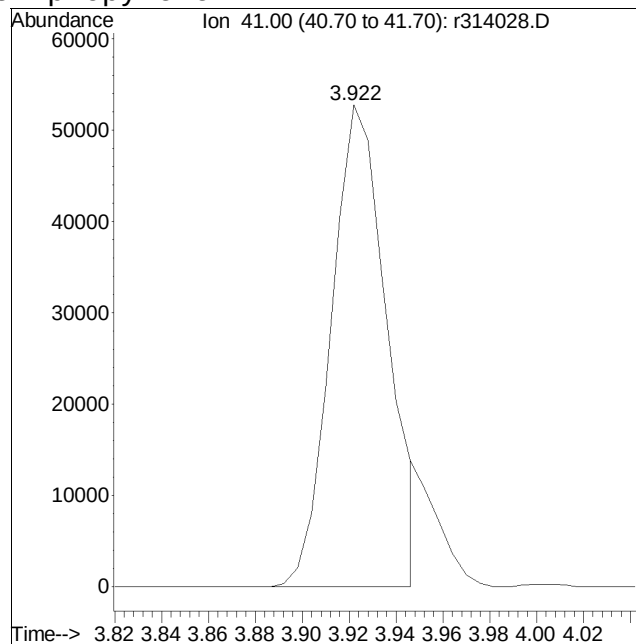
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Data File : r314028.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:9: 5 Instrument :
Sample : IT015-LLSTD5.0 Quant Date : 2/20/2021 7:57 am

Compound #3: propylene



Original Peak Response = 95857

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

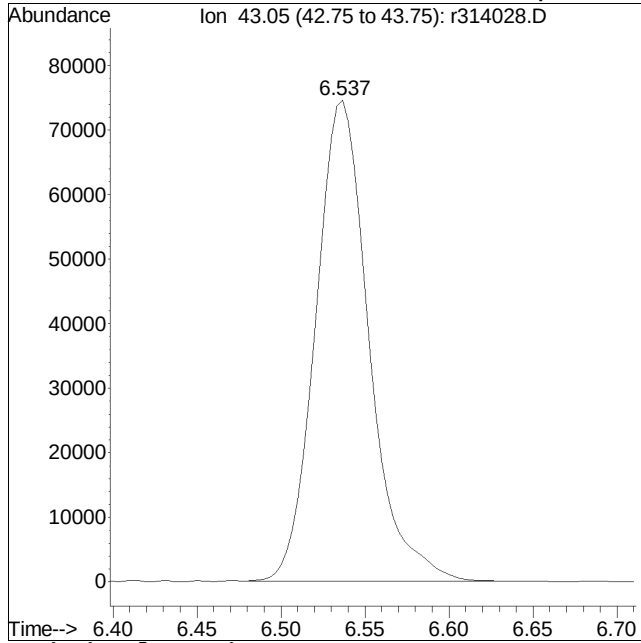


Manual Peak Response = 87372 M6

Manual Integration/Negative Proof Report

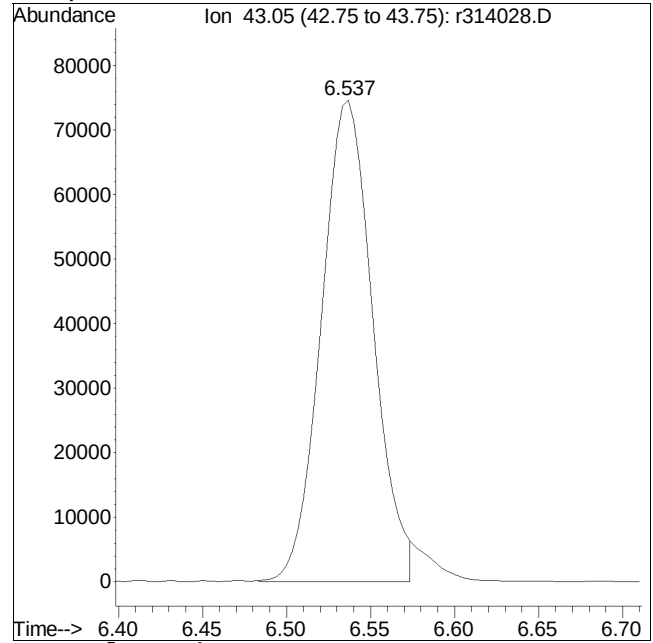
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TFS3_210219.M
Data File : r314028.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:9: 5 Instrument :
Sample : IT015-LLSTD5.0 Quant Date : 2/20/2021 7:57 am

Compound #24: pentane



Original Peak Response = 164088

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

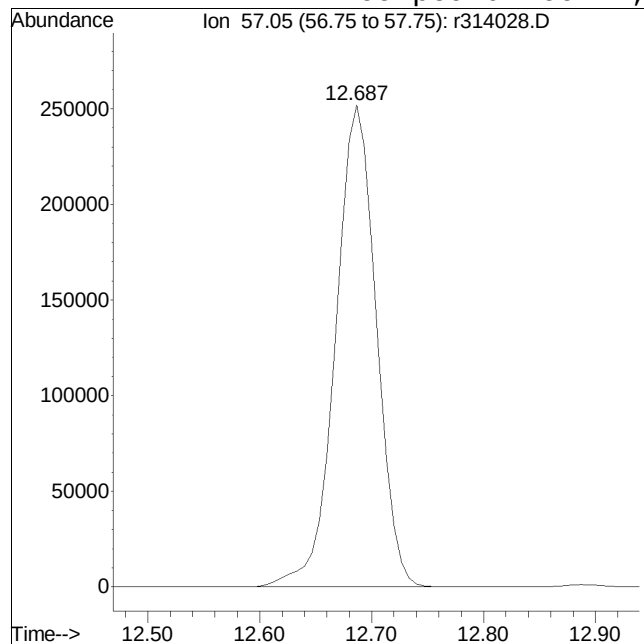


Manual Peak Response = 159829 M6

Manual Integration/Negative Proof Report

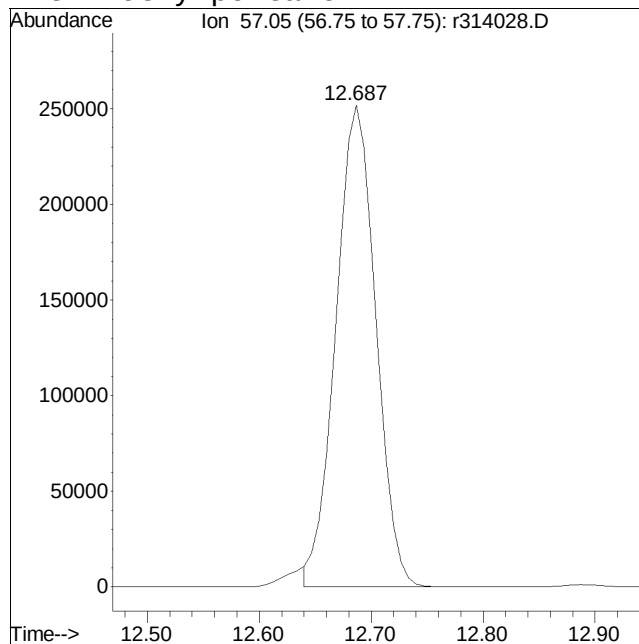
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TFS3_210219.M
Data File : r314028.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:9: 5 Instrument :
Sample : IT015-LLSTD5.0 Quant Date : 2/20/2021 7:57 am

Compound #60: 2,2,4-trimethylpentane



Original Peak Response = 637697

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



Manual Peak Response = 623396 M6

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314029.D
 Acq On : 19 Feb 2021 10:07 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-LLSTD010
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 07:55:10 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sun Feb 14 16:57:55 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default - All compounds listed

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

Internal Standards						
1) bromochloromethane	9.575	49	367527	10.000	ppbV	# 0.02
Standard Area = 367527			Recovery =	100.00%		
43) 1,4-difluorobenzene	11.840	114	999261	10.000	ppbV	0.02
Standard Area = 999261			Recovery =	100.00%		
67) chlorobenzene-D5	16.567	54	156386	10.000	ppbV	0.00
Standard Area = 156386			Recovery =	100.00%		
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	10.458	65	219526	7.330	ppbV	0.03
Spiked Amount 10.000	Range 70 - 130		Recovery =	73.30%		
69) toluene-D8	14.675	98	959490	7.676	ppbV	0.02
Spiked Amount 10.000	Range 70 - 130		Recovery =	76.76%		
90) bromofluorobenzene	17.933	95	650683	7.804	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	78.04%		
Target Compounds						
						Qvalue
2) chlorodifluoromethane	3.892	51	258800	9.346	ppbV	# 83
3) propylene	3.922	41	171237M6	6.410	ppbV	
4) propane	3.952	29	214332	10.530	ppbV	# 74
5) dichlorodifluoromethane	4.006	85	270850	7.299	ppbV	98
6) chloromethane	4.186	50	146730	8.579	ppbV	98
7) Freon-114	4.312	85	369294	7.213	ppbV	# 86
8) methanol	4.378	31	362260	45.517	ppbV	92
9) vinyl chloride	4.444	62	169744	6.345	ppbV	96
10) 1,3-butadiene	4.606	54	160068	8.534	ppbV	# 56
11) butane	4.672	43	270057	5.832	ppbV	# 94
12) acetaldehyde	4.324	29	432873	50.834	ppbV	# 59
13) bromomethane	4.924	94	127395	6.325	ppbV	98
14) chloroethane	5.146	64	90592	6.081	ppbV	98
15) ethanol	5.313	31	777863	45.536	ppbV	# 75
16) dichlorofluoromethane	5.287	67	313525	5.285	ppbV	# 98
17) vinyl bromide	5.570	106	141734	5.617	ppbV	99
18) acrolein	5.723	56	82247	8.305	ppbV	# 93
19) acetone	5.877	43	1244213	27.614	ppbV	# 79
20) acetonitrile	5.563	41	153536	5.488	ppbV	99
21) trichlorofluoromethane	6.090	101	209872	5.419	ppbV	98
22) isopropyl alcohol	6.203	45	797514	15.559	ppbV	98
23) acrylonitrile	6.460	53	149214	8.544	ppbV	100
24) pentane	6.537	43	305610M6	5.518	ppbV	

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314029.D
 Acq On : 19 Feb 2021 10:07 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-LLSTD010
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 07:55:10 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sun Feb 14 16:57:55 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
25) ethyl ether	6.573	31	310357	9.795	ppbV	#	82
26) 1,1-dichloroethene	6.860	61	214898	6.494	ppbV		95
27) tertiary butyl alcohol	6.932	59	315813	7.036	ppbV	#	92
28) methylene chloride	7.028	49	191452	8.418	ppbV		91
29) 3-chloropropene	7.166	41	255137	5.549	ppbV		92
30) carbon disulfide	7.316	76	548477	6.486	ppbV		96
31) Freon 113	7.358	101	266757	5.339	ppbV	#	88
32) trans-1,2-dichloroethene	8.158	61	296075	6.423	ppbV		99
33) 1,1-dichloroethane	8.392	63	339210	5.927	ppbV		99
34) MTBE	8.475	73	576312	7.083	ppbV		96
35) vinyl acetate	8.608	43	484738	7.006	ppbV		95
36) 2-butanone	8.875	43	466097	7.123	ppbV		99
37) cis-1,2-dichloroethene	9.383	61	250131	6.273	ppbV		95
38) Ethyl Acetate	9.683	61	80242	6.697	ppbV		98
39) chloroform	9.742	83	325248	8.289	ppbV		99
40) Tetrahydrofuran	10.183	42	290171	6.733	ppbV		96
41) 2,2-dichloropropane	9.750	77	281679	7.680	ppbV	#	82
42) 1,2-dichloroethane	10.583	62	183648	5.547	ppbV	#	87
44) hexane	9.650	57	394720	10.801	ppbV		96
45) diisopropyl ether	9.658	87	205265	10.878	ppbV		99
46) tert-butyl ethyl ether	10.283	59	636405	9.053	ppbV	#	89
48) 1,1,1-trichloroethane	10.875	97	257526	7.769	ppbV	#	96
49) 1,1-dichloropropene	11.247	75	301297	10.683	ppbV	#	79
50) benzene	11.407	78	721216	11.393	ppbV		96
51) thiophene	11.553	84	397817	11.617	ppbV		88
52) carbon tetrachloride	11.573	117	240364	9.122	ppbV		96
53) cyclohexane	11.720	56	417944	11.209	ppbV	#	87
54) tert-amyl methyl ether	12.107	73	641319	9.947	ppbV		97
55) dibromomethane	12.327	93	171820	9.008	ppbV		91
56) 1,2-dichloropropane	12.360	63	231714	8.293	ppbV		97
57) bromodichloromethane	12.587	83	365664	11.360	ppbV		98
58) 1,4-dioxane	12.633	88	164742	10.578	ppbV		94
59) trichloroethene	12.640	130	256436	9.411	ppbV		96
60) 2,2,4-trimethylpentane	12.687	57	1229933M6	10.476	ppbV		
61) methyl methacrylate	12.887	41	375922	8.318	ppbV		95
62) heptane	13.007	43	488259	9.925	ppbV		95
63) cis-1,3-dichloropropene	13.650	75	358508	10.951	ppbV	#	81
64) 4-methyl-2-pentanone	13.692	43	569144	9.926	ppbV		99
65) trans-1,3-dichloropropene	14.275	75	330170	10.643	ppbV	#	82
66) 1,1,2-trichloroethane	14.475	97	232957	8.626	ppbV	#	80

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314029.D
 Acq On : 19 Feb 2021 10:07 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-LLSTD010
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 07:55:10 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sun Feb 14 16:57:55 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	14.792	91	752229	8.365	ppbV	98
70) 2-methylthiophene	14.858	97	580700	7.573	ppbV #	98
71) 1,3-dichloropropane	14.817	76	384717	9.862	ppbV #	79
72) 2-hexanone	15.075	43	527513	8.864	ppbV	99
73) 3-methylthiophene	15.050	97	590657	7.592	ppbV #	99
74) dibromochloromethane	15.233	129	314307	8.037	ppbV	99
75) 1,2-dibromoethane	15.483	107	351105	7.982	ppbV	96
76) butyl acetate	15.725	73	124897	9.425	ppbV	88
77) octane	15.825	85	330187	10.261	ppbV	85
78) tetrachloroethene	15.950	166	330444	9.170	ppbV #	90
79) 1,1,1,2-tetrachloroethane	16.592	131	240132	8.035	ppbV	97
80) chlorobenzene	16.608	112	620964	8.958	ppbV	93
81) ethylbenzene	16.958	91	927391	8.379	ppbV	100
82) 2-ethylthiophene	17.000	97	641170	7.364	ppbV #	88
83) m+p-xylene	17.125	91	1501630	16.572	ppbV	98
84) bromoform	17.192	173	315005	8.925	ppbV	98
85) styrene	17.450	104	676578	8.052	ppbV #	92
86) 1,1,2,2-tetrachloroethane	17.542	83	537771	10.352	ppbV	97
87) o-xylene	17.542	91	750247	8.289	ppbV	97
88) 1,2,3-trichloropropane	17.650	75	447048	9.987	ppbV #	88
89) nonane	17.733	43	670664	9.165	ppbV	98
91) isopropylbenzene	18.050	105	1059805	8.071	ppbV	94
92) bromobenzene	18.125	77	590488	10.416	ppbV	84
93) 2-chlorotoluene	18.450	126	287548	8.615	ppbV	75
94) n-propylbenzene	18.483	120	340102	8.903	ppbV	89
95) 4-chlorotoluene	18.508	126	272516	8.561	ppbV	95
96) 4-ethyl toluene	18.600	105	1211672	8.280	ppbV	94
97) 1,3,5-trimethylbenzene	18.658	105	962357	7.977	ppbV	91
98) tert-butylbenzene	18.992	119	930279	8.819	ppbV	98
99) 1,2,4-trimethylbenzene	18.992	105	930908	8.268	ppbV	92
100) decane	19.067	57	769072	8.960	ppbV	99
101) Benzyl Chloride	19.108	91	690538	9.104	ppbV	98
102) 1,3-dichlorobenzene	19.117	146	575588	8.210	ppbV	95
103) 1,4-dichlorobenzene	19.175	146	573074M3	8.638	ppbV	
104) sec-butylbenzene	19.200	105	1351643	8.019	ppbV	96
105) 1,2,3-trimethylbenzene	19.333	105	956201	8.087	ppbV	98
106) p-isopropyltoluene	19.325	119	1130705	8.862	ppbV	99
107) 1,2-dichlorobenzene	19.450	146	546906	8.212	ppbV #	90
108) n-butylbenzene	19.667	91	968110	8.543	ppbV	99
109) indan	19.500	117	990225	8.703	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314029.D
 Acq On : 19 Feb 2021 10:07 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-LLSTD010
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 07:55:10 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sun Feb 14 16:57:55 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default - All compounds listed

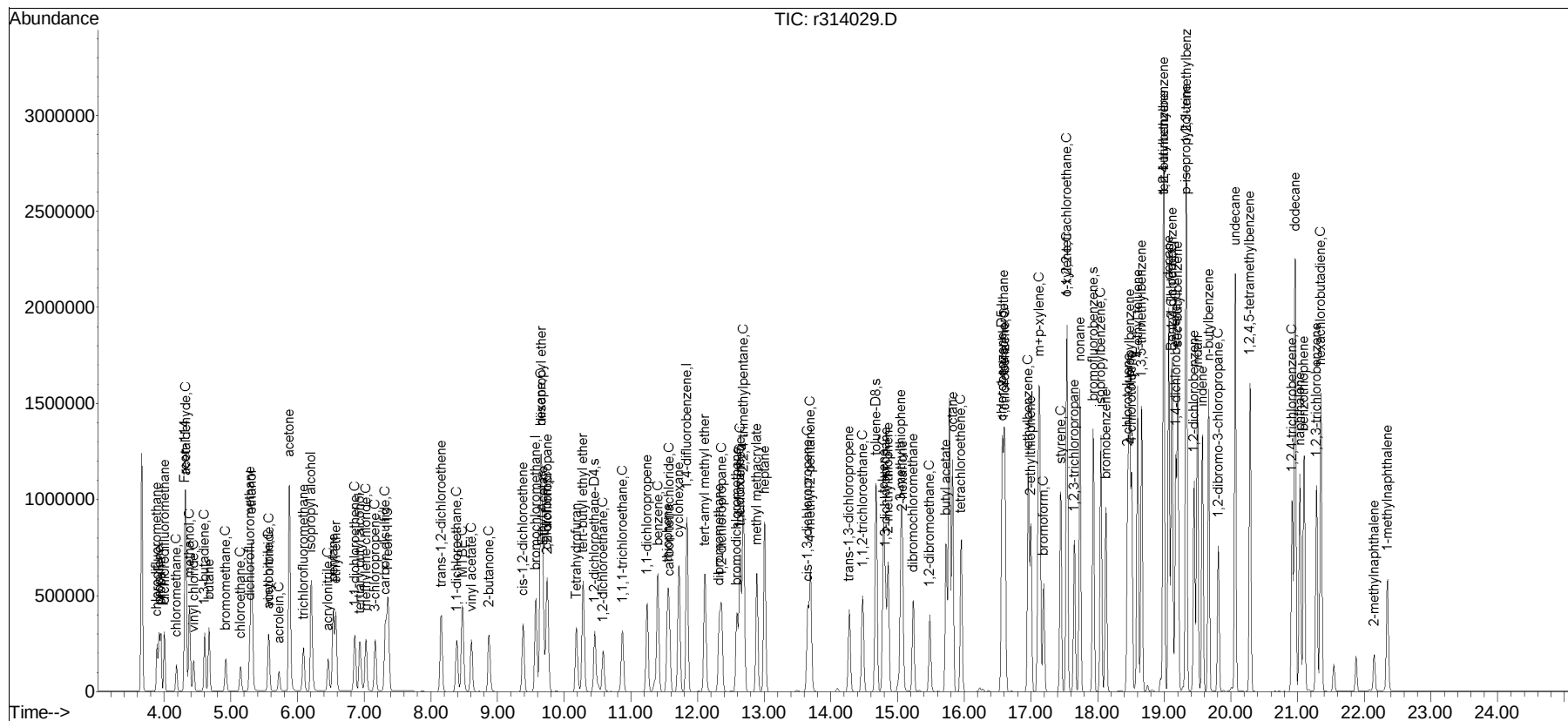
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	19.575	115	814642	8.934	ppbV	99
111) 1,2-dibromo-3-chloropr...	19.808	75	245628	9.928	ppbV #	87
112) undecane	20.067	57	875804	9.310	ppbV	98
113) 1,2,4,5-tetramethylben...	20.283	119	1049169	9.007	ppbV	97
114) dodecane	20.967	57	947153	10.016	ppbV	98
115) 1,2,4-trichlorobenzene	20.917	180	420272	11.586	ppbV	90
116) naphthalene	21.033	128	1108792	9.740	ppbV	97
117) 1,2,3-trichlorobenzene	21.283	180	461741	11.059	ppbV	92
118) benzothiophene	21.092	134	1215016	10.101	ppbV	98
119) hexachlorobutadiene	21.350	225	438344	9.176	ppbV	97
120) 2-methylnaphthalene	22.150	142	136343	6.776	ppbV	98
121) 1-methylnaphthalene	22.350	142	419812	7.015	ppbV	99

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

Sub List : Default - All compounds listed21\02\0219T_I\r314029.D

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
Data File : r314029.D
Acq On : 19 Feb 2021 10:07 PM
Operator : AIRPIANO3:AR
Sample : IT015-LLSTD010
Misc : WG1466756
ALS Vial : 0 Sample Multiplier: 1

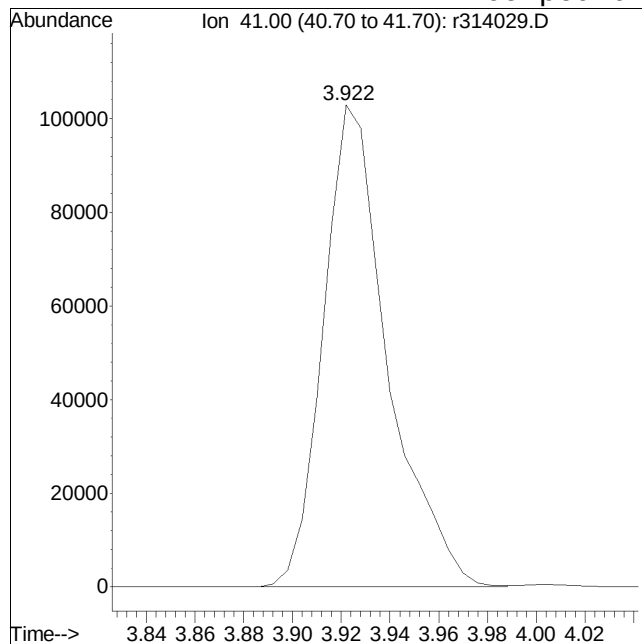
Quant Time: Feb 20 07:55:10 2021
Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Sun Feb 14 16:57:55 2021
Response via : Initial Calibration



Manual Integration/Negative Proof Report

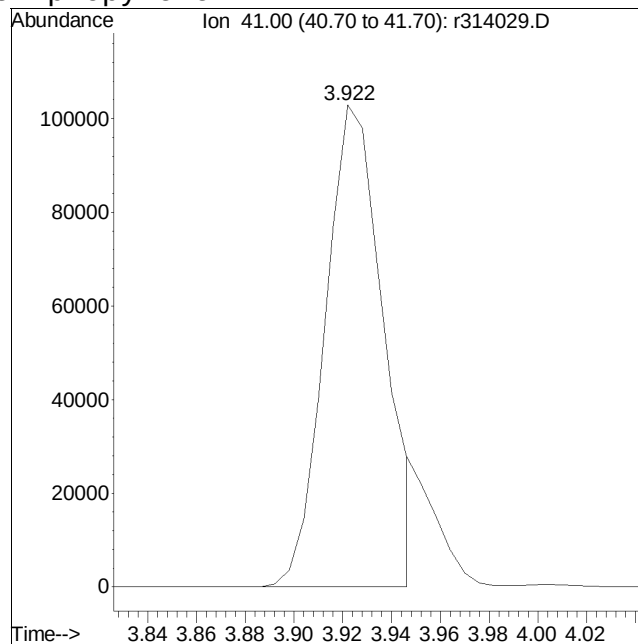
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TFS3_210219.M
Data File : r314029.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:0: 7 Instrument :
Sample : IT015-LLSTD010 Quant Date : 2/20/2021 7:52 am

Compound #3: propylene



Original Peak Response = 189130

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

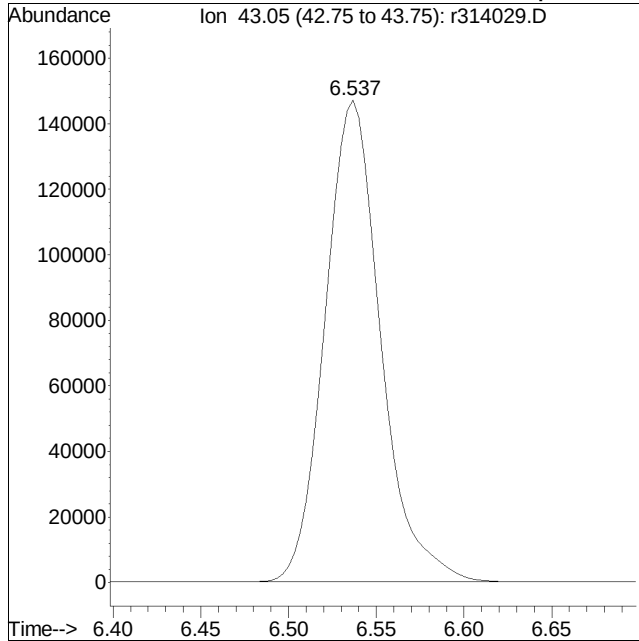


Manual Peak Response = 171237 M6

Manual Integration/Negative Proof Report

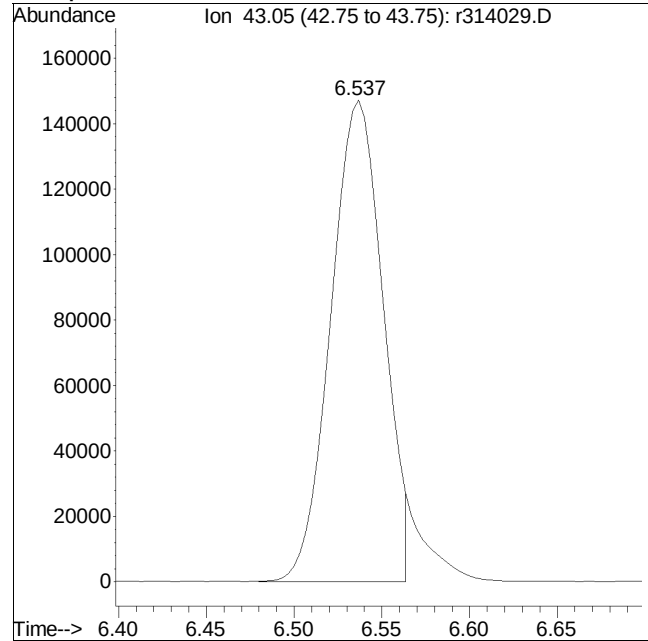
Data Path : O:\Forensics\Data\Airpiano3QMethod : TFS3_210219.M
Data File : r314029.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:0: 7 Instrument :
Sample : IT015-LLSTD010 Quant Date : 2/20/2021 7:52 am

Compound #24: pentane



Original Peak Response = 324335

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

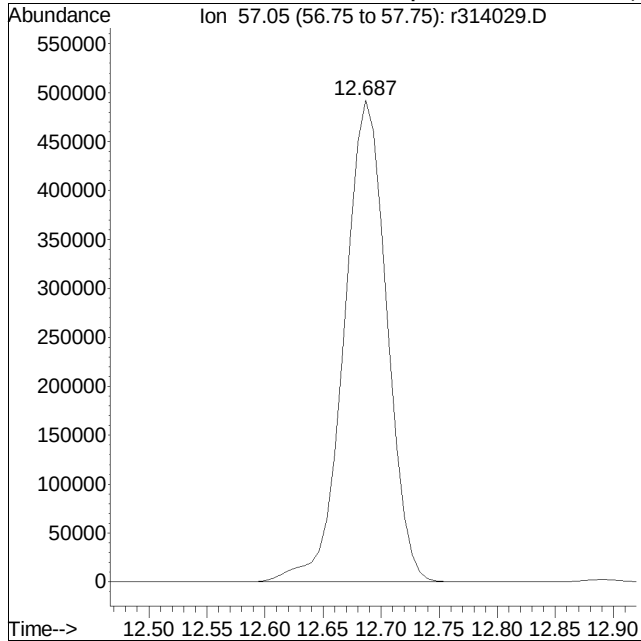


Manual Peak Response = 305610 M6

Manual Integration/Negative Proof Report

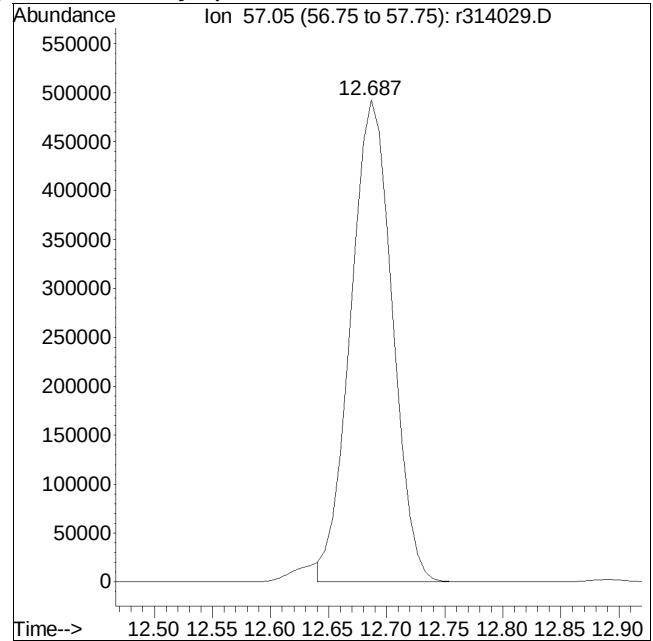
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TFS3_210219.M
Data File : r314029.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:0: 7 Instrument :
Sample : IT015-LLSTD010 Quant Date : 2/20/2021 7:52 am

Compound #60: 2,2,4-trimethylpentane



Original Peak Response = 1260198

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

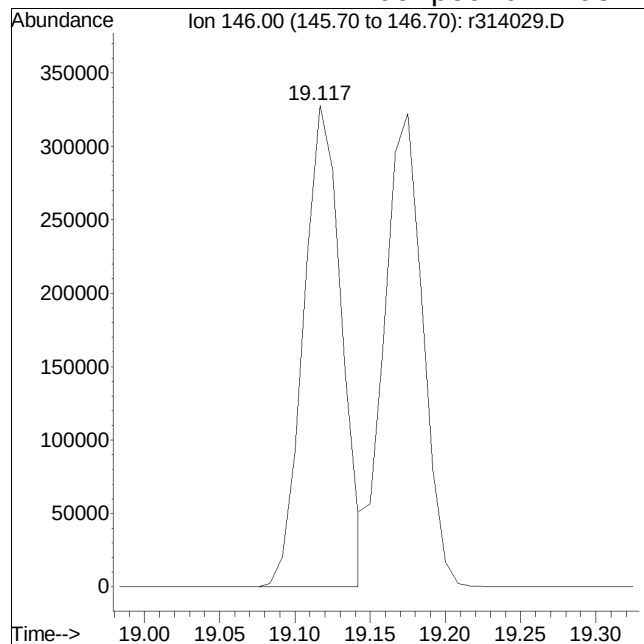


Manual Peak Response = 1229933 M6

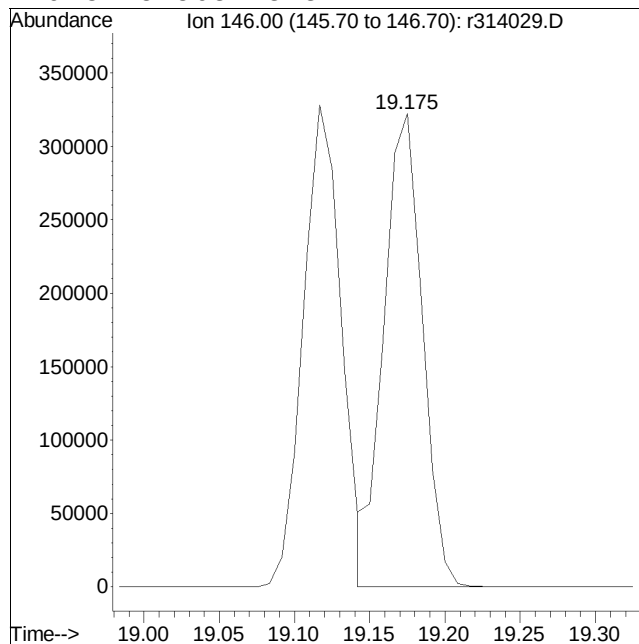
Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\Airpiano3QMethod : TFS3_210219.M
 Data File : r314029.D Operator : AIRPIAN03:AR
 Date Inj'd : 2/19/2020 0:0: 7 Instrument :
 Sample : IT015-LLSTD010 Quant Date : 2/20/2021 7:52 am

Compound #103: 1,4-dichlorobenzene



Original Peak Response = 575588



Manual Peak Response = 573074 M3

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

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314030.D
 Acq On : 19 Feb 2021 10:45 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-LLSTD020
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:48:53 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 07:56:22 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default - All compounds listed

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

Internal Standards						
1) bromochloromethane	9.575	49	370157	10.000	ppbV	0.00
Standard Area = 367527			Recovery =	100.72%		
43) 1,4-difluorobenzene	11.840	114	1004343	10.000	ppbV	0.00
Standard Area = 999261			Recovery =	100.51%		
67) chlorobenzene-D5	16.575	54	156268	10.000	ppbV	0.00
Standard Area = 156386			Recovery =	99.92%		
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	10.458	65	220122	9.976	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	99.76%		
69) toluene-D8	14.683	98	981889	10.241	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	102.41%		
90) bromofluorobenzene	17.933	95	675740	10.393	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	103.93%		
Target Compounds						
					Qvalue	
2) chlorodifluoromethane	3.892	51	509521	19.548	ppbV	100
3) propylene	3.928	41	331559M6	19.225	ppbV	
4) propane	3.952	29	421220	19.513	ppbV	99
5) dichlorodifluoromethane	4.006	85	514384	18.857	ppbV	99
6) chloromethane	4.186	50	288305	19.509	ppbV	100
7) Freon-114	4.312	85	701999	18.874	ppbV	100
8) methanol	4.378	31	676802	92.750	ppbV	100
9) vinyl chloride	4.444	62	333247	19.493	ppbV	100
10) 1,3-butadiene	4.612	54	310442	19.257	ppbV	98
11) butane	4.672	43	531830	19.553	ppbV	100
12) acetaldehyde	4.324	29	821667	94.234	ppbV	98
13) bromomethane	4.924	94	247746	19.309	ppbV	99
14) chloroethane	5.146	64	178991	19.618	ppbV	100
15) ethanol	5.317	31	1447764	92.399	ppbV	99
16) dichlorofluoromethane	5.287	67	607478	19.238	ppbV	99
17) vinyl bromide	5.573	106	269908	18.908	ppbV	97
18) acrolein	5.723	56	162941	19.670	ppbV	99
19) acetone	5.877	43	2370248	94.574	ppbV	100
20) acetonitrile	5.563	41	299122	19.344	ppbV	100
21) trichlorofluoromethane	6.093	101	398500	18.853	ppbV	99
22) isopropyl alcohol	6.207	45	1552634	48.325	ppbV	100
23) acrylonitrile	6.463	53	294543	19.599	ppbV	100
24) pentane	6.540	43	615767M6	20.006	ppbV	

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314030.D
 Acq On : 19 Feb 2021 10:45 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-LLSTD020
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:48:53 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 07:56:22 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	6.577	31	605696	19.377	ppbV	100
26) 1,1-dichloroethene	6.860	61	414083	19.132	ppbV	99
27) tertiary butyl alcohol	6.932	59	614029	19.305	ppbV	100
28) methylene chloride	7.028	49	374464	19.420	ppbV	99
29) 3-chloropropene	7.166	41	495714	19.291	ppbV	100
30) carbon disulfide	7.322	76	1049347	18.996	ppbV	100
31) Freon 113	7.358	101	509632	18.969	ppbV	100
32) trans-1,2-dichloroethene	8.158	61	571162	19.154	ppbV	99
33) 1,1-dichloroethane	8.392	63	662663	19.397	ppbV	100
34) MTBE	8.475	73	1102552	18.995	ppbV	100
35) vinyl acetate	8.608	43	965415	19.775	ppbV	99
36) 2-butanone	8.875	43	903499	19.247	ppbV	100
37) cis-1,2-dichloroethene	9.383	61	485272	19.263	ppbV	100
38) Ethyl Acetate	9.683	61	154706	19.143	ppbV	96
39) chloroform	9.742	83	626863	19.136	ppbV	100
40) Tetrahydrofuran	10.183	42	568506	19.453	ppbV	99
41) 2,2-dichloropropane	9.758	77	541844	19.100	ppbV	99
42) 1,2-dichloroethane	10.583	62	352530	19.060	ppbV	99
44) hexane	9.650	57	752534	18.969	ppbV	97
45) diisopropyl ether	9.658	87	398725	19.327	ppbV	97
46) tert-butyl ethyl ether	10.283	59	1242242	19.421	ppbV	99
48) 1,1,1-trichloroethane	10.875	97	495310	19.136	ppbV	100
49) 1,1-dichloropropene	11.247	75	587441	19.398	ppbV	99
50) benzene	11.407	78	1403044	19.355	ppbV	100
51) thiophene	11.553	84	795915	19.906	ppbV	100
52) carbon tetrachloride	11.580	117	469150	19.420	ppbV	100
53) cyclohexane	11.720	56	809482	19.270	ppbV	100
54) tert-amyl methyl ether	12.107	73	1259092	19.534	ppbV	100
55) dibromomethane	12.327	93	331969	19.223	ppbV	98
56) 1,2-dichloropropane	12.360	63	453548	19.475	ppbV	99
57) bromodichloromethane	12.593	83	705001	19.182	ppbV	100
58) 1,4-dioxane	12.627	88	319362	19.287	ppbV	99
59) trichloroethene	12.640	130	495030	19.207	ppbV	99
60) 2,2,4-trimethylpentane	12.687	57	2331170M6	18.858	ppbV	
61) methyl methacrylate	12.893	41	751106	19.879	ppbV	100
62) heptane	13.007	43	947788	19.313	ppbV	100
63) cis-1,3-dichloropropene	13.658	75	704377	19.548	ppbV	99
64) 4-methyl-2-pentanone	13.692	43	1105905	19.333	ppbV	100
65) trans-1,3-dichloropropene	14.275	75	653260	19.685	ppbV	99
66) 1,1,2-trichloroethane	14.475	97	455779	19.466	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314030.D
 Acq On : 19 Feb 2021 10:45 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-LLSTD020
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:48:53 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 07:56:22 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	14.792	91	1436213	19.107	ppbV	99
70) 2-methylthiophene	14.858	97	1140690	19.658	ppbV	98
71) 1,3-dichloropropane	14.817	76	757723	19.710	ppbV	100
72) 2-hexanone	15.075	43	1025890	19.462	ppbV	100
73) 3-methylthiophene	15.050	97	1165298	19.744	ppbV	100
74) dibromochloromethane	15.233	129	603558	19.217	ppbV	99
75) 1,2-dibromoethane	15.483	107	677260	19.304	ppbV	100
76) butyl acetate	15.725	73	248960	19.948	ppbV	100
77) octane	15.825	85	645319	19.559	ppbV	99
78) tetrachloroethene	15.958	166	638239	19.329	ppbV	99
79) 1,1,1,2-tetrachloroethane	16.600	131	466684	19.449	ppbV	99
80) chlorobenzene	16.608	112	1192415	19.217	ppbV	100
81) ethylbenzene	16.967	91	1778298	19.190	ppbV	98
82) 2-ethylthiophene	17.000	97	1265529	19.753	ppbV	99
83) m+p-xylene	17.125	91	2821677	37.610	ppbV	98
84) bromoform	17.192	173	622813	19.786	ppbV	100
85) styrene	17.450	104	1315004	19.451	ppbV	100
86) 1,1,2,2-tetrachloroethane	17.542	83	1011444	18.822	ppbV	100
87) o-xylene	17.542	91	1384505	18.468	ppbV	97
88) 1,2,3-trichloropropane	17.650	75	877717	19.648	ppbV	99
89) nonane	17.742	43	1305727	19.484	ppbV	98
91) isopropylbenzene	18.050	105	2017484	19.051	ppbV	98
92) bromobenzene	18.125	77	1153843	19.555	ppbV	98
93) 2-chlorotoluene	18.450	126	559214	19.462	ppbV	94
94) n-propylbenzene	18.483	120	660293	19.429	ppbV	93
95) 4-chlorotoluene	18.508	126	530947	19.498	ppbV	95
96) 4-ethyl toluene	18.600	105	2263405	18.694	ppbV	100
97) 1,3,5-trimethylbenzene	18.658	105	1821462	18.941	ppbV	100
98) tert-butylbenzene	18.992	119	1712048	18.417	ppbV	99
99) 1,2,4-trimethylbenzene	18.992	105	1711918	18.404	ppbV	99
100) decane	19.067	57	1443092	18.778	ppbV	97
101) Benzyl Chloride	19.108	91	1346782	19.518	ppbV	99
102) 1,3-dichlorobenzene	19.117	146	1137374	19.775	ppbV	99
103) 1,4-dichlorobenzene	19.175	146	1062405	18.553	ppbV	99
104) sec-butylbenzene	19.208	105	2524929	18.695	ppbV	100
105) 1,2,3-trimethylbenzene	19.333	105	1751031	18.326	ppbV	98
106) p-isopropyltoluene	19.325	119	2061226	18.243	ppbV	99
107) 1,2-dichlorobenzene	19.450	146	1046734	19.154	ppbV	99
108) n-butylbenzene	19.667	91	1802356	18.631	ppbV	97
109) indan	19.500	117	1867136	18.870	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314030.D
 Acq On : 19 Feb 2021 10:45 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-LLSTD020
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:48:53 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 07:56:22 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default - All compounds listed

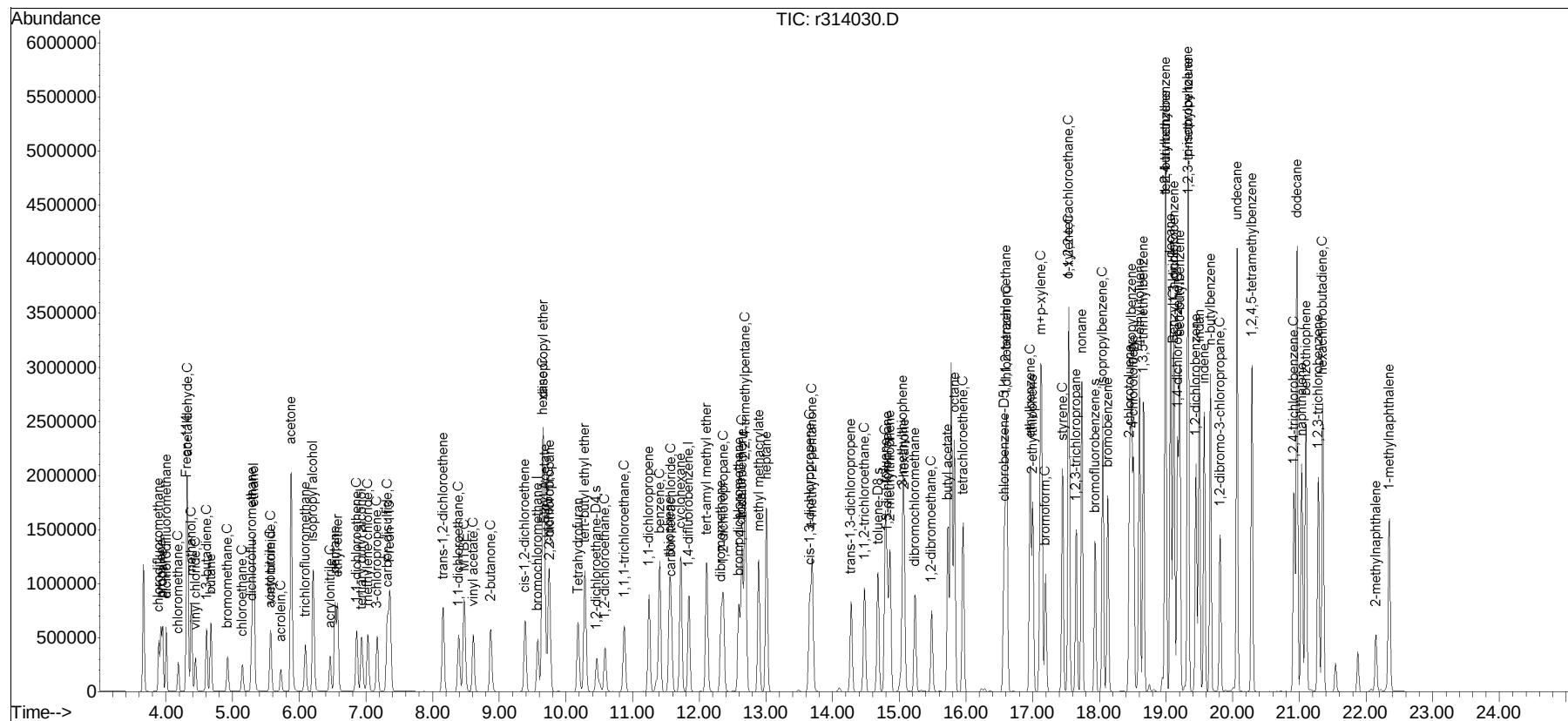
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

110) indene	19.575	115	1570164	19.289	ppbV	99
111) 1,2-dibromo-3-chloropr...	19.808	75	474205	19.320	ppbV	98
112) undecane	20.067	57	1621256	18.526	ppbV	97
113) 1,2,4,5-tetramethylben...	20.292	119	1988801	18.970	ppbV	100
114) dodecane	20.967	57	1689943	17.856	ppbV	98
115) 1,2,4-trichlorobenzene	20.917	180	789100	18.790	ppbV	99
116) naphthalene	21.033	128	2078191	18.757	ppbV	99
117) 1,2,3-trichlorobenzene	21.283	180	868868	18.831	ppbV	100
118) benzothiophene	21.100	134	2388925	19.677	ppbV	98
119) hexachlorobutadiene	21.350	225	765879	17.485	ppbV	99
120) 2-methylnaphthalene	22.150	142	374741	27.506	ppbV	99
121) 1-methylnaphthalene	22.350	142	1146008	27.319	ppbV	99

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

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Data Path   : O:\Forensics\Data\Airpiano3\2021\02\0219T_I\
Data File  : r314030.D
Acq On     : 19 Feb 2021  10:45 PM
Operator   : AIRPIANO3:AR
Sample     : IT015-LLSTD020
Misc       : WG1466756
ALS Vial   : 0      Sample Multiplier: 1
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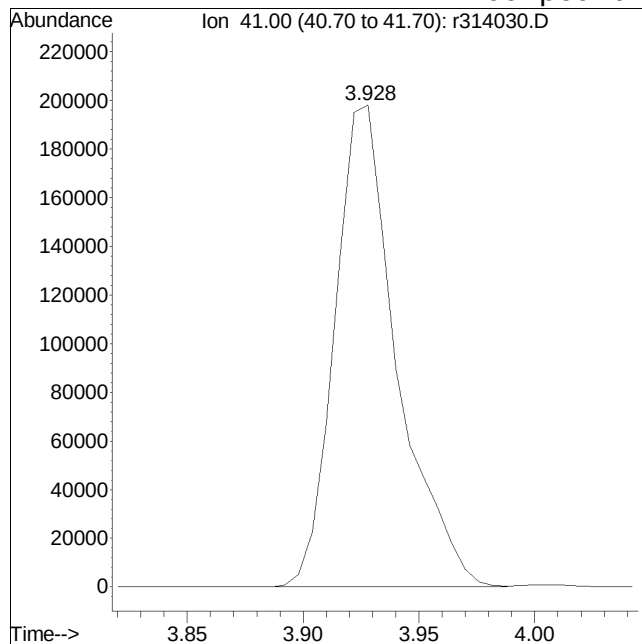
Quant Time: Feb 20 12:48:53 2021
Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Feb 20 07:56:22 2021
Response via : Initial Calibration



Manual Integration/Negative Proof Report

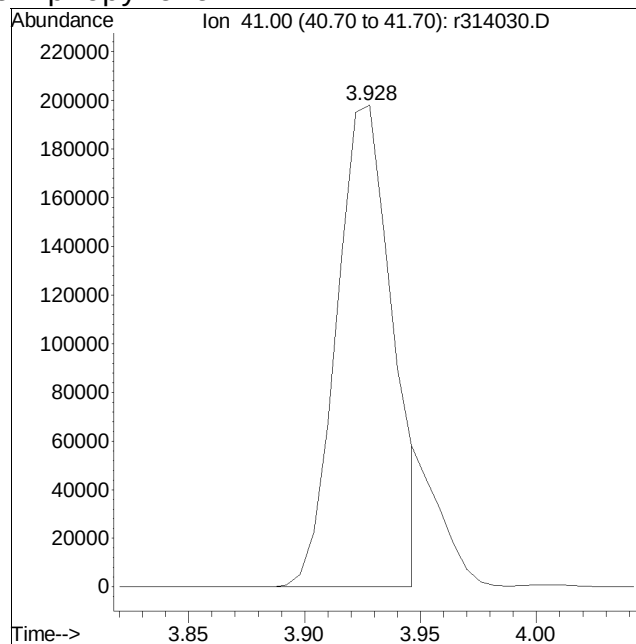
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TFS3_210219.M
Data File : r314030.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:0: 5 Instrument :
Sample : IT015-LLSTD020 Quant Date : 2/20/2021 7:57 am

Compound #3: propylene



Original Peak Response = 369853

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

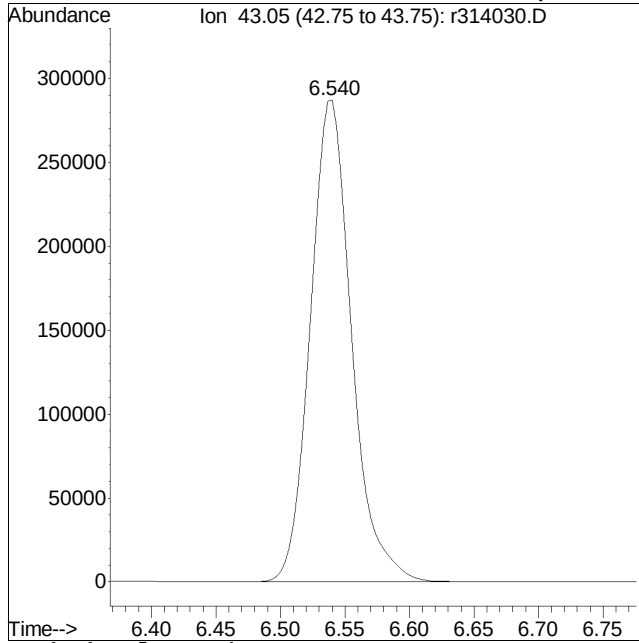


Manual Peak Response = 331559 M6

Manual Integration/Negative Proof Report

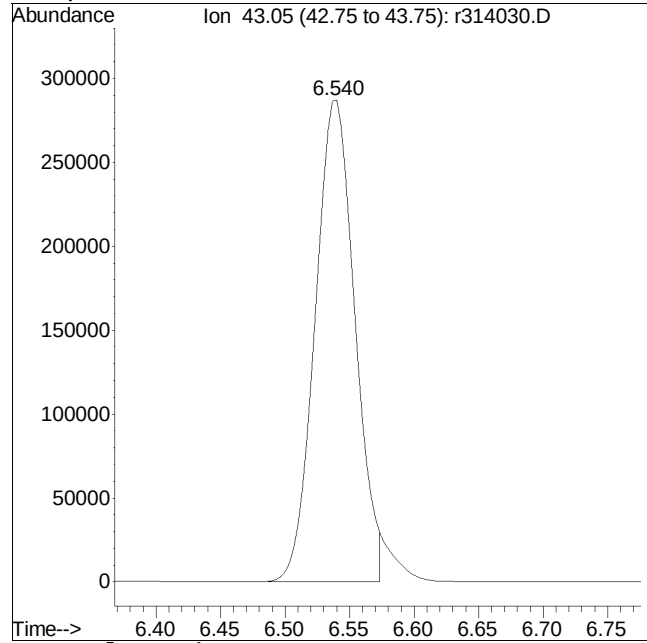
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TFS3_210219.M
Data File : r314030.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:0: 5 Instrument :
Sample : IT015-LLSTD020 Quant Date : 2/20/2021 7:57 am

Compound #24: pentane



Original Peak Response = 707991

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

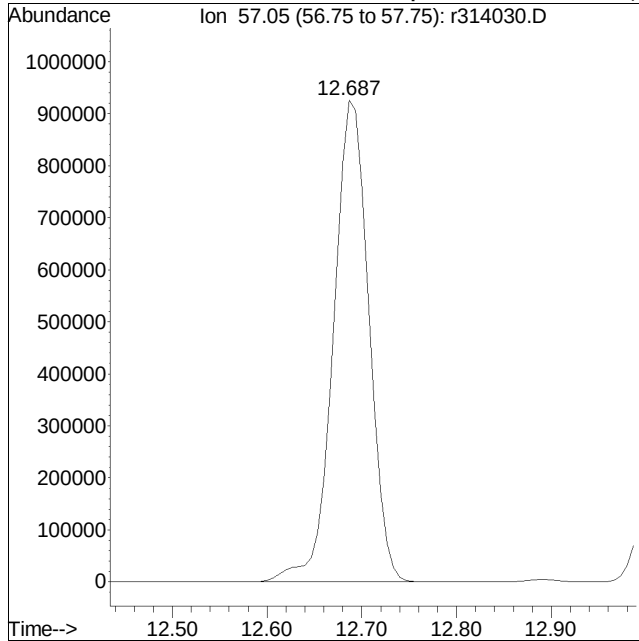


Manual Peak Response = 615767 M6

Manual Integration/Negative Proof Report

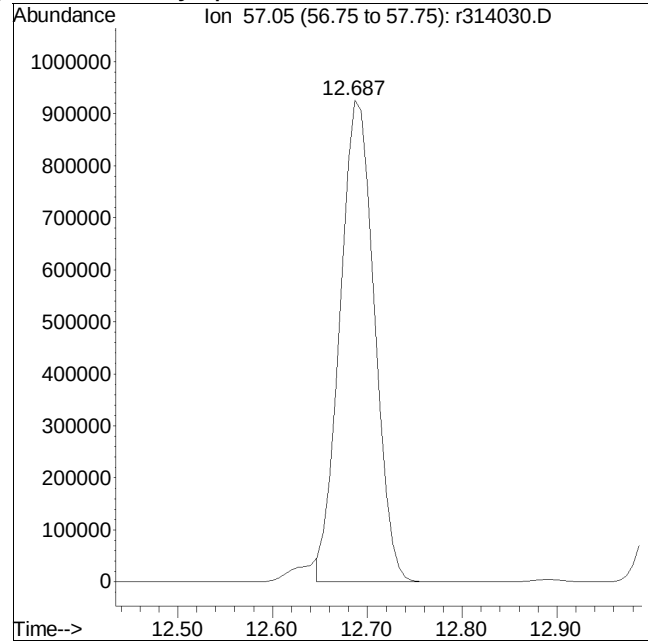
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TFS3_210219.M
Data File : r314030.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:0: 5 Instrument :
Sample : IT015-LLSTD020 Quant Date : 2/20/2021 7:57 am

Compound #60: 2,2,4-trimethylpentane



Original Peak Response = 2406377

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



Manual Peak Response = 2331170 M6

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314031.D
 Acq On : 19 Feb 2021 11:25 PM
 Operator : AIRPIAN03:AR
 Sample : IT015LLSTD050
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:58:13 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 07:56:22 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default - All compounds listed

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

Internal Standards						
1) bromochloromethane	9.583	49	380505	10.000	ppbV	0.00
Standard Area = 367527			Recovery =	103.53%		
43) 1,4-difluorobenzene	11.847	114	1010877	10.000	ppbV	0.00
Standard Area = 999261			Recovery =	101.16%		
67) chlorobenzene-D5	16.575	54	154669	10.000	ppbV	0.00
Standard Area = 156386			Recovery =	98.90%		
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	10.467	65	214714	9.668	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	96.68%		
69) toluene-D8	14.683	98	971652	10.239	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	102.39%		
90) bromofluorobenzene	17.942	95	664588	10.327	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	103.27%		
Target Compounds						
					Qvalue	
2) chlorodifluoromethane	3.892	51	1205159	44.979	ppbV	99
3) propylene	3.922	41	803467M6	45.321	ppbV	
4) propane	3.952	29	986423	44.453	ppbV	99
5) dichlorodifluoromethane	4.006	85	1159791	41.360	ppbV	99
6) chloromethane	4.186	50	687130	45.232	ppbV	100
7) Freon-114	4.312	85	1511014	39.521	ppbV	99
8) methanol	4.384	31	1588086	211.715	ppbV	99
9) vinyl chloride	4.444	62	782006	44.498	ppbV	100
10) 1,3-butadiene	4.606	54	734069	44.296	ppbV	100
11) butane	4.672	43	1252203	44.787	ppbV	99
12) acetaldehyde	4.324	29	1751680	195.431	ppbV	94
13) bromomethane	4.924	94	570892	43.284	ppbV	99
14) chloroethane	5.146	64	426185	45.440	ppbV	100
15) ethanol	5.320	31	3284144	203.900	ppbV	96
16) dichlorofluoromethane	5.287	67	1357310	41.815	ppbV	99
17) vinyl bromide	5.573	106	616132	41.988	ppbV	98
18) acrolein	5.723	56	391393	45.964	ppbV	98
19) acetone	5.877	43	5153119	200.020	ppbV	98
20) acetonitrile	5.567	41	703925	44.284	ppbV	99
21) trichlorofluoromethane	6.090	101	904137	41.611	ppbV	99
22) isopropyl alcohol	6.213	45	3551760	107.541	ppbV	99
23) acrylonitrile	6.463	53	708716	45.877	ppbV	99
24) pentane	6.537	43	1440792M6	45.537	ppbV	

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314031.D
 Acq On : 19 Feb 2021 11:25 PM
 Operator : AIRPIAN03:AR
 Sample : IT015LLSTD050
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:58:13 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 07:56:22 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	6.573	31	1501886	46.742	ppbV	99
26) 1,1-dichloroethene	6.860	61	949462	42.675	ppbV	97
27) tertiary butyl alcohol	6.938	59	1436803	43.944	ppbV	100
28) methylene chloride	7.028	49	877989	44.295	ppbV	99
29) 3-chloropropene	7.166	41	1166185	44.149	ppbV	99
30) carbon disulfide	7.322	76	2383709	41.978	ppbV	100
31) Freon 113	7.358	101	1138346	41.218	ppbV	100
32) trans-1,2-dichloroethene	8.158	61	1240881	40.482	ppbV	97
33) 1,1-dichloroethane	8.392	63	1559743	44.413	ppbV	99
34) MTBE	8.475	73	2567654	43.034	ppbV	99
35) vinyl acetate	8.608	43	2341803	46.663	ppbV	99
36) 2-butanone	8.875	43	2141039	44.369	ppbV	100
37) cis-1,2-dichloroethene	9.392	61	1135727	43.857	ppbV	99
38) Ethyl Acetate	9.692	61	364751	43.906	ppbV	84
39) chloroform	9.742	83	1411401	41.915	ppbV	99
40) Tetrahydrofuran	10.175	42	1360560	45.289	ppbV	100
41) 2,2-dichloropropane	9.758	77	1235943	42.381	ppbV	99
42) 1,2-dichloroethane	10.592	62	819897	43.122	ppbV	97
44) hexane	9.650	57	1669033	41.798	ppbV	93
45) diisopropyl ether	9.658	87	925036	44.548	ppbV	91
46) tert-butyl ethyl ether	10.283	59	2835794	44.048	ppbV	97
48) 1,1,1-trichloroethane	10.875	97	1243925	47.748	ppbV	99
49) 1,1-dichloropropene	11.247	75	1377972	45.209	ppbV	98
50) benzene	11.407	78	3255157	44.616	ppbV	100
51) thiophene	11.553	84	1856490	46.131	ppbV	99
52) carbon tetrachloride	11.580	117	1074657	44.196	ppbV	99
53) cyclohexane	11.727	56	1882708	44.529	ppbV	98
54) tert-amyl methyl ether	12.113	73	2925905	45.099	ppbV	99
55) dibromomethane	12.333	93	745484	42.889	ppbV	97
56) 1,2-dichloropropane	12.367	63	1053144	44.928	ppbV	99
57) bromodichloromethane	12.593	83	1619463	43.779	ppbV	100
58) 1,4-dioxane	12.627	88	732997	43.982	ppbV	97
59) trichloroethene	12.647	130	1124870	43.361	ppbV	99
60) 2,2,4-trimethylpentane	12.693	57	5167479M6	41.532	ppbV	
61) methyl methacrylate	12.893	41	1767740	46.484	ppbV	100
62) heptane	13.013	43	2221752	44.981	ppbV	98
63) cis-1,3-dichloropropene	13.658	75	1658975	45.743	ppbV	99
64) 4-methyl-2-pentanone	13.692	43	2595500	45.080	ppbV	100
65) trans-1,3-dichloropropene	14.283	75	1536488	46.002	ppbV	99
66) 1,1,2-trichloroethane	14.483	97	1055166	44.774	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314031.D
 Acq On : 19 Feb 2021 11:25 PM
 Operator : AIRPIAN03:AR
 Sample : IT015LLSTD050
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:58:13 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 07:56:22 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	14.792	91	3176908	42.702	ppbV	99
70) 2-methylthiophene	14.867	97	2574022	44.818	ppbV	98
71) 1,3-dichloropropane	14.825	76	1748445	45.952	ppbV	99
72) 2-hexanone	15.075	43	2389983	45.810	ppbV	98
73) 3-methylthiophene	15.058	97	2597969	44.473	ppbV	99
74) dibromochloromethane	15.242	129	1366156	43.948	ppbV	98
75) 1,2-dibromoethane	15.492	107	1543600	44.452	ppbV	99
76) butyl acetate	15.733	73	592244	47.945	ppbV	99
77) octane	15.825	85	1482741	45.405	ppbV	97
78) tetrachloroethene	15.958	166	1434347	43.889	ppbV	99
79) 1,1,1,2-tetrachloroethane	16.600	131	1031707	43.441	ppbV	99
80) chlorobenzene	16.617	112	2634195	42.892	ppbV	99
81) ethylbenzene	16.967	91	3881473	42.318	ppbV	95
82) 2-ethylthiophene	17.000	97	2825949	44.564	ppbV	96
83) m+p-xylene	17.133	91	5945783	80.070	ppbV	96
84) bromoform	17.192	173	1378068	44.233	ppbV	98
85) styrene	17.450	104	2986540	44.632	ppbV	99
86) 1,1,2,2-tetrachloroethane	17.542	83	2123857	39.932	ppbV	100
87) o-xylene	17.542	91	2845406	38.347	ppbV	95
88) 1,2,3-trichloropropane	17.658	75	2000571	45.247	ppbV	100
89) nonane	17.742	43	2950723	44.485	ppbV	93
91) isopropylbenzene	18.050	105	4322395	41.238	ppbV	94
92) bromobenzene	18.133	77	2586172	44.283	ppbV	99
93) 2-chlorotoluene	18.458	126	1242821	43.701	ppbV	100
94) n-propylbenzene	18.483	120	1476367	43.891	ppbV	77
95) 4-chlorotoluene	18.517	126	1226256	45.497	ppbV	85
96) 4-ethyl toluene	18.600	105	4742262	39.573	ppbV	95
97) 1,3,5-trimethylbenzene	18.667	105	3829200	40.232	ppbV	95
98) tert-butylbenzene	18.992	119	3322642	36.113	ppbV	95
99) 1,2,4-trimethylbenzene	19.000	105	3202395	34.783	ppbV	97
100) decane	19.075	57	3010765	39.583	ppbV	91
101) Benzyl Chloride	19.108	91	2947375	43.156	ppbV	94
102) 1,3-dichlorobenzene	19.125	146	2371677	41.662	ppbV	98
103) 1,4-dichlorobenzene	19.175	146	2351526	41.489	ppbV	98
104) sec-butylbenzene	19.208	105	5095875	38.120	ppbV	93
105) 1,2,3-trimethylbenzene	19.342	105	3255996	34.429	ppbV	96
106) p-isopropyltoluene	19.333	119	3897336	34.851	ppbV	96
107) 1,2-dichlorobenzene	19.450	146	2310591	42.717	ppbV	98
108) n-butylbenzene	19.667	91	3745210	39.115	ppbV	92
109) indan	19.500	117	3828631	39.093	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314031.D
 Acq On : 19 Feb 2021 11:25 PM
 Operator : AIRPIAN03:AR
 Sample : IT015LLSTD050
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:58:13 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 07:56:22 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default - All compounds listed

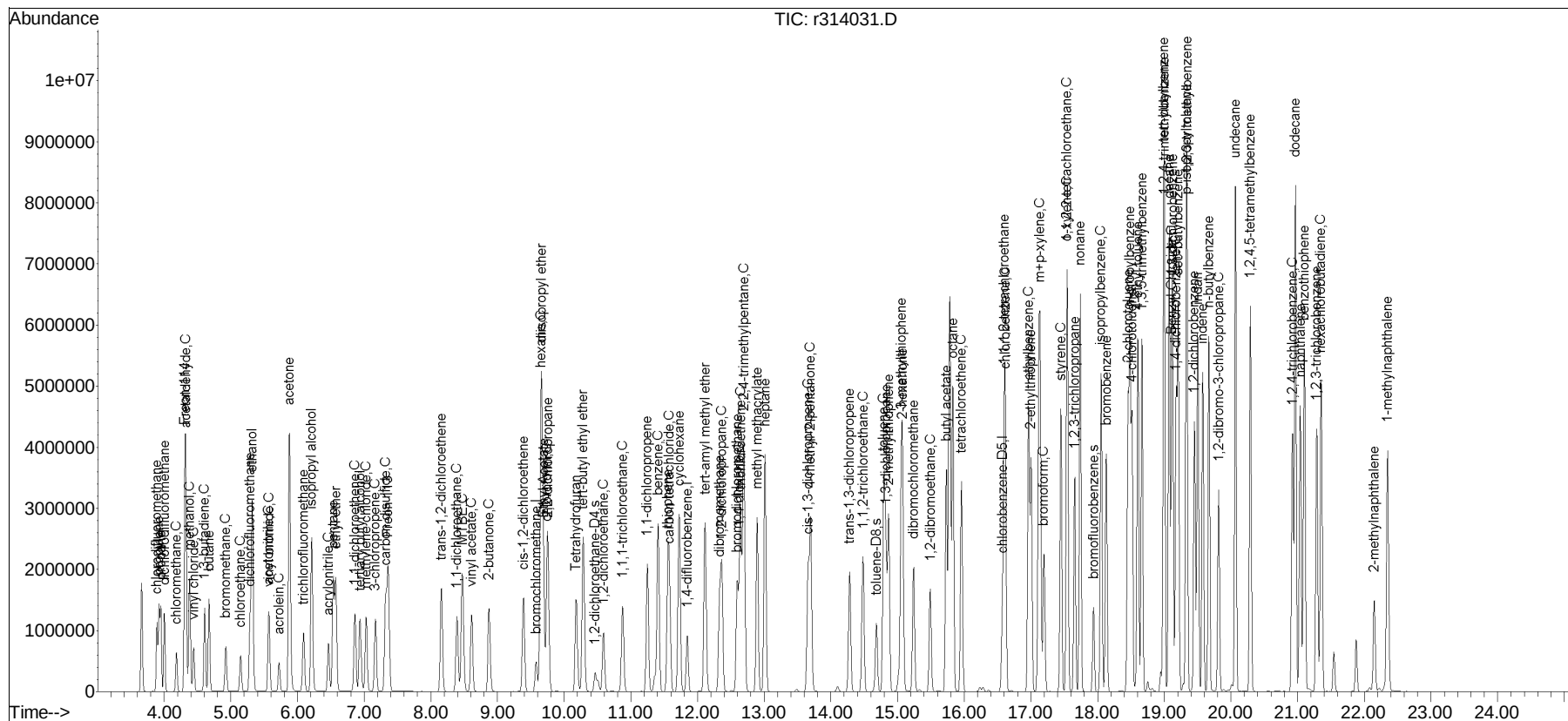
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	19.575	115	3298860	40.944	ppbV	99
111) 1,2-dibromo-3-chloropr...	19.817	75	1066404	43.897	ppbV	99
112) undecane	20.067	57	3235024	37.348	ppbV #	93
113) 1,2,4,5-tetramethylben...	20.292	119	4127673	39.779	ppbV	98
114) dodecane	20.967	57	3252245	34.718	ppbV	94
115) 1,2,4-trichlorobenzene	20.925	180	1908789	45.922	ppbV	99
116) naphthalene	21.042	128	4702629	42.883	ppbV	98
117) 1,2,3-trichlorobenzene	21.283	180	2016888	44.165	ppbV	99
118) benzothiophene	21.100	134	5492182	45.704	ppbV	98
119) hexachlorobutadiene	21.350	225	1600976	36.929	ppbV	96
120) 2-methylnaphthalene	22.150	142	1053975	78.161	ppbV	100
121) 1-methylnaphthalene	22.350	142	2842575	68.462	ppbV	99

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

Sub List : Default - All compounds listed21\02\0219T_I\r314029.D

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
Data File : r314031.D
Acq On : 19 Feb 2021 11:25 PM
Operator : AIRPIANO3:AR
Sample : IT015LLSTD050
Misc : WG1466756
ALS Vial : 0 Sample Multiplier: 1

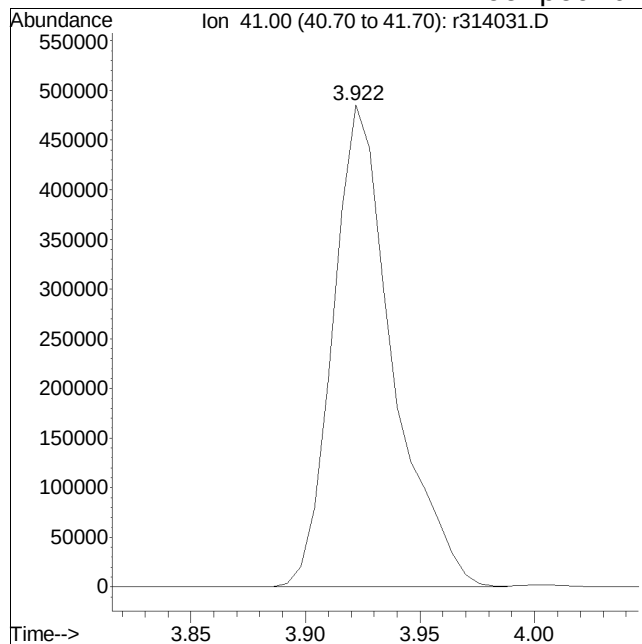
Quant Time: Feb 20 12:58:13 2021
Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Sat Feb 20 07:56:22 2021
Response via : Initial Calibration



Manual Integration/Negative Proof Report

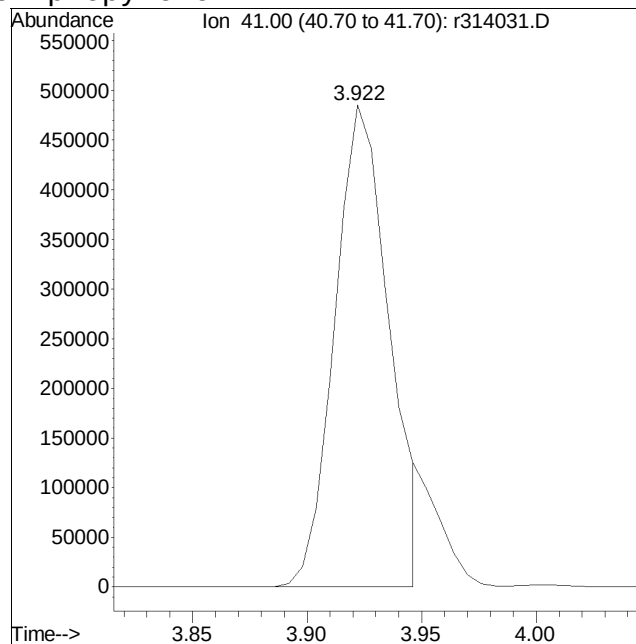
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TFS3_210219.M
Data File : r314031.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:1: 5 Instrument :
Sample : IT015LLSTD050 Quant Date : 2/20/2021 7:57 am

Compound #3: propylene



Original Peak Response = 882263

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

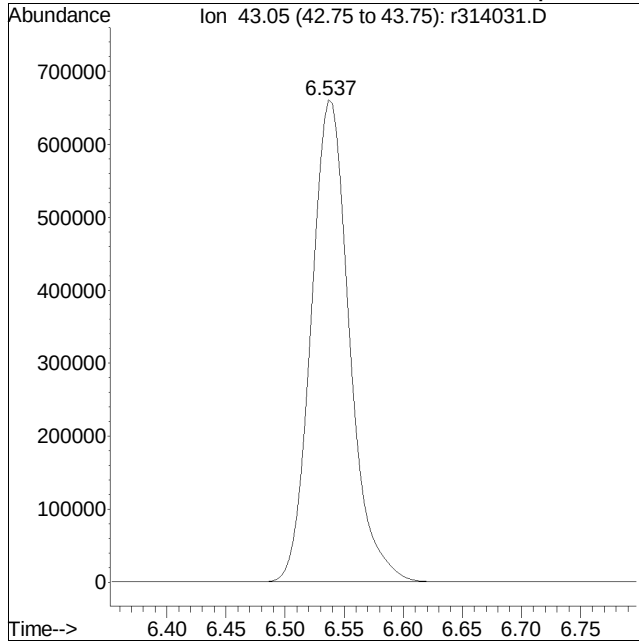


Manual Peak Response = 803467 M6

Manual Integration/Negative Proof Report

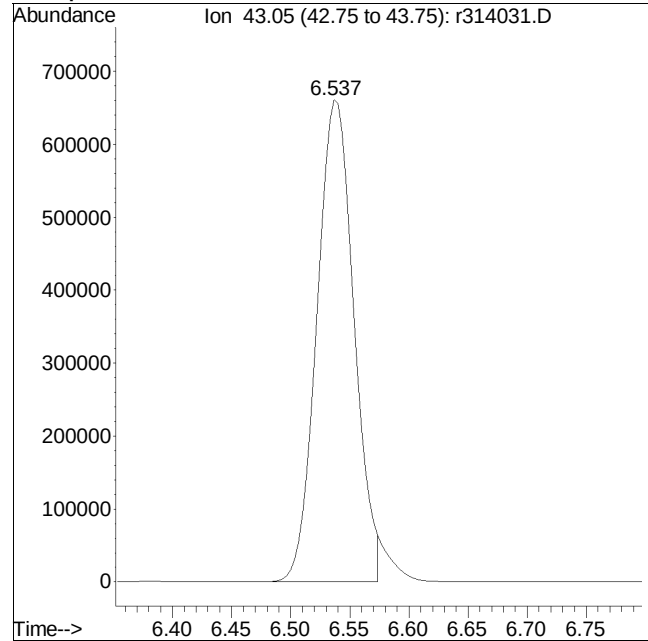
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TFS3_210219.M
Data File : r314031.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:1: 5 Instrument :
Sample : IT015LLSTD050 Quant Date : 2/20/2021 7:57 am

Compound #24: pentane



Original Peak Response = 1680424

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

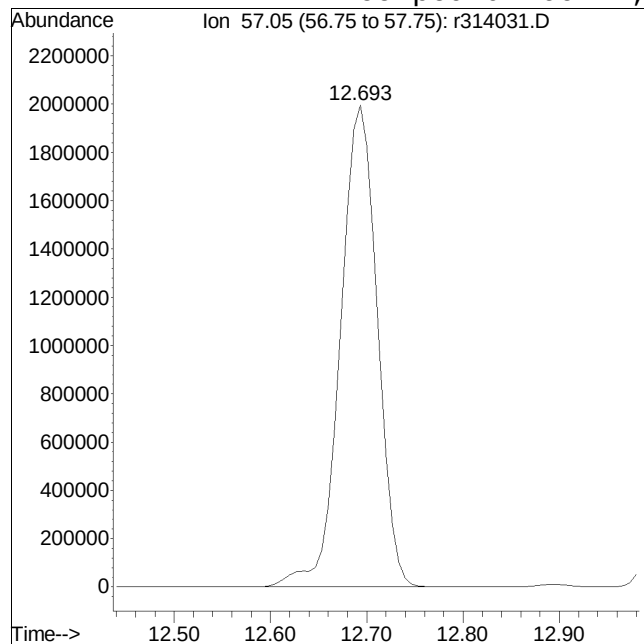


Manual Peak Response = 1440792 M6

Manual Integration/Negative Proof Report

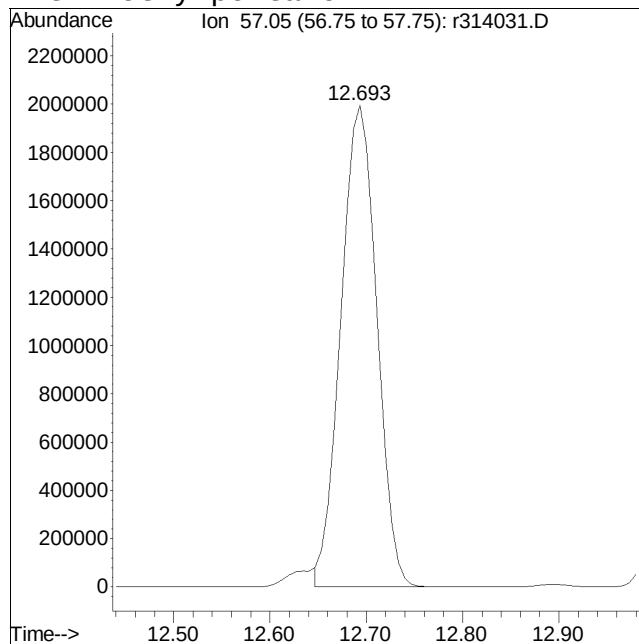
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TFS3_210219.M
Data File : r314031.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:1: 5 Instrument :
Sample : IT015LLSTD050 Quant Date : 2/20/2021 7:57 am

Compound #60: 2,2,4-trimethylpentane



Original Peak Response = 5321136

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



Manual Peak Response = 5167479 M6

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314032.D
 Acq On : 20 Feb 2021 12:07 AM
 Operator : AIRPIAN03:AR
 Sample : IT015-LLSTD100
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:54:48 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 07:56:22 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default - All compounds listed

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

Internal Standards						
1) bromochloromethane	9.583	49	399127	10.000	ppbV	0.00
Standard Area = 367527			Recovery =	108.60%		
43) 1,4-difluorobenzene	11.847	114	1017294	10.000	ppbV	0.00
Standard Area = 999261			Recovery =	101.80%		
67) chlorobenzene-D5	16.575	54	153575	10.000	ppbV	0.00
Standard Area = 156386			Recovery =	98.20%		
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	10.467	65	209477	9.373	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	93.73%		
69) toluene-D8	14.683	98	966089	10.253	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	102.53%		
90) bromofluorobenzene	17.942	95	676336	10.585	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	105.85%		
Target Compounds						
					Qvalue	
2) chlorodifluoromethane	3.898	51	2295198	81.665	ppbV	99
3) propylene	3.928	41	1492361M6	80.252	ppbV	
4) propane	3.952	29	1850880	79.519	ppbV	96
5) dichlorodifluoromethane	4.006	85	2053534	69.815	ppbV	98
6) chloromethane	4.186	50	1318300	82.732	ppbV	100
7) Freon-114	4.312	85	2471572	61.628	ppbV	98
8) methanol	4.390	31	2953562	375.382	ppbV	98
9) vinyl chloride	4.444	62	1476636	80.105	ppbV	100
10) 1,3-butadiene	4.612	54	1388451	79.874	ppbV	100
11) butane	4.678	43	2348415	80.075	ppbV	99
12) acetaldehyde	4.330	29	2913602	309.897	ppbV	92
13) bromomethane	4.930	94	1043880	75.453	ppbV	99
14) chloroethane	5.152	64	887080	90.168	ppbV	100
15) ethanol	5.337	31	5722676	338.723	ppbV	93
16) dichlorofluoromethane	5.293	67	2489184	73.108	ppbV	98
17) vinyl bromide	5.577	106	1106363	71.879	ppbV	100
18) acrolein	5.727	56	768332	86.021	ppbV	98
19) acetone	5.887	43	8707856	322.229	ppbV	96
20) acetonitrile	5.573	41	1320917	79.222	ppbV	99
21) trichlorofluoromethane	6.093	101	1638130	71.874	ppbV	99
22) isopropyl alcohol	6.227	45	6448788	186.148	ppbV	99
23) acrylonitrile	6.470	53	1372877	84.723	ppbV	99
24) pentane	6.540	43	2699329M6	81.333	ppbV	

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314032.D
 Acq On : 20 Feb 2021 12:07 AM
 Operator : AIRPIAN03:AR
 Sample : IT015-LLSTD100
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:54:48 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 07:56:22 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	6.577	31	2898735	86.005	ppbV	98
26) 1,1-dichloroethene	6.866	61	1743476	74.707	ppbV	97
27) tertiary butyl alcohol	6.944	59	2699553	78.712	ppbV	99
28) methylene chloride	7.034	49	1669467	80.296	ppbV	99
29) 3-chloropropene	7.172	41	2227282	80.386	ppbV	98
30) carbon disulfide	7.322	76	4261871	71.552	ppbV	99
31) Freon 113	7.364	101	1978560	68.299	ppbV	99
32) trans-1,2-dichloroethene	8.158	61	2393792	74.450	ppbV	96
33) 1,1-dichloroethane	8.400	63	2906602	78.903	ppbV	99
34) MTBE	8.475	73	4731223	75.595	ppbV	99
35) vinyl acetate	8.617	43	4513446	85.739	ppbV	98
36) 2-butanone	8.875	43	4100922	81.018	ppbV	99
37) cis-1,2-dichloroethene	9.392	61	2099768	77.300	ppbV	99
38) Ethyl Acetate	9.692	61	693330	79.564	ppbV	90
39) chloroform	9.750	83	2501292	70.815	ppbV	100
40) Tetrahydrofuran	10.183	42	2634901	83.616	ppbV	99
41) 2,2-dichloropropane	9.758	77	2192082	71.661	ppbV	99
42) 1,2-dichloroethane	10.592	62	1499215	75.172	ppbV	95
44) hexane	9.658	57	2878959	71.644	ppbV	95
45) diisopropyl ether	9.667	87	1687974	80.776	ppbV	86
46) tert-butyl ethyl ether	10.292	59	5101623	78.742	ppbV	95
48) 1,1,1-trichloroethane	10.883	97	2232813	85.166	ppbV	98
49) 1,1-dichloropropene	11.253	75	2568279	83.730	ppbV	97
50) benzene	11.413	78	5974269	81.368	ppbV	98
51) thiophene	11.560	84	3417391	84.381	ppbV	97
52) carbon tetrachloride	11.587	117	1904302	77.821	ppbV	100
53) cyclohexane	11.727	56	3471099	81.580	ppbV	95
54) tert-amyl methyl ether	12.113	73	5371762	82.276	ppbV	98
55) dibromomethane	12.333	93	1312768	75.049	ppbV	94
56) 1,2-dichloropropane	12.367	63	1907032	80.842	ppbV	98
57) bromodichloromethane	12.600	83	2892483	77.700	ppbV	99
58) 1,4-dioxane	12.633	88	1303657	77.731	ppbV	96
59) trichloroethene	12.647	130	2003423	76.741	ppbV	96
60) 2,2,4-trimethylpentane	12.700	57	8894592M6	71.036	ppbV	
61) methyl methacrylate	12.900	41	3288171	85.919	ppbV	100
62) heptane	13.020	43	4108558	82.655	ppbV	96
63) cis-1,3-dichloropropene	13.658	75	3105499	85.087	ppbV	99
64) 4-methyl-2-pentanone	13.700	43	4834174	83.432	ppbV	99
65) trans-1,3-dichloropropene	14.283	75	2874298	85.512	ppbV	99
66) 1,1,2-trichloroethane	14.483	97	1903962	80.281	ppbV	97

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314032.D
 Acq On : 20 Feb 2021 12:07 AM
 Operator : AIRPIAN03:AR
 Sample : IT015-LLSTD100
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:54:48 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 07:56:22 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	14.800	91	5464639	73.976	ppbV	99
70) 2-methylthiophene	14.867	97	4542259	79.652	ppbV	98
71) 1,3-dichloropropane	14.833	76	3189240	84.416	ppbV	99
72) 2-hexanone	15.083	43	4244022	81.926	ppbV	97
73) 3-methylthiophene	15.058	97	4390603	75.695	ppbV	99
74) dibromochloromethane	15.242	129	2352214	76.208	ppbV	96
75) 1,2-dibromoethane	15.492	107	2683034	77.816	ppbV	99
76) butyl acetate	15.733	73	1103347	89.958	ppbV	93
77) octane	15.833	85	2647592	81.652	ppbV	95
78) tetrachloroethene	15.958	166	2449452	75.483	ppbV	98
79) 1,1,1,2-tetrachloroethane	16.600	131	1711338	72.571	ppbV	97
80) chlorobenzene	16.625	112	4255531	69.785	ppbV	98
81) ethylbenzene	16.967	91	6529502	71.696	ppbV	92
82) 2-ethylthiophene	17.008	97	4809852	76.390	ppbV	94
83) m+p-xylene	17.133	91	9506862	128.938	ppbV	99
84) bromoform	17.200	173	2305736	74.537	ppbV	97
85) styrene	17.450	104	5039218	75.844	ppbV	98
86) 1,1,2,2-tetrachloroethane	17.550	83	3276912	62.050	ppbV	99
87) o-xylene	17.550	91	4435571	60.204	ppbV	98
88) 1,2,3-trichloropropane	17.658	75	3552214	80.914	ppbV	98
89) nonane	17.742	43	4983528	75.667	ppbV	92
91) isopropylbenzene	18.058	105	6883774	66.142	ppbV #	88
92) bromobenzene	18.133	77	4371703	75.391	ppbV	95
93) 2-chlorotoluene	18.458	126	2223269	78.733	ppbV	80
94) n-propylbenzene	18.483	120	2460025	73.656	ppbV	72
95) 4-chlorotoluene	18.517	126	2096573	78.342	ppbV	78
96) 4-ethyl toluene	18.608	105	7279853	61.181	ppbV	90
97) 1,3,5-trimethylbenzene	18.667	105	5926744	62.713	ppbV	89
98) tert-butylbenzene	19.000	119	4729541	51.771	ppbV	92
99) 1,2,4-trimethylbenzene	19.000	105	4415774	48.303	ppbV	92
100) decane	19.075	57	4827463	63.919	ppbV	95
101) Benzyl Chloride	19.117	91	4686337	69.107	ppbV	91
102) 1,3-dichlorobenzene	19.125	146	3540476	62.636	ppbV	98
103) 1,4-dichlorobenzene	19.183	146	3734328	66.356	ppbV	98
104) sec-butylbenzene	19.208	105	7497237	56.483	ppbV #	87
105) 1,2,3-trimethylbenzene	19.342	105	4440032	47.284	ppbV	92
106) p-isopropyltoluene	19.333	119	5316238	47.878	ppbV	90
107) 1,2-dichlorobenzene	19.458	146	3755828	69.931	ppbV	99
108) n-butylbenzene	19.675	91	5970897	62.805	ppbV	91
109) indan	19.508	117	5935295	61.036	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314032.D
 Acq On : 20 Feb 2021 12:07 AM
 Operator : AIRPIAN03:AR
 Sample : IT015-LLSTD100
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:54:48 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 07:56:22 2021
 Response via : Initial Calibration

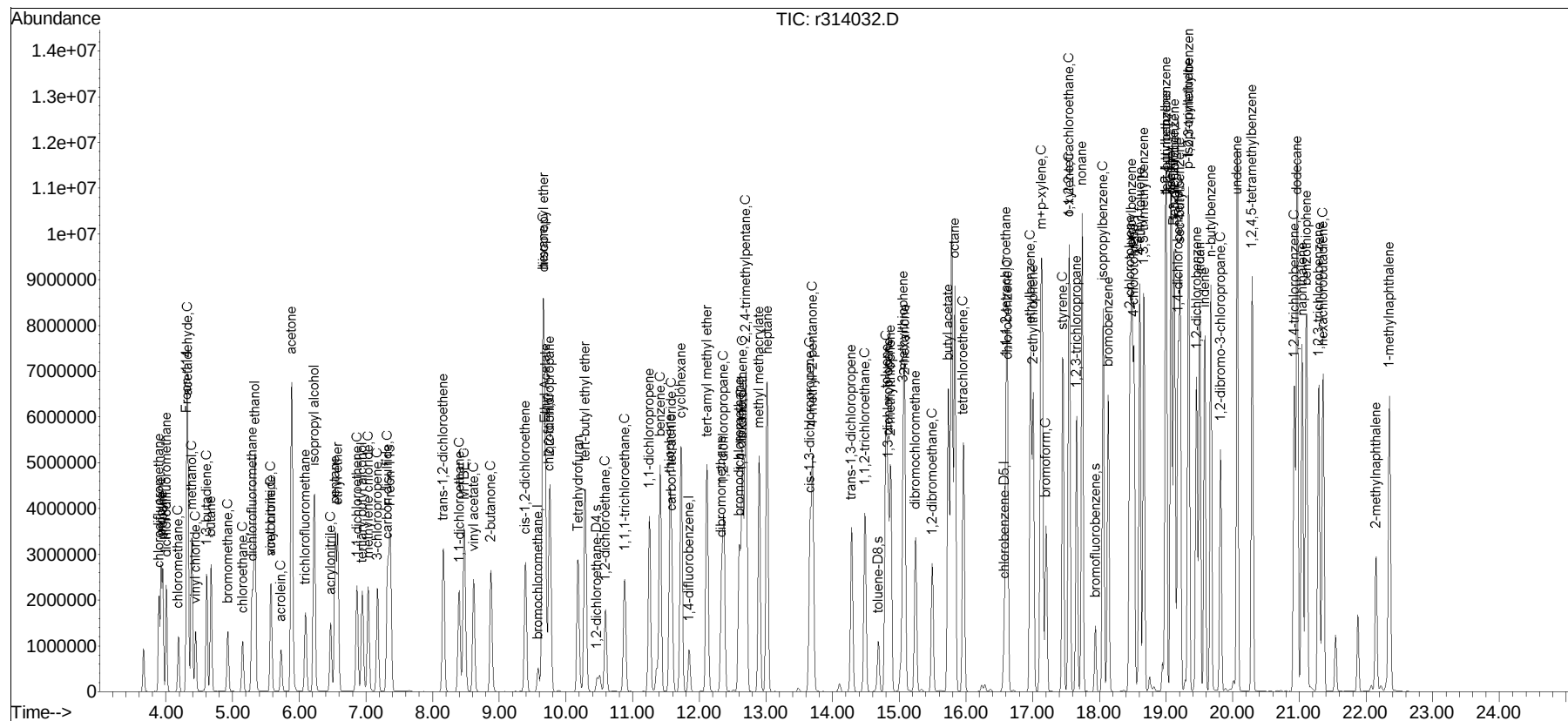
CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110)	indene	19.583	115	5196175	64.952	ppbV	98
111)	1,2-dibromo-3-chloropr...	19.817	75	1777519	73.691	ppbV	95
112)	undecane	20.067	57	5100231	59.301	ppbV #	96
113)	1,2,4,5-tetramethylben...	20.292	119	6345995	61.593	ppbV	94
114)	dodecane	20.967	57	5093061	54.757	ppbV	98
115)	1,2,4-trichlorobenzene	20.925	180	3258306	78.948	ppbV	99
116)	naphthalene	21.042	128	7864349	72.225	ppbV	99
117)	1,2,3-trichlorobenzene	21.292	180	3396070	74.895	ppbV	99
118)	benzothiophene	21.108	134	8773119	73.527	ppbV	96
119)	hexachlorobutadiene	21.358	225	2383998	55.382	ppbV	98
120)	2-methylnaphthalene	22.150	142	2108537	157.480	ppbV	99
121)	1-methylnaphthalene	22.350	142	4877500	118.310	ppbV	97

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

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Data Path   : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
Data File  : r314032.D
Acq On     : 20 Feb 2021  12:07 AM
Operator   : AIRPIANO3:AR
Sample     : IT015-LLSTD100
Misc       : WG1466756
ALS Vial   : 0      Sample Multiplier: 1
```

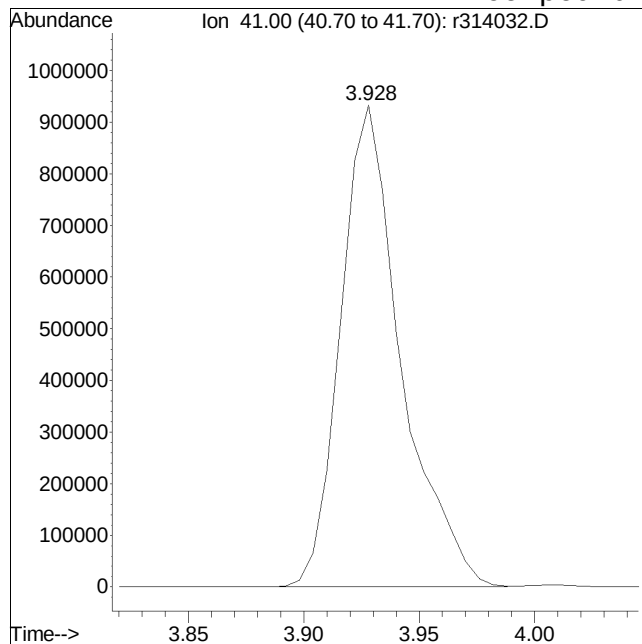
Quant Time: Feb 20 12:54:48 2021
Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Feb 20 07:56:22 2021
Response via : Initial Calibration



Manual Integration/Negative Proof Report

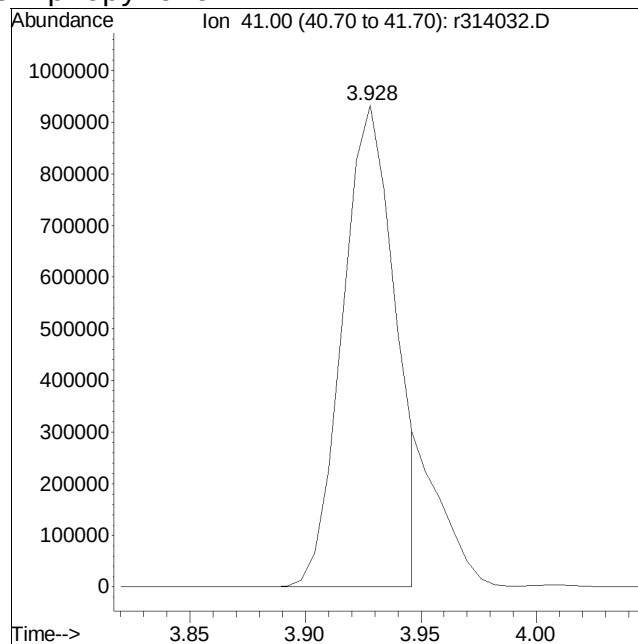
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TFS3_210219.M
Data File : r314032.D Operator : AIRPIAN03:AR
Date Inj'd : 2/20/2020 0:2: 7 Instrument :
Sample : IT015-LLSTD100 Quant Date : 2/20/2021 7:57 am

Compound #3: propylene



Original Peak Response = 1699276

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



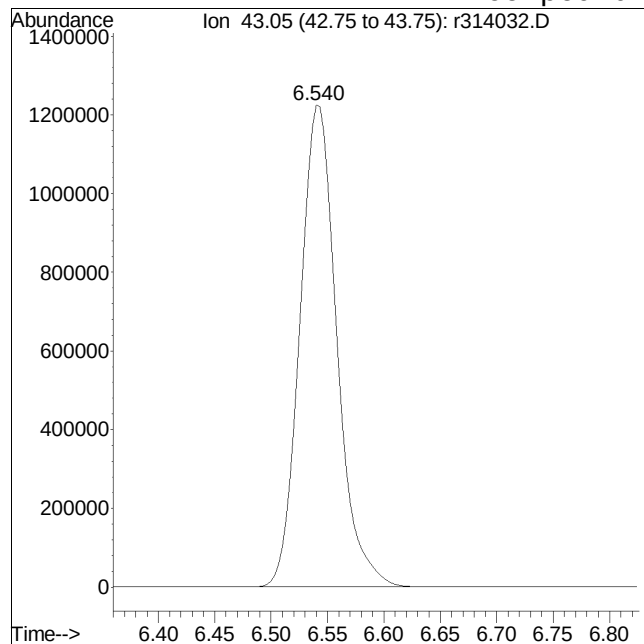
Manual Peak Response = 1492361 M6

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

Manual Integration/Negative Proof Report

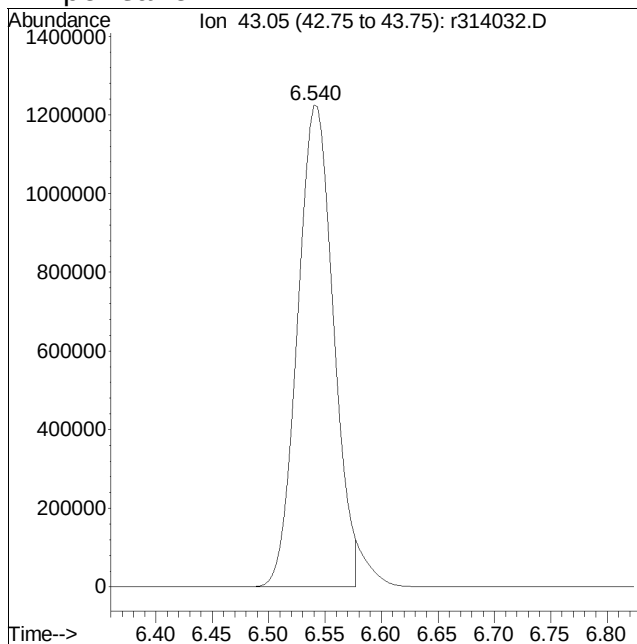
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TFS3_210219.M
 Data File : r314032.D Operator : AIRPIAN03:AR
 Date Inj'd : 2/20/2020 0:2: 7 Instrument :
 Sample : IT015-LLSTD100 Quant Date : 2/20/2021 7:57 am

Compound #24: pentane



Original Peak Response = 3303511

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

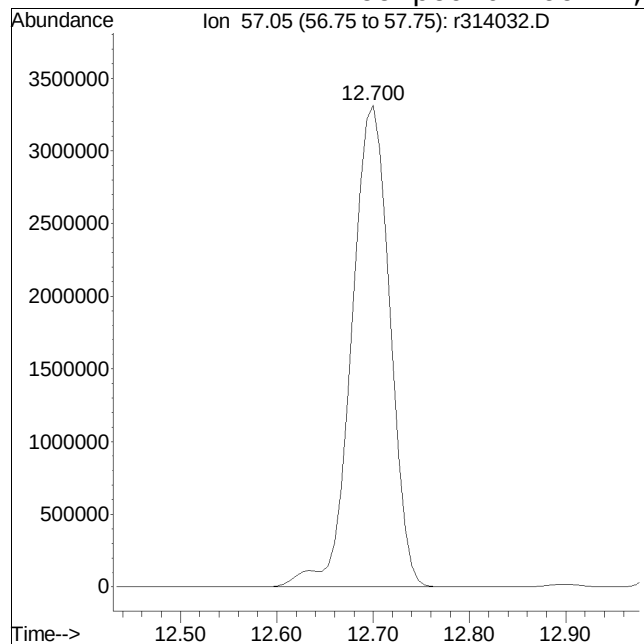


Manual Peak Response = 2699329 M6

Manual Integration/Negative Proof Report

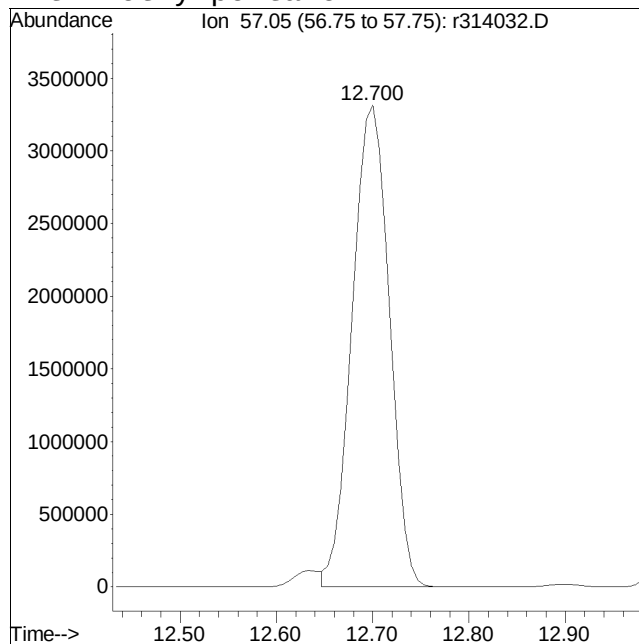
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TFS3_210219.M
Data File : r314032.D Operator : AIRPIAN03:AR
Date Inj'd : 2/20/2020 0:2: 7 Instrument :
Sample : IT015-LLSTD100 Quant Date : 2/20/2021 7:57 am

Compound #60: 2,2,4-trimethylpentane



Original Peak Response = 9128144

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



Manual Peak Response = 8894592 M6

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314035.D
 Acq On : 20 Feb 2021 11:29 AM
 Operator : AIRPIAN03:AR
 Sample : CT015-LLSTD010
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:01:24 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 12:59:05 2021
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	bromochloromethane	1.000	1.000	0.0	104	0.00
2	chlorodifluoromethane	0.726	0.545	24.9	81	0.00
3	propylene	0.470	0.513	-9.1	115	0.00
4	propane	0.589	0.476	19.2	85	0.00
5	dichlorodifluoromethane	0.744	0.680	8.6	96	0.00
6 C	chloromethane	0.412	0.409	0.7	107	0.00
7	Freon-114	1.059	0.994	6.1	103	0.00
8 C	methanol	0.193	0.168	13.0	89	0.00
9 C	vinyl chloride	0.472	0.461	2.3	104	0.00
10 C	1,3-butadiene	0.442	0.448	-1.4	107	0.00
11	butane	0.769	0.606	21.2	86	0.00
13 C	bromomethane	0.353	0.340	3.7	102	0.00
14 C	chloroethane	0.255	0.249	2.4	105	0.00
15	ethanol	0.394	0.312	20.8	77	0.00
16	dichlorofluoromethane	0.896	0.659	26.5	81	0.00
17 C	vinyl bromide	0.386	0.368	4.7	100	0.00
18 C	acrolein	0.231	0.179	22.5	83	0.00
19	acetone	0.693	0.499	28.0	77	0.00
20 C	acetonitrile	0.434	0.353	18.7	88	0.00
21	trichlorofluoromethane	0.577	0.515	10.7	94	0.00
22	isopropyl alcohol	0.890	0.731	17.9	88	0.00
23 C	acrylonitrile	0.420	0.337	19.8	87	0.00
24	pentane	0.883	0.701	20.6	88	0.00
25	ethyl ether	0.827	0.631	23.7	78	0.00
26 C	1,1-dichloroethene	0.590	0.562	4.7	100	0.00
27	tertiary butyl alcohol	0.858	0.664	22.6	81	0.00
28 C	methylene chloride	0.525	0.531	-1.1	106	0.00
29 C	3-chloropropene	0.712	0.737	-3.5	111	0.00
30 C	carbon disulfide	1.487	1.382	7.1	97	0.00
31	Freon 113	0.727	0.719	1.1	103	0.00
32	trans-1,2-dichloroethene	0.787	0.677	14.0	88	0.00
33 C	1,1-dichloroethane	0.935	0.926	1.0	105	0.00
34 C	MTBE	1.560	1.545	1.0	103	0.00
35 C	vinyl acetate	1.302	1.276	2.0	101	0.00
36 C	2-butanone	1.260	1.319	-4.7	108	0.00
37	cis-1,2-dichloroethene	0.686	0.688	-0.3	105	0.00
38	Ethyl Acetate	0.212	0.218	-2.8	104	0.00
39 C	chloroform	0.885	0.878	0.8	103	0.00
40	Tetrahydrofuran	0.800	0.816	-2.0	108	0.00

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314035.D
 Acq On : 20 Feb 2021 11:29 AM
 Operator : AIRPIAN03:AR
 Sample : CT015-LLSTD010
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:01:24 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 12:59:05 2021
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	2,2-dichloropropane	0.765	0.568	25.8	77	0.00
42 C	1,2-dichloroethane	0.505	0.459	9.1	96	0.00
43 I	1,4-difluorobenzene	1.000	1.000	0.0	102	0.00
44 C	hexane	0.392	0.407	-3.8	105	0.00
45	diisopropyl ether	0.209	0.168	19.6	83	0.00
46	tert-butyl ethyl ether	0.639	0.511	20.0	82	0.00
47 s	1,2-dichloroethane-D4	0.219	0.204	6.8	95	0.00
48 C	1,1,1-trichloroethane	0.264	0.251	4.9	99	0.00
49	1,1-dichloropropene	0.306	0.257	16.0	87	0.00
50 C	benzene	0.750	0.743	0.9	105	0.00
52 C	carbon tetrachloride	0.237	0.232	2.1	98	0.00
53	cyclohexane	0.419	0.440	-5.0	107	0.00
54	tert-amyl methyl ether	0.651	0.536	17.7	85	0.00
55	dibromomethane	0.175	0.140	20.0	83	0.00
56 C	1,2-dichloropropane	0.234	0.248	-6.0	109	0.00
57	bromodichloromethane	0.363	0.366	-0.8	102	0.00
58 C	1,4-dioxane	0.164	0.174	-6.1	107	0.00
59 C	trichloroethene	0.259	0.264	-1.9	105	0.00
60 C	2,2,4-trimethylpentane	1.217	1.283	-5.4	106	0.00
61	methyl methacrylate	0.379	0.235	38.0#	64	0.00
62	heptane	0.494	0.530	-7.3	110	0.00
63 C	cis-1,3-dichloropropene	0.361	0.396	-9.7	112	0.00
64 C	4-methyl-2-pentanone	0.563	0.618	-9.8	110	0.00
65	trans-1,3-dichloropropene	0.331	0.310	6.3	95	0.00
66 C	1,1,2-trichloroethane	0.235	0.249	-6.0	109	0.00
67 I	chlorobenzene-D5	1.000	1.000	0.0	101	0.00
68 C	toluene	4.919	4.998	-1.6	105	0.00
69 s	toluene-D8	6.198	6.289	-1.5	104	0.00
71	1,3-dichloropropane	2.503	2.062	17.6	85	0.00
72	2-hexanone	3.294	3.645	-10.7	109	0.00
74	dibromochloromethane	1.951	2.092	-7.2	105	0.00
75 C	1,2-dibromoethane	2.244	2.370	-5.6	107	0.00
76	butyl acetate	0.780	0.656	15.9	83	0.00
77	octane	2.134	1.738	18.6	83	0.00
78 C	tetrachloroethene	2.122	2.188	-3.1	105	0.00
79	1,1,1,2-tetrachloroethane	1.514	1.263	16.6	83	0.00
80 C	chlorobenzene	3.909	4.243	-8.5	108	0.00

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314035.D
 Acq On : 20 Feb 2021 11:29 AM
 Operator : AIRPIAN03:AR
 Sample : CT015-LLSTD010
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:01:24 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 12:59:05 2021
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81 C	ethylbenzene	5.908	6.278	-6.3	107	0.00
83 C	m+p-xylene	4.733	5.051	-6.7	107	0.00
84 C	bromoform	1.904	2.124	-11.6	107	0.00
85 C	styrene	4.253	4.676	-9.9	110	0.00
86 C	1,1,2,2-tetrachloroethane	3.364	3.786	-12.5	112	0.00
87 C	o-xylene	4.699	5.093	-8.4	108	0.00
88	1,2,3-trichloropropane	2.882	2.432	15.6	86	0.00
89	nonane	4.292	3.752	12.6	89	0.00
90 s	bromofluorobenzene	4.182	4.323	-3.4	105	0.00
91 C	isopropylbenzene	6.681	5.915	11.5	88	0.00
92	bromobenzene	3.764	3.238	14.0	87	0.00
93	2-chlorotoluene	1.866	1.521	18.5	84	0.00
94	n-propylbenzene	2.135	1.825	14.5	85	0.00
95	4-chlorotoluene	1.728	1.473	14.8	86	0.00
96	4-ethyl toluene	7.408	7.905	-6.7	103	0.00
97	1,3,5-trimethylbenzene	6.007	6.555	-9.1	108	0.00
98	tert-butylbenzene	5.767	5.069	12.1	86	0.00
99	1,2,4-trimethylbenzene	5.615	6.402	-14.0	109	0.00
100	decane	4.745	4.239	10.7	87	0.00
101 C	Benzyl Chloride	3.798	4.486	-18.1	103	0.00
102	1,3-dichlorobenzene	3.553	4.041	-13.7	111	0.00
103 C	1,4-dichlorobenzene	3.399	3.816	-12.3	106	0.00
104	sec-butylbenzene	8.356	7.367	11.8	86	0.00
106	p-isopropyltoluene	6.937	5.696	17.9	80	0.00
107	1,2-dichlorobenzene	3.368	3.811	-13.2	110	0.00
108	n-butylbenzene	5.825	5.341	8.3	87	0.00
111 C	1,2-dibromo-3-chloropropane	1.436	1.296	9.7	84	0.00
112	undecane	5.188	4.811	7.3	87	0.00
114	dodecane	5.178	5.045	2.6	84	0.00
115 C	1,2,4-trichlorobenzene	2.225	2.887	-29.8	109	0.00
116	naphthalene	6.146	5.725	6.8	82	0.00
117	1,2,3-trichlorobenzene	2.511	2.375	5.4	81	0.00
119 C	hexachlorobutadiene	2.505	2.967	-18.4	107	0.00

* Evaluation of CC level amount vs concentration.
 (#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314035.D
 Acq On : 20 Feb 2021 11:29 AM
 Operator : AIRPIAN03:AR
 Sample : CT015-LLSTD010
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:01:24 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 12:59:05 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default-ICV-AP2 - All compounds listed

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

Internal Standards						
1) bromochloromethane	9.575	49	383330	10.000	ppbV	0.00
Standard Area = 367527			Recovery =	104.30%		
43) 1,4-difluorobenzene	11.847	114	1016607	10.000	ppbV	0.00
Standard Area = 999261			Recovery =	101.74%		
67) chlorobenzene-D5	16.575	54	158447	10.000	ppbV	0.00
Standard Area = 156386			Recovery =	101.32%		
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	10.458	65	207626	9.317	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	93.17%		
69) toluene-D8	14.683	98	996530	10.147	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	101.47%		
90) bromofluorobenzene	17.942	95	685022	10.337	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	103.37%		
Target Compounds						
					Qvalue	
2) chlorodifluoromethane	3.892	51	208855	7.500	ppbV	98
3) propylene	3.928	41	196584M6	10.916	ppbV	
4) propane	3.952	29	182392	8.078	ppbV	99
5) dichlorodifluoromethane	4.006	85	260632	9.133	ppbV	99
6) chloromethane	4.186	50	156831	9.924	ppbV	99
7) Freon-114	4.312	85	380877	9.386	ppbV	99
8) methanol	4.384	31	322156	43.618	ppbV	97
9) vinyl chloride	4.444	62	176678	9.767	ppbV	100
10) 1,3-butadiene	4.612	54	171884	10.142	ppbV	99
11) butane	4.678	43	232426	7.882	ppbV	98
13) bromomethane	4.924	94	130368	9.637	ppbV	99
14) chloroethane	5.146	64	95280	9.730	ppbV	99
15) ethanol	5.317	31	598110	39.642	ppbV	98
16) dichlorofluoromethane	5.287	67	252696	7.357	ppbV	99
17) vinyl bromide	5.573	106	141174	9.547	ppbV	99
18) acrolein	5.723	56	68502	7.751	ppbV	98
19) acetone	5.880	43	955515	35.952	ppbV	99
20) acetonitrile	5.567	41	135383	8.129	ppbV	98
21) trichlorofluoromethane	6.093	101	197247	8.915	ppbV	98
22) isopropyl alcohol	6.207	45	700681	20.545	ppbV	100
23) acrylonitrile	6.463	53	129132	8.029	ppbV	99
24) pentane	6.540	43	268706M6	7.935	ppbV	
25) ethyl ether	6.577	31	241780	7.630	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314035.D
 Acq On : 20 Feb 2021 11:29 AM
 Operator : AIRPIAN03:AR
 Sample : CT015-LLSTD010
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:01:24 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 12:59:05 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
26) 1,1-dichloroethene	6.860	61	215407	9.528	ppbV	97
27) tertiary butyl alcohol	6.938	59	254525	7.743	ppbV	99
28) methylene chloride	7.028	49	203559	10.117	ppbV	100
29) 3-chloropropene	7.166	41	282538	10.348	ppbV	98
30) carbon disulfide	7.322	76	529748	9.296	ppbV	99
31) Freon 113	7.358	101	275727	9.899	ppbV	99
32) trans-1,2-dichloroethene	8.158	61	259626	8.603	ppbV	97
33) 1,1-dichloroethane	8.392	63	354787	9.899	ppbV	100
34) MTBE	8.475	73	592267	9.904	ppbV	99
35) vinyl acetate	8.608	43	489141	9.804	ppbV	99
36) 2-butanone	8.875	43	505460	10.464	ppbV	99
37) cis-1,2-dichloroethene	9.383	61	263719	10.027	ppbV	99
38) Ethyl Acetate	9.683	61	83588	10.308	ppbV	94
39) chloroform	9.742	83	336469	9.913	ppbV	99
40) Tetrahydrofuran	10.183	42	312657	10.200	ppbV	99
41) 2,2-dichloropropane	9.758	77	217806	7.427	ppbV	98
42) 1,2-dichloroethane	10.583	62	175863	9.087	ppbV	96
44) hexane	9.650	57	413640	10.389	ppbV	85
45) diisopropyl ether	9.658	87	171273	8.065	ppbV	97
46) tert-butyl ethyl ether	10.283	59	519061	7.984	ppbV	99
48) 1,1,1-trichloroethane	10.875	97	254700	9.499	ppbV	99
49) 1,1-dichloropropene	11.247	75	260791	8.378	ppbV	98
50) benzene	11.407	78	755816	9.912	ppbV	100
52) carbon tetrachloride	11.580	117	236208	9.798	ppbV	98
53) cyclohexane	11.720	56	447394	10.509	ppbV	99
54) tert-amyl methyl ether	12.113	73	545297	8.242	ppbV	99
55) dibromomethane	12.327	93	142667	8.020	ppbV	98
56) 1,2-dichloropropane	12.360	63	251749	10.589	ppbV	98
57) bromodichloromethane	12.593	83	372082	10.080	ppbV	100
58) 1,4-dioxane	12.633	88	176447	10.598	ppbV	100
59) trichloroethene	12.640	130	268383	10.201	ppbV	99
60) 2,2,4-trimethylpentane	12.693	57	1303856M6	10.539	ppbV	
61) methyl methacrylate	12.893	41	239329	6.206	ppbV	99
62) heptane	13.007	43	538931	10.737	ppbV	98
63) cis-1,3-dichloropropene	13.658	75	402622	10.972	ppbV	99
64) 4-methyl-2-pentanone	13.700	43	628129	10.984	ppbV	99
65) trans-1,3-dichloropropene	14.283	75	315217	9.360	ppbV	99
66) 1,1,2-trichloroethane	14.475	97	253292	10.589	ppbV	98
68) toluene	14.792	91	791940	10.161	ppbV	99
71) 1,3-dichloropropane	14.825	76	326699	8.237	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314035.D
 Acq On : 20 Feb 2021 11:29 AM
 Operator : AIRPIAN03:AR
 Sample : CT015-LLSTD010
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:01:24 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 12:59:05 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
72) 2-hexanone	15.075	43	577521	11.064	ppbV	98
74) dibromochloromethane	15.242	129	331542	10.724	ppbV	100
75) 1,2-dibromoethane	15.483	107	375486	10.559	ppbV	100
76) butyl acetate	15.733	73	103951	8.407	ppbV	92
77) octane	15.825	85	275434	8.144	ppbV	98
78) tetrachloroethene	15.958	166	346742	10.314	ppbV	99
79) 1,1,1,2-tetrachloroethane	16.600	131	200132	8.342	ppbV	100
80) chlorobenzene	16.617	112	672232	10.853	ppbV	99
81) ethylbenzene	16.967	91	994743	10.627	ppbV	99
83) m+p-xylene	17.125	91	1600679	21.344	ppbV	98
84) bromoform	17.192	173	336505	11.157	ppbV	99
85) styrene	17.450	104	740886	10.993	ppbV	98
86) 1,1,2,2-tetrachloroethane	17.542	83	599935	11.255	ppbV	100
87) o-xylene	17.542	91	806980	10.840	ppbV	98
88) 1,2,3-trichloropropane	17.658	75	385385	8.440	ppbV	98
89) nonane	17.742	43	594472	8.741	ppbV	97
91) isopropylbenzene	18.050	105	937179	8.854	ppbV	100
92) bromobenzene	18.125	77	513113	8.603	ppbV	99
93) 2-chlorotoluene	18.458	126	241075	8.154	ppbV	79
94) n-propylbenzene	18.483	120	289120	8.546	ppbV	99
95) 4-chlorotoluene	18.517	126	233399	8.523	ppbV	97
96) 4-ethyl toluene	18.600	105	1252583	10.672	ppbV	100
97) 1,3,5-trimethylbenzene	18.667	105	1038609	10.912	ppbV	99
98) tert-butylbenzene	18.992	119	803151	8.789	ppbV	100
99) 1,2,4-trimethylbenzene	18.992	105	1014347	11.402	ppbV	92
100) decane	19.067	57	671667	8.935	ppbV	99
101) Benzyl Chloride	19.108	91	710825	11.811	ppbV	99
102) 1,3-dichlorobenzene	19.125	146	640259	11.373	ppbV	99
103) 1,4-dichlorobenzene	19.175	146	604684	11.228	ppbV	99
104) sec-butylbenzene	19.208	105	1167247	8.817	ppbV	98
106) p-isopropyltoluene	19.333	119	902490	8.211	ppbV	99
107) 1,2-dichlorobenzene	19.450	146	603917	11.316	ppbV	98
108) n-butylbenzene	19.667	91	846302	9.170	ppbV	100
111) 1,2-dibromo-3-chloropr...	19.817	75	205275	9.023	ppbV	97
112) undecane	20.067	57	762364	9.274	ppbV	98
114) dodecane	20.967	57	799303	9.742	ppbV	99
115) 1,2,4-trichlorobenzene	20.917	180	457512	12.975	ppbV	99
116) naphthalene	21.033	128	907122	9.315	ppbV	99
117) 1,2,3-trichlorobenzene	21.283	180	376292	9.458	ppbV	99
119) hexachlorobutadiene	21.350	225	470077	11.845	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
 Data File : r314035.D
 Acq On : 20 Feb 2021 11:29 AM
 Operator : AIRPIAN03:AR
 Sample : CT015-LLSTD010
 Misc : WG1466756
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:01:24 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 12:59:05 2021
 Response via : Initial Calibration

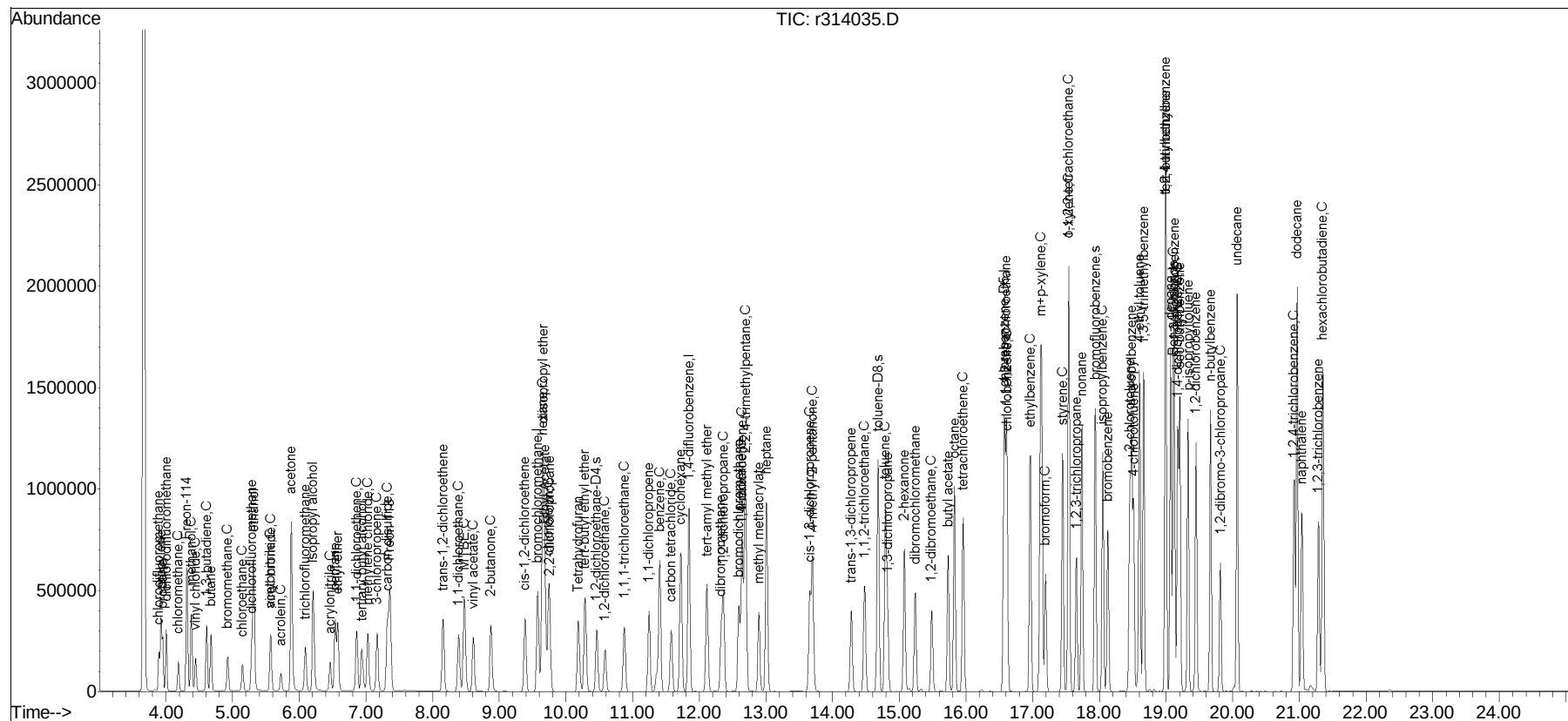
CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\r314029.D
 Sub List : Default-ICV-AP2 - All compounds listed

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

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


```
Data Path   : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\
Data File  : r314035.D
Acq On     : 20 Feb 2021  11:29 AM
Operator   : AIRPIANO3:AR
Sample     : CT015-LLSTD010
Misc       : WG1466756
ALS Vial   : 0    Sample Multiplier: 1
```

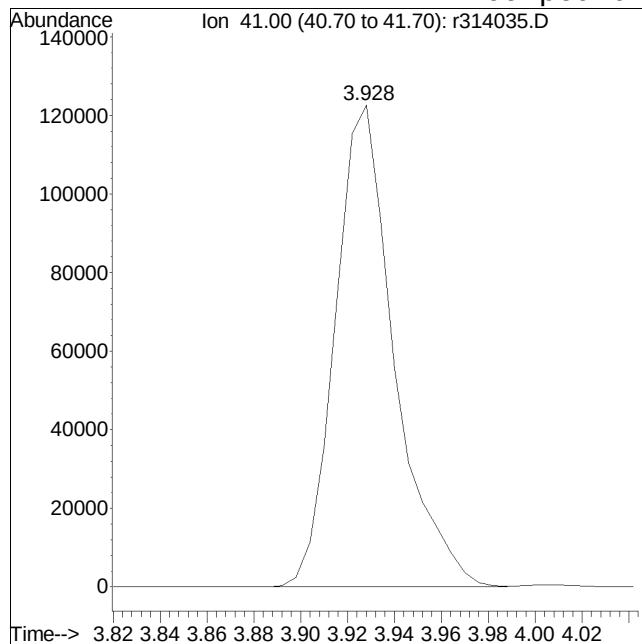
Quant Time: Feb 20 13:01:24 2021
Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219T_I\TFS3_210219.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Feb 20 12:59:05 2021
Response via : Initial Calibration



Manual Integration/Negative Proof Report

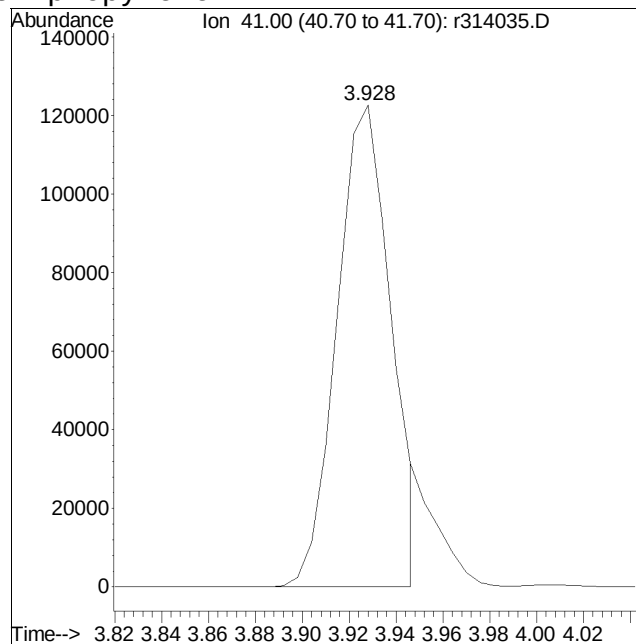
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TFS3_210219.M
Data File : r314035.D Operator : AIRPIAN03:AR
Date Inj'd : 2/20/2020 0:1: 9 Instrument :
Sample : CT015-LLSTD010 Quant Date : 2/20/2021 12:59 pm

Compound #3: propylene



Original Peak Response = 214964

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

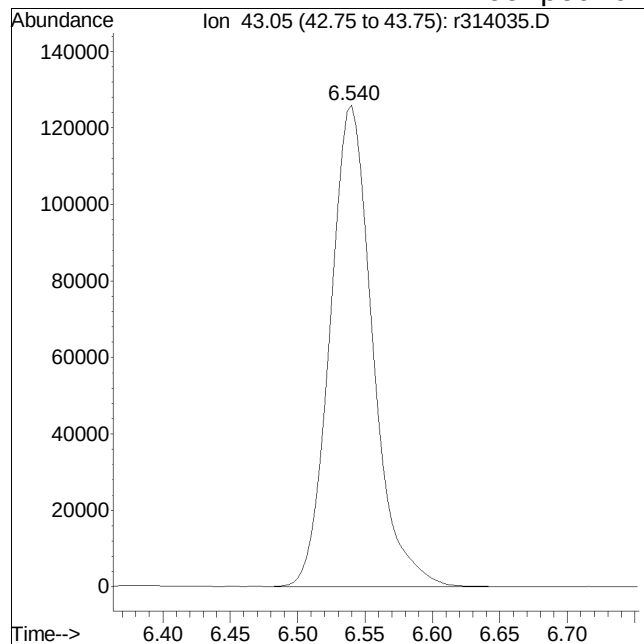


Manual Peak Response = 196584 M6

Manual Integration/Negative Proof Report

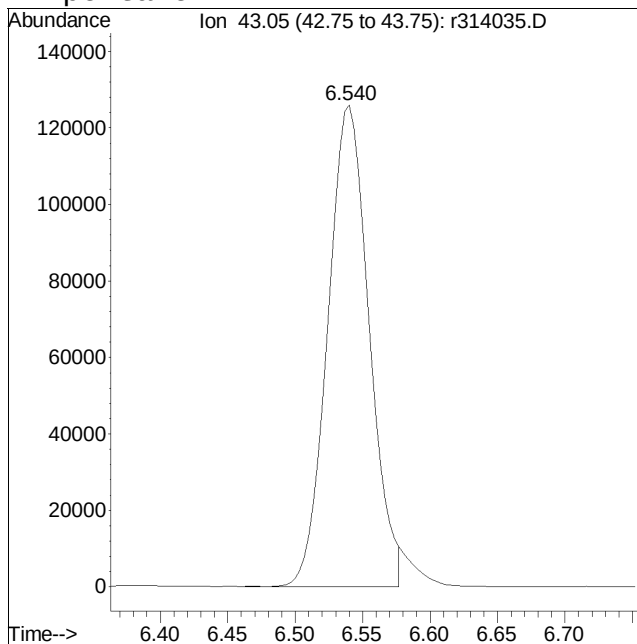
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TFS3_210219.M
Data File : r314035.D Operator : AIRPIAN03:AR
Date Inj'd : 2/20/2020 0:1: 9 Instrument :
Sample : CT015-LLSTD010 Quant Date : 2/20/2021 12:59 pm

Compound #24: pentane



Original Peak Response = 298515

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

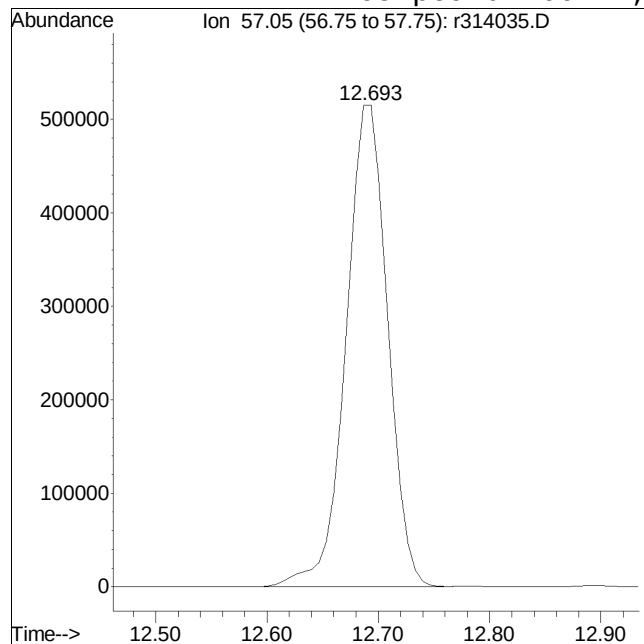


Manual Peak Response = 268706 M6

Manual Integration/Negative Proof Report

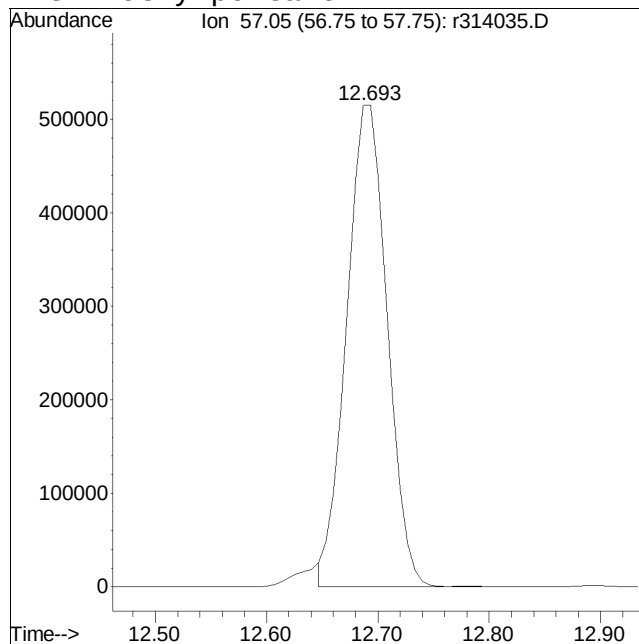
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Data File : r314035.D Operator : AIRPIAN03:AR
Date Inj'd : 2/20/2020 0:1: 9 Instrument :
Sample : CT015-LLSTD010 Quant Date : 2/20/2021 12:59 pm

Compound #60: 2,2,4-trimethylpentane



Original Peak Response = 1340066

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



Manual Peak Response = 1303856 M6

Continuing Calibration

Calibration Verification Summary

Form 7

Air Volatiles

Client : Castleton Environmental, Inc.
 Project Name : LUNA2101
 Instrument ID : AIRPIANO3
 Lab File ID : R314338
 Sample No : WG1471270-2
 Channel :

Lab Number : L2109987
 Project Number : LUNA2101
 Calibration Date : 03/05/21 12:36
 Init. Calib. Date(s) : 02/19/21 02/20/21
 Init. Calib. Times : 19:24 00:07

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
bromochloromethane	1	1	-	0	30	120	.03
chlorodifluoromethane	0.726	0.546	-	24.8	30	93	.02
propylene	0.47	0.587	-	-24.9	30	151	.02
propane	0.589	0.471	-	20	30	97	.02
dichlorodifluoromethane	0.744	0.703	-	5.5	30	114	.02
chloromethane	0.412	0.471	-	-14.3	30	141	.02
Freon-114	1.059	1.059	-	0	30	126	.02
methanol	0.193	0.187	-	3.1	30	113	.03
vinyl chloride	0.472	0.53	-	-12.3	30	138	.02
1,3-butadiene	0.442	0.497	-	-12.4	30	137	.03
butane	0.769	0.748	-	2.7	30	122	.03
bromomethane	0.353	0.409	-	-15.9	30	141	.03
chloroethane	0.255	0.32	-	-25.5	30	156	.03
ethanol	0.394	0.354	-	10.2	30	100	.03
dichlorofluoromethane	0.896	0.684	-	23.7	30	96	.03
vinyl bromide	0.386	0.451	-	-16.8	30	140	.03
acrolein	0.231	0.199	-	13.9	30	106	.03
acetone	0.693	0.626	-	9.7	30	111	.03
acetonitrile	0.434	0.422	-	2.8	30	121	.03
trichlorofluoromethane	0.577	0.647	-	-12.1	30	136	.03
isopropyl alcohol	0.89	0.922	-	-3.6	30	127	.04
acrylonitrile	0.42	0.385	-	8.3	30	114	.04
pentane	0.883	1.093	-	-23.8	30	158	.03
ethyl ether	0.827	0.838	-	-1.3	30	119	.04
1,1-dichloroethene	0.59	0.657	-	-11.4	30	135	.04
tertiary butyl alcohol	0.858	0.746	-	13.1	30	104	.04
methylene chloride	0.525	0.634	-	-20.8	30	146	.04
3-chloropropene	0.712	0.908	-	-27.5	30	157	.04
carbon disulfide	1.487	1.645	-	-10.6	30	132	.04
Freon 113	0.727	0.925	-	-27.2	30	153	.04
trans-1,2-dichloroethene	0.787	0.734	-	6.7	30	109	.03
1,1-dichloroethane	0.935	1.076	-	-15.1	30	140	.03
MTBE	1.56	1.561	-	-0.1	30	119	.03
vinyl acetate	1.302	1.513	-	-16.2	30	137	.03
2-butanone	1.26	1.504	-	-19.4	30	142	.03
cis-1,2-dichloroethene	0.686	0.769	-	-12.1	30	135	.04
Ethyl Acetate	0.212	0.241	-	-13.7	30	133	.04
chloroform	0.885	0.87	-	1.7	30	118	.03
Tetrahydrofuran	0.8	0.94	-	-17.5	30	143	.04
2,2-dichloropropane	0.765	0.553	-	27.7	30	87	.04
1,2-dichloroethane	0.505	0.538	-	-6.5	30	129	.04
1,4-difluorobenzene	1	1	-	0	30	112	.04
hexane	0.392	0.435	-	-11	30	123	.03

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Air Volatiles

Client : Castleton Environmental, Inc.
 Project Name : LUNA2101
 Instrument ID : AIRPIANO3
 Lab File ID : R314338
 Sample No : WG1471270-2
 Channel :

Lab Number : L2109987
 Project Number : LUNA2101
 Calibration Date : 03/05/21 12:36
 Init. Calib. Date(s) : 02/19/21 02/20/21
 Init. Calib. Times : 19:24 00:07

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
diisopropyl ether	0.209	0.183	-	12.4	30	100	.03
tert-butyl ethyl ether	0.639	0.566	-	11.4	30	99	.04
1,1,1-trichloroethane	0.264	0.318	-	-20.5	30	138	.03
1,1-dichloropropene	0.306	0.256	-	16.3	30	95	.03
benzene	0.75	0.729	-	2.8	30	113	.03
carbon tetrachloride	0.237	0.25	-	-5.5	30	116	.04
cyclohexane	0.419	0.455	-	-8.6	30	121	.04
tert-amyl methyl ether	0.651	0.542	-	16.7	30	94	.04
dibromomethane	0.175	0.166	-	5.1	30	108	.03
1,2-dichloropropane	0.234	0.292	-	-24.8	30	141	.03
bromodichloromethane	0.363	0.382	-	-5.2	30	116	.04
1,4-dioxane	0.164	0.194	-	-18.3	30	131	.03
trichloroethene	0.259	0.296	-	-14.3	30	129	.03
2,2,4-trimethylpentane	1.217	1.393	-	-14.5	30	126	.04
methyl methacrylate	0.379	0.294	-	22.4	30	87	.04
heptane	0.494	0.621	-	-25.7	30	142	.03
cis-1,3-dichloropropene	0.361	0.39	-	-8	30	121	.04
4-methyl-2-pentanone	0.563	0.727	-	-29.1	30	143	.04
trans-1,3-dichloropropene	0.331	0.303	-	8.5	30	102	.03
1,1,2-trichloroethane	0.235	0.279	-	-18.7	30	134	.03
chlorobenzene-D5	1	1	-	0	30	118	.03
toluene	4.919	5.347	-	-8.7	30	132	.03
1,3-dichloropropane	2.503	1.915	-	23.5	30	92	.03
2-hexanone	3.294	4.043	-	-22.7	30	142	.03
dibromochloromethane	1.951	2.279	-	-16.8	30	134	.03
1,2-dibromoethane	2.244	2.2	-	2	30	116	.03
butyl acetate	0.78	0.627	-	19.6	30	93	.03
octane	2.134	1.733	-	18.8	30	97	.03
tetrachloroethene	2.122	2.228	-	-5	30	125	.03
1,1,1,2-tetrachloroethane	1.514	1.297	-	14.3	30	100	.03
chlorobenzene	3.909	3.942	-	-0.8	30	117	.03
ethylbenzene	5.908	6.576	-	-11.3	30	131	.03
m+p-xylene	4.733	5.37	-	-13.5	30	132	.02
bromoform	1.904	2.172	-	-14.1	30	128	.02
styrene	4.253	4.179	-	1.7	30	114	.03
1,1,2,2-tetrachloroethane	3.364	3.862	-	-14.8	30	133	.02
o-xylene	4.699	5.38	-	-14.5	30	133	.02
1,2,3-trichloropropane	2.882	2.228	-	22.7	30	92	.03
nonane	4.292	3.973	-	7.4	30	110	.02
isopropylbenzene	6.681	5.272	-	21.1	30	92	.02
bromobenzene	3.764	2.973	-	21	30	93	.02
2-chlorotoluene	1.866	1.573	-	15.7	30	101	.03
n-propylbenzene	2.135	1.858	-	13	30	101	.02

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Air Volatiles

Client : Castleton Environmental, Inc.
 Project Name : LUNA2101
 Instrument ID : AIRPIANO3
 Lab File ID : R314338
 Sample No : WG1471270-2
 Channel :

Lab Number : L2109987
 Project Number : LUNA2101
 Calibration Date : 03/05/21 12:36
 Init. Calib. Date(s) : 02/19/21 02/20/21
 Init. Calib. Times : 19:24 00:07

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
4-chlorotoluene	1.728	1.5	-	13.2	30	102	.03
4-ethyl toluene	7.408	7.276	-	1.8	30	111	.02
1,3,5-trimethylbenzene	6.007	6.791	-	-13.1	30	131	.02
tert-butylbenzene	5.767	5.124	-	11.1	30	102	.02
1,2,4-trimethylbenzene	5.615	6.093	-	-8.5	30	121	.02
decane	4.745	4.348	-	8.4	30	105	.02
Benzyl Chloride	3.798	4.667	-	-22.9	30	125	.02
1,3-dichlorobenzene	3.553	3.806	-	-7.1	30	122	.02
1,4-dichlorobenzene	3.399	3.746	-	-10.2	30	121	.02
sec-butylbenzene	8.356	6.773	-	18.9	30	93	.03
p-isopropyltoluene	6.937	5.685	-	18	30	93	.03
1,2-dichlorobenzene	3.368	3.618	-	-7.4	30	122	.03
n-butylbenzene	5.825	5.73	-	1.6	30	110	.02
1,2-dibromo-3-chloropropan	1.436	1.273	-	11.4	30	96	.02
undecane	5.188	4.995	-	3.7	30	106	.02
dodecane	5.178	5.202	-	-0.5	30	102	.03
1,2,4-trichlorobenzene	2.225	2.977	-	-33.8*	30	131	.02
naphthalene	6.146	6.074	-	1.2	30	101	.02
1,2,3-trichlorobenzene	2.511	2.392	-	4.7	30	96	.02
hexachlorobutadiene	2.505	2.906	-	-16	30	123	.02

* Value outside of QC limits.



Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305T\
 Data File : r314338.D
 Acq On : 5 Mar 2021 12:36 PM
 Operator : AIRPIAN03:EW
 Sample : WG1471270-2,3,250,250
 Misc : WG1471270,ICAL17647
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 05 13:22:44 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305T\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 12:59:05 2021
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	bromochloromethane	1.000	1.000	0.0	120	0.03
2	chlorodifluoromethane	0.726	0.546	24.8	93	0.02
3	propylene	0.470	0.587	-24.9	151#	0.02
4	propane	0.589	0.471	20.0	97	0.02
5	dichlorodifluoromethane	0.744	0.703	5.5	114	0.02
6 C	chloromethane	0.412	0.471	-14.3	141#	0.02
7	Freon-114	1.059	1.059	0.0	126	0.02
8 C	methanol	0.193	0.187	3.1	113	0.03
9 C	vinyl chloride	0.472	0.530	-12.3	138	0.02
10 C	1,3-butadiene	0.442	0.497	-12.4	137	0.03
11	butane	0.769	0.748	2.7	122	0.03
13 C	bromomethane	0.353	0.409	-15.9	141#	0.03
14 C	chloroethane	0.255	0.320	-25.5	156#	0.03
15	ethanol	0.394	0.354	10.2	100	0.03
16	dichlorofluoromethane	0.896	0.684	23.7	96	0.03
17 C	vinyl bromide	0.386	0.451	-16.8	140#	0.03
18 C	acrolein	0.231	0.199	13.9	106	0.03
19	acetone	0.693	0.626	9.7	111	0.03
20 C	acetonitrile	0.434	0.422	2.8	121	0.03
21	trichlorofluoromethane	0.577	0.647	-12.1	136	0.03
22	isopropyl alcohol	0.890	0.922	-3.6	127	0.04
23 C	acrylonitrile	0.420	0.385	8.3	114	0.04
24	pentane	0.883	1.093	-23.8	158#	0.03
25	ethyl ether	0.827	0.838	-1.3	119	0.04
26 C	1,1-dichloroethene	0.590	0.657	-11.4	135	0.04
27	tertiary butyl alcohol	0.858	0.746	13.1	104	0.04
28 C	methylene chloride	0.525	0.634	-20.8	146#	0.04
29 C	3-chloropropene	0.712	0.908	-27.5	157#	0.04
30 C	carbon disulfide	1.487	1.645	-10.6	132	0.04
31	Freon 113	0.727	0.925	-27.2	153#	0.04
32	trans-1,2-dichloroethene	0.787	0.734	6.7	109	0.03
33 C	1,1-dichloroethane	0.935	1.076	-15.1	140	0.03
34 C	MTBE	1.560	1.561	-0.1	119	0.03
35 C	vinyl acetate	1.302	1.513	-16.2	137	0.03
36 C	2-butanone	1.260	1.504	-19.4	142#	0.03
37	cis-1,2-dichloroethene	0.686	0.769	-12.1	135	0.04
38	Ethyl Acetate	0.212	0.241	-13.7	133	0.04
39 C	chloroform	0.885	0.870	1.7	118	0.03
40	Tetrahydrofuran	0.800	0.940	-17.5	143#	0.04

TFS3_210219.M Sun Mar 07 09:49:55 2021

1

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305T\
 Data File : r314338.D
 Acq On : 5 Mar 2021 12:36 PM
 Operator : AIRPIAN03:EW
 Sample : WG1471270-2,3,250,250
 Misc : WG1471270,ICAL17647
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 05 13:22:44 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305T\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 12:59:05 2021
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	2,2-dichloropropane	0.765	0.553	27.7	87	0.04
42 C	1,2-dichloroethane	0.505	0.538	-6.5	129	0.04
43 I	1,4-difluorobenzene	1.000	1.000	0.0	112	0.04
44 C	hexane	0.392	0.435	-11.0	123	0.03
45	diisopropyl ether	0.209	0.183	12.4	100	0.03
46	tert-butyl ethyl ether	0.639	0.566	11.4	99	0.04
48 C	1,1,1-trichloroethane	0.264	0.318	-20.5	138	0.03
49	1,1-dichloropropene	0.306	0.256	16.3	95	0.03
50 C	benzene	0.750	0.729	2.8	113	0.03
52 C	carbon tetrachloride	0.237	0.250	-5.5	116	0.04
53	cyclohexane	0.419	0.455	-8.6	121	0.04
54	tert-amyl methyl ether	0.651	0.542	16.7	94	0.04
55	dibromomethane	0.175	0.166	5.1	108	0.03
56 C	1,2-dichloropropane	0.234	0.292	-24.8	141#	0.03
57	bromodichloromethane	0.363	0.382	-5.2	116	0.04
58 C	1,4-dioxane	0.164	0.194	-18.3	131	0.03
59 C	trichloroethene	0.259	0.296	-14.3	129	0.03
60 C	2,2,4-trimethylpentane	1.217	1.393	-14.5	126	0.04
61	methyl methacrylate	0.379	0.294	22.4	87	0.04
62	heptane	0.494	0.621	-25.7	142#	0.03
63 C	cis-1,3-dichloropropene	0.361	0.390	-8.0	121	0.04
64 C	4-methyl-2-pentanone	0.563	0.727	-29.1	143#	0.04
65	trans-1,3-dichloropropene	0.331	0.303	8.5	102	0.03
66 C	1,1,2-trichloroethane	0.235	0.279	-18.7	134	0.03
67 I	chlorobenzene-D5	1.000	1.000	0.0	118	0.03
68 C	toluene	4.919	5.347	-8.7	132	0.03
71	1,3-dichloropropane	2.503	1.915	23.5	92	0.03
72	2-hexanone	3.294	4.043	-22.7	142#	0.03
74	dibromochloromethane	1.951	2.279	-16.8	134	0.03
75 C	1,2-dibromoethane	2.244	2.200	2.0	116	0.03
76	butyl acetate	0.780	0.627	19.6	93	0.03
77	octane	2.134	1.733	18.8	97	0.03
78 C	tetrachloroethene	2.122	2.228	-5.0	125	0.03
79	1,1,1,2-tetrachloroethane	1.514	1.297	14.3	100	0.03
80 C	chlorobenzene	3.909	3.942	-0.8	117	0.03
81 C	ethylbenzene	5.908	6.576	-11.3	131	0.03
83 C	m+p-xylene	4.733	5.370	-13.5	132	0.02

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305T\
 Data File : r314338.D
 Acq On : 5 Mar 2021 12:36 PM
 Operator : AIRPIAN03:EW
 Sample : WG1471270-2,3,250,250
 Misc : WG1471270,ICAL17647
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 05 13:22:44 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305T\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 12:59:05 2021
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
84 C	bromoform	1.904	2.172	-14.1	128	0.02
85 C	styrene	4.253	4.179	1.7	114	0.03
86 C	1,1,2,2-tetrachloroethane	3.364	3.862	-14.8	133	0.02
87 C	o-xylene	4.699	5.380	-14.5	133	0.02
88	1,2,3-trichloropropane	2.882	2.228	22.7	92	0.03
89	nonane	4.292	3.973	7.4	110	0.02
91 C	isopropylbenzene	6.681	5.272	21.1	92	0.02
92	bromobenzene	3.764	2.973	21.0	93	0.02
93	2-chlorotoluene	1.866	1.573	15.7	101	0.03
94	n-propylbenzene	2.135	1.858	13.0	101	0.02
95	4-chlorotoluene	1.728	1.500	13.2	102	0.03
96	4-ethyl toluene	7.408	7.276	1.8	111	0.02
97	1,3,5-trimethylbenzene	6.007	6.791	-13.1	131	0.02
98	tert-butylbenzene	5.767	5.124	11.1	102	0.02
99	1,2,4-trimethylbenzene	5.615	6.093	-8.5	121	0.02
100	decane	4.745	4.348	8.4	105	0.02
101 C	Benzyl Chloride	3.798	4.667	-22.9	125	0.02
102	1,3-dichlorobenzene	3.553	3.806	-7.1	122	0.02
103 C	1,4-dichlorobenzene	3.399	3.746	-10.2	121	0.02
104	sec-butylbenzene	8.356	6.773	18.9	93	0.03
106	p-isopropyltoluene	6.937	5.685	18.0	93	0.03
107	1,2-dichlorobenzene	3.368	3.618	-7.4	122	0.03
108	n-butylbenzene	5.825	5.730	1.6	110	0.02
111 C	1,2-dibromo-3-chloropropane	1.436	1.273	11.4	96	0.02
112	undecane	5.188	4.995	3.7	106	0.02
114	dodecane	5.178	5.202	-0.5	102	0.03
115 C	1,2,4-trichlorobenzene	2.225	2.977	-33.8#	131	0.02
116	naphthalene	6.146	6.074	1.2	101	0.02
117	1,2,3-trichlorobenzene	2.511	2.392	4.7	96	0.02
119 C	hexachlorobutadiene	2.505	2.906	-16.0	123	0.02

* Evaluation of CC level amount vs concentration.
 (#) = Out of Range SPCC's out = 0 CCC's out = 1

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305T\
 Data File : r314338.D
 Acq On : 5 Mar 2021 12:36 PM
 Operator : AIRPIAN03:EW
 Sample : WG1471270-2,3,250,250
 Misc : WG1471270,ICAL17647
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 05 13:22:44 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305T\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 12:59:05 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\03\0305T\r314338.D
 Sub List : Default-LCS-AP2 - All compounds listed

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

Internal Standards						
1) bromochloromethane	9.608	49	440496	10.000	ppbV	0.03
Standard Area = 440496			Recovery = 100.00%			
43) 1,4-difluorobenzene	11.880	114	1115642	10.000	ppbV	# 0.04
Standard Area = 1115642			Recovery = 100.00%			
67) chlorobenzene-D5	16.600	54	185080	10.000	ppbV	0.03
Standard Area = 185080			Recovery = 100.00%			

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) chlorodifluoromethane	3.916	51	240583	7.518	ppbV	99
3) propylene	3.946	41	258763M6	12.504	ppbV	
4) propane	3.976	29	207446	7.995	ppbV	# 91
5) dichlorodifluoromethane	4.030	85	309459	9.437	ppbV	100
6) chloromethane	4.210	50	207411	11.421	ppbV	98
7) Freon-114	4.336	85	466438	10.003	ppbV	94
8) methanol	4.408	31	410914	48.415	ppbV	98
9) vinyl chloride	4.468	62	233571	11.236	ppbV	98
10) 1,3-butadiene	4.636	54	218992	11.245	ppbV	97
11) butane	4.702	43	329513	9.724	ppbV	96
13) bromomethane	4.954	94	180194	11.592	ppbV	96
14) chloroethane	5.176	64	141051	12.535	ppbV	99
15) ethanol	5.343	31	778717	44.915	ppbV	89
16) dichlorofluoromethane	5.317	67	301284	7.633	ppbV	98
17) vinyl bromide	5.603	106	198660	11.692	ppbV	99
18) acrolein	5.757	56	87504	8.616	ppbV	99
19) acetone	5.910	43	1377822	45.114	ppbV	# 95
20) acetonitrile	5.597	41	185997	9.719	ppbV	97
21) trichlorofluoromethane	6.123	101	284899	11.205	ppbV	99
22) isopropyl alcohol	6.240	45	1015441	25.911	ppbV	98
23) acrylonitrile	6.497	53	169467	9.169	ppbV	99
24) pentane	6.570	43	481415	12.372	ppbV	97
25) ethyl ether	6.610	31	369081	10.135	ppbV	96
26) 1,1-dichloroethene	6.896	61	289227	11.133	ppbV	92
27) tertiary butyl alcohol	6.974	59	328539	8.697	ppbV	94
28) methylene chloride	7.064	49	279081	12.070	ppbV	92
29) 3-chloropropene	7.202	41	400051	12.750	ppbV	95
30) carbon disulfide	7.352	76	724772	11.068	ppbV	99
31) Freon 113	7.394	101	407471	12.730	ppbV	88

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305T\
 Data File : r314338.D
 Acq On : 5 Mar 2021 12:36 PM
 Operator : AIRPIAN03:EW
 Sample : WG1471270-2,3,250,250
 Misc : WG1471270,ICAL17647
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 05 13:22:44 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305T\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 12:59:05 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\03\0305T\r314338.D
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) trans-1,2-dichloroethene	8.192	61	323371	9.324	ppbV	91
33) 1,1-dichloroethane	8.425	63	474040	11.510	ppbV	100
34) MTBE	8.508	73	687505	10.005	ppbV	97
35) vinyl acetate	8.642	43	666326	11.622	ppbV	96
36) 2-butanone	8.908	43	662437	11.934	ppbV	94
37) cis-1,2-dichloroethene	9.425	61	338552	11.201	ppbV	98
38) Ethyl Acetate	9.725	61	106366	11.415	ppbV	99
39) chloroform	9.775	83	383164	9.823	ppbV	97
40) Tetrahydrofuran	10.225	42	414197	11.759	ppbV	90
41) 2,2-dichloropropane	9.792	77	243732	7.232	ppbV #	79
42) 1,2-dichloroethane	10.625	62	237047	10.659	ppbV	96
44) hexane	9.683	57	485143	11.103	ppbV	90
45) diisopropyl ether	9.692	87	204576	8.778	ppbV	93
46) tert-butyl ethyl ether	10.325	59	631293	8.849	ppbV	97
48) 1,1,1-trichloroethane	10.908	97	354760	12.056	ppbV	98
49) 1,1-dichloropropene	11.280	75	285330	8.353	ppbV #	91
50) benzene	11.440	78	813852	9.726	ppbV	100
52) carbon tetrachloride	11.613	117	278869	10.541	ppbV	99
53) cyclohexane	11.760	56	507472	10.862	ppbV #	93
54) tert-amyl methyl ether	12.147	73	604412	8.324	ppbV	94
55) dibromomethane	12.360	93	184712	9.461	ppbV	97
56) 1,2-dichloropropane	12.393	63	326104	12.499	ppbV	100
57) bromodichloromethane	12.627	83	425997	10.516	ppbV	98
58) 1,4-dioxane	12.667	88	216593	11.855	ppbV	98
59) trichloroethene	12.673	130	329902	11.426	ppbV	98
60) 2,2,4-trimethylpentane	12.727	57	1554020	11.446	ppbV	94
61) methyl methacrylate	12.927	41	328460	7.761	ppbV	90
62) heptane	13.040	43	692998	12.581	ppbV	93
63) cis-1,3-dichloropropene	13.692	75	434823	10.798	ppbV #	90
64) 4-methyl-2-pentanone	13.733	43	811541	12.931	ppbV	93
65) trans-1,3-dichloropropene	14.308	75	337997	9.146	ppbV #	91
66) 1,1,2-trichloroethane	14.508	97	311164	11.854	ppbV	96
68) toluene	14.825	91	989678	10.870	ppbV	100
71) 1,3-dichloropropane	14.850	76	354459	7.651	ppbV #	81
72) 2-hexanone	15.100	43	748250	12.272	ppbV	93
74) dibromochloromethane	15.267	129	421889	11.682	ppbV	99
75) 1,2-dibromoethane	15.517	107	407233	9.804	ppbV	99
76) butyl acetate	15.758	73	116108	8.039	ppbV #	72
77) octane	15.850	85	320741	8.119	ppbV	90
78) tetrachloroethene	15.983	166	412285	10.499	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305T\
 Data File : r314338.D
 Acq On : 5 Mar 2021 12:36 PM
 Operator : AIRPIAN03:EW
 Sample : WG1471270-2,3,250,250
 Misc : WG1471270,ICAL17647
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 05 13:22:44 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305T\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 12:59:05 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\03\0305T\r314338.D
 Sub List : Default-LCS-AP2 - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
79)	1,1,1,2-tetrachloroethane	16.625	131	240103	8.568	ppbV	98
80)	chlorobenzene	16.642	112	729534	10.083	ppbV	99
81)	ethylbenzene	16.992	91	1217138	11.131	ppbV	91
83)	m+p-xylene	17.150	91	1987896	22.693	ppbV	89
84)	bromoform	17.217	173	402010	11.411	ppbV	99
85)	styrene	17.475	104	773518	9.826	ppbV	100
86)	1,1,2,2-tetrachloroethane	17.567	83	714772	11.480	ppbV	98
87)	o-xylene	17.567	91	995811	11.451	ppbV	92
88)	1,2,3-trichloropropane	17.675	75	412318	7.731	ppbV #	96
89)	nonane	17.758	43	735260	9.256	ppbV	95
91)	isopropylbenzene	18.075	105	975791	7.892	ppbV	92
92)	bromobenzene	18.150	77	550307	7.899	ppbV	97
93)	2-chlorotoluene	18.475	126	291123	8.429	ppbV	97
94)	n-propylbenzene	18.508	120	343934	8.703	ppbV	92
95)	4-chlorotoluene	18.533	126	277609	8.678	ppbV	96
96)	4-ethyl toluene	18.625	105	1346690	9.823	ppbV	94
97)	1,3,5-trimethylbenzene	18.683	105	1256919	11.306	ppbV	94
98)	tert-butylbenzene	19.017	119	948302	8.884	ppbV	98
99)	1,2,4-trimethylbenzene	19.017	105	1127763	10.852	ppbV	93
100)	decane	19.092	57	804763	9.165	ppbV	93
101)	Benzyl Chloride	19.133	91	863805	12.288	ppbV	100
102)	1,3-dichlorobenzene	19.142	146	704467	10.713	ppbV	99
103)	1,4-dichlorobenzene	19.200	146	693340	11.022	ppbV	100
104)	sec-butylbenzene	19.225	105	1253564	8.106	ppbV	98
106)	p-isopropyltoluene	19.350	119	1052262	8.196	ppbV	98
107)	1,2-dichlorobenzene	19.475	146	669677	10.742	ppbV	99
108)	n-butylbenzene	19.692	91	1060426	9.836	ppbV	96
111)	1,2-dibromo-3-chloropr...	19.833	75	235571	8.865	ppbV	93
112)	undecane	20.083	57	924469	9.627	ppbV	97
114)	dodecane	20.992	57	962736	10.046	ppbV	95
115)	1,2,4-trichlorobenzene	20.942	180	551032	13.379	ppbV	98
116)	naphthalene	21.058	128	1124220	9.883	ppbV	98
117)	1,2,3-trichlorobenzene	21.308	180	442718	9.526	ppbV	98
119)	hexachlorobutadiene	21.375	225	537851	11.602	ppbV	98

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

Sub List : Default-LCS-AP2 - All compounds listed05T\r314338.D

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305T\

Data File : r314338.D

Acq On : 5 Mar 2021 12:36 PM

Operator : AIRPIANO3:EW

Sample : WG1471270-2, 3, 250, 250

Misc : WG1471270,ICAL17647

ALS Vial : 0 Sample Multiplier: 1

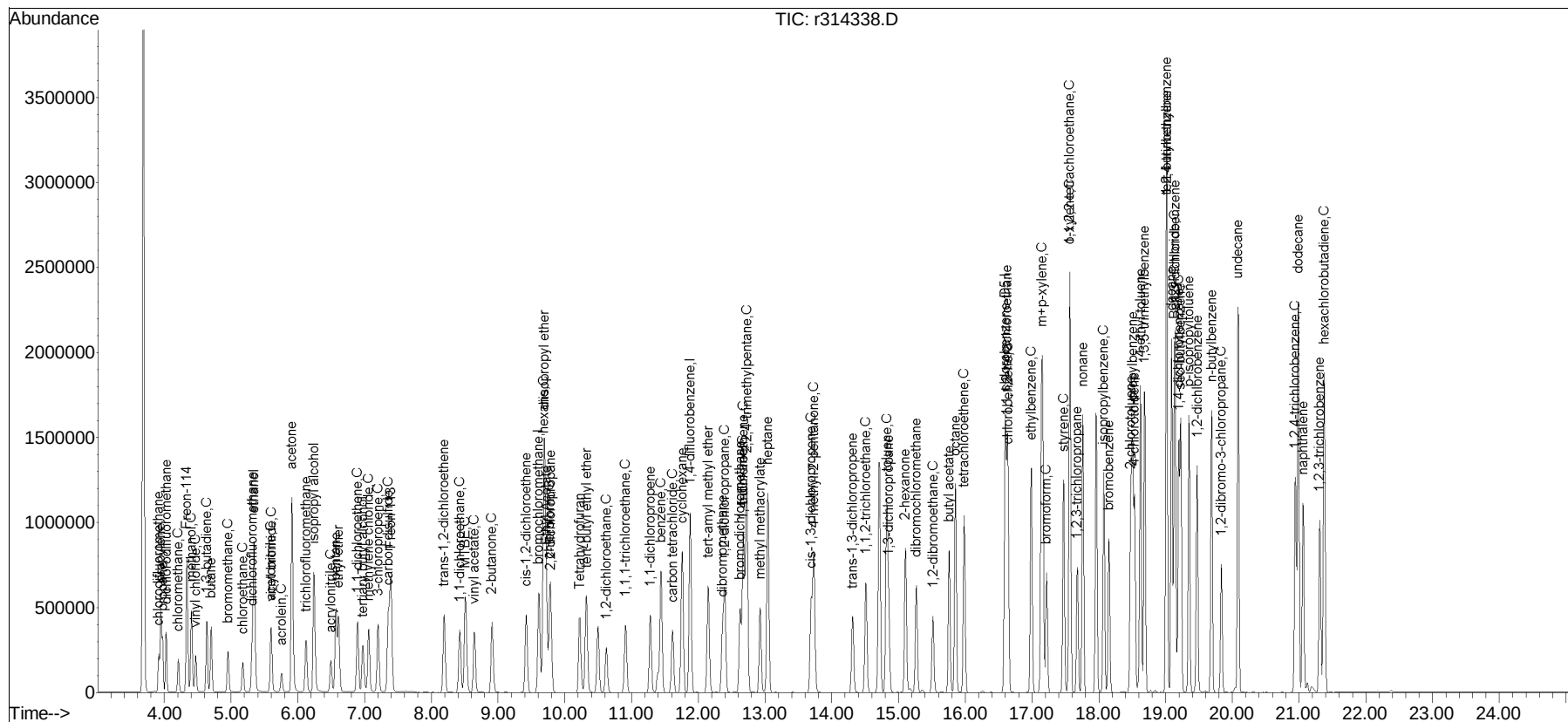
Quant Time: Mar 05 13:22:44 2021

Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305T\TFS3_210219.M

Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis

QLast Update : Sat Feb 20 12:59:05 2021

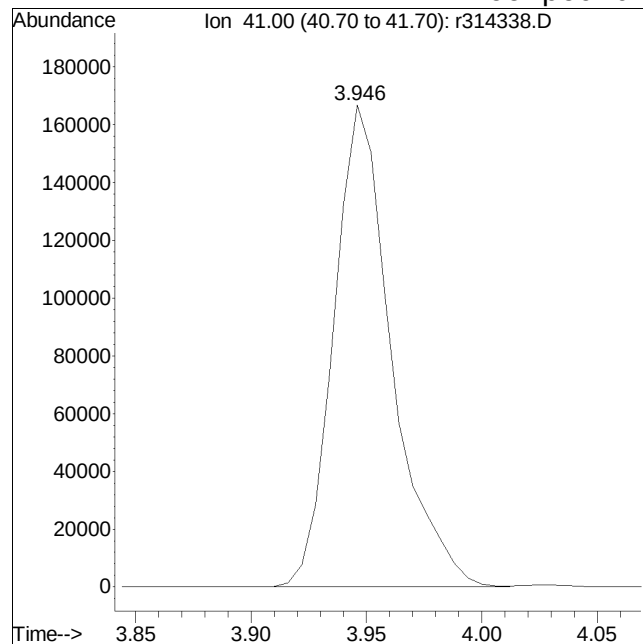
Response via : Initial Calibration



Manual Integration Report

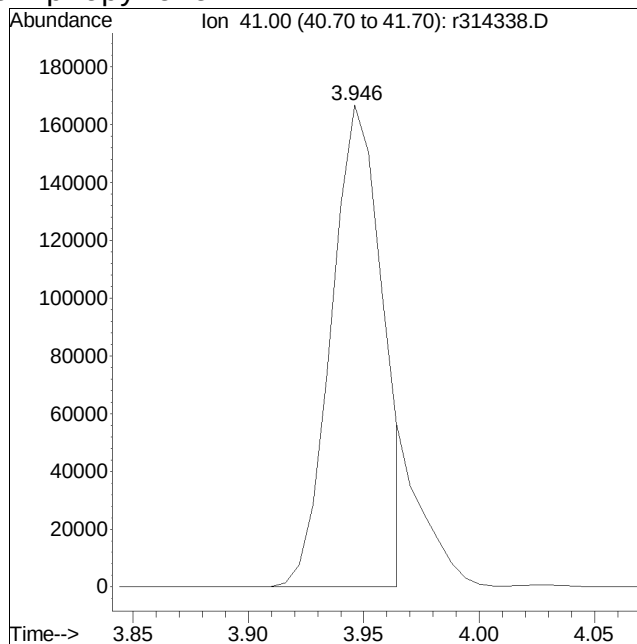
Data Path : 0:\Forensics\Data\AirpianoQMethod : TFS3_210219.M
Data File : r314338.D Operator : AIRPIAN03:EW
Date Inj'd : 3/5/2020 0:2: 6 Instrument :
Sample : WG1471270-2,3,250,250 Quant Date : 3/5/2021 1:22 pm

Compound #3: propylene



Original Peak Response = 291195

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



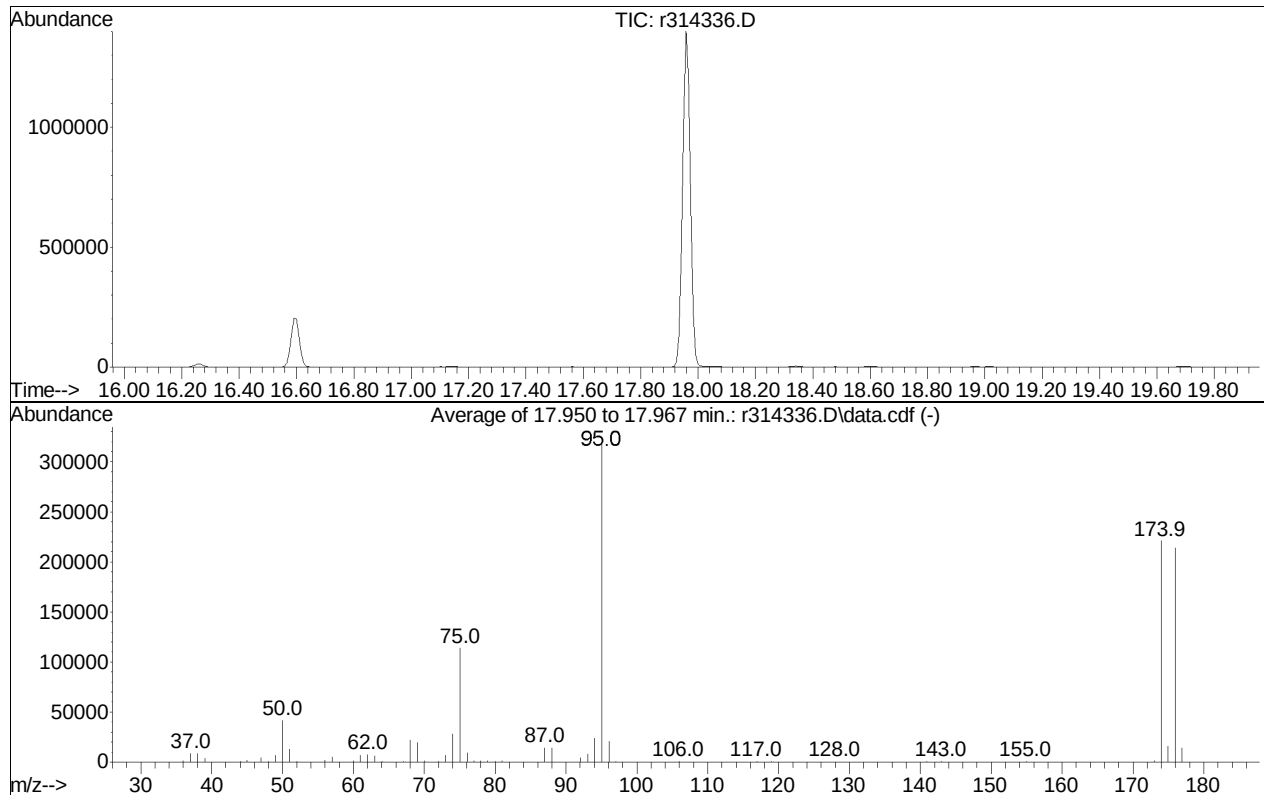
Manual Peak Response = 258763 M6

BFB

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305T\
 Data File : r314336.D
 Acq On : 5 Mar 2021 11:12 AM
 Operator : AIRPIAN03:EW
 Sample : WG1471270-1,3,250,250
 Misc : WG1471270,ICAL17647
 ALS Vial : 0 Sample Multiplier: 1

Integration File: rteint.p

Method : 0:\Forensics\Data\Airpiano3\2021\03\0305T\TFS3_210219.M
 Title : T0-14A/T0-15 SIM/Full Scan Analysis
 Last Update : Sat Feb 20 12:59:05 2021



Spectrum Information: Average of 17.950 to 17.967 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	13.2	42001	PASS
75	95	30	66	35.7	113999	PASS
95	95	100	100	100.0	319048	PASS
96	95	5	9	6.6	21013	PASS
173	174	0.00	2	0.6	1279	PASS
174	95	50	120	69.3	221218	PASS
175	174	4	9	7.2	15969	PASS
176	174	93	101	96.6	213783	PASS
177	176	5	9	6.7	14264	PASS

Volatiles Raw QC Data

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305T\
 Data File : r314341.D
 Acq On : 5 Mar 2021 3:36 PM
 Operator : AIRPIAN03:EW
 Sample : WG1471270-4,3,250,250
 Misc : WG1471270,ICAL17647
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 06 07:46:50 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305T\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 12:59:05 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\03\0305T\r314338.D
 Sub List : Default-LCS-AP2 - All compounds listed

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

Internal Standards						
1) bromochloromethane	9.617	49	401450	10.000	ppbV	0.04
Standard Area = 440496			Recovery =		91.14%	
43) 1,4-difluorobenzene	11.880	114	1022347	10.000	ppbV #	0.04
Standard Area = 1115642			Recovery =		91.64%	
67) chlorobenzene-D5	16.567	54	160955	10.000	ppbV	0.00
Standard Area = 185080			Recovery =		86.97%	

System Monitoring Compounds

Target Compounds					Qvalue
5) dichlorodifluoromethane	0.000		0	N.D.	
6) chloromethane	0.000		0	N.D.	
7) Freon-114	0.000		0	N.D.	
9) vinyl chloride	0.000		0	N.D.	
10) 1,3-butadiene	0.000		0	N.D.	
13) bromomethane	0.000		0	N.D.	
14) chloroethane	0.000		0	N.D.	
15) ethanol	5.367	31	11088	0.702 ppbV	87
17) vinyl bromide	0.000		0	N.D.	
19) acetone	5.947	43	1936	0.070 ppbV #	90
21) trichlorofluoromethane	0.000		0	N.D.	
22) isopropyl alcohol	6.247		0	N.D.	
26) 1,1-dichloroethene	0.000		0	N.D.	
27) tertiary butyl alcohol	7.022		0	N.D.	
28) methylene chloride	7.064		0	N.D.	
29) 3-chloropropene	0.000		0	N.D.	
30) carbon disulfide	0.000		0	N.D.	
31) Freon 113	0.000		0	N.D.	
32) trans-1,2-dichloroethene	0.000		0	N.D.	
33) 1,1-dichloroethane	0.000		0	N.D.	
34) MTBE	0.000		0	N.D.	
36) 2-butanone	8.950		0	N.D.	
37) cis-1,2-dichloroethene	0.000		0	N.D.	
38) Ethyl Acetate	0.000		0	N.D.	
39) chloroform	0.000		0	N.D.	
40) Tetrahydrofuran	0.000		0	N.D.	
42) 1,2-dichloroethane	0.000		0	N.D.	

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305T\
 Data File : r314341.D
 Acq On : 5 Mar 2021 3:36 PM
 Operator : AIRPIAN03:EW
 Sample : WG1471270-4,3,250,250
 Misc : WG1471270,ICAL17647
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 06 07:46:50 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305T\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 12:59:05 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\03\0305T\r314338.D
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) hexane	0.000		0		N.D.	
48) 1,1,1-trichloroethane	0.000		0		N.D.	
50) benzene	11.447		0		N.D.	
52) carbon tetrachloride	0.000		0		N.D.	
53) cyclohexane	0.000		0		N.D.	d
56) 1,2-dichloropropane	0.000		0		N.D.	
57) bromodichloromethane	0.000		0		N.D.	
58) 1,4-dioxane	0.000		0		N.D.	
59) trichloroethene	0.000		0		N.D.	
60) 2,2,4-trimethylpentane	0.000		0		N.D.	
62) heptane	0.000		0		N.D.	
63) cis-1,3-dichloropropene	0.000		0		N.D.	
64) 4-methyl-2-pentanone	0.000		0		N.D.	
65) trans-1,3-dichloropropene	0.000		0		N.D.	
66) 1,1,2-trichloroethane	0.000		0		N.D.	
68) toluene	14.825		0		N.D.	
72) 2-hexanone	0.000		0		N.D.	
74) dibromochloromethane	0.000		0		N.D.	
75) 1,2-dibromoethane	0.000		0		N.D.	
78) tetrachloroethene	0.000		0		N.D.	
80) chlorobenzene	0.000		0		N.D.	
81) ethylbenzene	17.083		0		N.D.	
83) m+p-xylene	17.083		0		N.D.	
84) bromoform	0.000		0		N.D.	
85) styrene	0.000		0		N.D.	
86) 1,1,2,2-tetrachloroethane	0.000		0		N.D.	
87) o-xylene	17.492		0		N.D.	
96) 4-ethyl toluene	18.575		0		N.D.	
97) 1,3,5-trimethylbenzene	18.575		0		N.D.	
99) 1,2,4-trimethylbenzene	18.908		0		N.D.	
101) Benzyl Chloride	0.000		0		N.D.	
102) 1,3-dichlorobenzene	0.000		0		N.D.	
103) 1,4-dichlorobenzene	0.000		0		N.D.	
107) 1,2-dichlorobenzene	0.000		0		N.D.	
115) 1,2,4-trichlorobenzene	20.892		0		N.D.	
119) hexachlorobutadiene	0.000		0		N.D.	

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

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305T\
 Data File : r314341.D
 Acq On : 5 Mar 2021 3:36 PM
 Operator : AIRPIAN03:EW
 Sample : WG1471270-4,3,250,250
 Misc : WG1471270,ICAL17647
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 06 07:46:50 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305T\TFS3_210219.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 12:59:05 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\03\0305T\r314338.D
 Sub List : Default-LCS-AP2 - All compounds listed

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

Sub List : Default-LCS-AP2 - All compounds listed05T\r314338.D

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305T\

Data File : r314341.D

Acq On : 5 Mar 2021 3:36 PM

Operator : AIRPIANO3:EW

Sample : WG1471270-4,3,250,250

Misc : WG1471270,ICAL17647

ALS Vial : 0 Sample Multiplier: 1

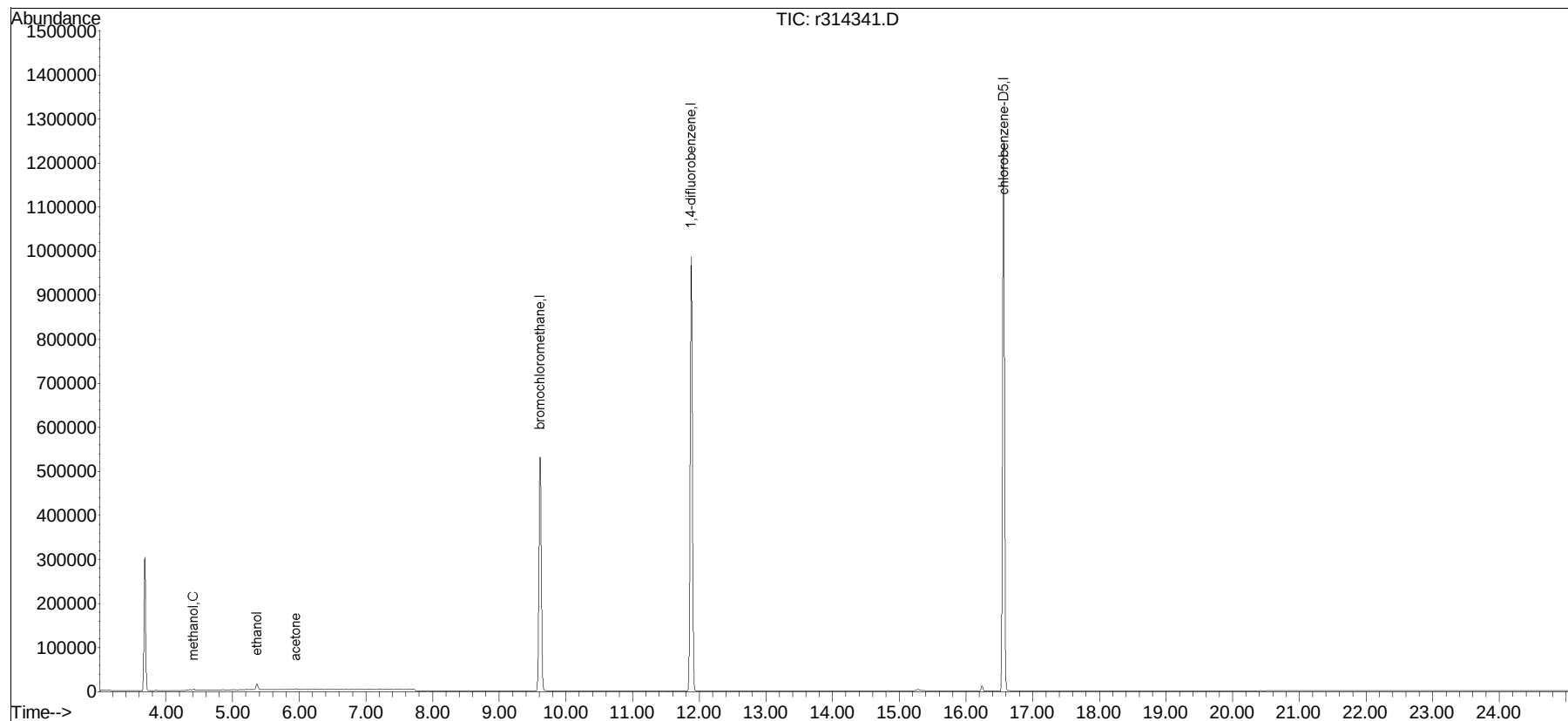
Quant Time: Mar 06 07:46:50 2021

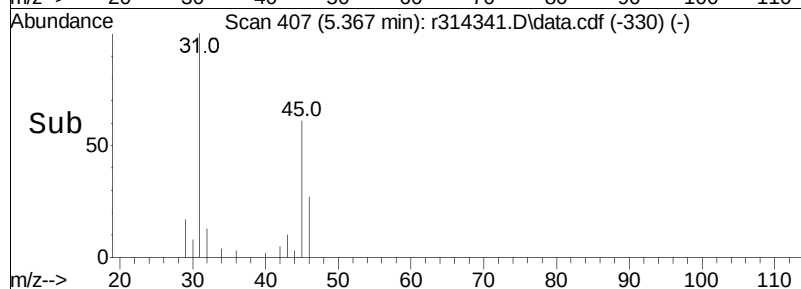
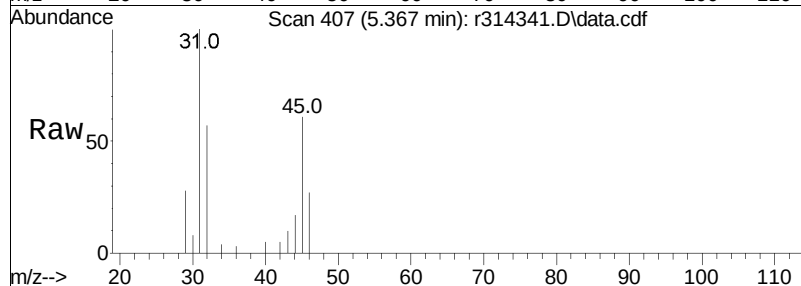
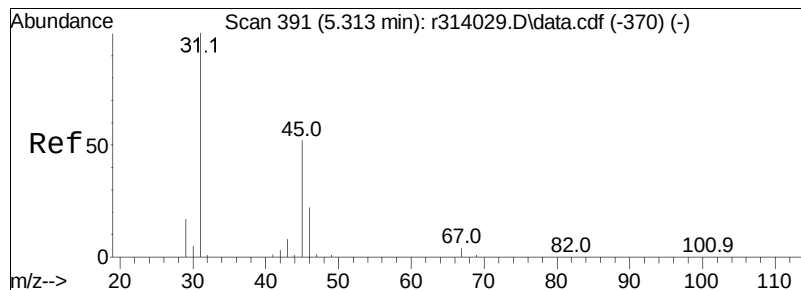
Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305T\TFS3_210219.M

Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis

QLast Update : Sat Feb 20 12:59:05 2021

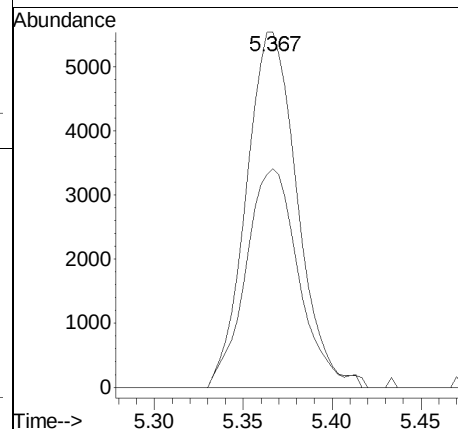
Response via : Initial Calibration

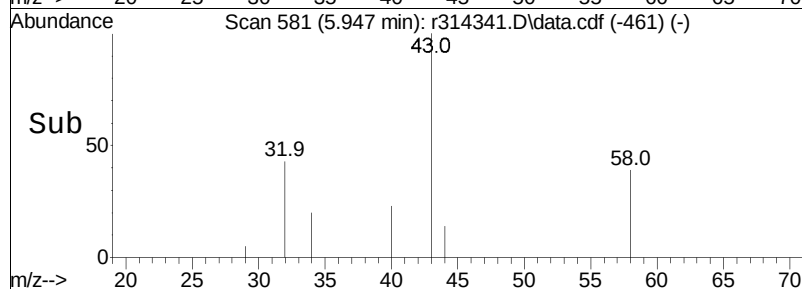
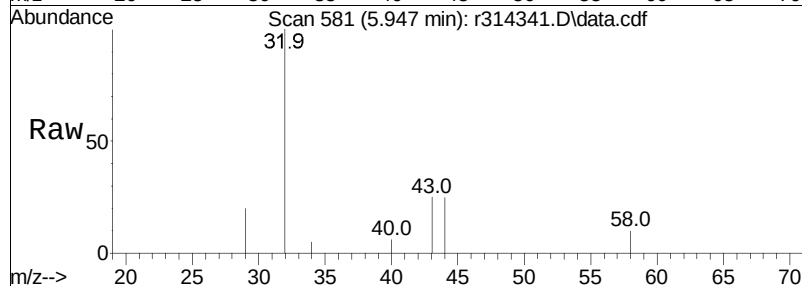
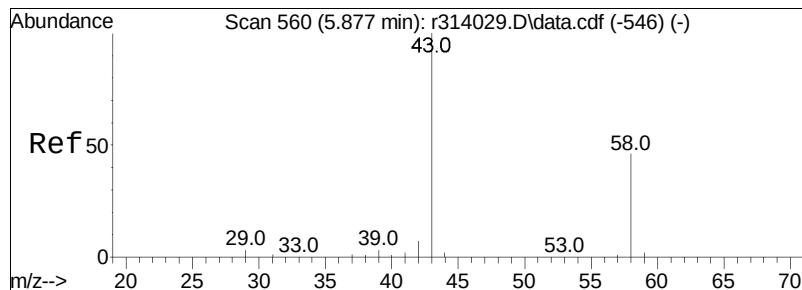




#15
ethanol
Concen: 0.70 ppbV
RT: 5.367 min Scan# 407
Delta R.T. 0.053 min
Lab File: r314341.D
Acq: 5 Mar 2021 3:36 PM

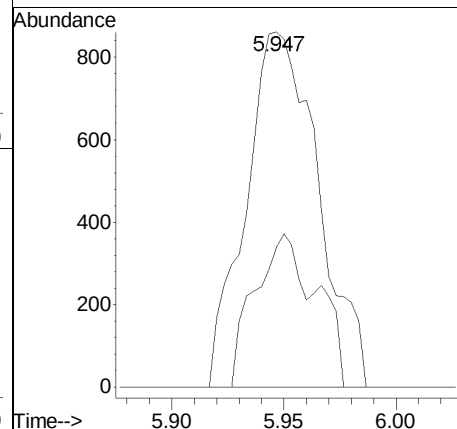
Tgt	Ion	Ratio	Lower	Upper
31	100			
45	61.5	41.9	62.9	





#19
acetone
Concen: 0.07 ppbV
RT: 5.947 min Scan# 581
Delta R.T. 0.070 min
Lab File: r314341.D
Acq: 5 Mar 2021 3:36 PM

Tgt Ion:	43	58	57	Ratio	Lower	Upper
Resp:	1936					
Ion	100	39.5	0.0			
		36.7	1.0			
		55.1	1.6			



Manual Integration Report

Data Path : 0:\Forensics\Data\AirpianoQMethod : TFS3_210219.M
Data File : r314341.D Operator : AIRPIAN03:EW
Date Inj'd : 3/5/2020 0:3: 6 Instrument :
Sample : WG1471270-4,3,250,250 Quant Date : 3/6/2021 7:46 am

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

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305T\
 Data File : r314338.D
 Acq On : 5 Mar 2021 12:36 PM
 Operator : AIRPIAN03:EW
 Sample : WG1471270-3,3,250,250
 Misc : WG1471270,ICAL17647
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 05 13:22:44 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305T\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 12:59:05 2021
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	bromochloromethane	10.000	10.000	0.0	120	0.03
2	chlorodifluoromethane	10.000	7.518	24.8	93	0.02
3	propylene	10.000	12.504	-25.0	151	0.02
4	propane	10.000	7.995	20.0	97	0.02
5	dichlorodifluoromethane	10.000	9.437	5.6	114	0.02
6 C	chloromethane	10.000	11.421	-14.2	141	0.02
7	Freon-114	10.000	10.003	-0.0	126	0.02
8 C	methanol	50.000	48.415	3.2	113	0.03
9 C	vinyl chloride	10.000	11.236	-12.4	138	0.02
10 C	1,3-butadiene	10.000	11.245	-12.4	137	0.03
11	butane	10.000	9.724	2.8	122	0.03
13 C	bromomethane	10.000	11.592	-15.9	141	0.03
14 C	chloroethane	10.000	12.535	-25.4	156	0.03
15	ethanol	50.000	44.915	10.2	100	0.03
16	dichlorofluoromethane	10.000	7.633	23.7	96	0.03
17 C	vinyl bromide	10.000	11.692	-16.9	140	0.03
18 C	acrolein	10.000	8.616	13.8	106	0.03
19	acetone	50.000	45.114	9.8	111	0.03
20 C	acetonitrile	10.000	9.719	2.8	121	0.03
21	trichlorofluoromethane	10.000	11.205	-12.1	136	0.03
22	isopropyl alcohol	25.000	25.911	-3.6	127	0.04
23 C	acrylonitrile	10.000	9.169	8.3	114	0.04
24	pentane	10.000	12.372	-23.7	158	0.03
25	ethyl ether	10.000	10.135	-1.3	119	0.04
26 C	1,1-dichloroethene	10.000	11.133	-11.3	135	0.04
27	tertiary butyl alcohol	10.000	8.697	13.0	104	0.04
28 C	methylene chloride	10.000	12.070	-20.7	146	0.04
29 C	3-chloropropene	10.000	12.750	-27.5	157	0.04
30 C	carbon disulfide	10.000	11.068	-10.7	132	0.04
31	Freon 113	10.000	12.730	-27.3	153	0.04
32	trans-1,2-dichloroethene	10.000	9.324	6.8	109	0.03
33 C	1,1-dichloroethane	10.000	11.510	-15.1	140	0.03
34 C	MTBE	10.000	10.005	-0.1	119	0.03
35 C	vinyl acetate	10.000	11.622	-16.2	137	0.03
36 C	2-butanone	10.000	11.934	-19.3	142	0.03
37	cis-1,2-dichloroethene	10.000	11.201	-12.0	135	0.04
38	Ethyl Acetate	10.000	11.415	-14.1	133	0.04
39 C	chloroform	10.000	9.823	1.8	118	0.03
40	Tetrahydrofuran	10.000	11.759	-17.6	143	0.04

TFS3_210219.M Sun Mar 07 09:50:31 2021

1

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305T\
 Data File : r314338.D
 Acq On : 5 Mar 2021 12:36 PM
 Operator : AIRPIAN03:EW
 Sample : WG1471270-3,3,250,250
 Misc : WG1471270,ICAL17647
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 05 13:22:44 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305T\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 12:59:05 2021
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	2,2-dichloropropane	10.000	7.232	27.7	87	0.04
42 C	1,2-dichloroethane	10.000	10.659	-6.6	129	0.04
43 I	1,4-difluorobenzene	10.000	10.000	0.0	112	0.04
44 C	hexane	10.000	11.103	-11.0	123	0.03
45	diisopropyl ether	10.000	8.778	12.2	100	0.03
46	tert-butyl ethyl ether	10.000	8.849	11.5	99	0.04
48 C	1,1,1-trichloroethane	10.000	12.056	-20.6	138	0.03
49	1,1-dichloropropene	10.000	8.353	16.5	95	0.03
50 C	benzene	10.000	9.726	2.7	113	0.03
52 C	carbon tetrachloride	10.000	10.541	-5.4	116	0.04
53	cyclohexane	10.000	10.862	-8.6	121	0.04
54	tert-amyl methyl ether	10.000	8.324	16.8	94	0.04
55	dibromomethane	10.000	9.461	5.4	108	0.03
56 C	1,2-dichloropropane	10.000	12.499	-25.0	141	0.03
57	bromodichloromethane	10.000	10.516	-5.2	116	0.04
58 C	1,4-dioxane	10.000	11.855	-18.6	131	0.03
59 C	trichloroethene	10.000	11.426	-14.3	129	0.03
60 C	2,2,4-trimethylpentane	10.000	11.446	-14.5	126	0.04
61	methyl methacrylate	10.000	7.761	22.4	87	0.04
62	heptane	10.000	12.581	-25.8	142	0.03
63 C	cis-1,3-dichloropropene	10.000	10.798	-8.0	121	0.04
64 C	4-methyl-2-pentanone	10.000	12.931	-29.3	143	0.04
65	trans-1,3-dichloropropene	10.000	9.146	8.5	102	0.03
66 C	1,1,2-trichloroethane	10.000	11.854	-18.5	134	0.03
67 I	chlorobenzene-D5	10.000	10.000	0.0	118	0.03
68 C	toluene	10.000	10.870	-8.7	132	0.03
71	1,3-dichloropropane	10.000	7.651	23.5	92	0.03
72	2-hexanone	10.000	12.272	-22.7	142	0.03
74	dibromochloromethane	10.000	11.682	-16.8	134	0.03
75 C	1,2-dibromoethane	10.000	9.804	2.0	116	0.03
76	butyl acetate	10.000	8.039	19.6	93	0.03
77	octane	10.000	8.119	18.8	97	0.03
78 C	tetrachloroethene	10.000	10.499	-5.0	125	0.03
79	1,1,1,2-tetrachloroethane	10.000	8.568	14.3	100	0.03
80 C	chlorobenzene	10.000	10.083	-0.8	117	0.03
81 C	ethylbenzene	10.000	11.131	-11.3	131	0.03
83 C	m+p-xylene	20.000	22.693	-13.5	132	0.02

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305T\
 Data File : r314338.D
 Acq On : 5 Mar 2021 12:36 PM
 Operator : AIRPIAN03:EW
 Sample : WG1471270-3,3,250,250
 Misc : WG1471270,ICAL17647
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 05 13:22:44 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305T\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 12:59:05 2021
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
84 C	bromoform	10.000	11.411	-14.1	128	0.02
85 C	styrene	10.000	9.826	1.7	114	0.03
86 C	1,1,2,2-tetrachloroethane	10.000	11.480	-14.8	133	0.02
87 C	o-xylene	10.000	11.451	-14.5	133	0.02
88	1,2,3-trichloropropane	10.000	7.731	22.7	92	0.03
89	nonane	10.000	9.256	7.4	110	0.02
91 C	isopropylbenzene	10.000	7.892	21.1	92	0.02
92	bromobenzene	10.000	7.899	21.0	93	0.02
93	2-chlorotoluene	10.000	8.429	15.7	101	0.03
94	n-propylbenzene	10.000	8.703	13.0	101	0.02
95	4-chlorotoluene	10.000	8.678	13.2	102	0.03
96	4-ethyl toluene	10.000	9.823	1.8	111	0.02
97	1,3,5-trimethylbenzene	10.000	11.306	-13.1	131	0.02
98	tert-butylbenzene	10.000	8.884	11.2	102	0.02
99	1,2,4-trimethylbenzene	10.000	10.852	-8.5	121	0.02
100	decane	10.000	9.165	8.4	105	0.02
101 C	Benzyl Chloride	10.000	12.288	-22.9	125	0.02
102	1,3-dichlorobenzene	10.000	10.713	-7.1	122	0.02
103 C	1,4-dichlorobenzene	10.000	11.022	-10.2	121	0.02
104	sec-butylbenzene	10.000	8.106	18.9	93	0.03
106	p-isopropyltoluene	10.000	8.196	18.0	93	0.03
107	1,2-dichlorobenzene	10.000	10.742	-7.4	122	0.03
108	n-butylbenzene	10.000	9.836	1.6	110	0.02
111 C	1,2-dibromo-3-chloropropane	10.000	8.865	11.3	96	0.02
112	undecane	10.000	9.627	3.7	106	0.02
114	dodecane	10.000	10.046	-0.5	102	0.03
115 C	1,2,4-trichlorobenzene	10.000	13.379	-33.8#	131	0.02
116	naphthalene	10.000	9.883	1.2	101	0.02
117	1,2,3-trichlorobenzene	10.000	9.526	4.7	96	0.02
119 C	hexachlorobutadiene	10.000	11.602	-16.0	123	0.02

* Evaluation of CC level amount vs concentration.
 (#) = Out of Range SPCC's out = 0 CCC's out = 1

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305T\
 Data File : r314338.D
 Acq On : 5 Mar 2021 12:36 PM
 Operator : AIRPIAN03:EW
 Sample : WG1471270-3,3,250,250
 Misc : WG1471270,ICAL17647
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 05 13:22:44 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305T\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 12:59:05 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\03\0305T\r314338.D
 Sub List : Default-LCS-AP2 - All compounds listed

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

Internal Standards						
1) bromochloromethane	9.608	49	440496	10.000	ppbV	0.03
Standard Area = 440496			Recovery = 100.00%			
43) 1,4-difluorobenzene	11.880	114	1115642	10.000	ppbV	# 0.04
Standard Area = 1115642			Recovery = 100.00%			
67) chlorobenzene-D5	16.600	54	185080	10.000	ppbV	0.03
Standard Area = 185080			Recovery = 100.00%			

System Monitoring Compounds

Target Compounds					Qvalue	
5) dichlorodifluoromethane	4.030	85	309459	9.437	ppbV	100
6) chloromethane	4.210	50	207411	11.421	ppbV	98
7) Freon-114	4.336	85	466438	10.003	ppbV	94
9) vinyl chloride	4.468	62	233571	11.236	ppbV	98
10) 1,3-butadiene	4.636	54	218992	11.245	ppbV	97
13) bromomethane	4.954	94	180194	11.592	ppbV	96
14) chloroethane	5.176	64	141051	12.535	ppbV	99
15) ethanol	5.343	31	778717	44.915	ppbV	89
17) vinyl bromide	5.603	106	198660	11.692	ppbV	99
19) acetone	5.910	43	1377822	45.114	ppbV	# 95
21) trichlorofluoromethane	6.123	101	284899	11.205	ppbV	99
22) isopropyl alcohol	6.240	45	1015441	25.911	ppbV	98
26) 1,1-dichloroethene	6.896	61	289227	11.133	ppbV	92
27) tertiary butyl alcohol	6.974	59	328539	8.697	ppbV	94
28) methylene chloride	7.064	49	279081	12.070	ppbV	92
29) 3-chloropropene	7.202	41	400051	12.750	ppbV	95
30) carbon disulfide	7.352	76	724772	11.068	ppbV	99
31) Freon 113	7.394	101	407471	12.730	ppbV	88
32) trans-1,2-dichloroethene	8.192	61	323371	9.324	ppbV	91
33) 1,1-dichloroethane	8.425	63	474040	11.510	ppbV	100
34) MTBE	8.508	73	687505	10.005	ppbV	97
36) 2-butanone	8.908	43	662437	11.934	ppbV	94
37) cis-1,2-dichloroethene	9.425	61	338552	11.201	ppbV	98
38) Ethyl Acetate	9.725	61	106366	11.415	ppbV	99
39) chloroform	9.775	83	383164	9.823	ppbV	97
40) Tetrahydrofuran	10.225	42	414197	11.759	ppbV	90
42) 1,2-dichloroethane	10.625	62	237047	10.659	ppbV	96

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305T\
 Data File : r314338.D
 Acq On : 5 Mar 2021 12:36 PM
 Operator : AIRPIAN03:EW
 Sample : WG1471270-3,3,250,250
 Misc : WG1471270,ICAL17647
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 05 13:22:44 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305T\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 12:59:05 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\03\0305T\r314338.D
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) hexane	9.683	57	485143	11.103	ppbV	90
48) 1,1,1-trichloroethane	10.908	97	354760	12.056	ppbV	98
50) benzene	11.440	78	813852	9.726	ppbV	100
52) carbon tetrachloride	11.613	117	278869	10.541	ppbV	99
53) cyclohexane	11.760	56	507472	10.862	ppbV #	93
56) 1,2-dichloropropane	12.393	63	326104	12.499	ppbV	100
57) bromodichloromethane	12.627	83	425997	10.516	ppbV	98
58) 1,4-dioxane	12.667	88	216593	11.855	ppbV	98
59) trichloroethene	12.673	130	329902	11.426	ppbV	98
60) 2,2,4-trimethylpentane	12.727	57	1554020	11.446	ppbV	94
62) heptane	13.040	43	692998	12.581	ppbV	93
63) cis-1,3-dichloropropene	13.692	75	434823	10.798	ppbV #	90
64) 4-methyl-2-pentanone	13.733	43	811541	12.931	ppbV	93
65) trans-1,3-dichloropropene	14.308	75	337997	9.146	ppbV #	91
66) 1,1,2-trichloroethane	14.508	97	311164	11.854	ppbV	96
68) toluene	14.825	91	989678	10.870	ppbV	100
72) 2-hexanone	15.100	43	748250	12.272	ppbV	93
74) dibromochloromethane	15.267	129	421889	11.682	ppbV	99
75) 1,2-dibromoethane	15.517	107	407233	9.804	ppbV	99
78) tetrachloroethene	15.983	166	412285	10.499	ppbV	99
80) chlorobenzene	16.642	112	729534	10.083	ppbV	99
81) ethylbenzene	16.992	91	1217138	11.131	ppbV	91
83) m+p-xylene	17.150	91	1987896	22.693	ppbV	89
84) bromoform	17.217	173	402010	11.411	ppbV	99
85) styrene	17.475	104	773518	9.826	ppbV	100
86) 1,1,2,2-tetrachloroethane	17.567	83	714772	11.480	ppbV	98
87) o-xylene	17.567	91	995811	11.451	ppbV	92
96) 4-ethyl toluene	18.625	105	1346690	9.823	ppbV	94
97) 1,3,5-trimethylbenzene	18.683	105	1256919	11.306	ppbV	94
99) 1,2,4-trimethylbenzene	19.017	105	1127763	10.852	ppbV	93
101) Benzyl Chloride	19.133	91	863805	12.288	ppbV	100
102) 1,3-dichlorobenzene	19.142	146	704467	10.713	ppbV	99
103) 1,4-dichlorobenzene	19.200	146	693340	11.022	ppbV	100
107) 1,2-dichlorobenzene	19.475	146	669677	10.742	ppbV	99
115) 1,2,4-trichlorobenzene	20.942	180	551032	13.379	ppbV	98
119) hexachlorobutadiene	21.375	225	537851	11.602	ppbV	98

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

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305T\
 Data File : r314338.D
 Acq On : 5 Mar 2021 12:36 PM
 Operator : AIRPIAN03:EW
 Sample : WG1471270-3,3,250,250
 Misc : WG1471270,ICAL17647
 ALS Vial : 0 Sample Multiplier: 1

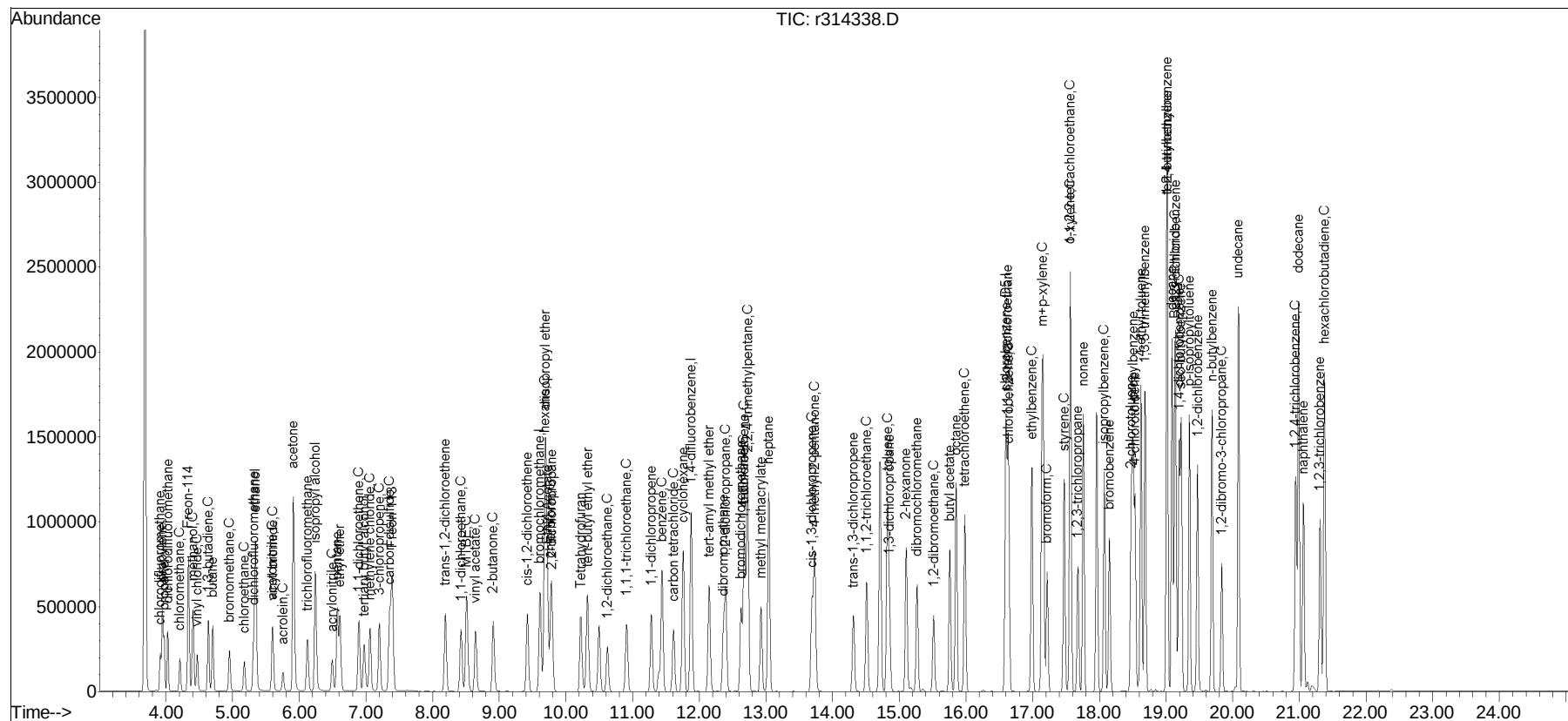
Quant Time: Mar 05 13:22:44 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305T\TFS3_210219.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 12:59:05 2021
 Response via : Initial Calibration

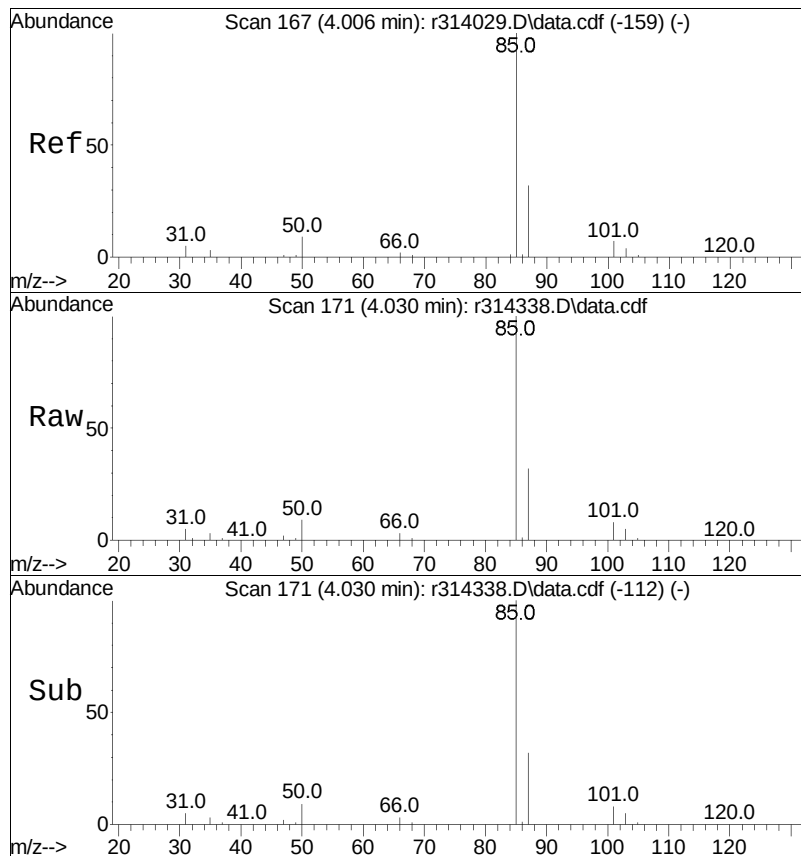
CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\03\0305T\r314338.D
 Sub List : Default-LCS-AP2 - All compounds listed

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

```
Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305T\
Data File : r314338.D
Acq On    : 5 Mar 2021 12:36 PM
Operator  : AIRPIAN03:EW
Sample    : WG1471270-3,3,250,250
Misc      : WG1471270,ICAL17647
ALS Vial  : 0 Sample Multiplier: 1
```

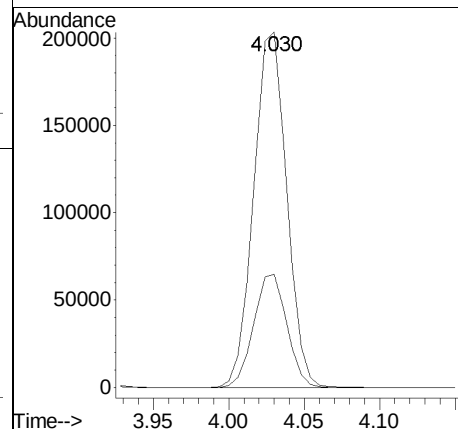
Quant Time: Mar 05 13:22:44 2021
Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305T\TFS3_210219.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Feb 20 12:59:05 2021
Response via : Initial Calibration

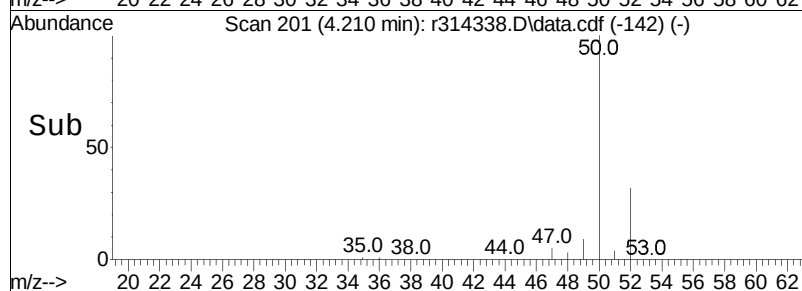
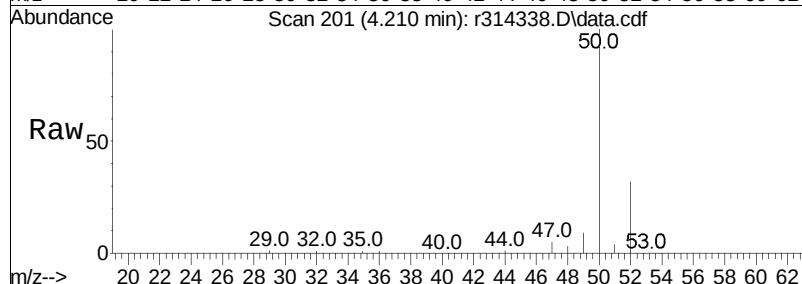
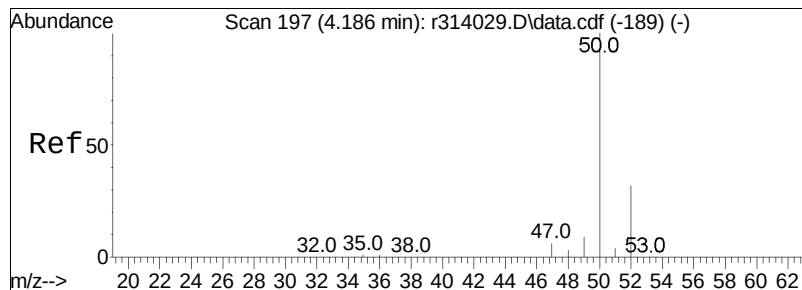




#5
 dichlorodifluoromethane
 Concen: 9.44 ppbV
 RT: 4.030 min Scan# 171
 Delta R.T. 0.024 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

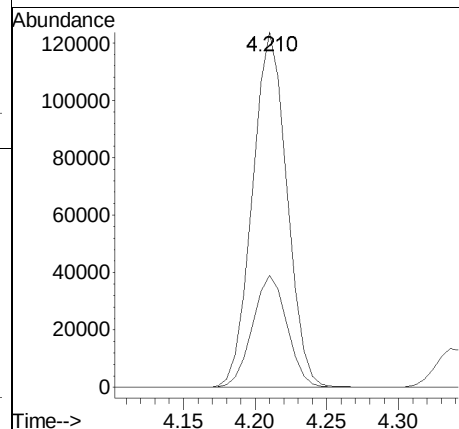
Tgt Ion	Ratio	Lower	Upper
85	100		
87	31.8	25.4	38.0

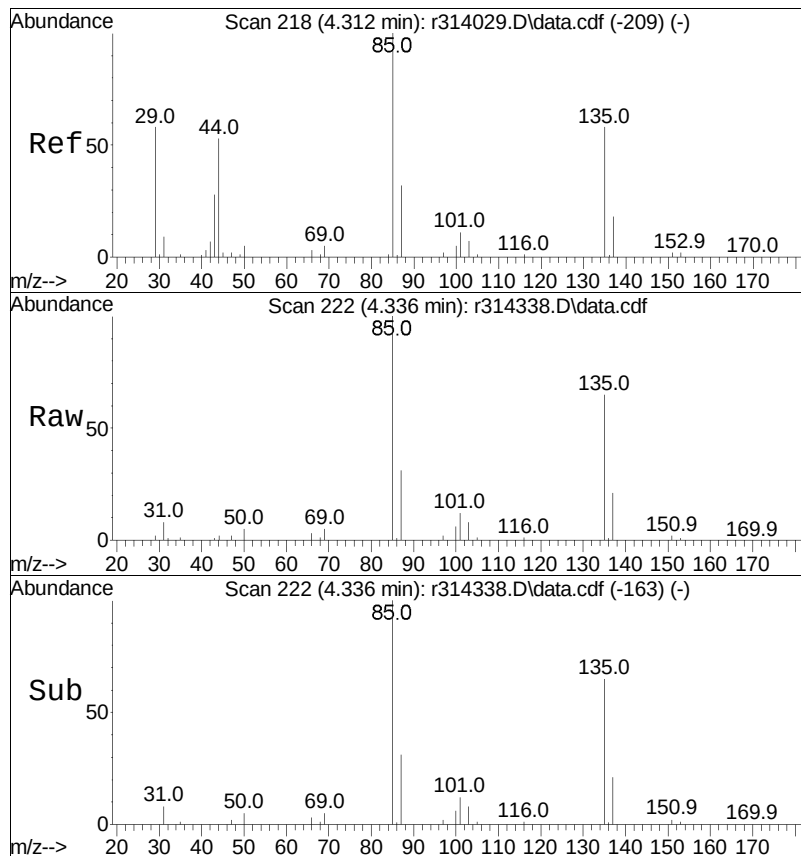




#6
chloromethane
Concen: 11.42 ppbV
RT: 4.210 min Scan# 201
Delta R.T. 0.024 min
Lab File: r314338.D
Acq: 5 Mar 2021 12:36 PM

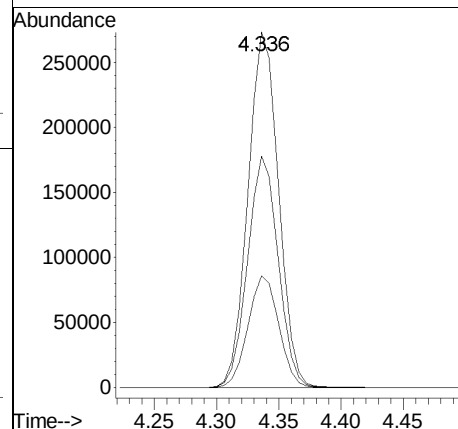
Tgt	Ion	Resp	Lower	Upper
50	100	207411		
52	31.6		26.0	39.0

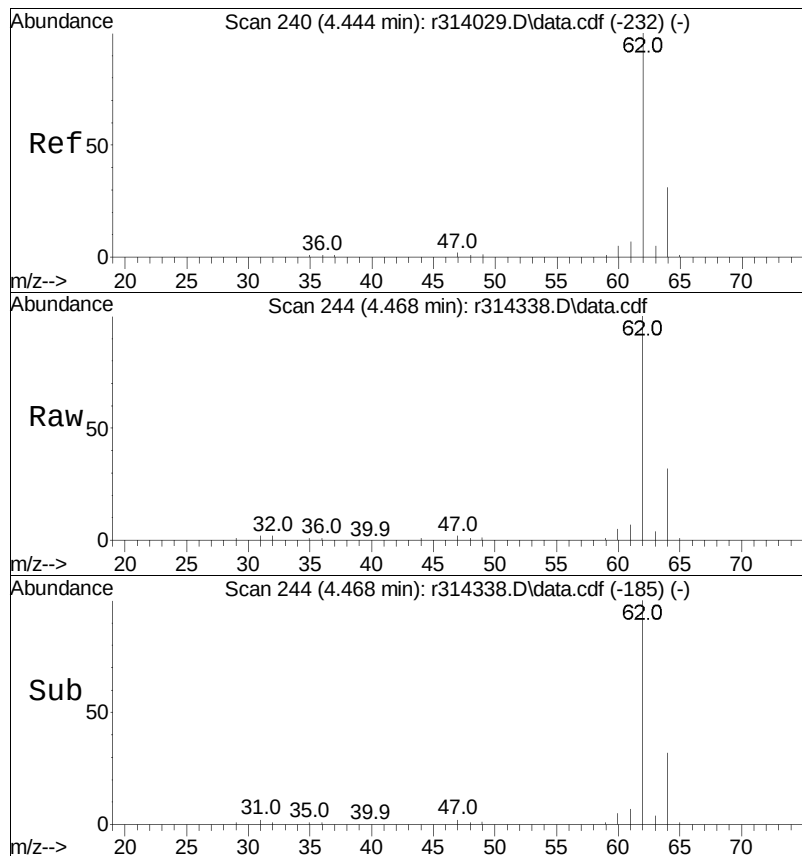




#7
 Freon-114
 Concen: 10.00 ppbV
 RT: 4.336 min Scan# 222
 Delta R.T. 0.024 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

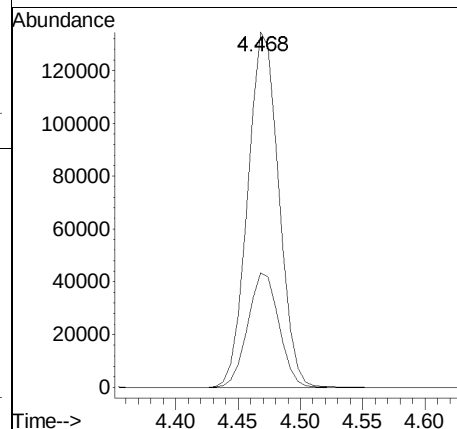
Tgt Ion:	85	Resp:	466438
Ion Ratio	Lower	Upper	
85	100		
87	31.4	25.4	38.0
135	65.1	46.3	69.5

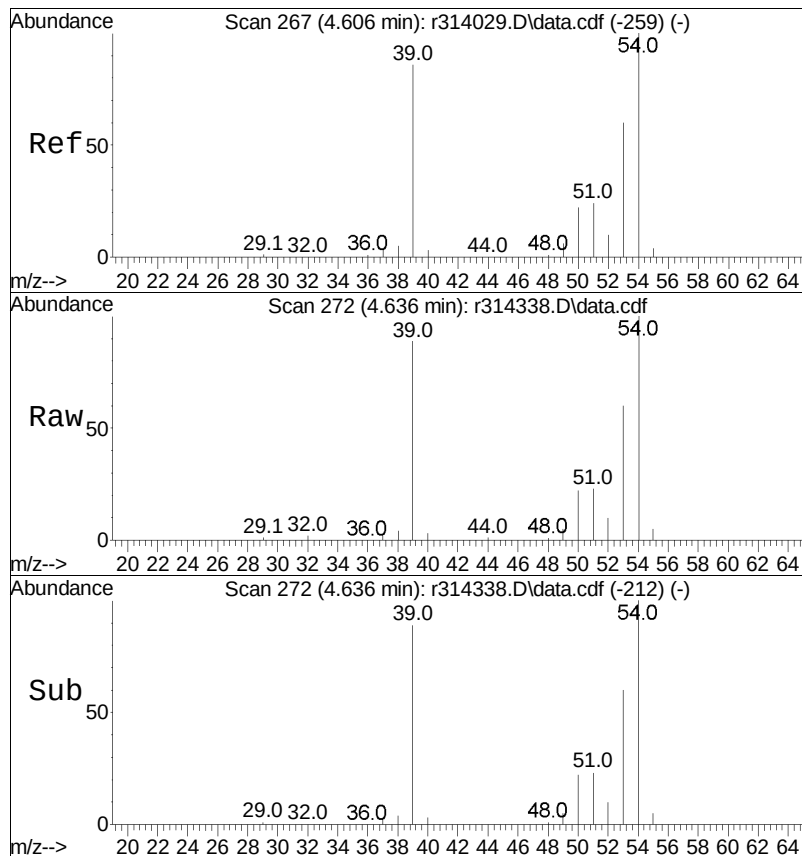




#9
 vinyl chloride
 Concen: 11.24 ppbV
 RT: 4.468 min Scan# 244
 Delta R.T. 0.024 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

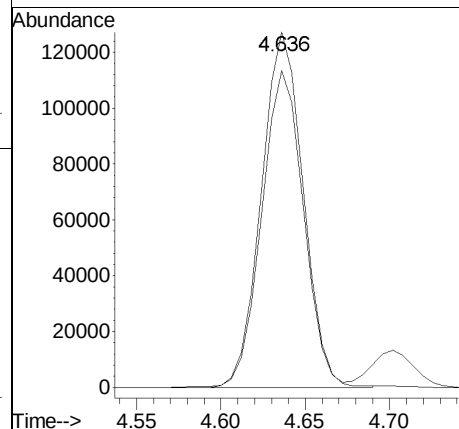
Tgt Ion	Ratio	Lower	Upper
62	100		
64	32.2	24.8	37.2

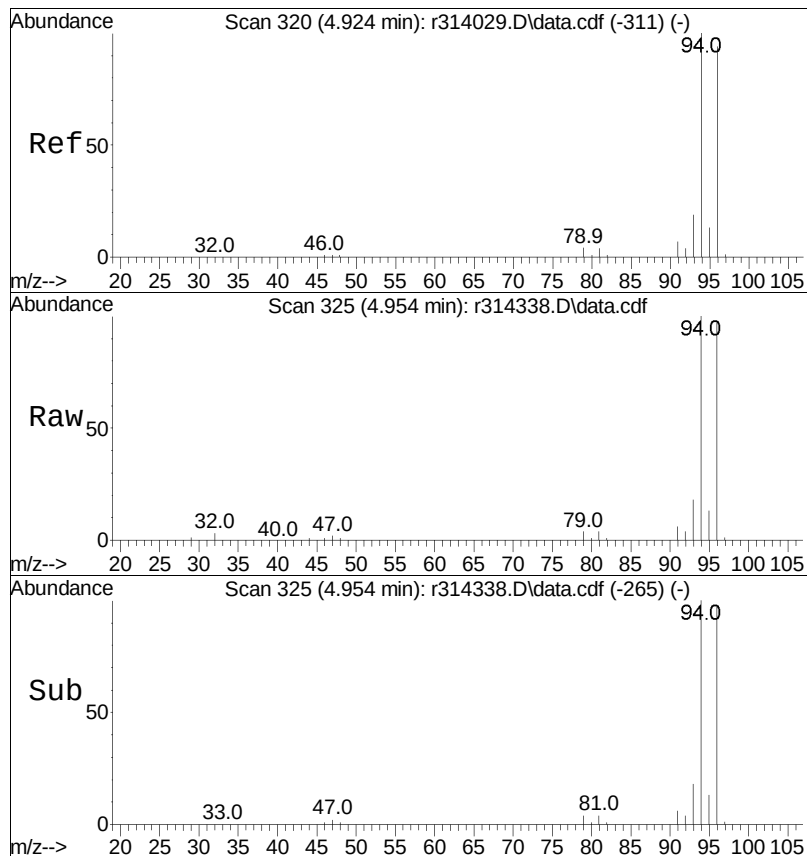




#10
 1,3-butadiene
 Concen: 11.24 ppbV
 RT: 4.636 min Scan# 272
 Delta R.T. 0.030 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

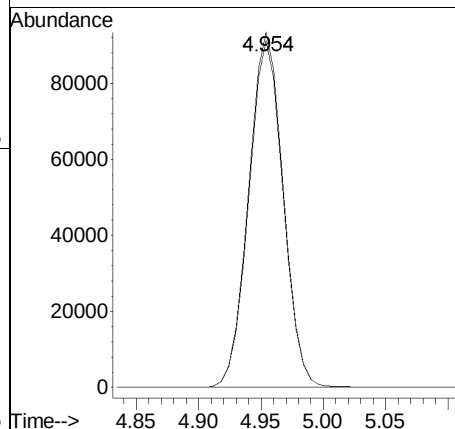
Tgt Ion	Ratio	Lower	Upper
54	100		
39	89.2	68.8	103.2

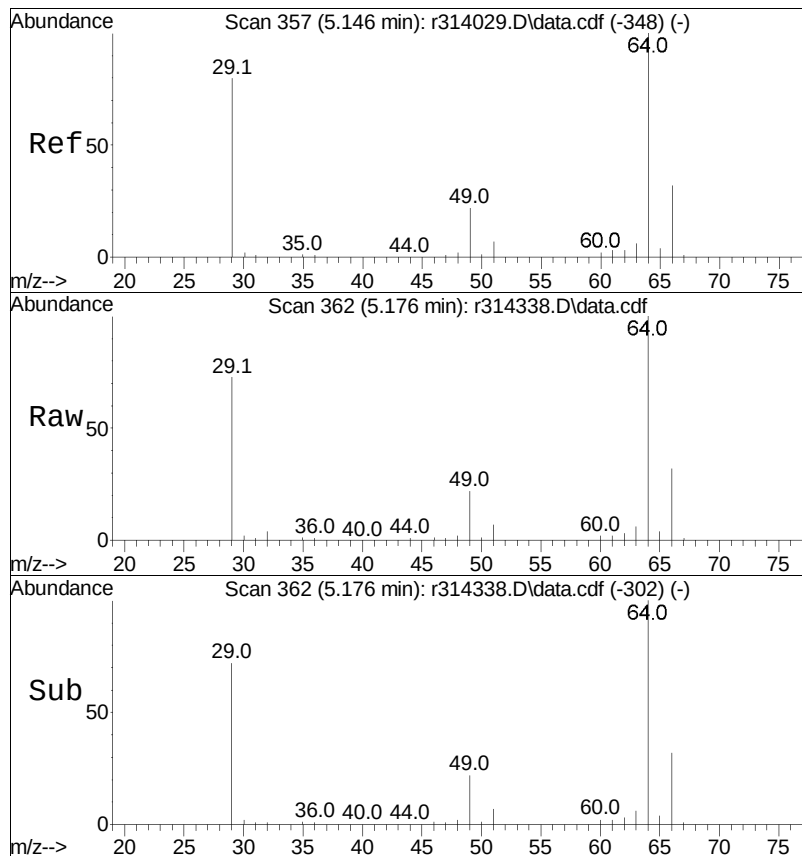




#13
bromomethane
Concen: 11.59 ppbV
RT: 4.954 min Scan# 325
Delta R.T. 0.030 min
Lab File: r314338.D
Acq: 5 Mar 2021 12:36 PM

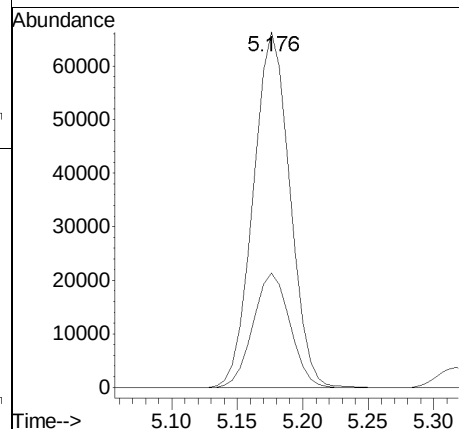
Tgt Ion	Ratio	Lower	Upper
94	100		
96	97.6	75.0	112.4

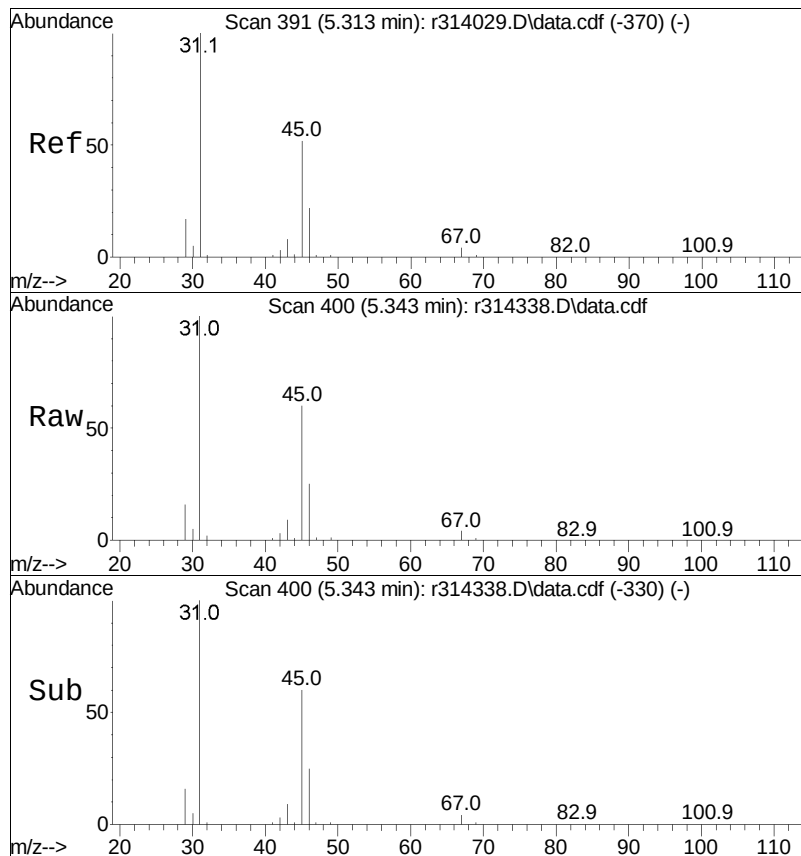




#14
 chloroethane
 Concen: 12.53 ppbV
 RT: 5.176 min Scan# 362
 Delta R.T. 0.030 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

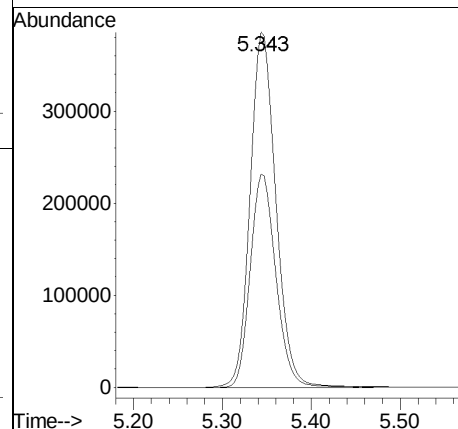
Tgt Ion:	64	Resp:	141051
Ion Ratio	Lower	Upper	
64	100		
66	32.2	25.3	37.9

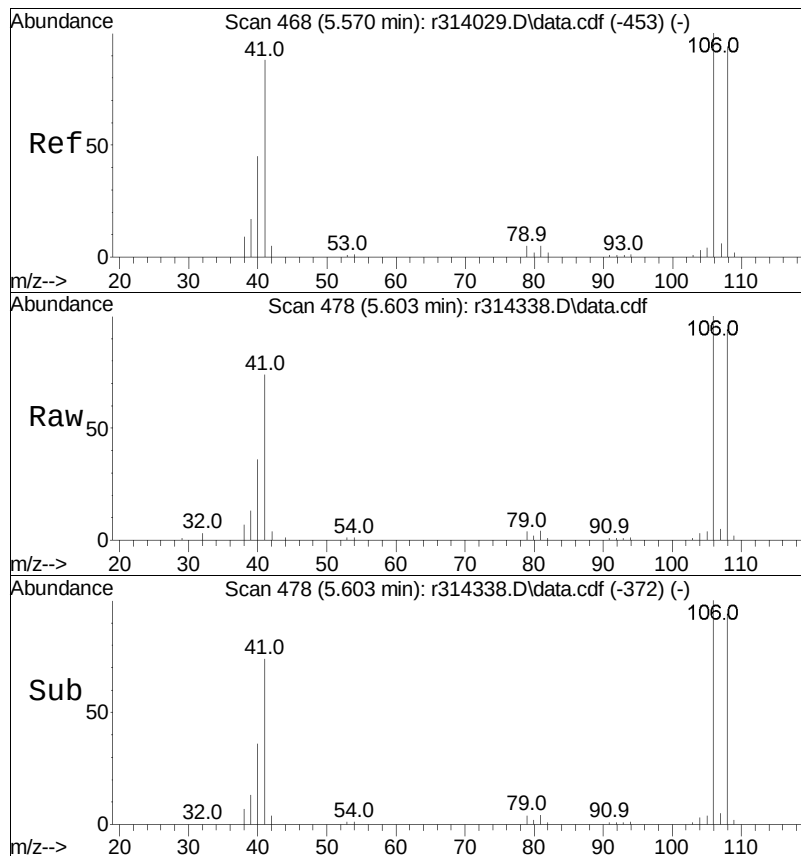




#15
 ethanol
 Concen: 44.91 ppbV
 RT: 5.343 min Scan# 400
 Delta R.T. 0.030 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

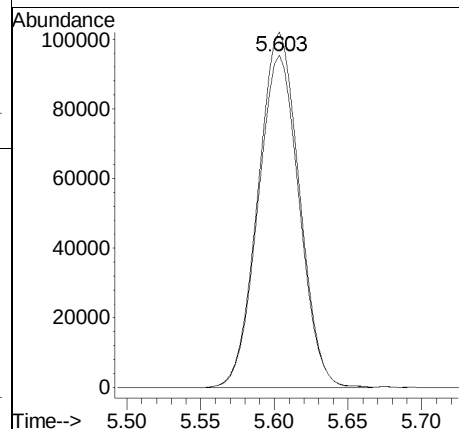
Tgt	Ion	Ratio	Lower	Upper
31	100			
45	60.0	41.9	62.9	

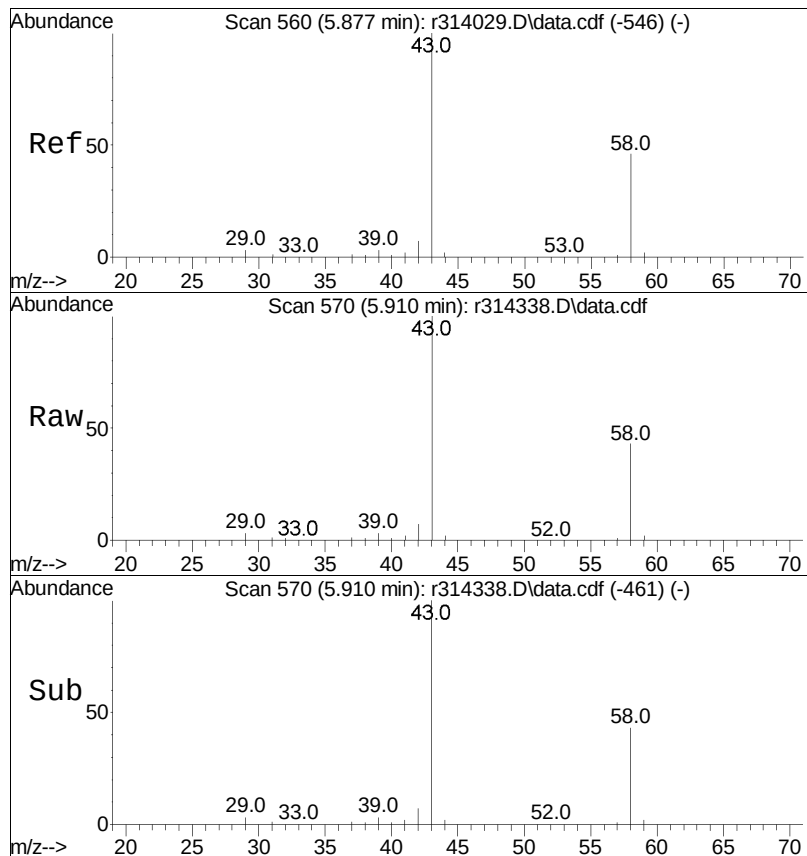




#17
 vinyl bromide
 Concen: 11.69 ppbV
 RT: 5.603 min Scan# 478
 Delta R.T. 0.033 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

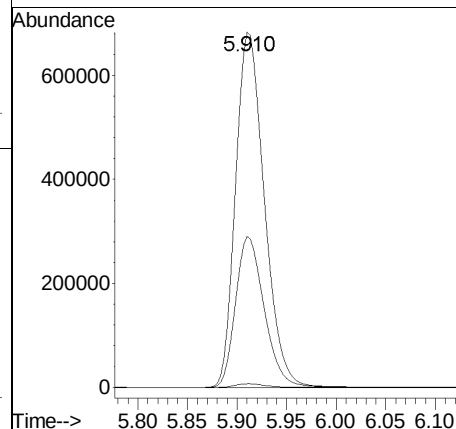
Tgt Ion	Ratio	Resp	Lower	Upper
106	100	198660		
108	93.5	75.5	113.3	

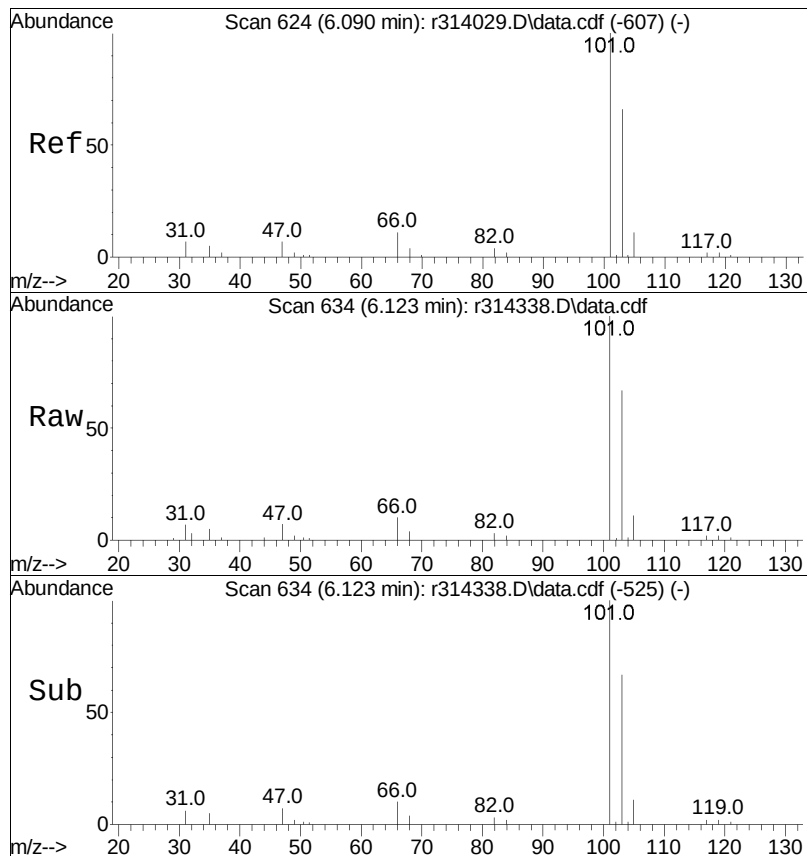




#19
acetone
Concen: 45.11 ppbV
RT: 5.910 min Scan# 570
Delta R.T. 0.033 min
Lab File: r314338.D
Acq: 5 Mar 2021 12:36 PM

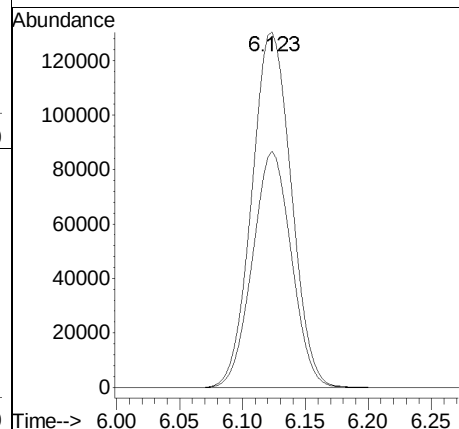
Tgt Ion:	43	58	57	Ratio	Lower	Upper
Resp:	1377822					
	100	42.5	1.0		36.7	55.1
					1.0	1.6#

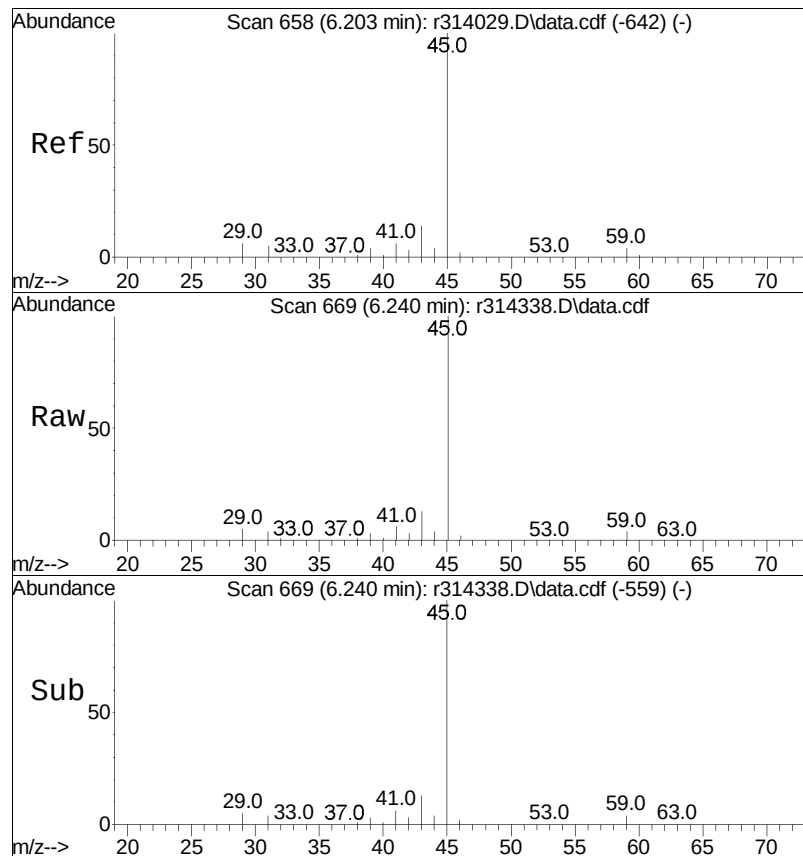




#21
 trichlorofluoromethane
 Concen: 11.21 ppbV
 RT: 6.123 min Scan# 634
 Delta R.T. 0.033 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

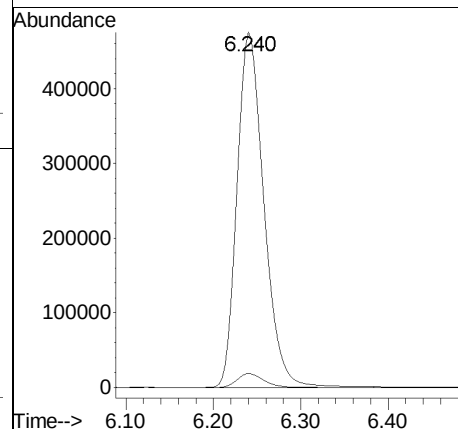
Tgt Ion	101	Resp	284899
Ion Ratio	Lower	Upper	
101	100		
103	66.5	52.6	78.8

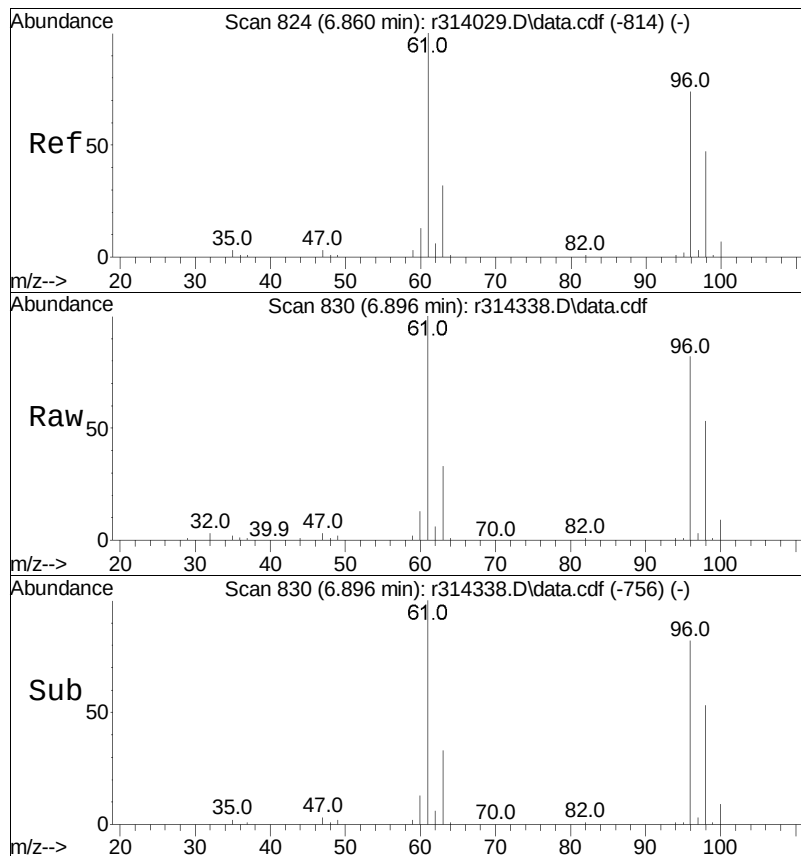




#22
 isopropyl alcohol
 Concen: 25.91 ppbV
 RT: 6.240 min Scan# 669
 Delta R.T. 0.037 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

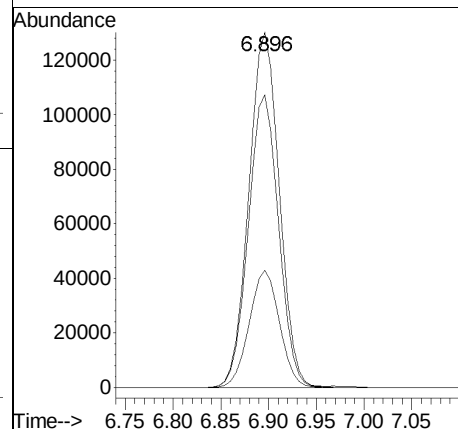
Tgt	Ion	Ratio	Lower	Upper
45	100			
59	3.9		3.5	5.3

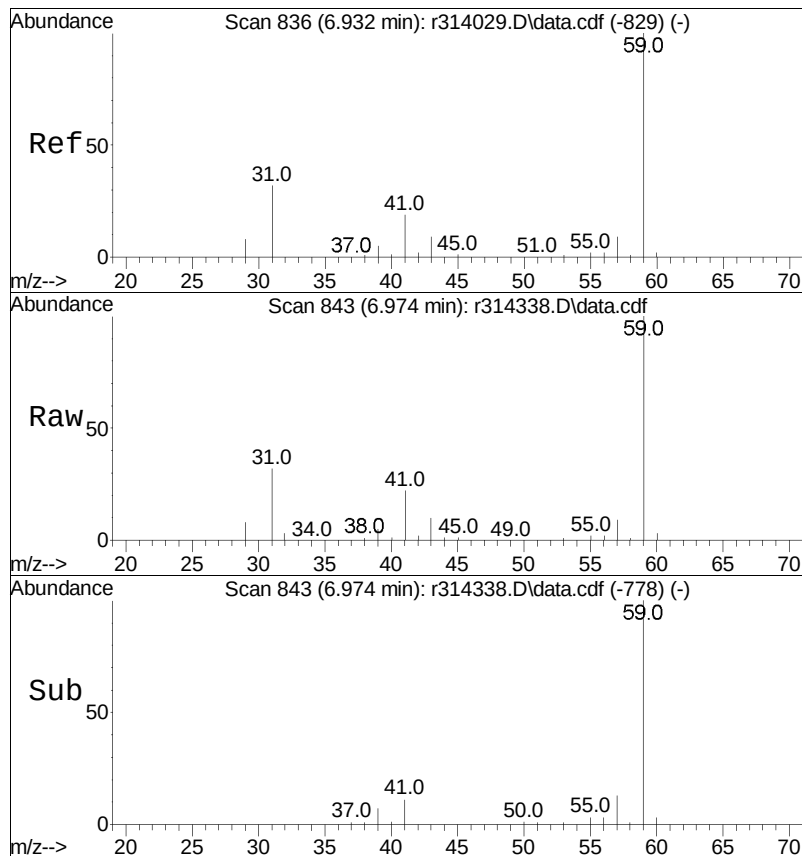




#26
 1,1-dichloroethene
 Concen: 11.13 ppbV
 RT: 6.896 min Scan# 830
 Delta R.T. 0.036 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

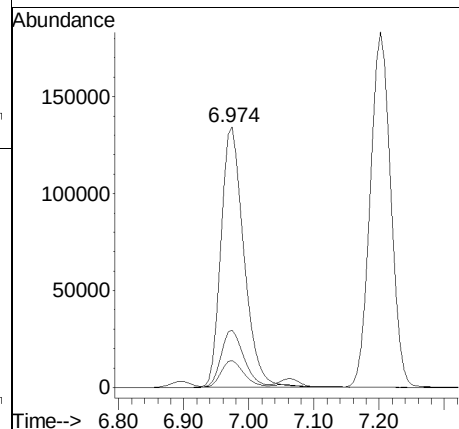
Tgt	Ion: 61	Resp: 289227
Ion	Ratio	Lower Upper
61	100	
96	82.3	58.9 88.3
63	33.0	25.3 37.9

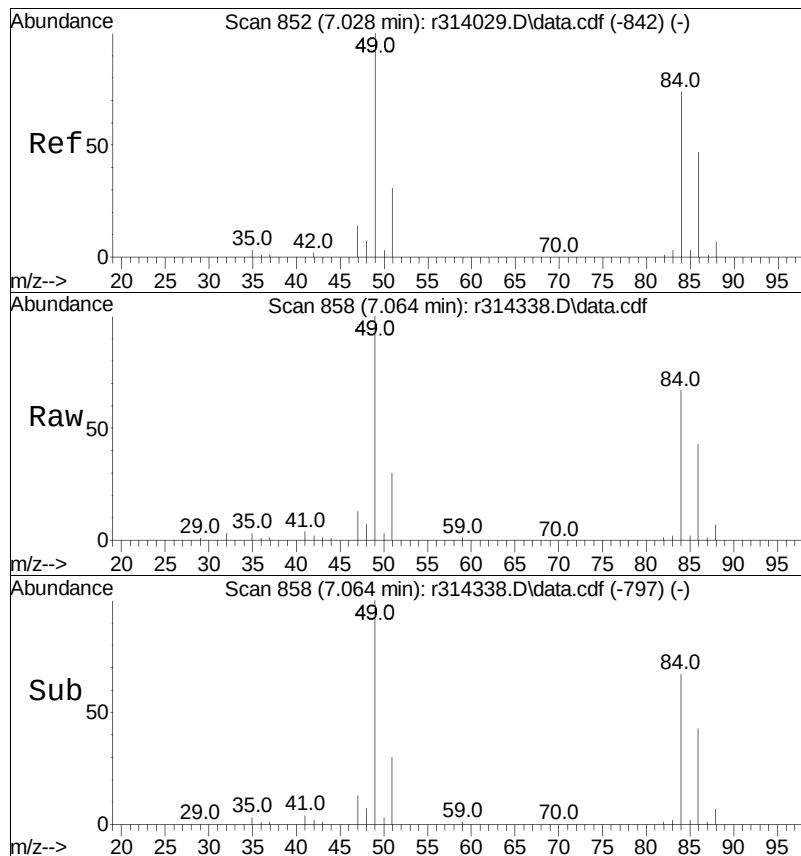




#27
 tertiary butyl alcohol
 Concen: 8.70 ppbV
 RT: 6.974 min Scan# 843
 Delta R.T. 0.042 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

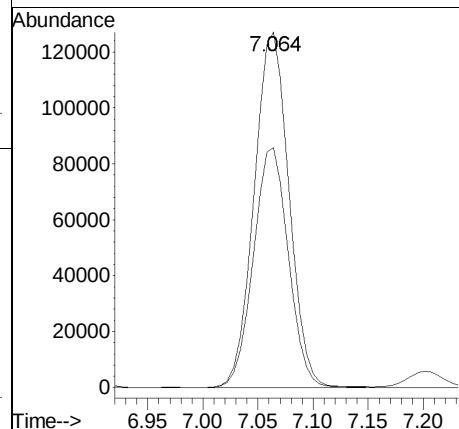
Tgt Ion:	59	Resp:	328539
Ion Ratio	Lower	Upper	
59	100		
41	22.0	15.0	22.6
43	10.3	7.4	11.2

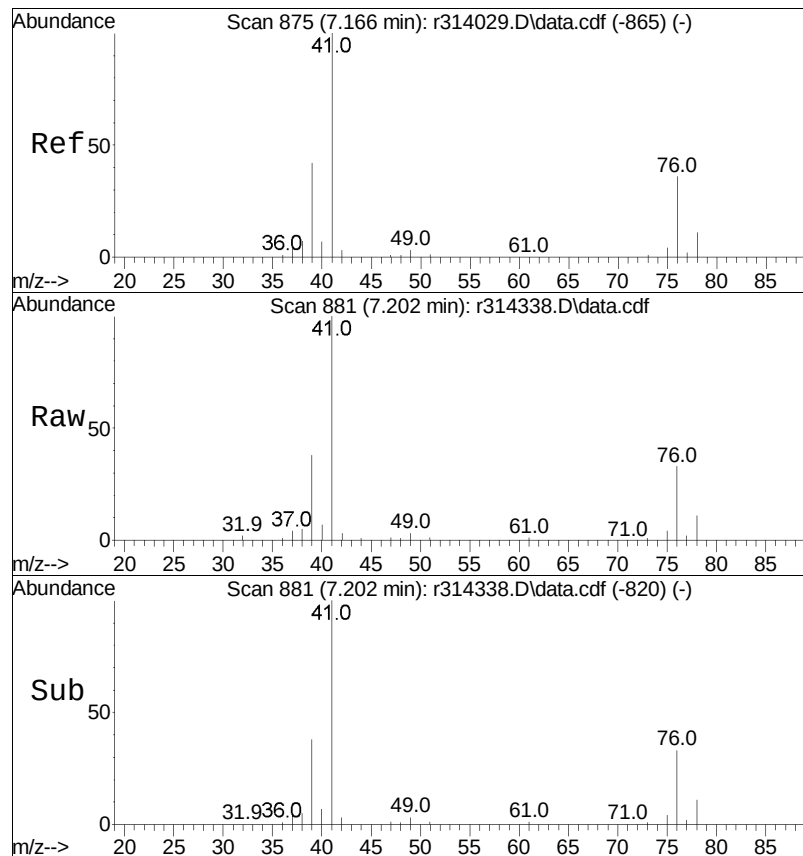




#28
 methylene chloride
 Concen: 12.07 ppbV
 RT: 7.064 min Scan# 858
 Delta R.T. 0.036 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

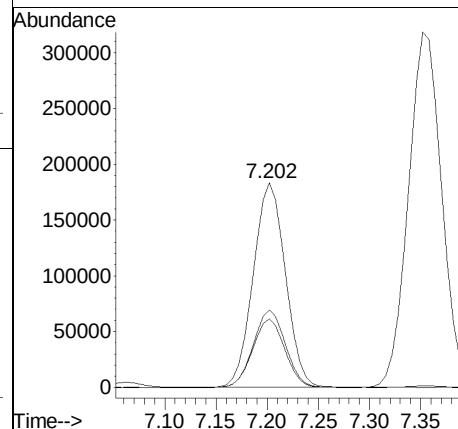
Tgt Ion:	49	84	Ratio	100	67.5	Resp:	279081	Lower	59.5	Upper	89.3
Ion	49	84	Ratio	100	67.5	Resp:	279081	Lower	59.5	Upper	89.3

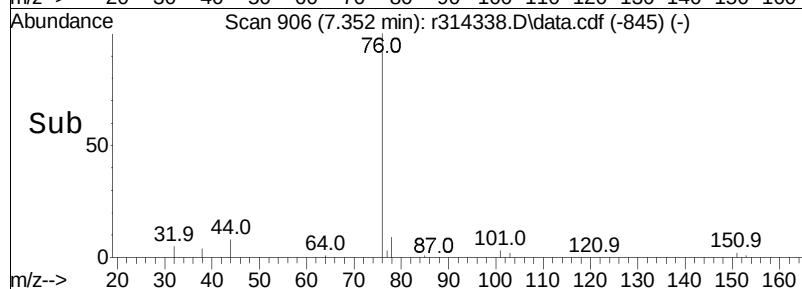
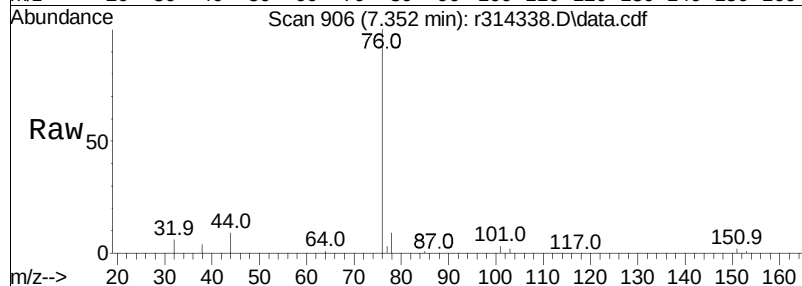
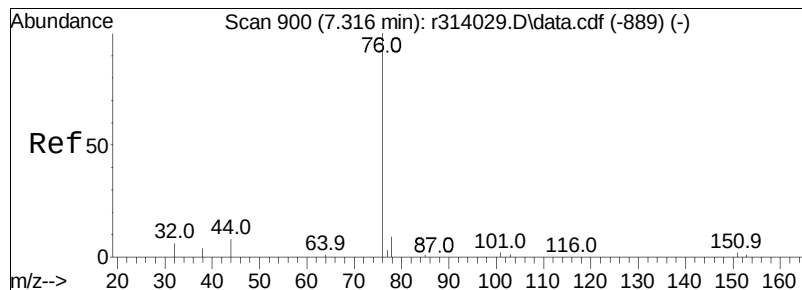




#29
 3-chloropropene
 Concen: 12.75 ppbV
 RT: 7.202 min Scan# 881
 Delta R.T. 0.036 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

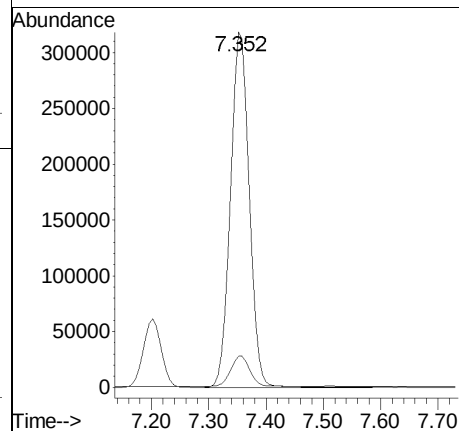
Tgt Ion:	41	Resp:	400051
Ion Ratio	Lower	Upper	
41	100		
39	38.0	33.4	50.2
76	33.5	28.4	42.6

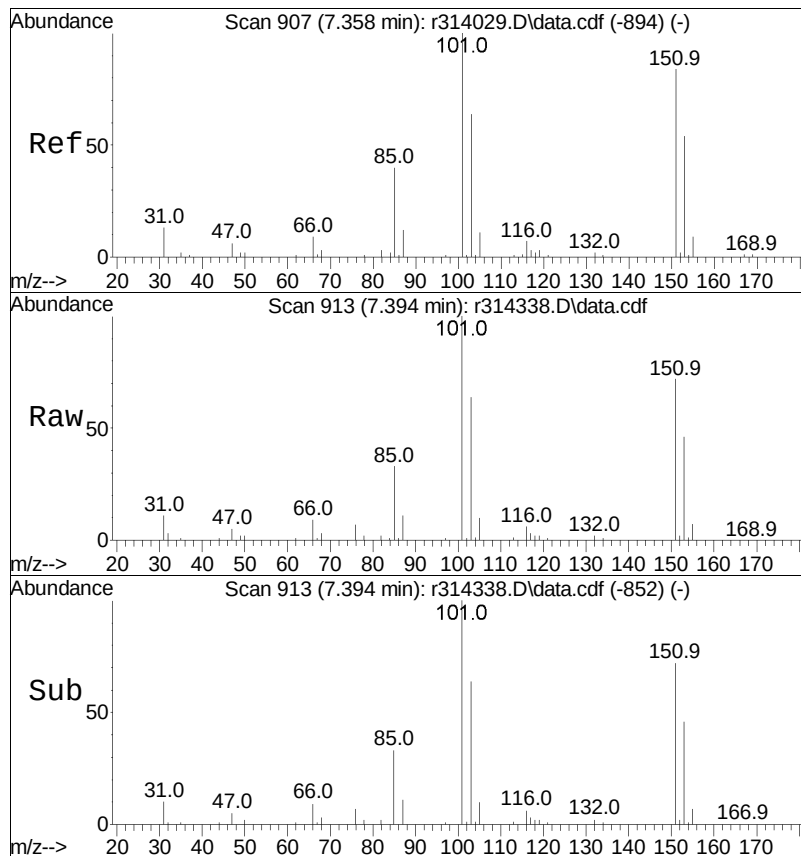




#30
carbon disulfide
Concen: 11.07 ppbV
RT: 7.352 min Scan# 906
Delta R.T. 0.036 min
Lab File: r314338.D
Acq: 5 Mar 2021 12:36 PM

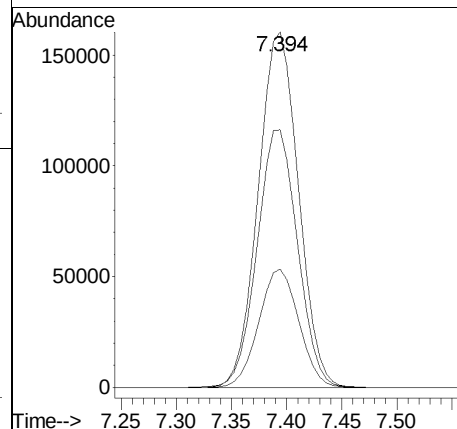
Tgt Ion	Ratio	Lower	Upper
76	100		
44	8.8	6.7	10.1

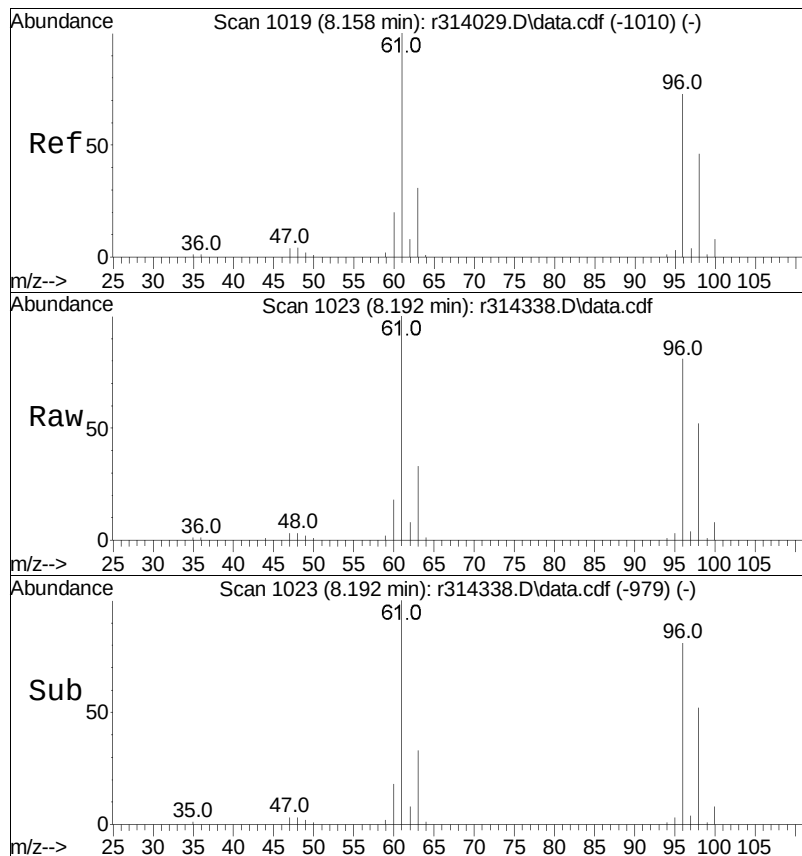




#31
 Freon 113
 Concen: 12.73 ppbV
 RT: 7.394 min Scan# 913
 Delta R.T. 0.036 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

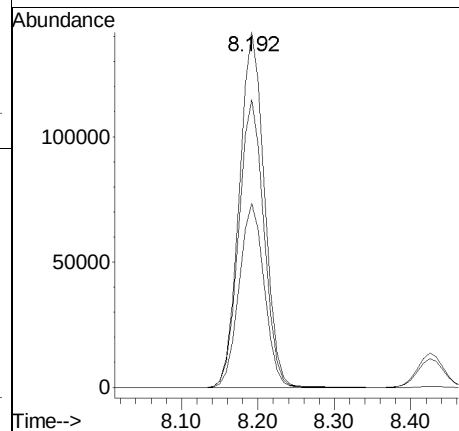
Tgt	Ion:101	Resp:	407471
Ion	Ratio	Lower	Upper
101	100		
85	33.3	31.7	47.5
151	72.5	67.4	101.0

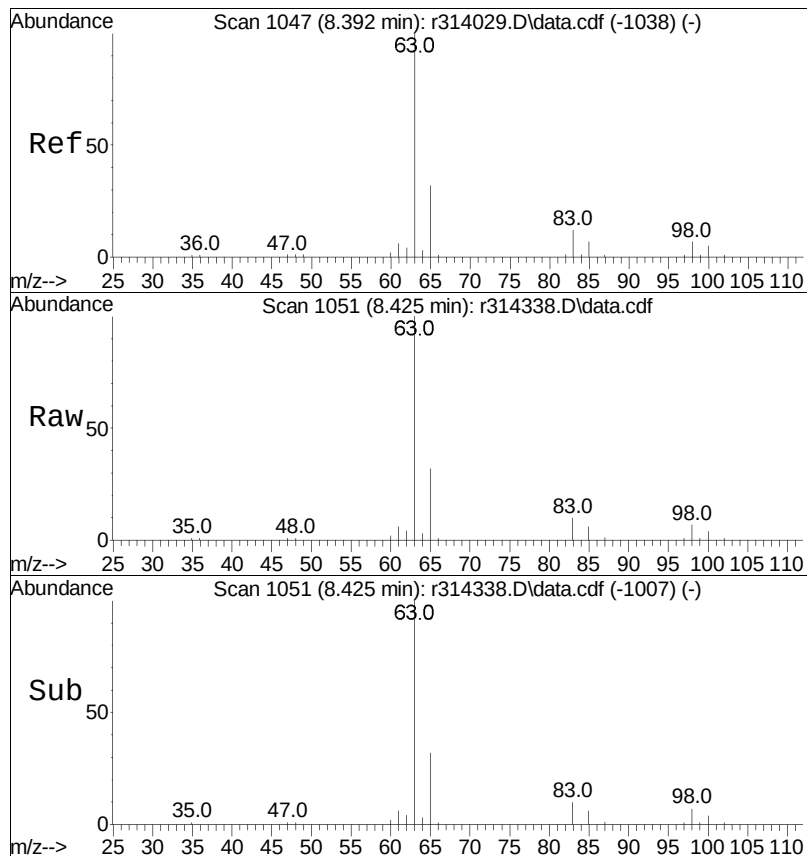




#32
 trans-1,2-dichloroethene
 Concen: 9.32 ppbV
 RT: 8.192 min Scan# 1023
 Delta R.T. 0.033 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

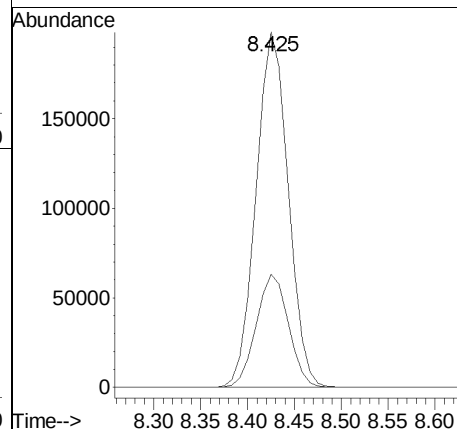
Tgt Ion	Ratio	Lower	Upper
61	100		
96	81.0	58.6	88.0
98	51.8	37.1	55.7

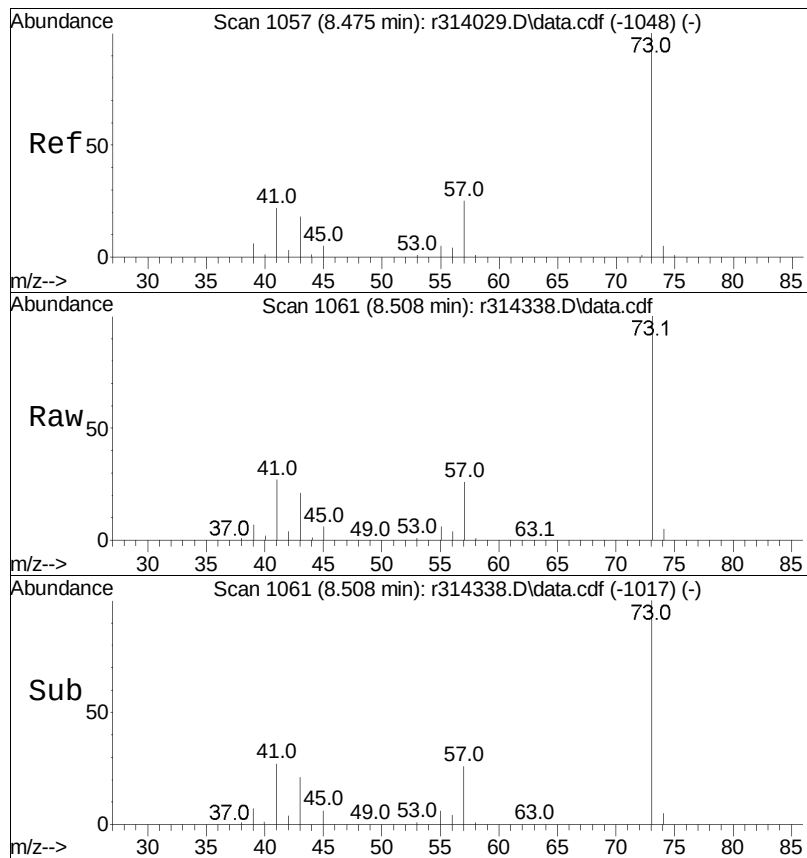




#33
 1,1-dichloroethane
 Concen: 11.51 ppbV
 RT: 8.425 min Scan# 1051
 Delta R.T. 0.033 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

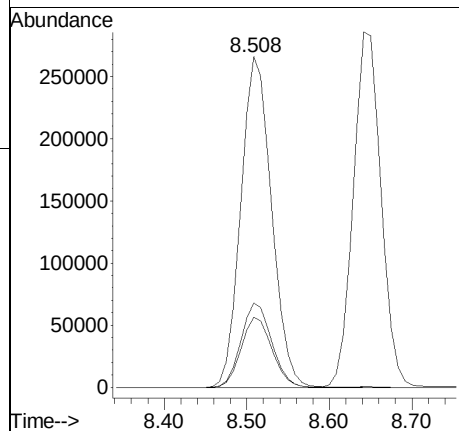
Tgt Ion	Ratio	Lower	Upper
63	100		
65	31.8	25.3	37.9

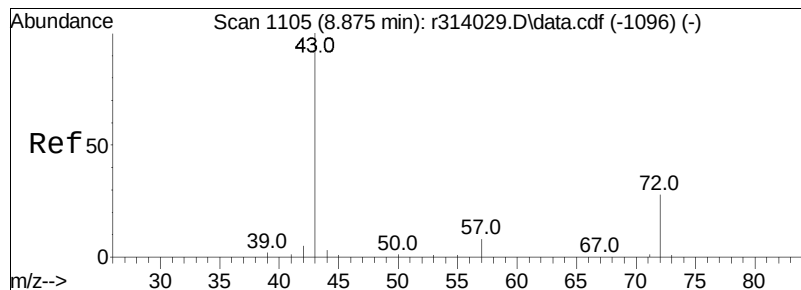




#34
 MTBE
 Concen: 10.00 ppbV
 RT: 8.508 min Scan# 1061
 Delta R.T. 0.033 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

Tgt Ion: 73	Resp: 687505
Ion Ratio	Lower Upper
73 100	
57 25.5	20.3 30.5
43 21.2	14.4 21.6





#36

2-butanone

Concen: 11.93 ppbV

RT: 8.908 min Scan# 1109

Delta R.T. 0.033 min

Lab File: r314338.D

Acq: 5 Mar 2021 12:36 PM

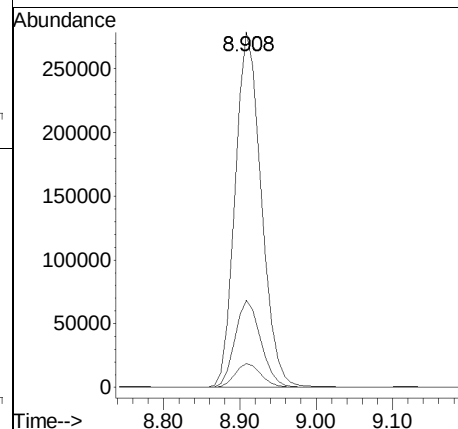
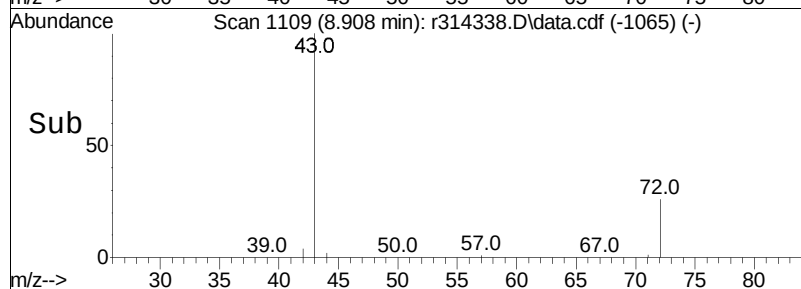
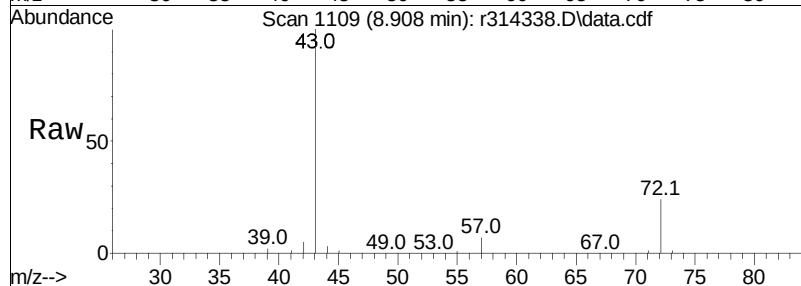
Tgt Ion: 43 Resp: 662437

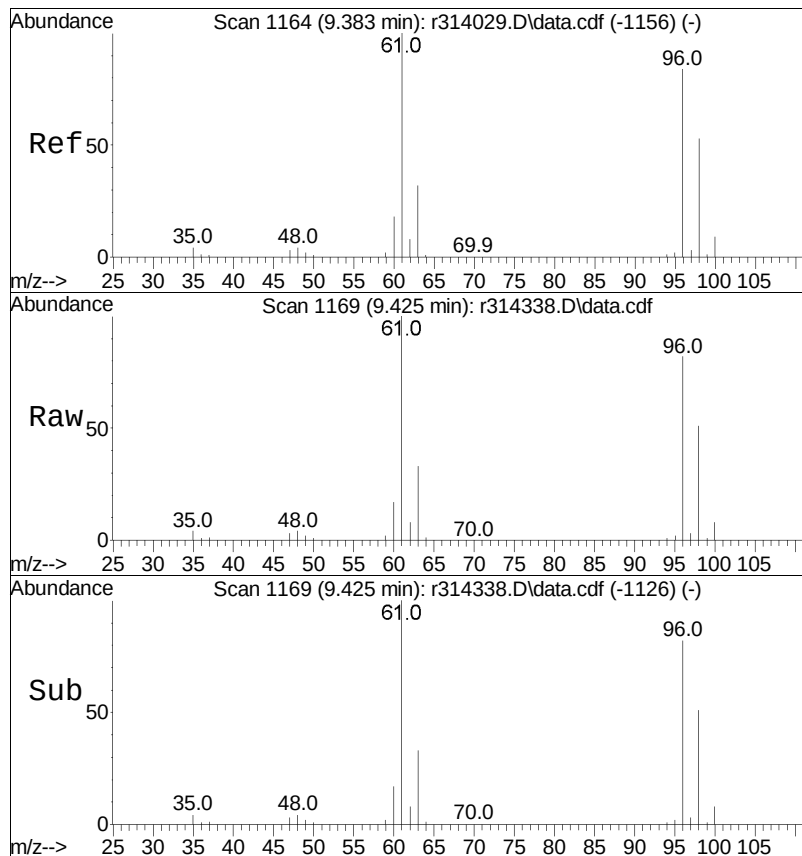
Ion Ratio Lower Upper

43 100

72 24.5 22.2 33.2

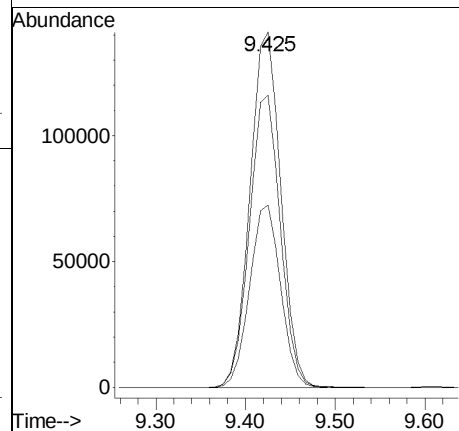
57 6.7 6.3 9.5

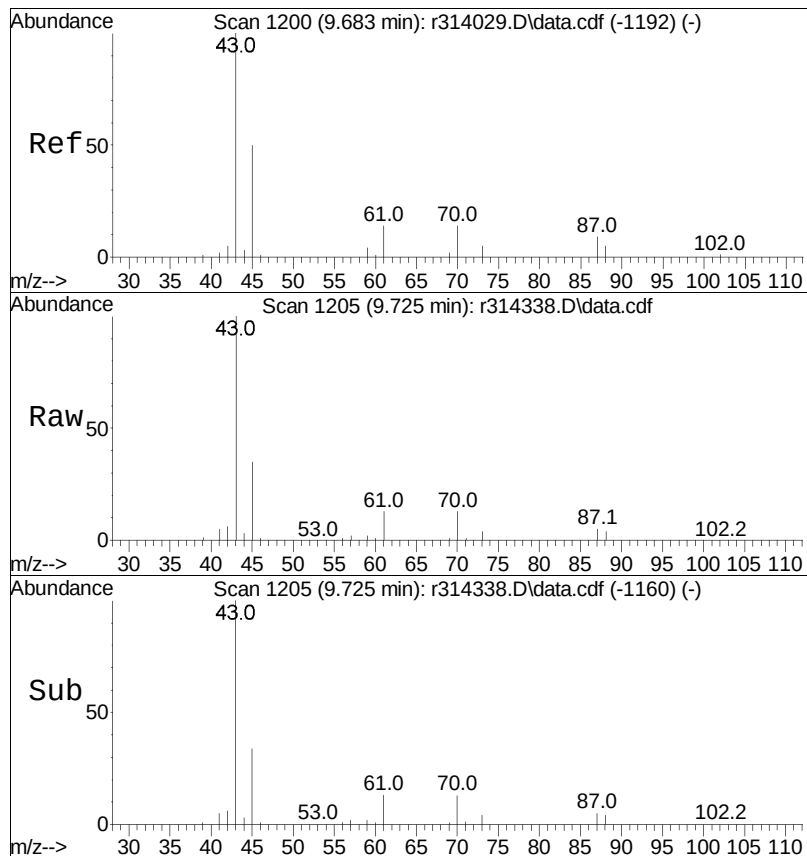




#37
 cis-1,2-dichloroethene
 Concen: 11.20 ppbV
 RT: 9.425 min Scan# 1169
 Delta R.T. 0.042 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

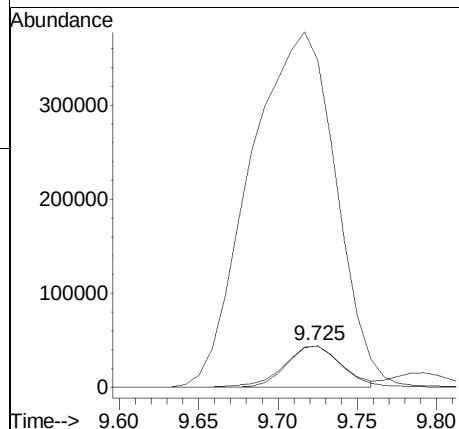
Tgt Ion:	61	Resp:	338552
Ion Ratio	Lower	Upper	
61	100		
96	82.2	67.4	101.0
98	51.4	42.7	64.1

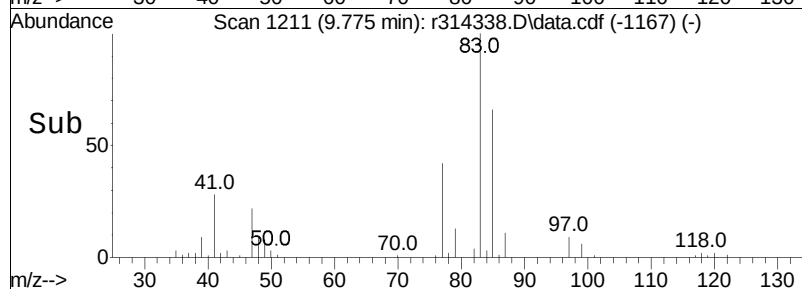
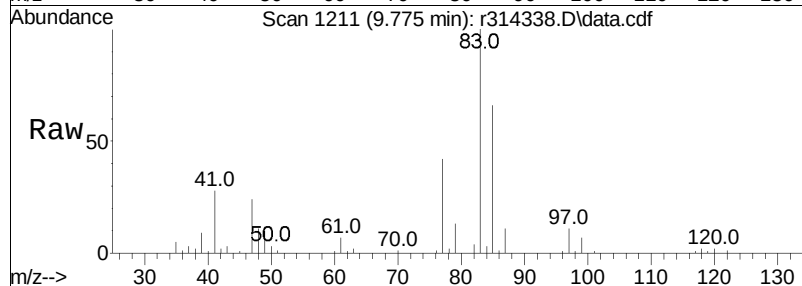
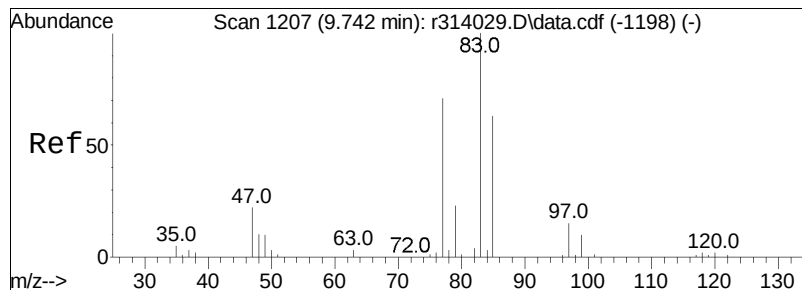




#38
 Ethyl Acetate
 Concen: 11.41 ppbV
 RT: 9.725 min Scan# 1205
 Delta R.T. 0.042 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

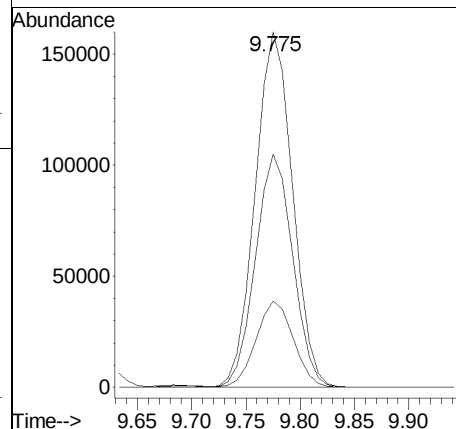
Tgt	Ion: 61	Resp:	106366
Ion	Ratio	Lower	Upper
61	100		
70	99.7	80.3	120.5
43	787.2	632.9	949.3

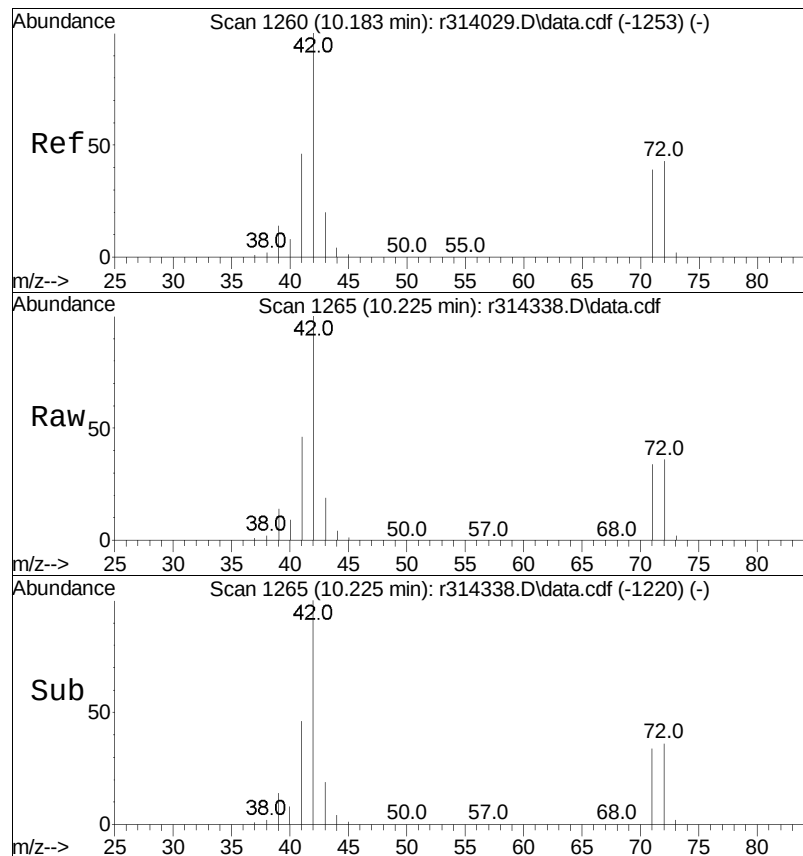




#39
chloroform
Concen: 9.82 ppbV
RT: 9.775 min Scan# 1211
Delta R.T. 0.033 min
Lab File: r314338.D
Acq: 5 Mar 2021 12:36 PM

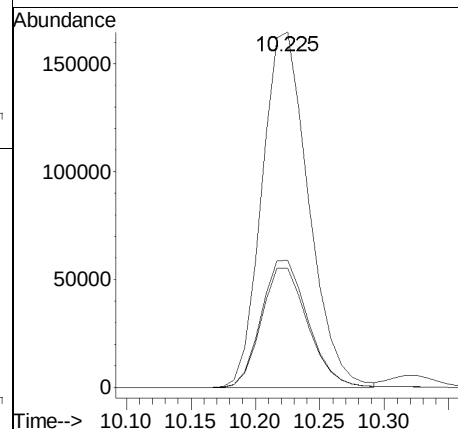
Tgt Ion	Ratio	Lower	Upper
83	100		
85	65.6	50.9	76.3
47	24.3	17.8	26.6

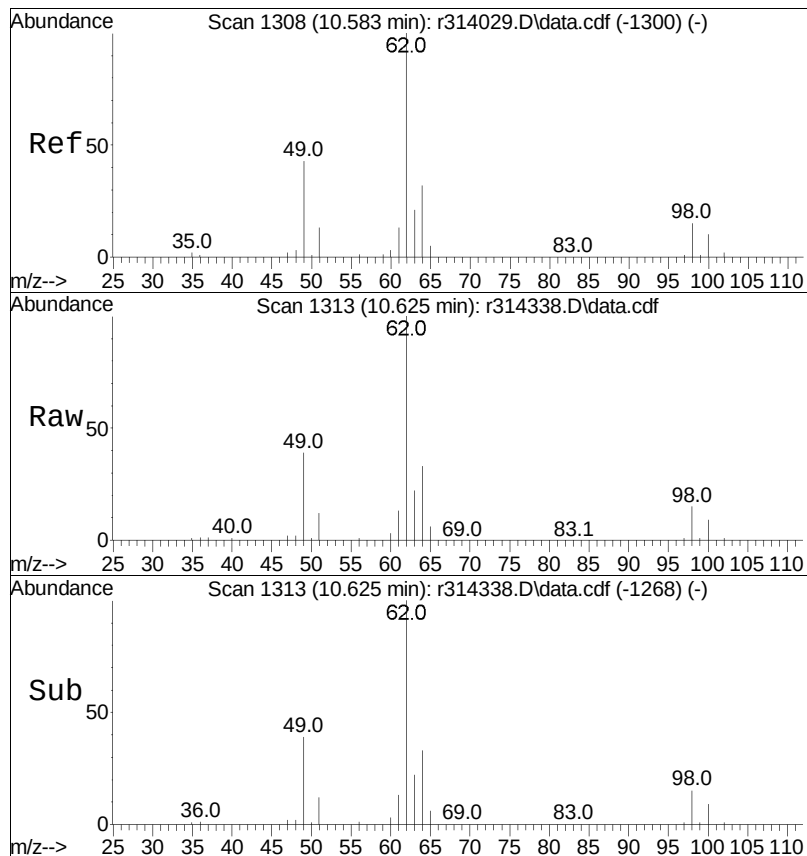




#40
Tetrahydrofuran
Concen: 11.76 ppbV
RT: 10.225 min Scan# 1265
Delta R.T. 0.042 min
Lab File: r314338.D
Acq: 5 Mar 2021 12:36 PM

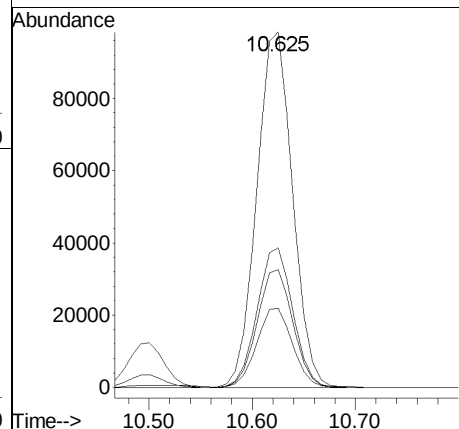
Tgt Ion	Ratio	Lower	Upper
42	100		
71	33.5	31.0	46.6
72	35.7	34.1	51.1

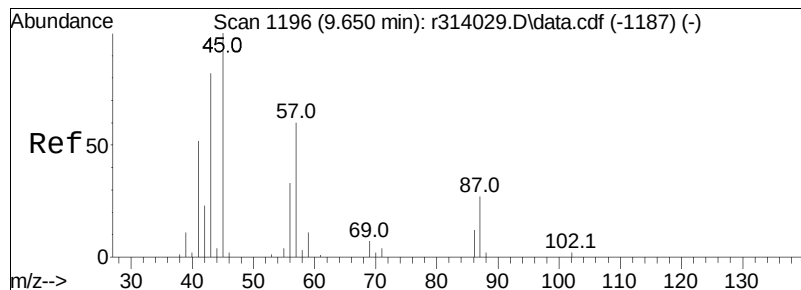




#42
 1,2-dichloroethane
 Concen: 10.66 ppbV
 RT: 10.625 min Scan# 1313
 Delta R.T. 0.042 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

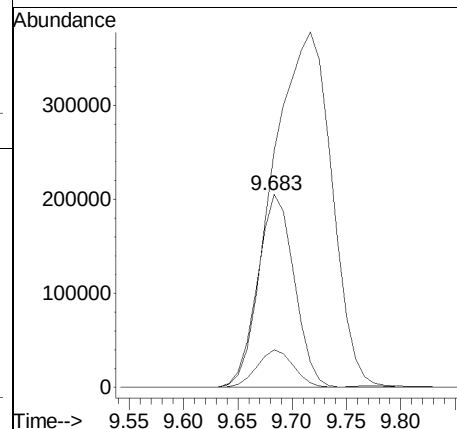
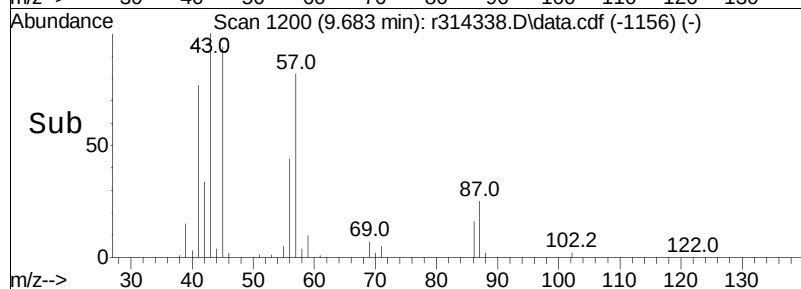
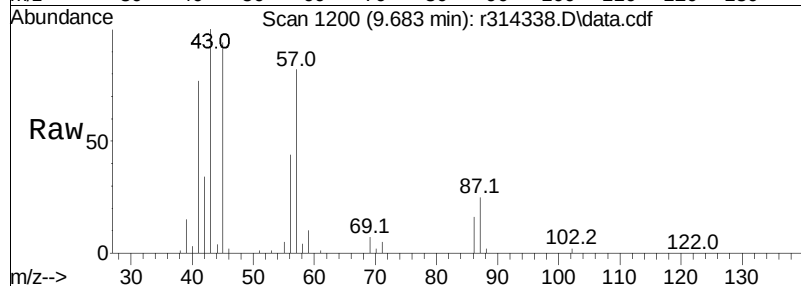
Tgt Ion:	62	Resp:	237047
Ion Ratio	Lower	Upper	
62	100		
64	33.2	25.6	38.4
49	39.3	34.2	51.4
63	22.3	16.9	25.3

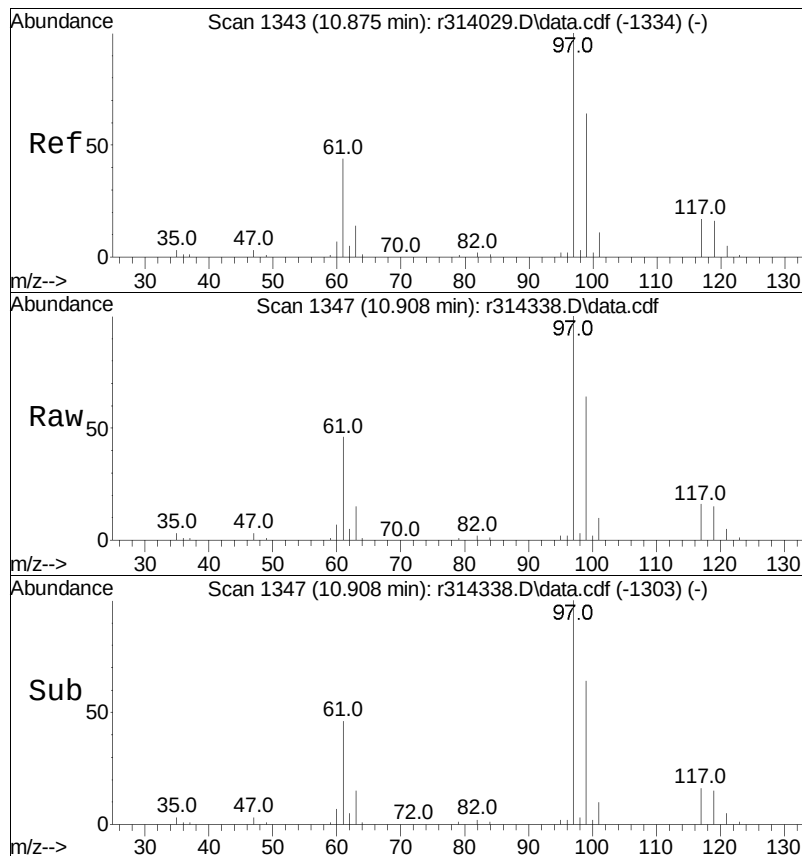




#44
hexane
Concen: 11.10 ppbV
RT: 9.683 min Scan# 1200
Delta R.T. 0.033 min
Lab File: r314338.D
Acq: 5 Mar 2021 12:36 PM

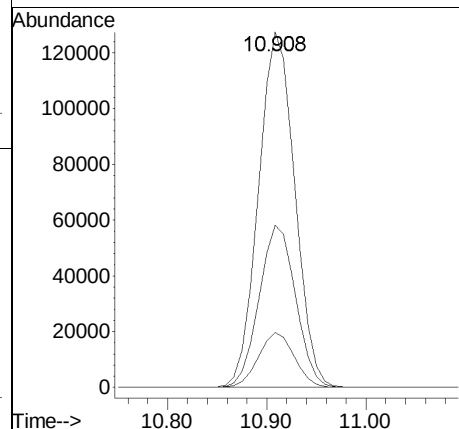
Tgt	Ion	Ratio	Lower	Upper
57	100			
43	122.7	108.5	162.7	
86	19.5	16.0	24.0	

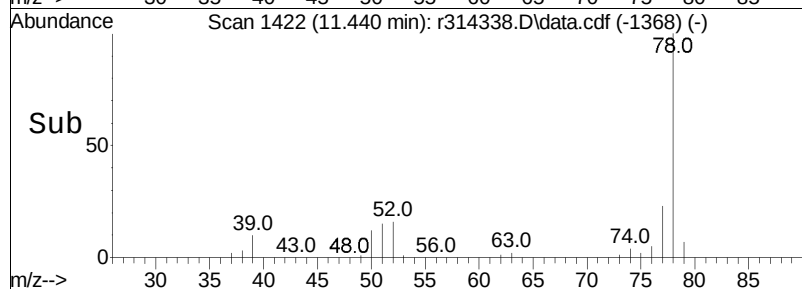
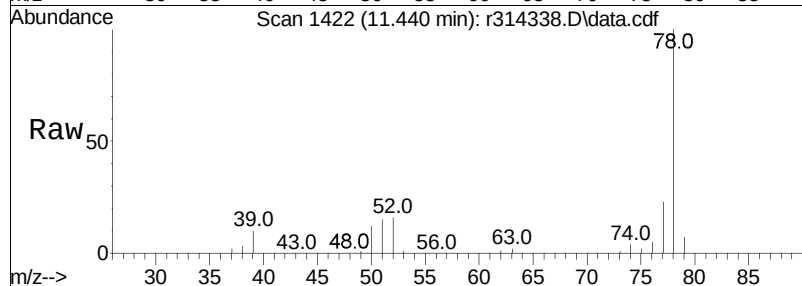
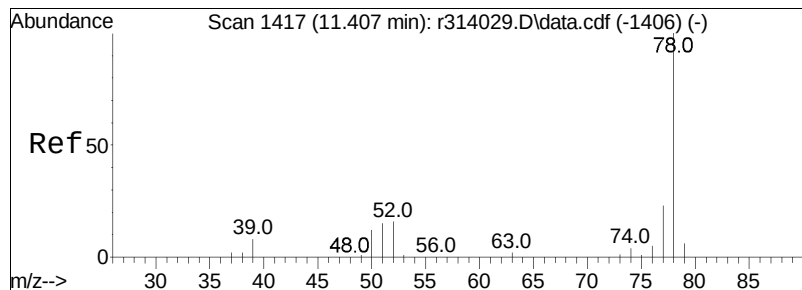




#48
 1,1,1-trichloroethane
 Concen: 12.06 ppbV
 RT: 10.908 min Scan# 1347
 Delta R.T. 0.033 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

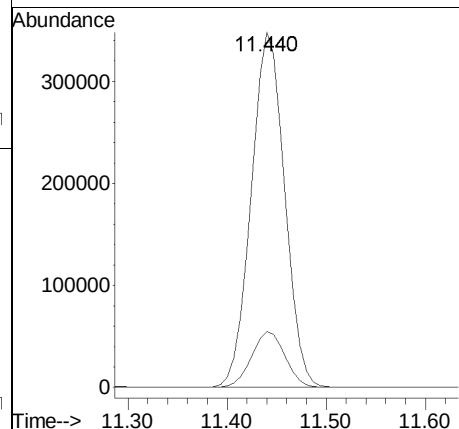
Tgt Ion:	97	Resp:	354760
Ion Ratio	100	Lower	Upper
97	100		
61	45.6	35.1	52.7
119	15.4	12.9	19.3

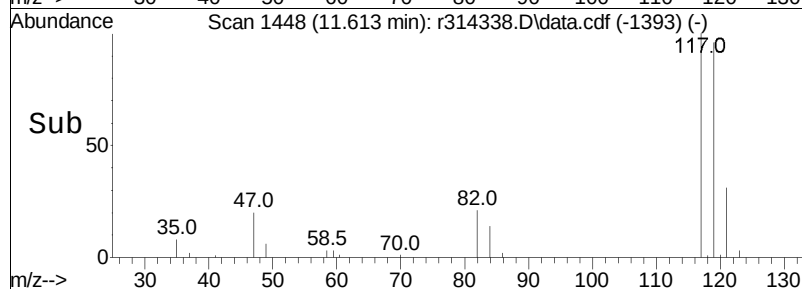
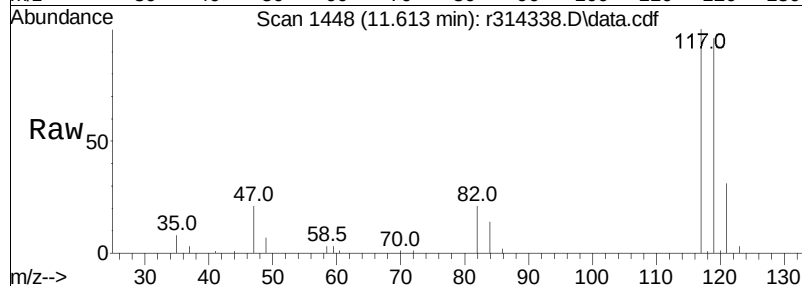
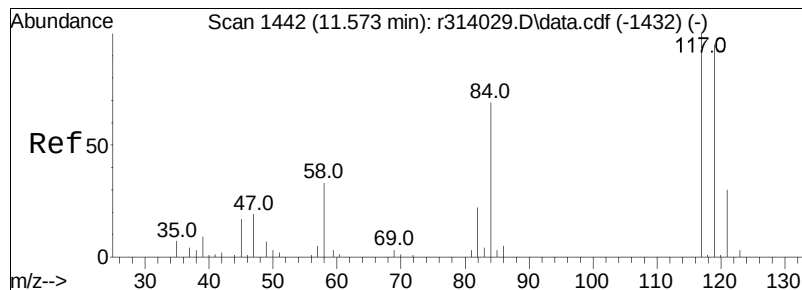




#50
benzene
Concen: 9.73 ppbV
RT: 11.440 min Scan# 1422
Delta R.T. 0.033 min
Lab File: r314338.D
Acq: 5 Mar 2021 12:36 PM

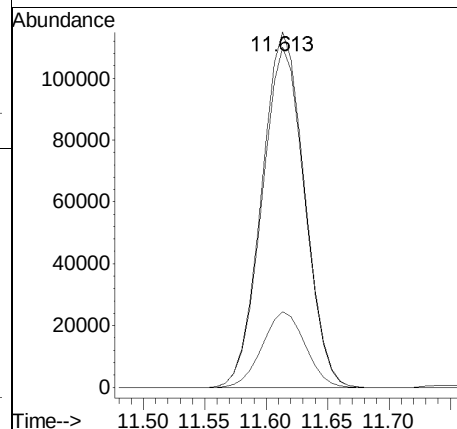
Tgt Ion	Ratio	Lower	Upper
78	100		
52	15.7	12.5	18.7

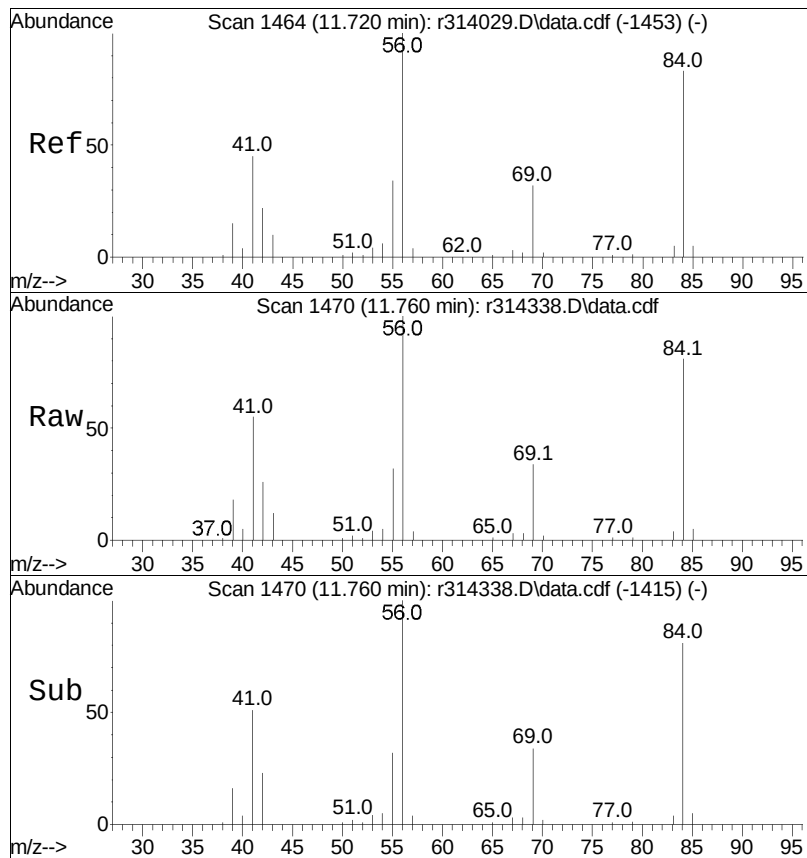




#52
carbon tetrachloride
Concen: 10.54 ppbV
RT: 11.613 min Scan# 1448
Delta R.T. 0.040 min
Lab File: r314338.D
Acq: 5 Mar 2021 12:36 PM

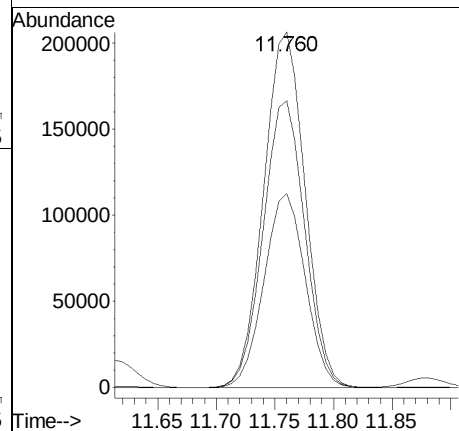
Tgt Ion	Ratio	Lower	Upper
117	100		
119	95.7	76.1	114.1
82	21.3	17.9	26.9

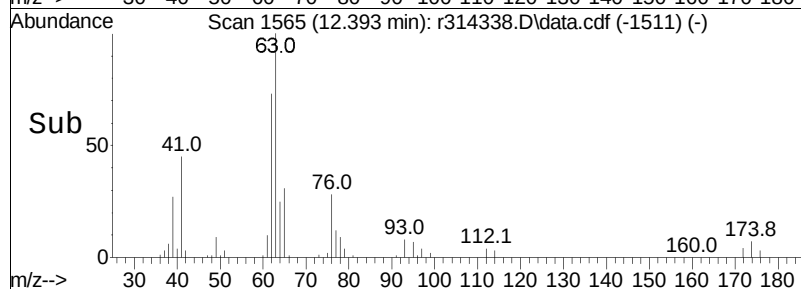
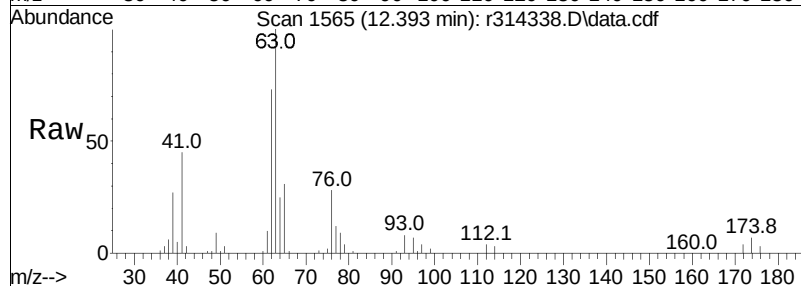
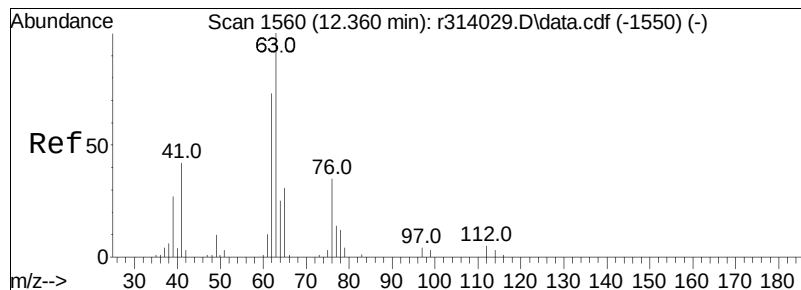




#53
cyclohexane
Concen: 10.86 ppbV
RT: 11.760 min Scan# 1470
Delta R.T. 0.040 min
Lab File: r314338.D
Acq: 5 Mar 2021 12:36 PM

Tgt	Ion: 56	Resp: 507472
Ion	Ratio	Lower Upper
56	100	
84	80.7	66.5 99.7
41	54.5	36.3 54.5#





#56

1,2-dichloropropane

Concen: 12.50 ppbV

RT: 12.393 min Scan# 1565

Delta R.T. 0.033 min

Lab File: r314338.D

Acq: 5 Mar 2021 12:36 PM

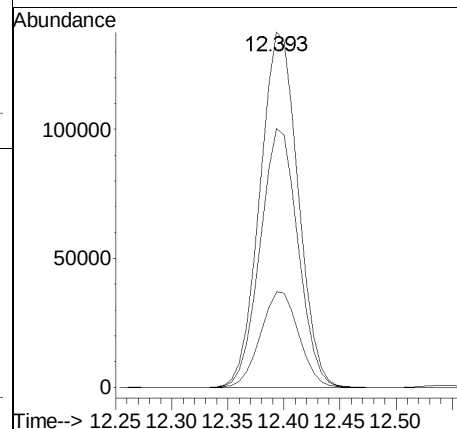
Tgt Ion: 63 Resp: 326104

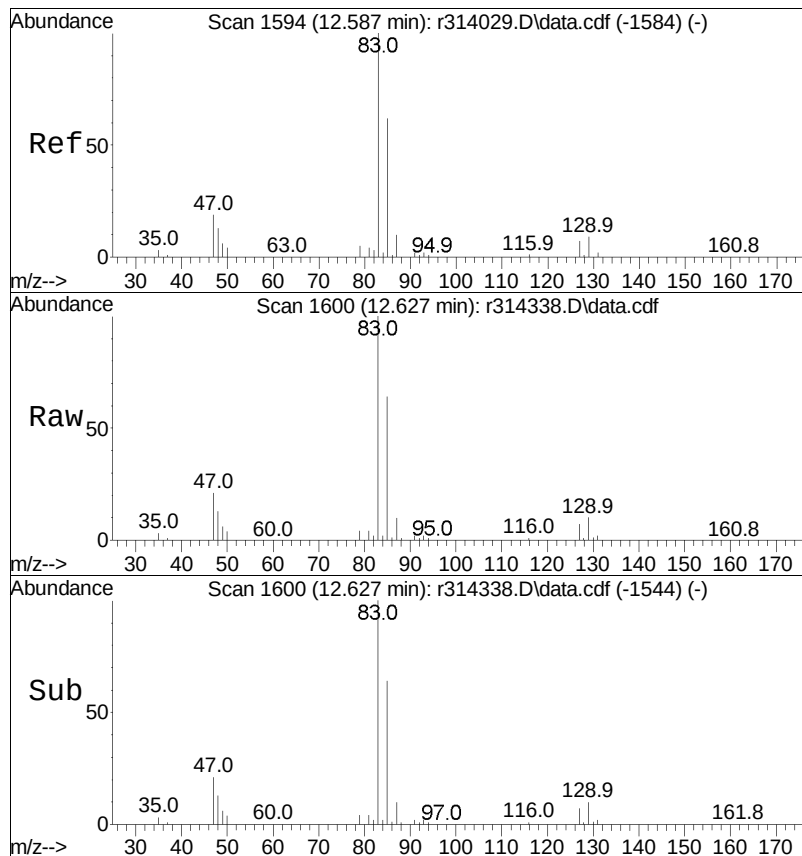
Ion Ratio Lower Upper

63 100

62 72.8 58.1 87.1

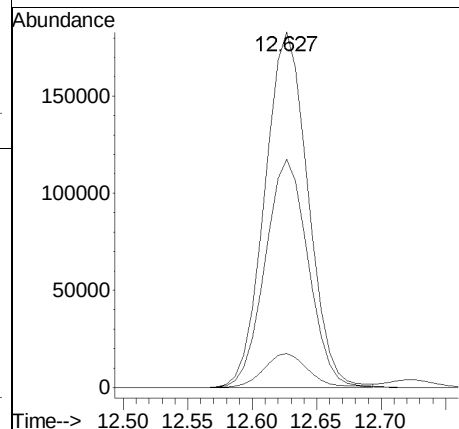
39 26.9 21.7 32.5

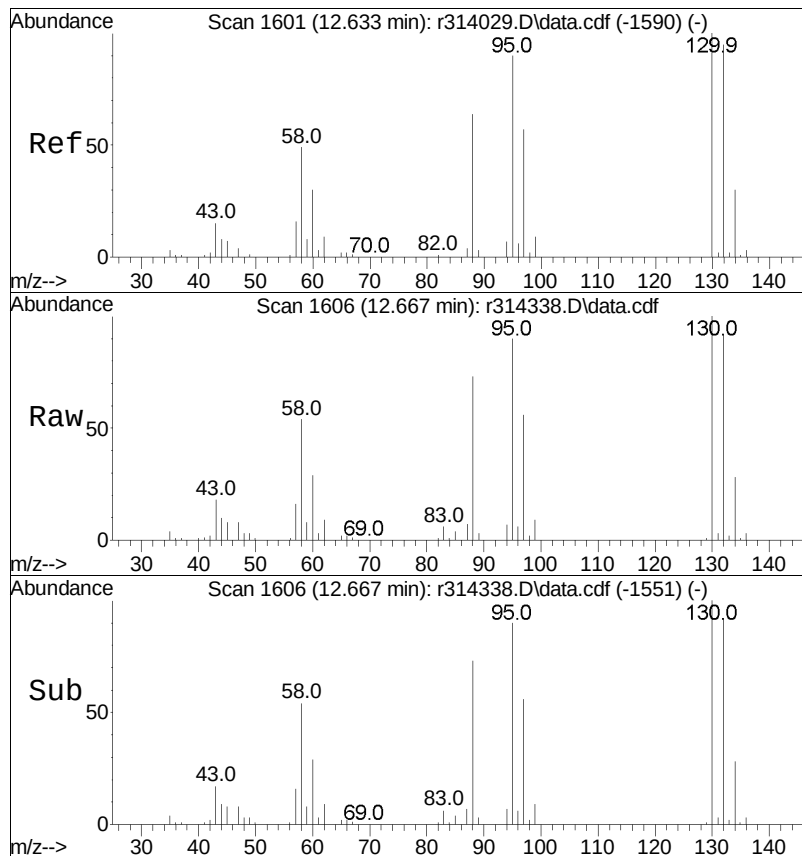




#57
 bromodichloromethane
 Concen: 10.52 ppbV
 RT: 12.627 min Scan# 1600
 Delta R.T. 0.040 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

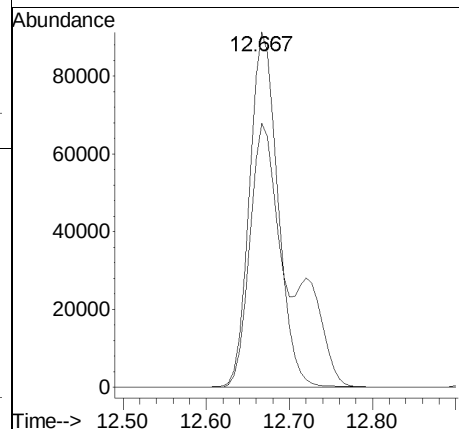
Tgt	Ion: 83	Resp: 425997
Ion	Ratio	Lower Upper
83	100	
85	64.2	50.0 75.0
129	9.5	7.3 10.9

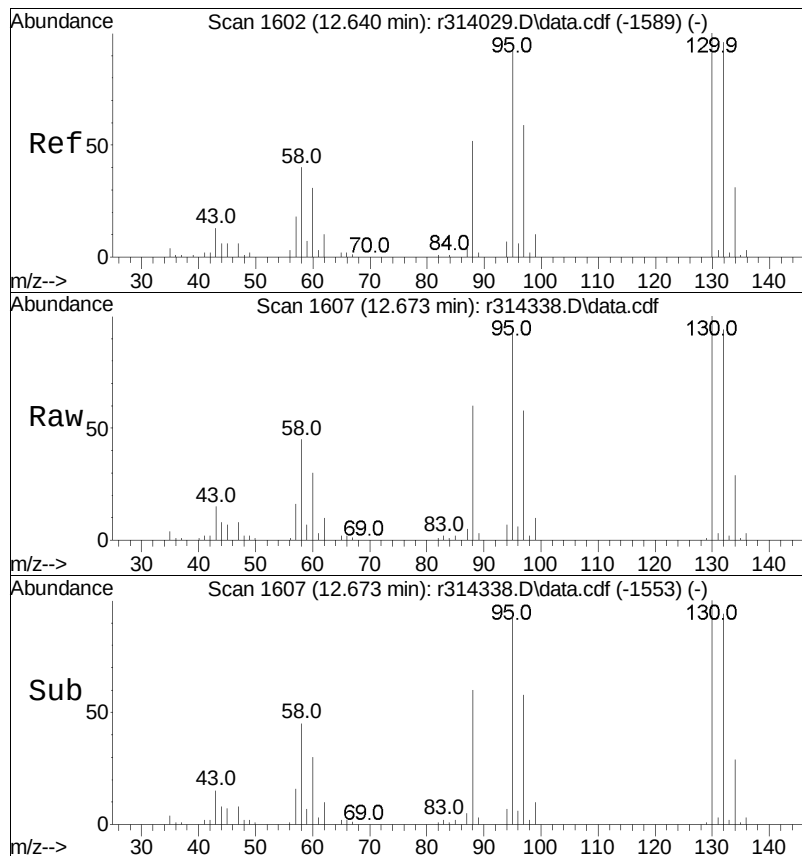




#58
 1,4-dioxane
 Concen: 11.85 ppbV
 RT: 12.667 min Scan# 1606
 Delta R.T. 0.033 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

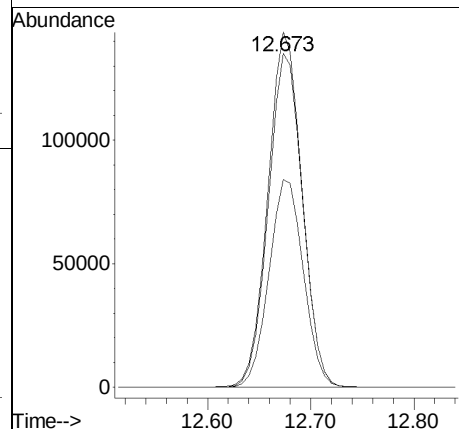
Tgt	Ion	Ratio	Lower	Upper
88	100			
58	74.3	61.0	91.4	

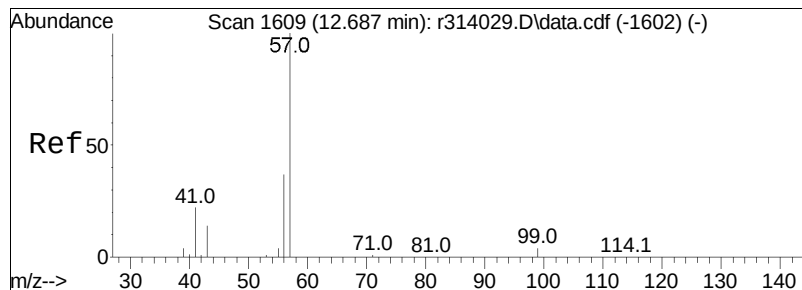




#59
trichloroethene
Concen: 11.43 ppbV
RT: 12.673 min Scan# 1607
Delta R.T. 0.033 min
Lab File: r314338.D
Acq: 5 Mar 2021 12:36 PM

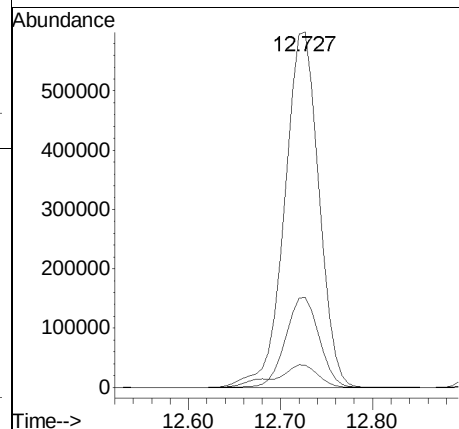
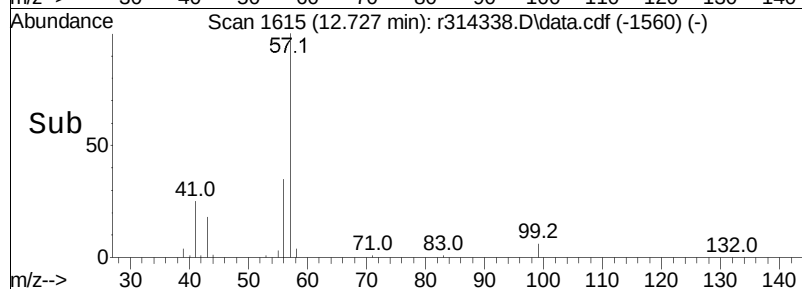
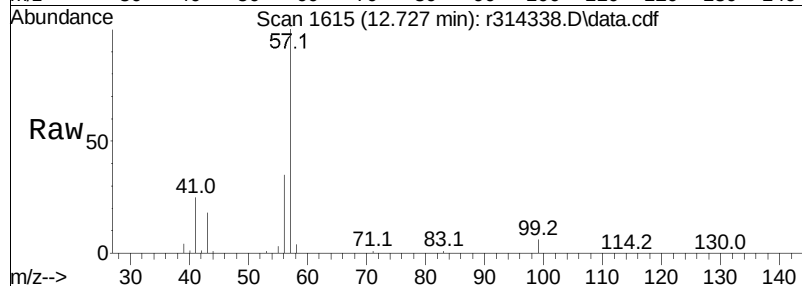
Tgt Ion:	130	Resp:	329902
Ion Ratio	Lower	Upper	
130	100		
132	94.0	77.0	115.6
97	58.5	47.4	71.2

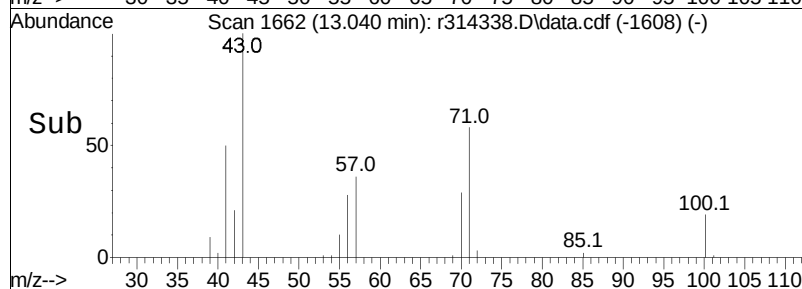
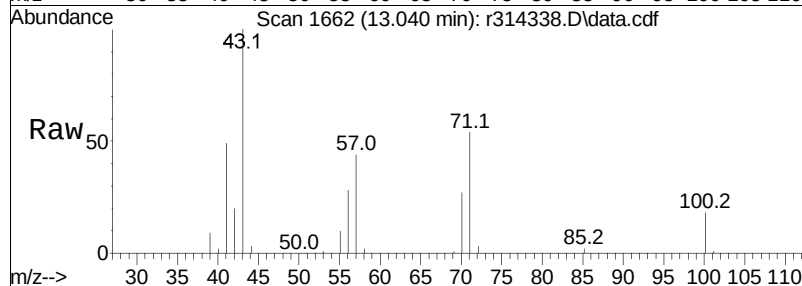
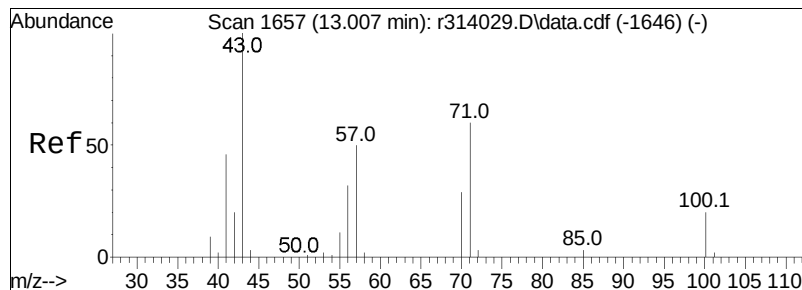




#60
 2,2,4-trimethylpentane
 Concen: 11.45 ppbV
 RT: 12.727 min Scan# 1615
 Delta R.T. 0.040 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

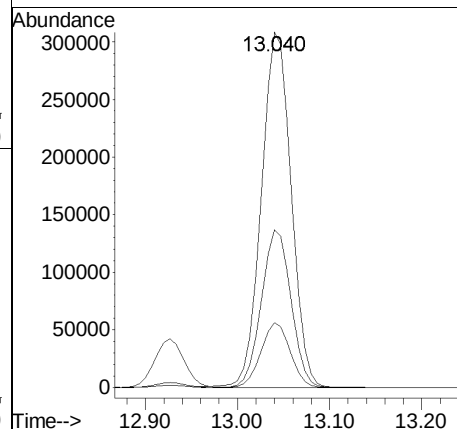
Tgt Ion	Ratio	Lower	Upper
57	100		
99	6.3	5.0	7.6
41	25.4	17.4	26.0

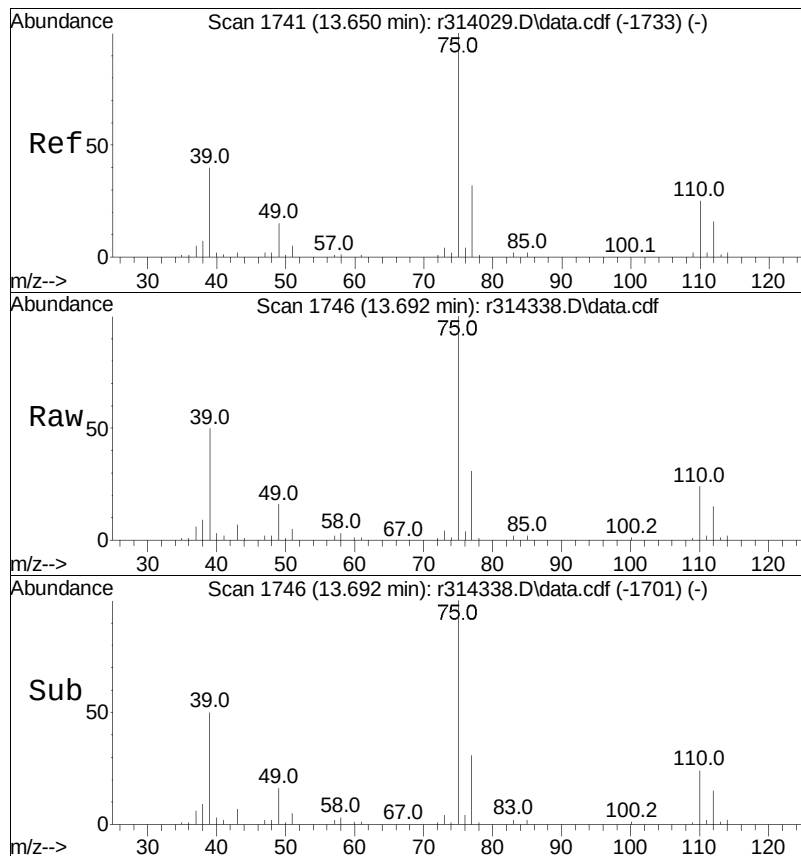




#62
heptane
Concen: 12.58 ppbV
RT: 13.040 min Scan# 1662
Delta R.T. 0.033 min
Lab File: r314338.D
Acq: 5 Mar 2021 12:36 PM

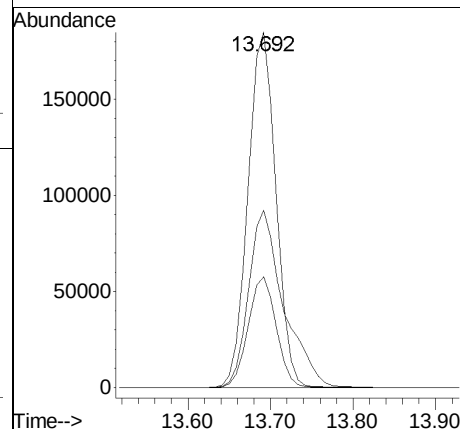
Tgt Ion:	43	Resp:	692998
Ion Ratio	100	Lower	Upper
43	100		
57	44.4	40.2	60.2
100	18.2	16.4	24.6

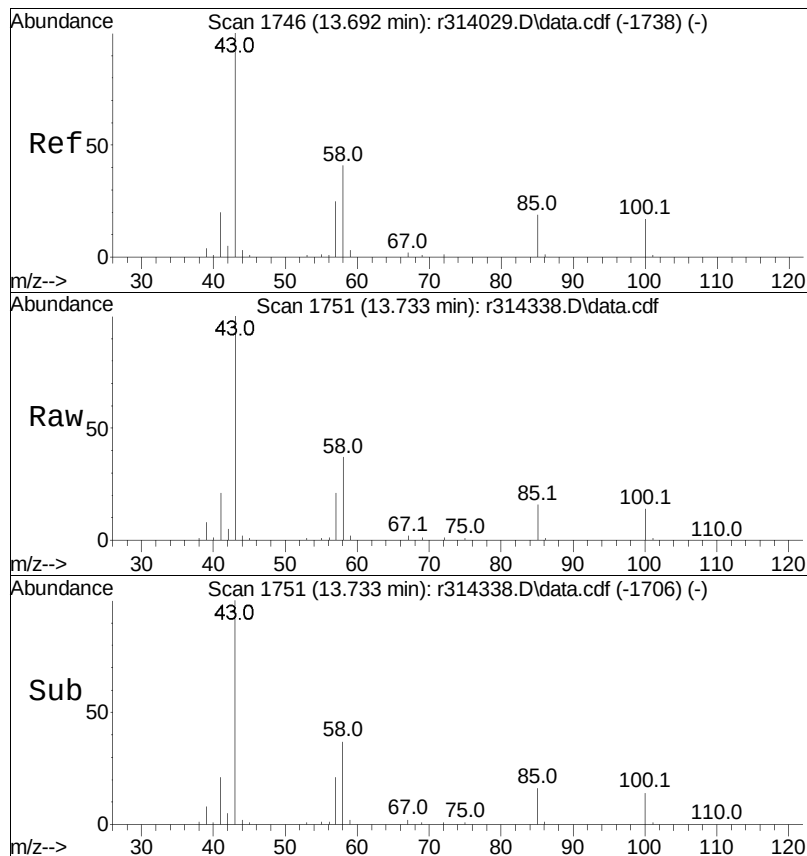




#63
 cis-1,3-dichloropropene
 Concen: 10.80 ppbV
 RT: 13.692 min Scan# 1746
 Delta R.T. 0.042 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

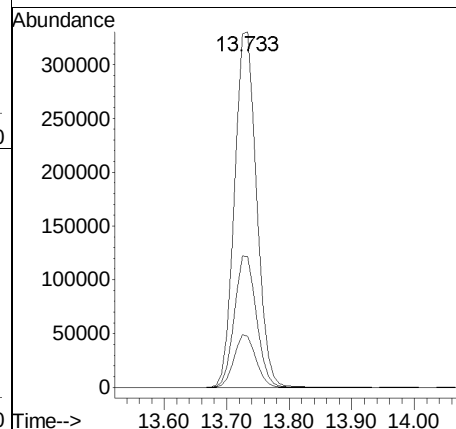
Tgt Ion	Ratio	Lower	Upper
75	100		
39	49.9	31.8	47.6#
77	31.1	25.3	37.9

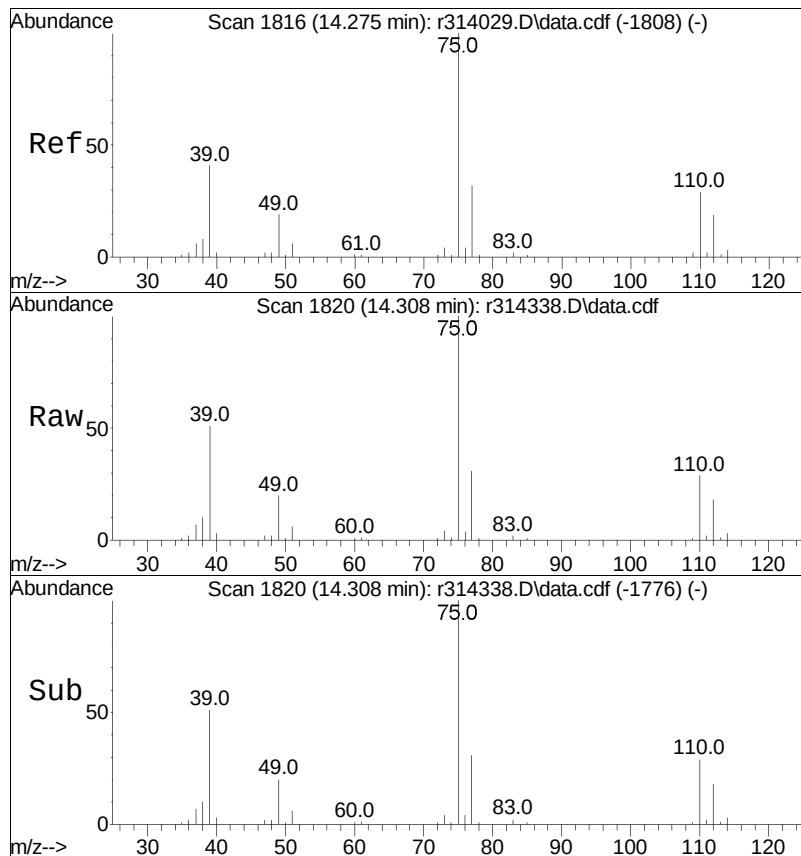




#64
 4-methyl-2-pentanone
 Concen: 12.93 ppbV
 RT: 13.733 min Scan# 1751
 Delta R.T. 0.042 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

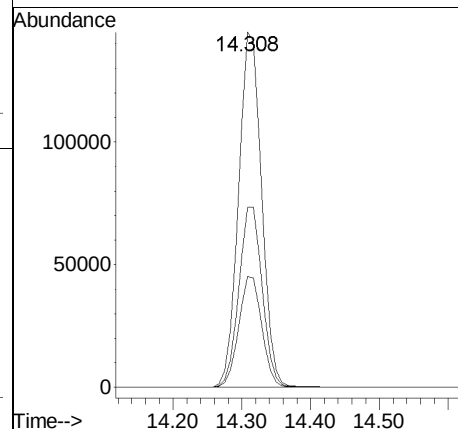
Tgt Ion:	43	58	100	Ratio	Lower	Upper	Resp:
43	100						811541
58	36.8	33.1	49.7				
100	14.4	13.4	20.2				

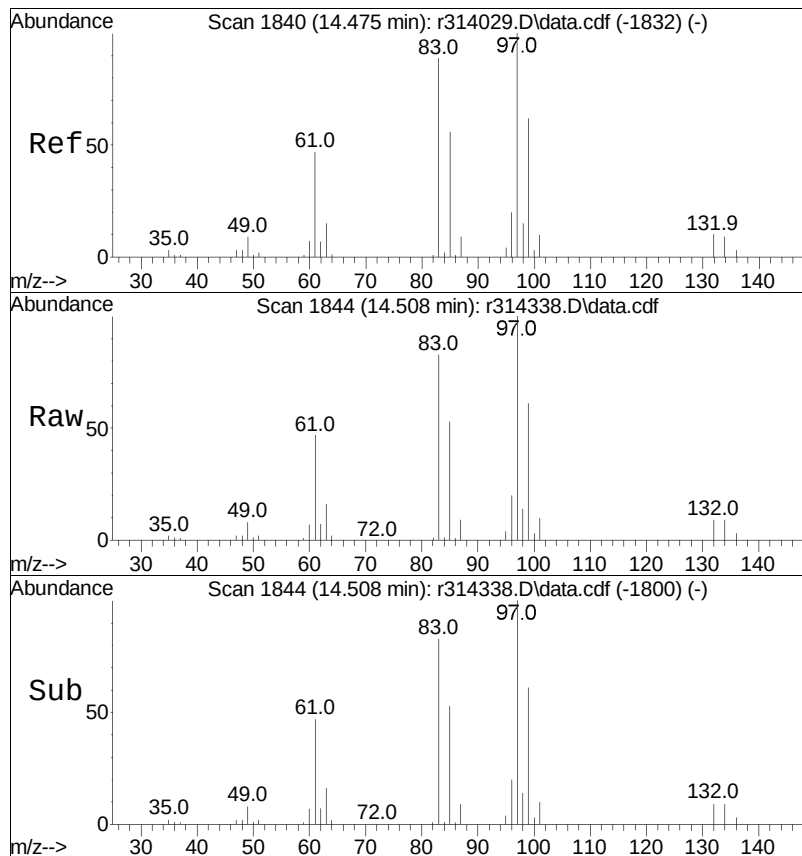




#65
 trans-1,3-dichloropropene
 Concen: 9.15 ppbV
 RT: 14.308 min Scan# 1820
 Delta R.T. 0.033 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

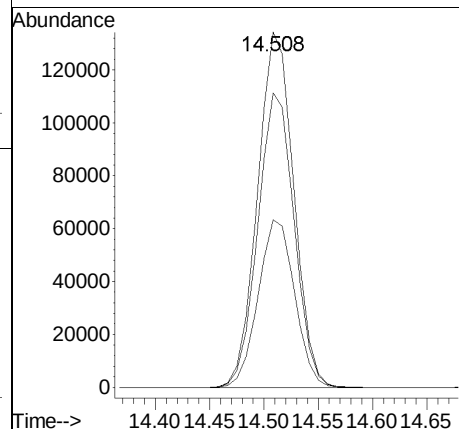
Tgt Ion:	75	Resp:	337997
Ion Ratio	Lower	Upper	
75	100		
77	31.2	25.4	38.0
39	50.8	33.1	49.7#

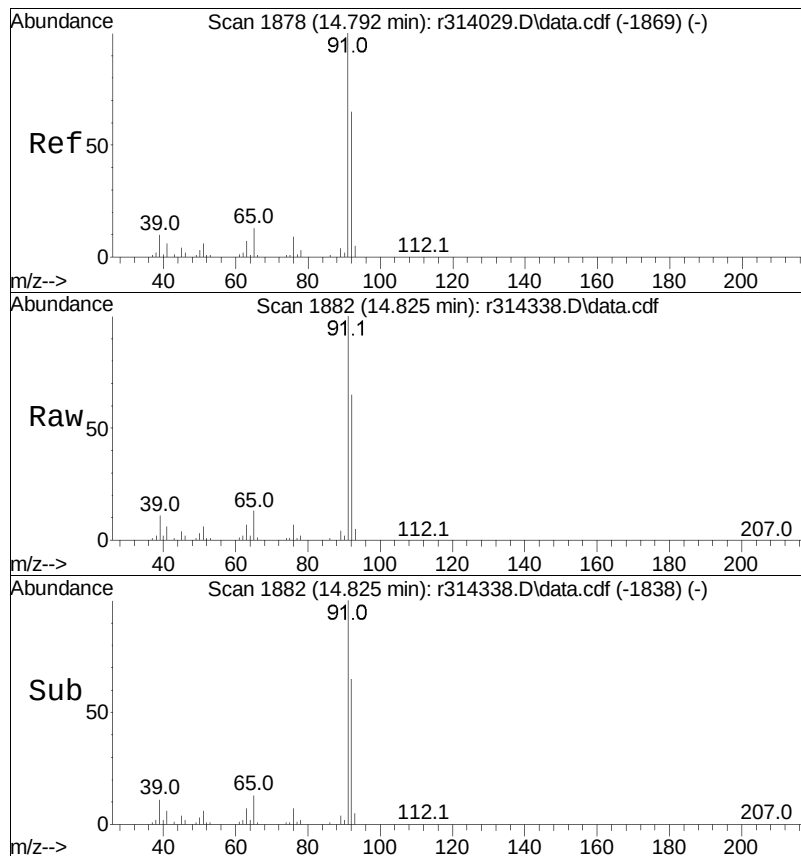




#66
 1,1,2-trichloroethane
 Concen: 11.85 ppbV
 RT: 14.508 min Scan# 1844
 Delta R.T. 0.033 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

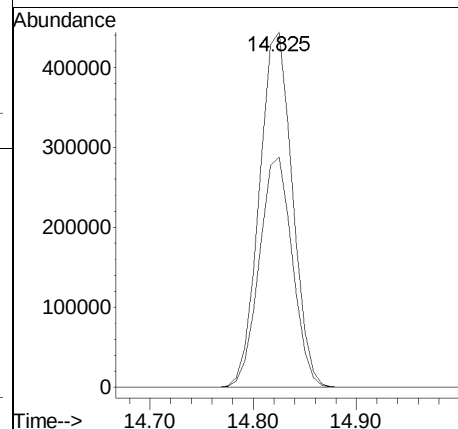
Tgt Ion:	97	Resp:	311164
Ion Ratio	Lower	Upper	
97	100		
83	82.9	71.0	106.4
61	47.2	37.4	56.0

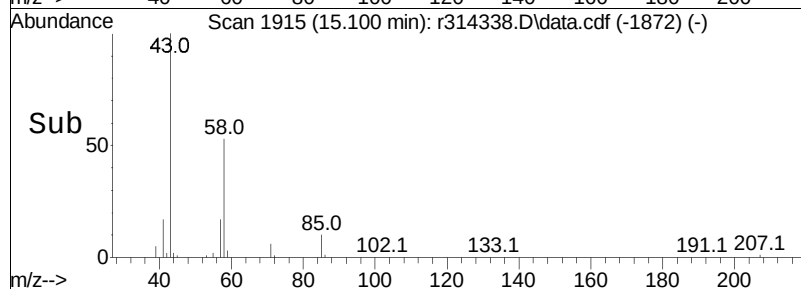
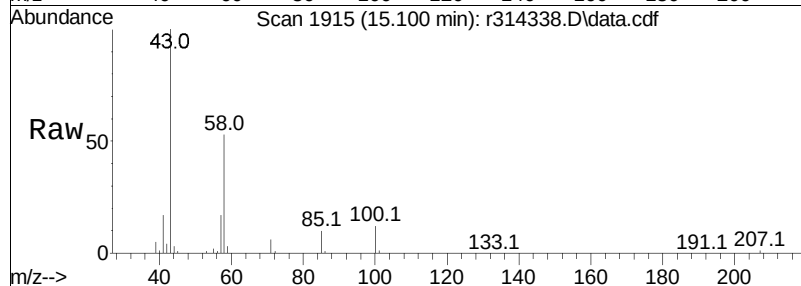
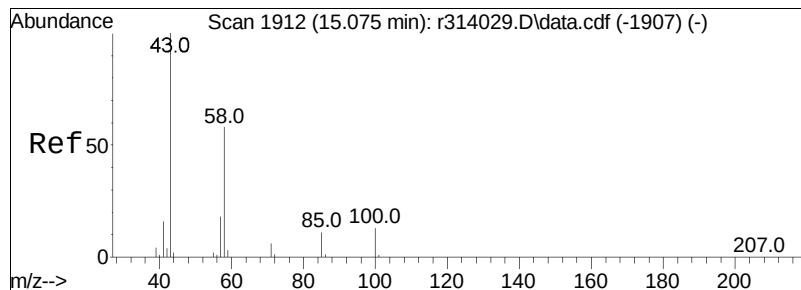




#68
toluene
Concen: 10.87 ppbV
RT: 14.825 min Scan# 1882
Delta R.T. 0.033 min
Lab File: r314338.D
Acq: 5 Mar 2021 12:36 PM

Tgt	Ion	Resp	Lower	Upper
91	100	989678		
92	64.8	51.8	77.8	





#72

2-hexanone

Concen: 12.27 ppbV

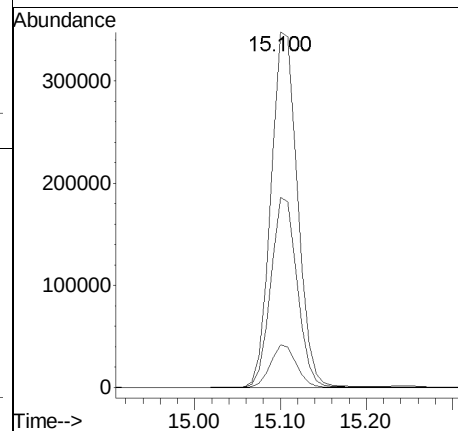
RT: 15.100 min Scan# 1915

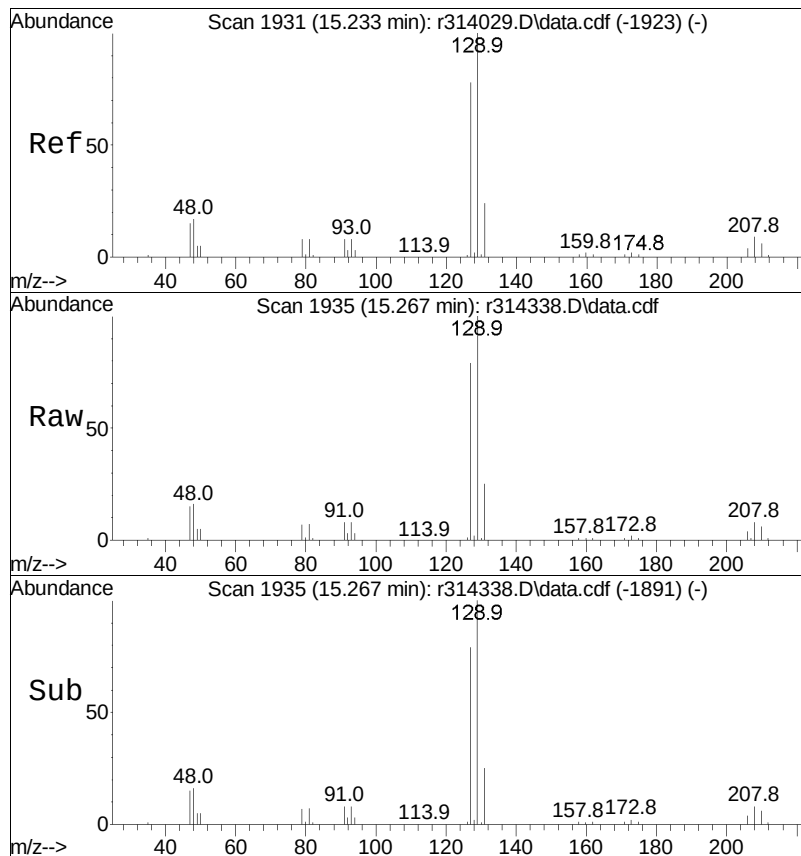
Delta R.T. 0.025 min

Lab File: r314338.D

Acq: 5 Mar 2021 12:36 PM

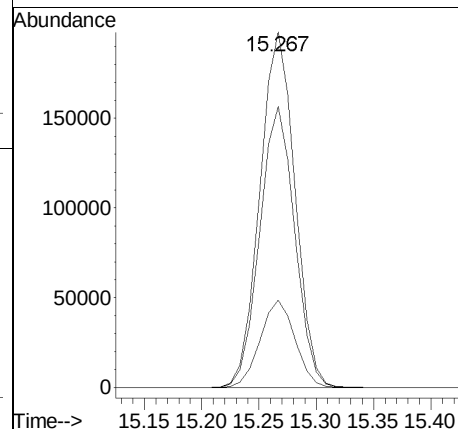
Tgt	Ion: 43	Resp:	748250
Ion	Ratio	Lower	Upper
43	100		
58	53.5	47.2	70.8
100	12.0	11.2	16.8

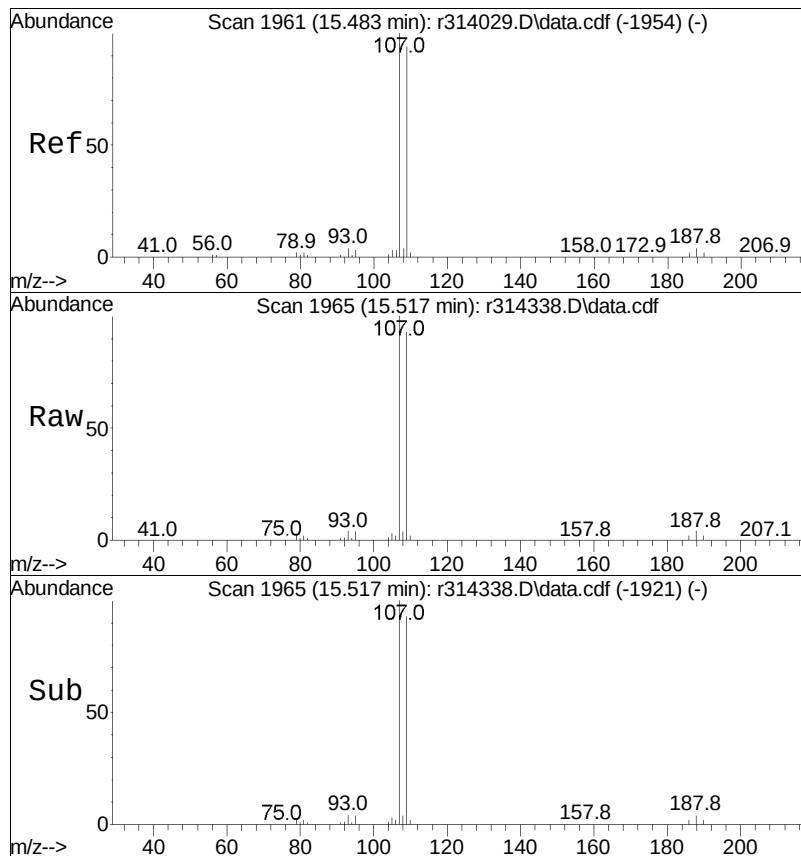




#74
 dibromochloromethane
 Concen: 11.68 ppbV
 RT: 15.267 min Scan# 1935
 Delta R.T. 0.033 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

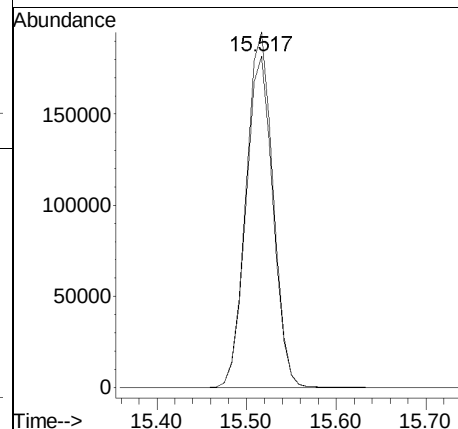
Tgt Ion	Ratio	Resp	Lower	Upper
129	100	421889		
127	79.0		62.4	93.6
131	24.6		19.4	29.0

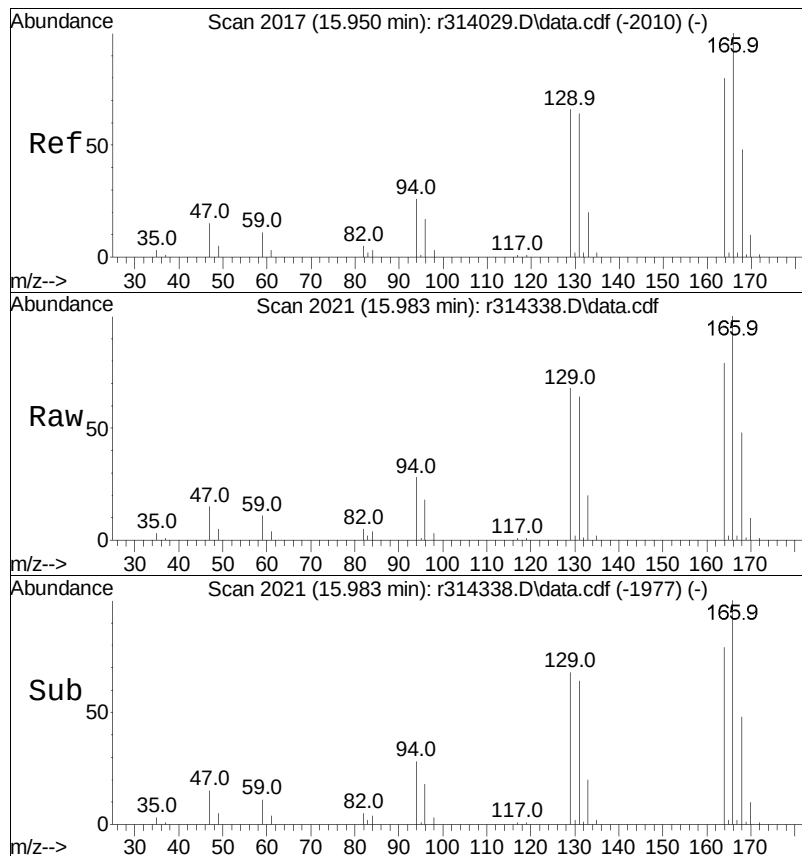




#75
 1,2-dibromoethane
 Concen: 9.80 ppbV
 RT: 15.517 min Scan# 1965
 Delta R.T. 0.033 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

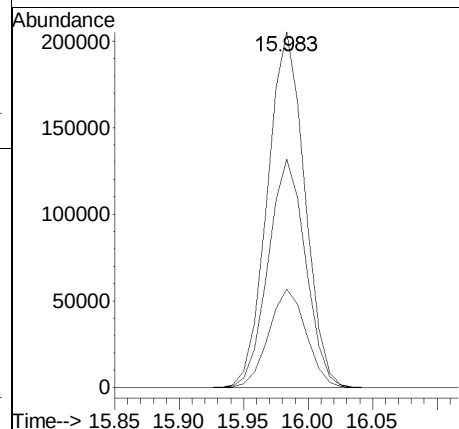
Tgt Ion	Ratio	Lower	Upper
107	100		
109	93.2	75.4	113.0

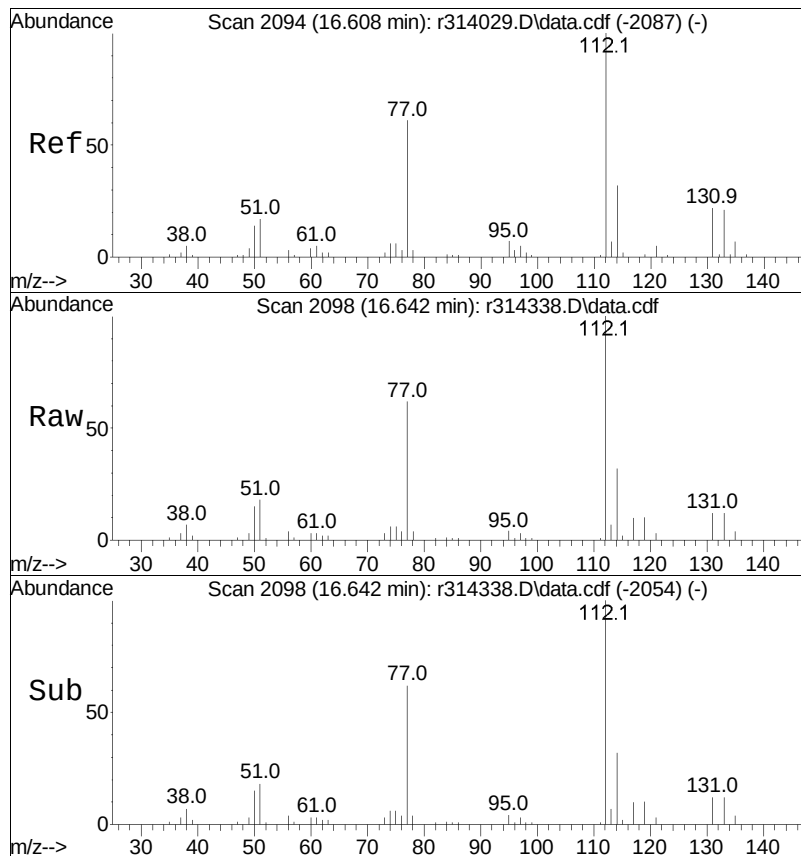




#78
 tetrachloroethene
 Concen: 10.50 ppbV
 RT: 15.983 min Scan# 2021
 Delta R.T. 0.033 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

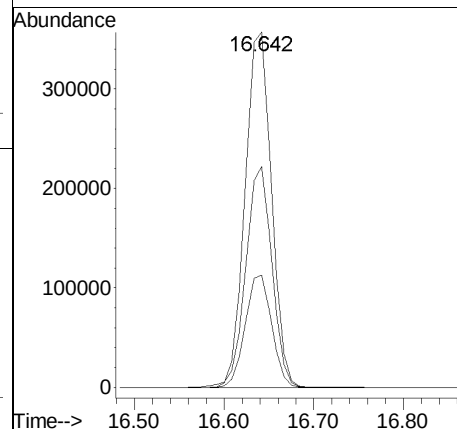
Tgt Ion:	166	Resp:	412285
Ion Ratio	Lower	Upper	
166	100		
131	64.2	51.0	76.4
94	27.7	21.0	31.6

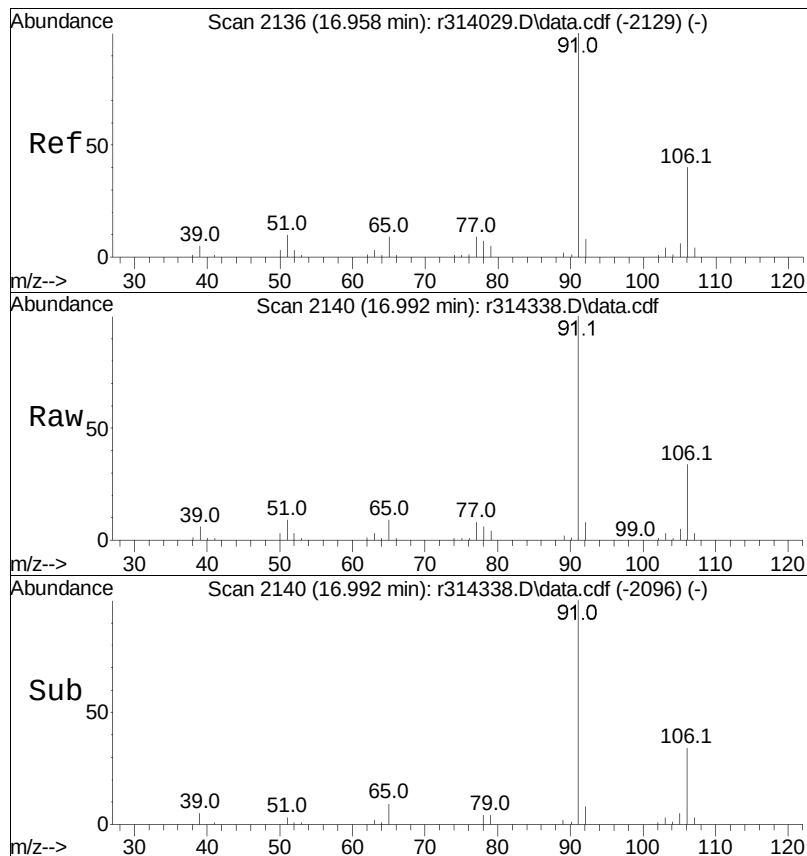




#80
chlorobenzene
Concen: 10.08 ppbV
RT: 16.642 min Scan# 2098
Delta R.T. 0.033 min
Lab File: r314338.D
Acq: 5 Mar 2021 12:36 PM

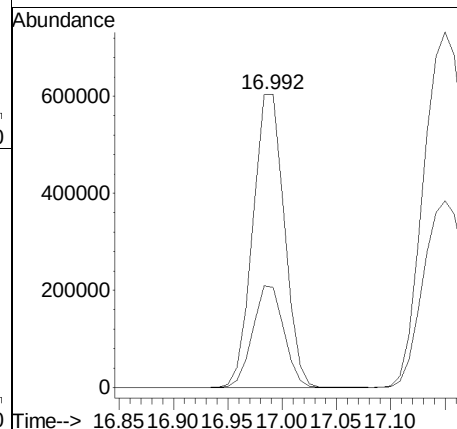
Tgt	Ion	Ratio	Lower	Upper
112	100			
114	31.6	25.4	38.0	
77	62.2	48.8	73.2	

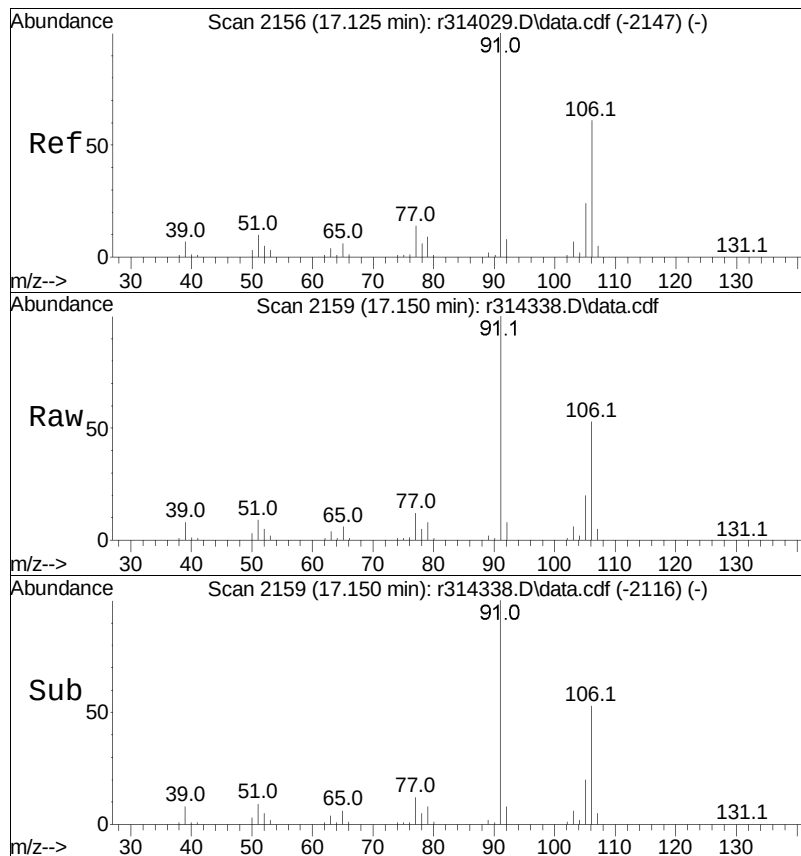




#81
ethylbenzene
Concen: 11.13 ppbV
RT: 16.992 min Scan# 2140
Delta R.T. 0.033 min
Lab File: r314338.D
Acq: 5 Mar 2021 12:36 PM

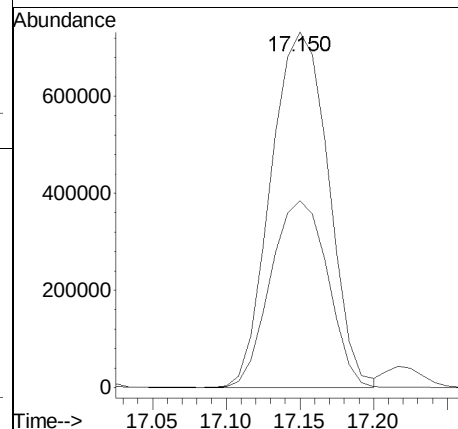
Tgt	Ion	Resp	Lower	Upper
91	100	1217138		
106	34.1	31.8	47.8	

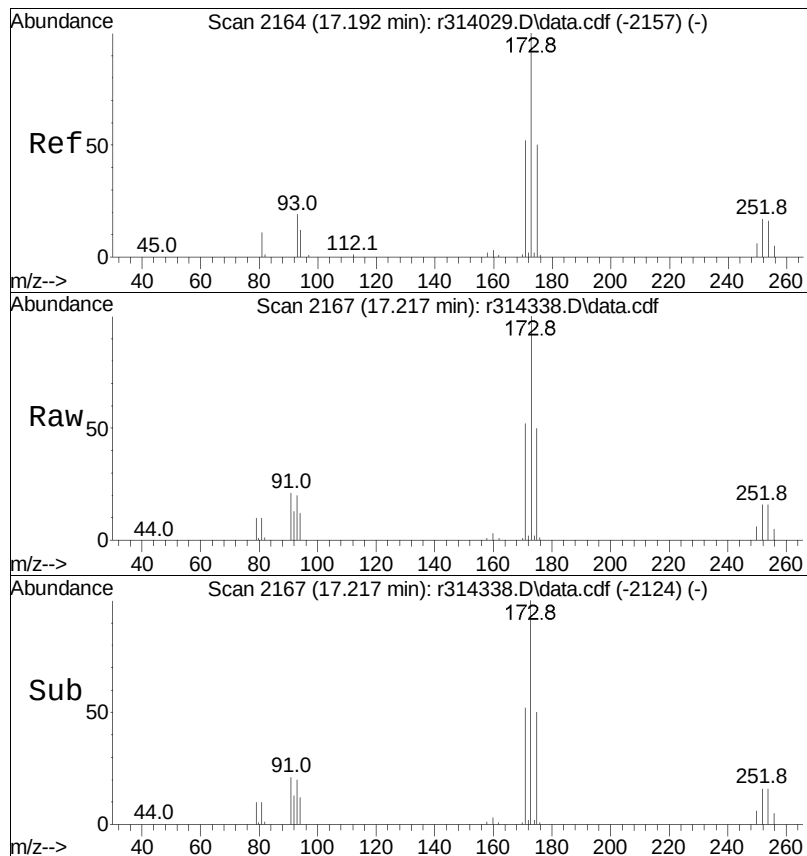




#83
 m+p-xylene
 Concen: 22.69 ppbV
 RT: 17.150 min Scan# 2159
 Delta R.T. 0.025 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

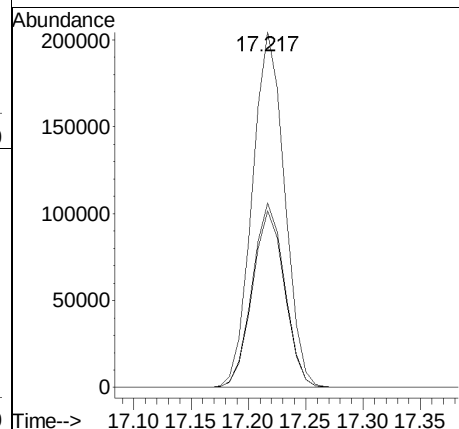
Tgt Ion: 91 Resp: 1987896
 Ion Ratio Lower Upper
 91 100
 106 52.5 48.7 73.1

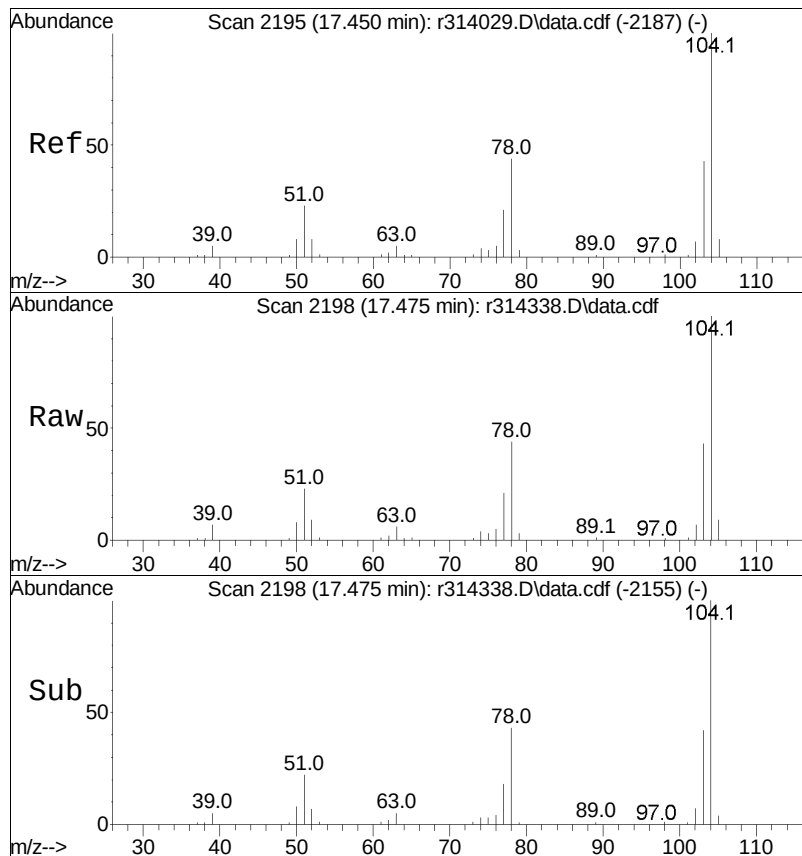




#84
bromoform
Concen: 11.41 ppbV
RT: 17.217 min Scan# 2167
Delta R.T. 0.025 min
Lab File: r314338.D
Acq: 5 Mar 2021 12:36 PM

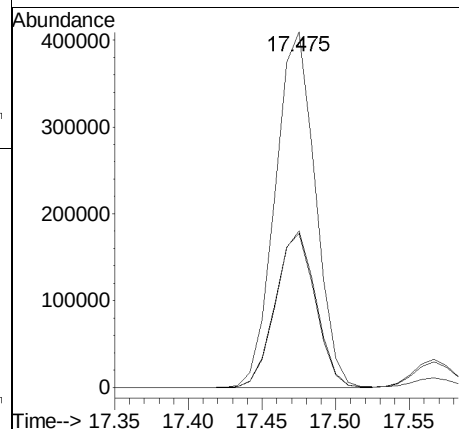
Tgt Ion	Ratio	Resp	Lower	Upper
173	100	402010		
175	49.7		40.2	60.4
171	51.9		41.8	62.8

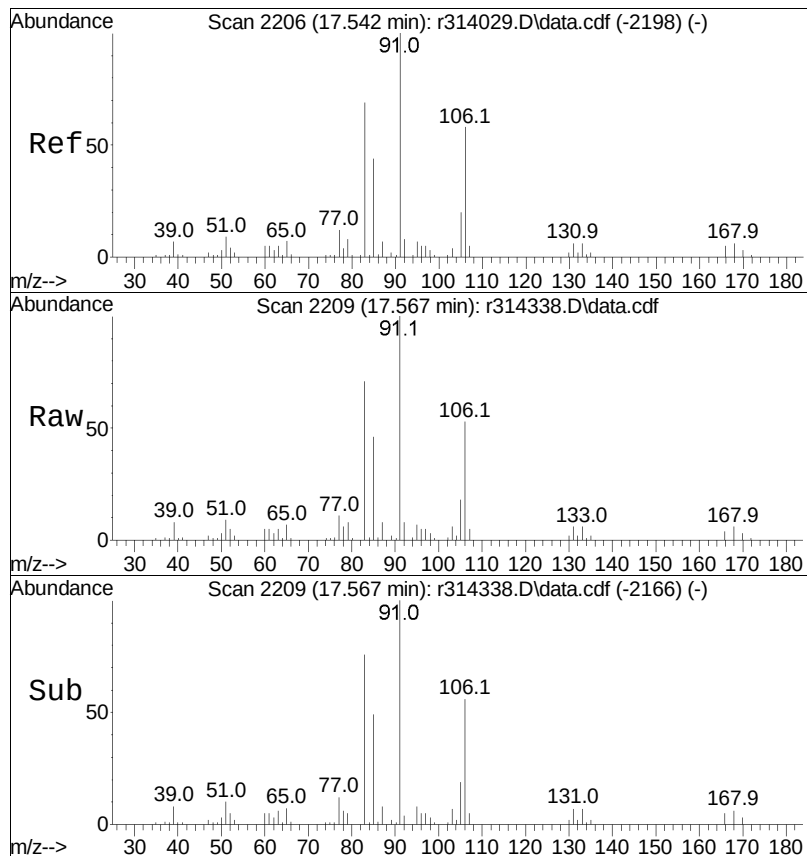




#85
 styrene
 Concen: 9.83 ppbV
 RT: 17.475 min Scan# 2198
 Delta R.T. 0.025 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

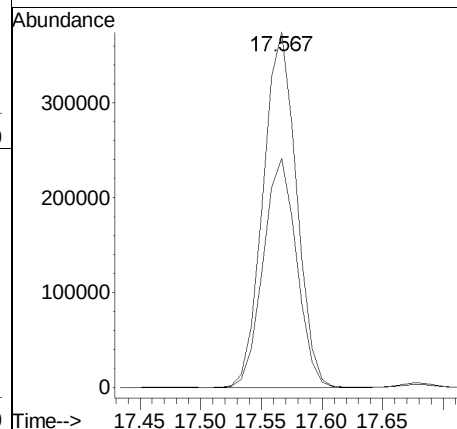
Tgt	Ion:104	Resp:	773518
Ion	Ratio	Lower	Upper
104	100		
103	43.3	34.7	52.1
78	44.1	35.4	53.0

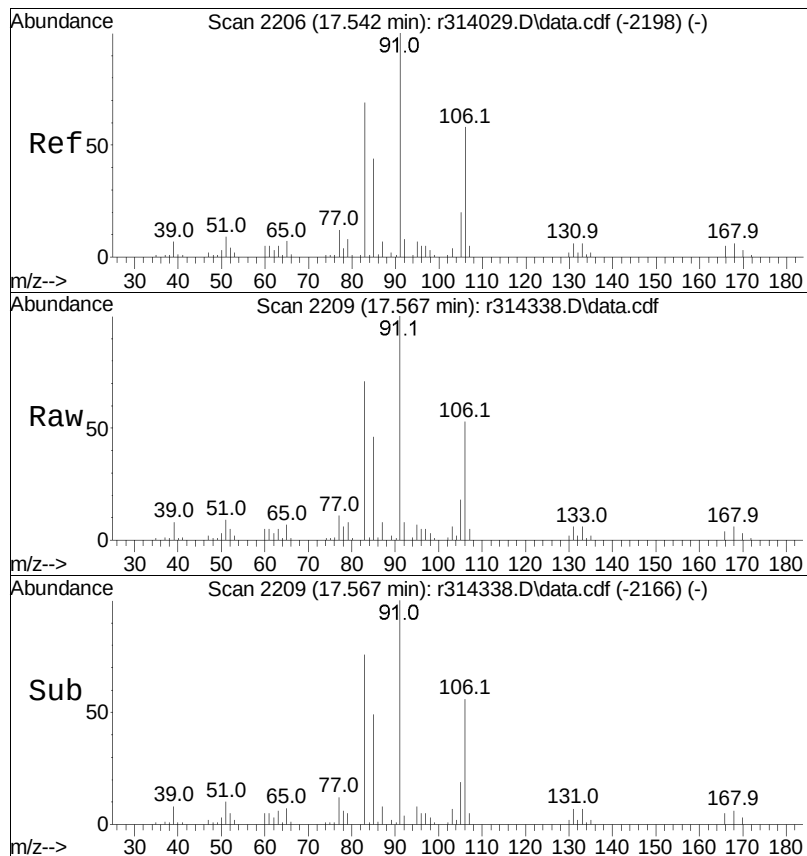




#86
 1,1,2,2-tetrachloroethane
 Concen: 11.48 ppbV
 RT: 17.567 min Scan# 2209
 Delta R.T. 0.025 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

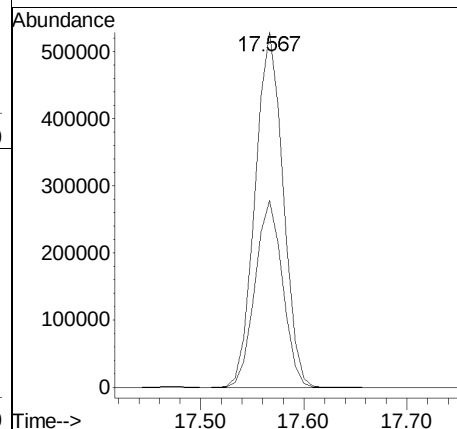
Tgt Ion: 83 Resp: 714772
 Ion Ratio Lower Upper
 83 100
 85 64.4 50.2 75.2

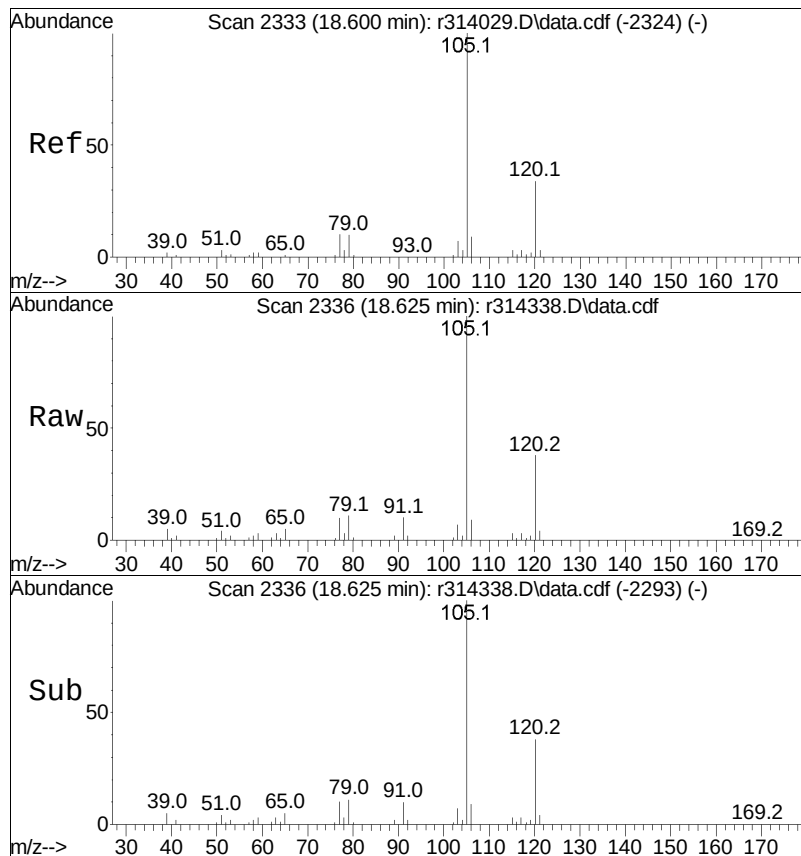




#87
 o-xylene
 Concen: 11.45 ppbV
 RT: 17.567 min Scan# 2209
 Delta R.T. 0.025 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

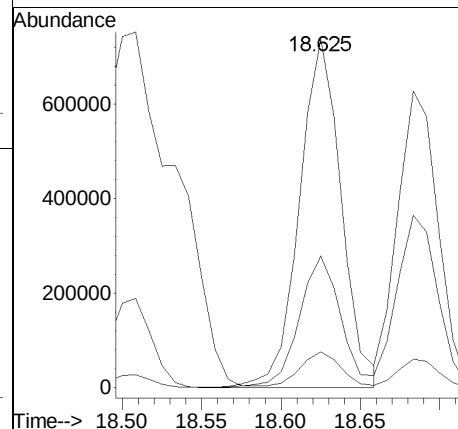
Tgt Ion:	91	Resp:	995811
Ion Ratio	Lower	Upper	
91	100		
106	52.6	46.7	70.1

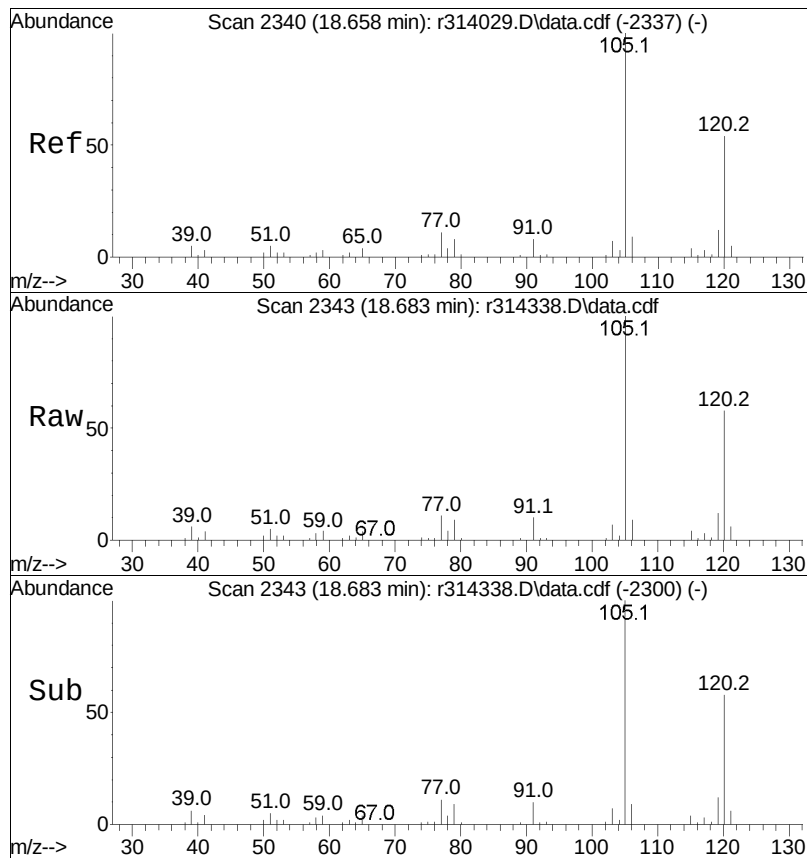




#96
 4-ethyl toluene
 Concen: 9.82 ppbV
 RT: 18.625 min Scan# 2336
 Delta R.T. 0.025 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

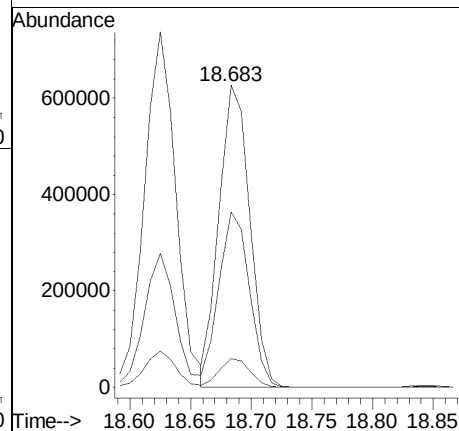
Tgt Ion:	105	Resp:	1346690
Ion Ratio	Lower	Upper	
105	100		
120	37.7	27.2	40.8
91	10.2	7.3	10.9

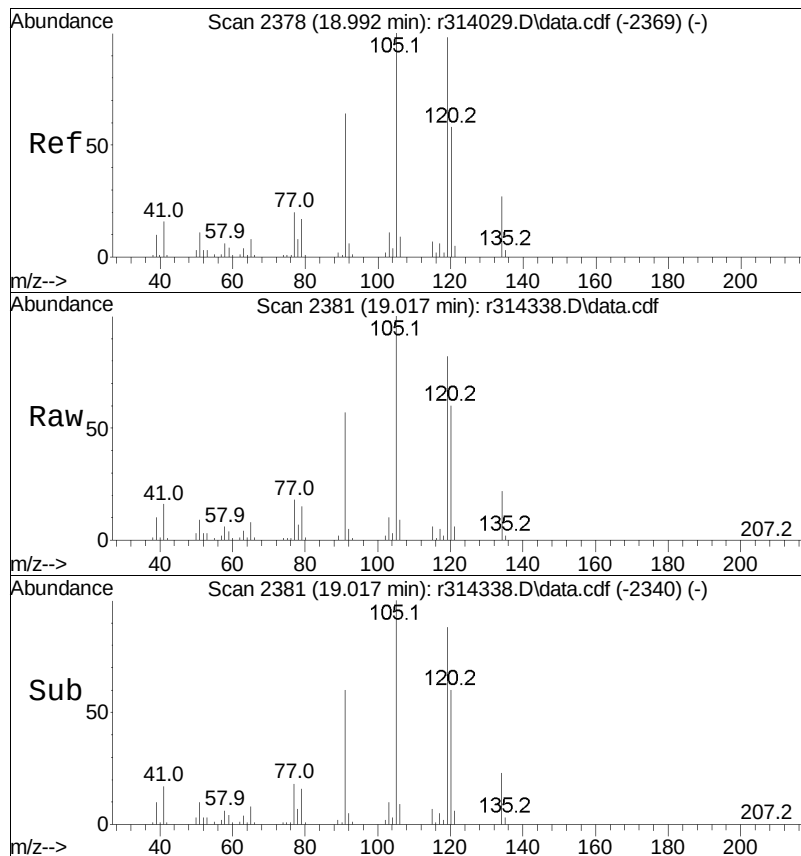




#97
 1,3,5-trimethylbenzene
 Concen: 11.31 ppbV
 RT: 18.683 min Scan# 2343
 Delta R.T. 0.025 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

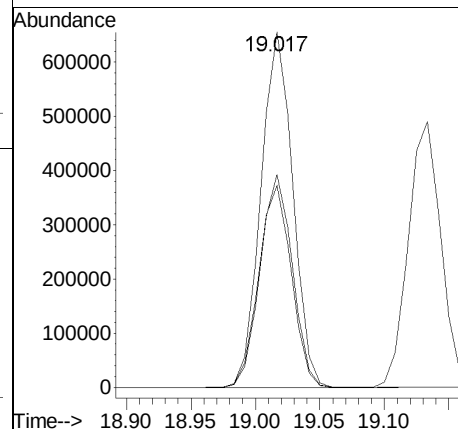
Tgt Ion	Ratio	Lower	Upper
105	100		
120	58.1	42.8	64.2
91	9.5	6.8	10.2

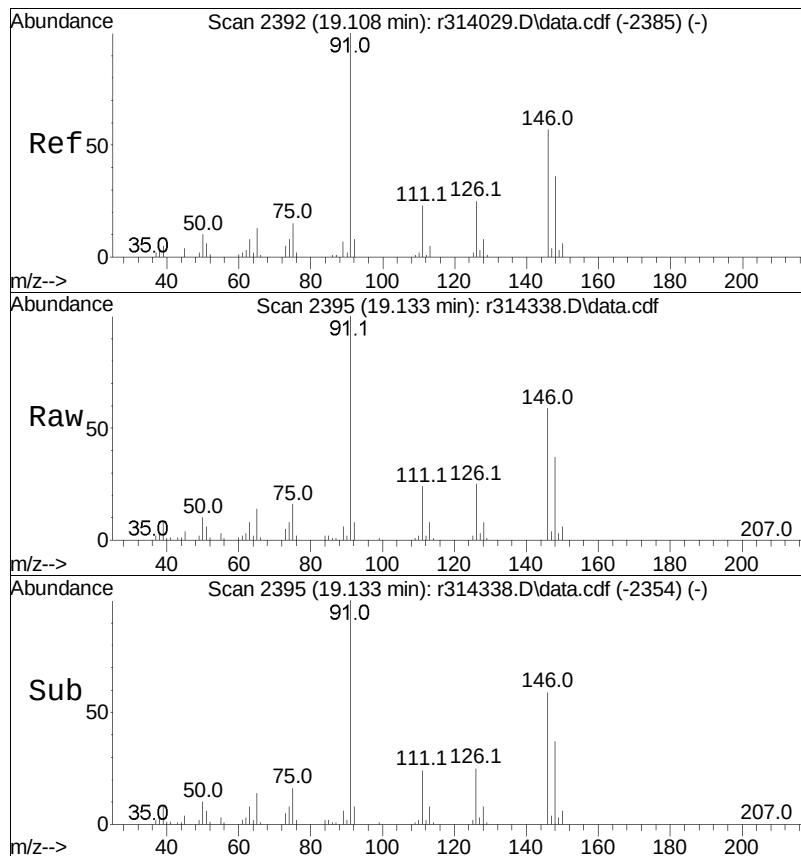




#99
 1,2,4-trimethylbenzene
 Concen: 10.85 ppbV
 RT: 19.017 min Scan# 2381
 Delta R.T. 0.025 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

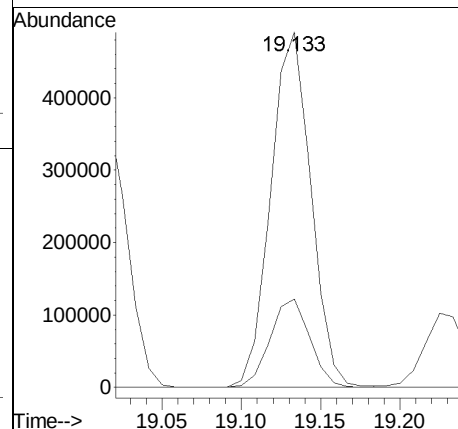
Tgt Ion	Ratio	Lower	Upper
105	100		
120	59.9	46.1	69.1
91	56.9	51.5	77.3

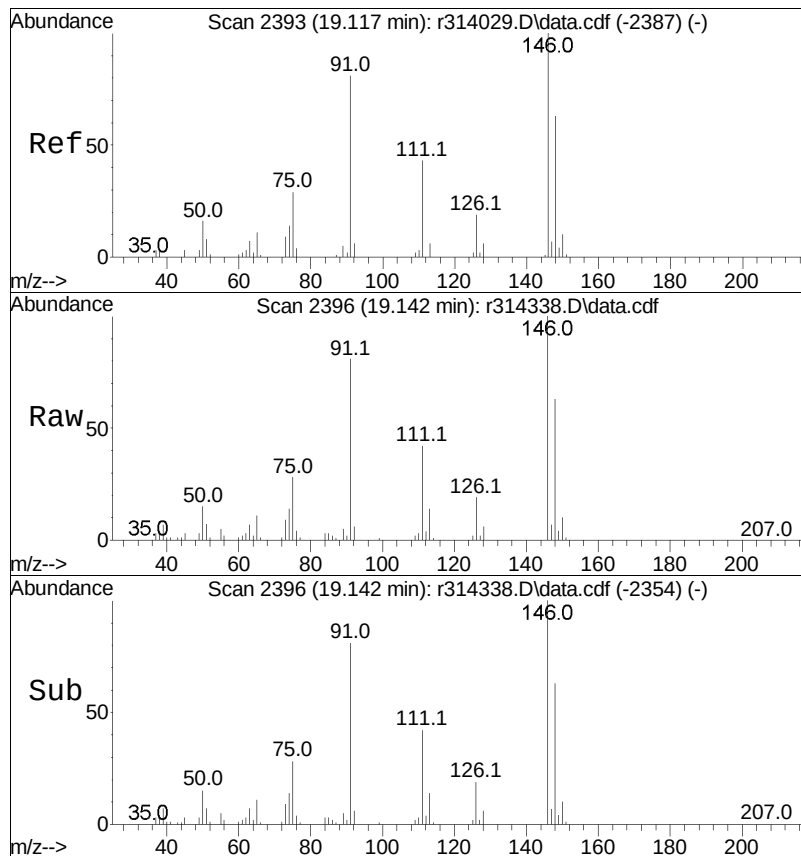




#101
 Benzyl Chloride
 Concen: 12.29 ppbV
 RT: 19.133 min Scan# 2395
 Delta R.T. 0.025 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

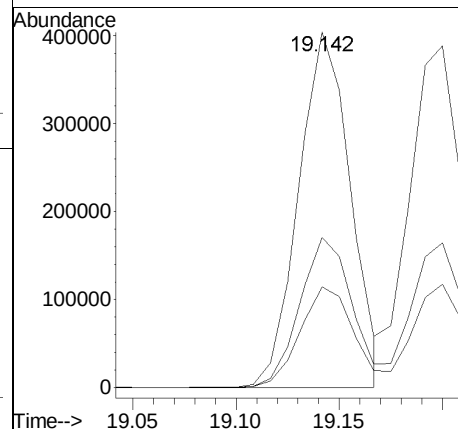
Tgt Ion:	91	Resp:	863805
Ion Ratio	Lower	Upper	
91	100		
126	24.9	19.9	29.9

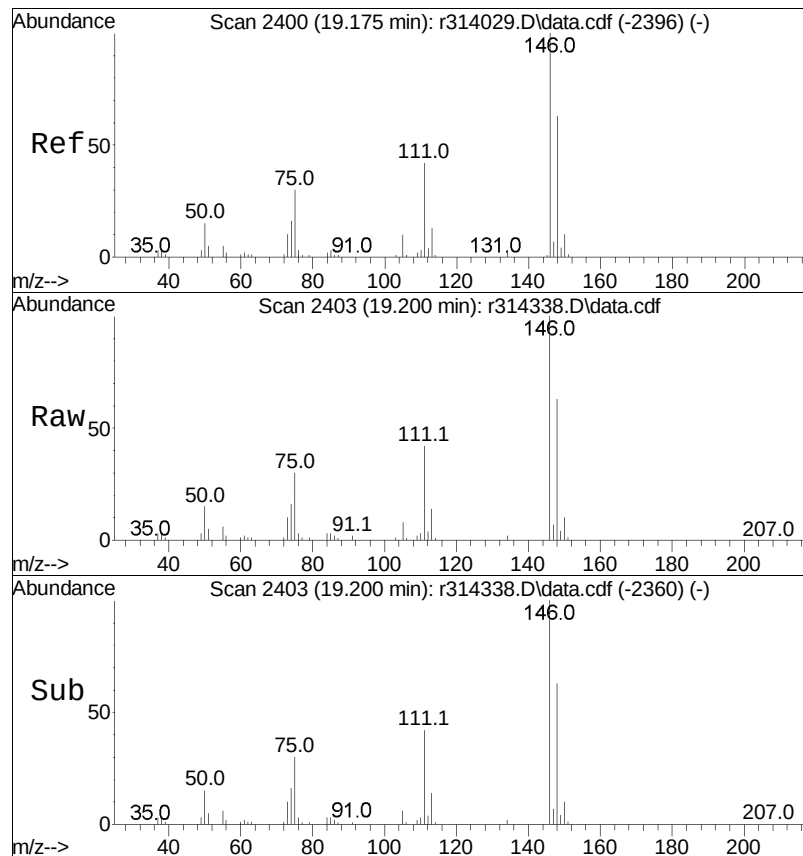




#102
 1,3-dichlorobenzene
 Concen: 10.71 ppbV
 RT: 19.142 min Scan# 2396
 Delta R.T. 0.025 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

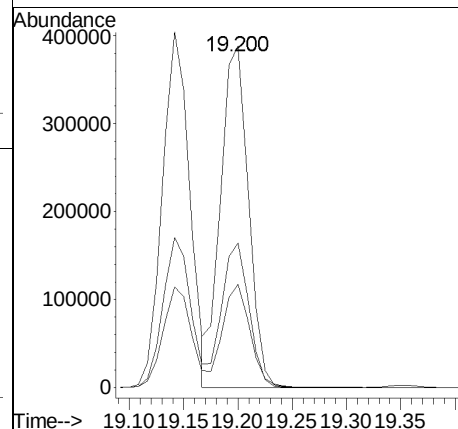
Tgt Ion	Ratio	Lower	Upper
146	100		
111	42.2	34.1	51.1
75	28.3	22.8	34.2

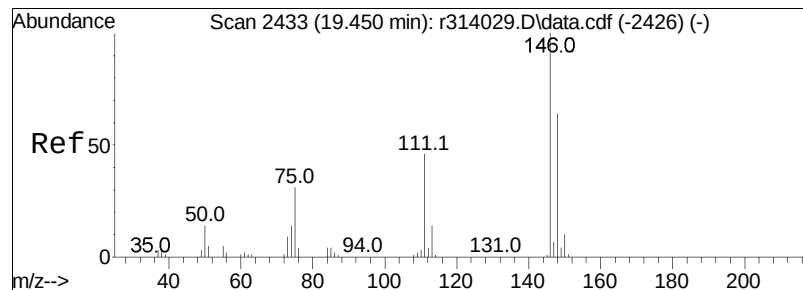




#103
 1,4-dichlorobenzene
 Concen: 11.02 ppbV
 RT: 19.200 min Scan# 2403
 Delta R.T. 0.025 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

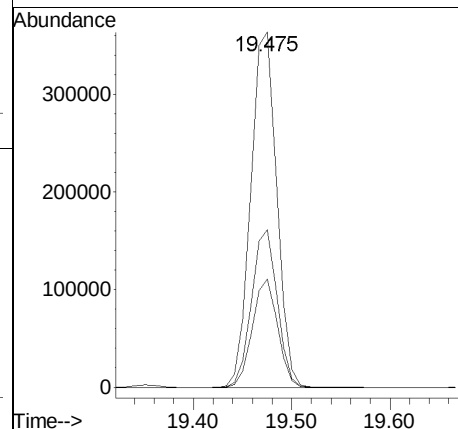
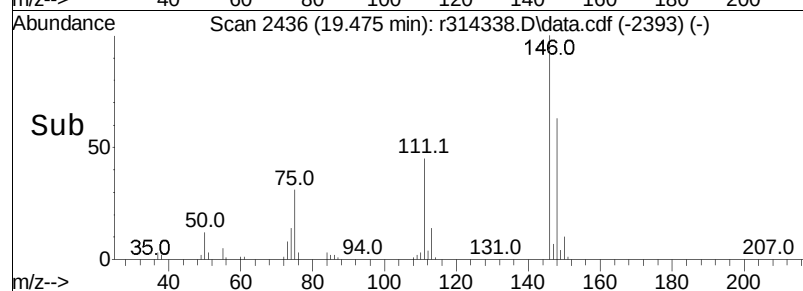
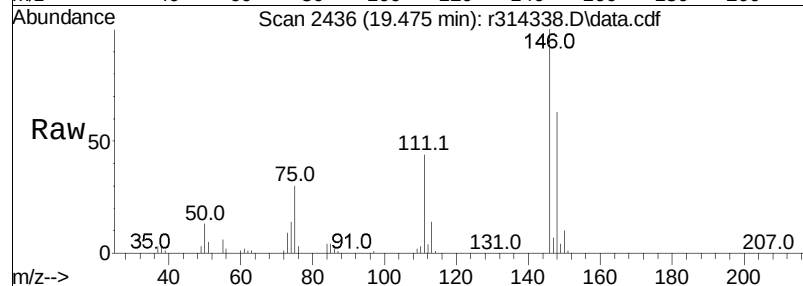
Tgt Ion:	146	Resp:	693340
Ion Ratio	Lower	Upper	
146	100		
111	42.3	34.0	51.0
75	30.2	24.3	36.5

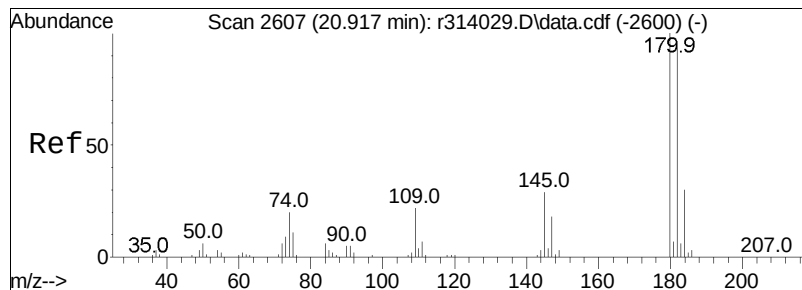




#107
 1,2-dichlorobenzene
 Concen: 10.74 ppbV
 RT: 19.475 min Scan# 2436
 Delta R.T. 0.025 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

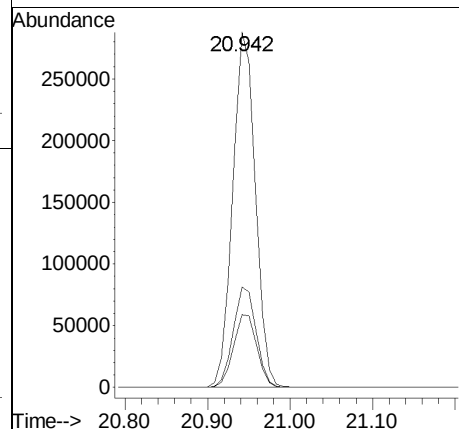
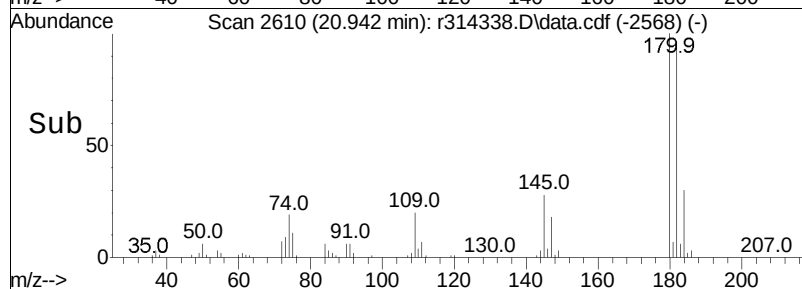
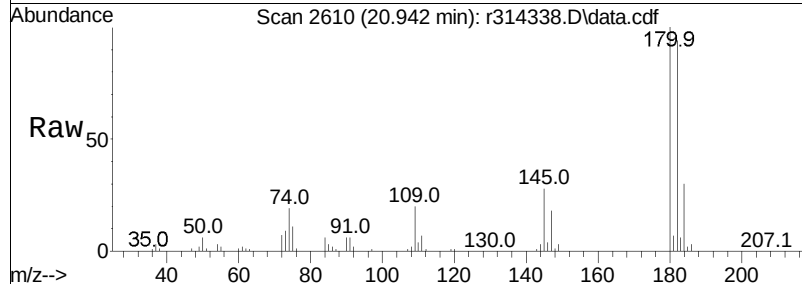
Tgt Ion	Ratio	Lower	Upper
146	100		
111	44.4	36.5	54.7
75	30.5	24.8	37.2

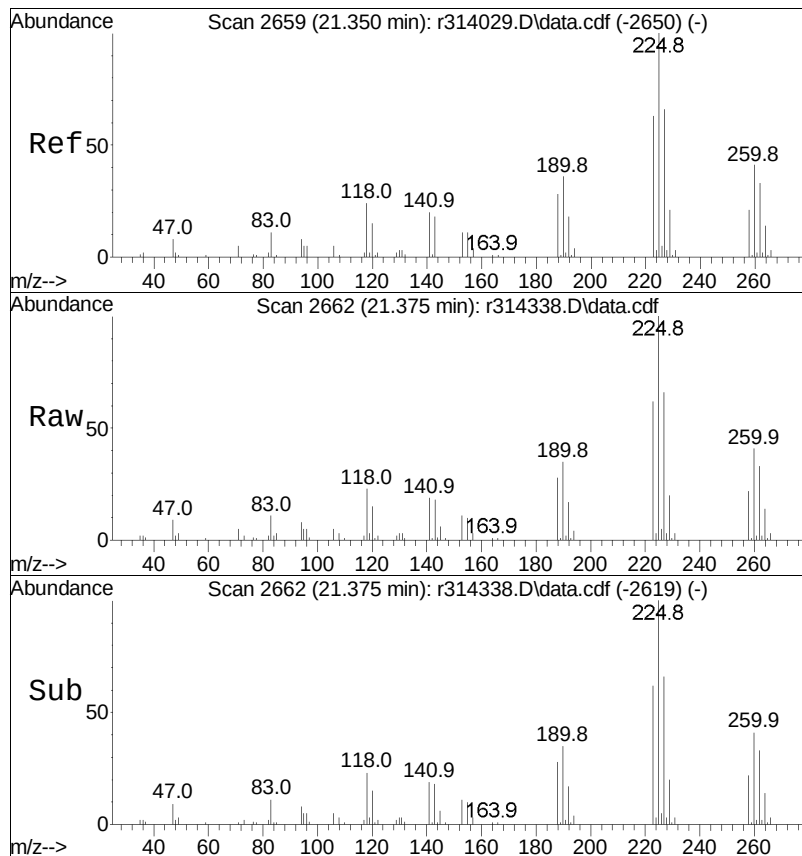




#115
 1,2,4-trichlorobenzene
 Concen: 13.38 ppbV
 RT: 20.942 min Scan# 2610
 Delta R.T. 0.025 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

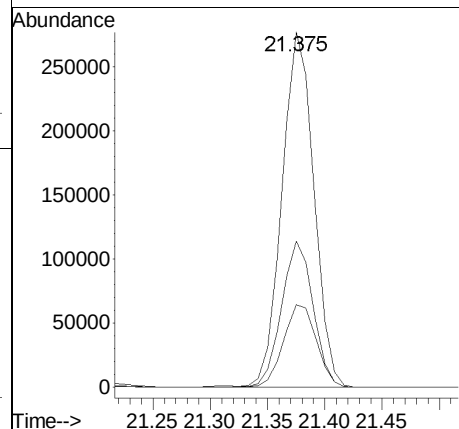
Tgt Ion	Ratio	Lower	Upper
180	100		
145	28.2	23.2	34.8
109	20.5	17.4	26.0





#119
 hexachlorobutadiene
 Concen: 11.60 ppbV
 RT: 21.375 min Scan# 2662
 Delta R.T. 0.025 min
 Lab File: r314338.D
 Acq: 5 Mar 2021 12:36 PM

Tgt Ion	Ratio	Resp	Lower	Upper
225	100	537851		
260	41.2		32.5	48.7
118	23.2		19.6	29.4



Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305T\
 Data File : r314347.D
 Acq On : 5 Mar 2021 8:05 PM
 Operator : AIRPIAN03:EW
 Sample : WG1471270-5,3,250,250
 Misc : WG1471270,ICAL17647
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 07 09:59:13 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305T\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sun Mar 07 09:51:35 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\03\0305T\r314338.D
 Sub List : T015-NY-7-SIM - .

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

Internal Standards						
1) bromochloromethane	9.600	49	388732	10.000	ppbV	0.00
Standard Area = 440496			Recovery =		88.25%	
43) 1,4-difluorobenzene	11.867	114	994571	10.000	ppbV	#-0.01
Standard Area = 1115642			Recovery =		89.15%	
67) chlorobenzene-D5	16.592	54	165940	10.000	ppbV	0.00
Standard Area = 185080			Recovery =		89.66%	

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) dichlorodifluoromethane	4.018	85	14085	0.487	ppbV	96
6) chloromethane	4.204	50	10269	0.641	ppbV	99
7) Freon-114	4.330		0	N.D.		
10) 1,3-butadiene	4.624		0	N.D.		
13) bromomethane	0.000		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	5.347	31	6685557	436.955	ppbV #	82
17) vinyl bromide	0.000		0	N.D.		
19) acetone	5.910	43	191431M6	7.103	ppbV	
21) trichlorofluoromethane	6.113	101	6756	0.301	ppbV	99
22) isopropyl alcohol	6.237	45	1321439	38.209	ppbV	98
27) tertiary butyl alcohol	6.986	59	13024	0.391	ppbV #	87
28) methylene chloride	7.052	49	44446	2.178	ppbV	92
29) 3-chloropropene	0.000		0	N.D.	d	
30) carbon disulfide	7.346		0	N.D.		
31) Freon 113	7.388	101	2348	0.083	ppbV	87
32) trans-1,2-dichloroethene	0.000		0	N.D.		
33) 1,1-dichloroethane	0.000		0	N.D.		
34) MTBE	8.517		0	N.D.		
36) 2-butanone	8.917	43	17308	0.353	ppbV	95
38) Ethyl Acetate	9.725	61	709	0.086	ppbV	80
39) chloroform	9.767		0	N.D.		
40) Tetrahydrofuran	10.233	42	8403	0.270	ppbV	90
42) 1,2-dichloroethane	10.617		0	N.D.		
44) hexane	9.675	57	33611	0.863	ppbV #	53
50) benzene	11.433	78	21075	0.283	ppbV	99
53) cyclohexane	11.747	56	2244	0.054	ppbV #	84
56) 1,2-dichloropropane	0.000		0	N.D.		
57) bromodichloromethane	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305T\
 Data File : r314347.D
 Acq On : 5 Mar 2021 8:05 PM
 Operator : AIRPIAN03:EW
 Sample : WG1471270-5,3,250,250
 Misc : WG1471270,ICAL17647
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 07 09:59:13 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305T\TFS3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sun Mar 07 09:51:35 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\03\0305T\r314338.D
 Sub List : T015-NY-7-SIM - .

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
58)	1,4-dioxane	0.000		0	N.D.			
60)	2,2,4-trimethylpentane	12.713		0	N.D.			
62)	heptane	13.033	43	5940	0.121	ppbV	#	92
63)	cis-1,3-dichloropropene	0.000		0	N.D.			
64)	4-methyl-2-pentanone	0.000		0	N.D.	d		
65)	trans-1,3-dichloropropene	0.000		0	N.D.			
66)	1,1,2-trichloroethane	0.000		0	N.D.			
68)	toluene	14.817	91	42319	0.518	ppbV		99
72)	2-hexanone	0.000		0	N.D.	d		
74)	dibromochloromethane	0.000		0	N.D.			
75)	1,2-dibromoethane	0.000		0	N.D.			
80)	chlorobenzene	16.642		0	N.D.			
81)	ethylbenzene	16.983		0	N.D.			
83)	m+p-xylene	17.133	91	10657	0.136	ppbV		89
84)	bromoform	0.000		0	N.D.			
85)	styrene	17.467		0	N.D.			
86)	1,1,2,2-tetrachloroethane	0.000		0	N.D.			
87)	o-xylene	17.558	91	4375	0.056	ppbV		92
96)	4-ethyl toluene	0.000		0	N.D.	d		
97)	1,3,5-trimethylbenzene	18.683		0	N.D.			
99)	1,2,4-trimethylbenzene	19.008		0	N.D.			
101)	Benzyl Chloride	0.000		0	N.D.	d		
102)	1,3-dichlorobenzene	19.192		0	N.D.			
103)	1,4-dichlorobenzene	19.192		0	N.D.			
107)	1,2-dichlorobenzene	0.000		0	N.D.			
115)	1,2,4-trichlorobenzene	0.000		0	N.D.			
119)	hexachlorobutadiene	0.000		0	N.D.			

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

Sub List : T015-NY-7-SIM - .\Airpiano3\2021\03\0305T\r314338.D

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305T\

Data File : r314347.D

Acq On : 5 Mar 2021 8:05 PM

Operator : AIRPIANO3:EW

Sample : WG1471270-5,3,250,250

Misc : WG1471270,ICAL17647

ALS Vial : 0 Sample Multiplier: 1

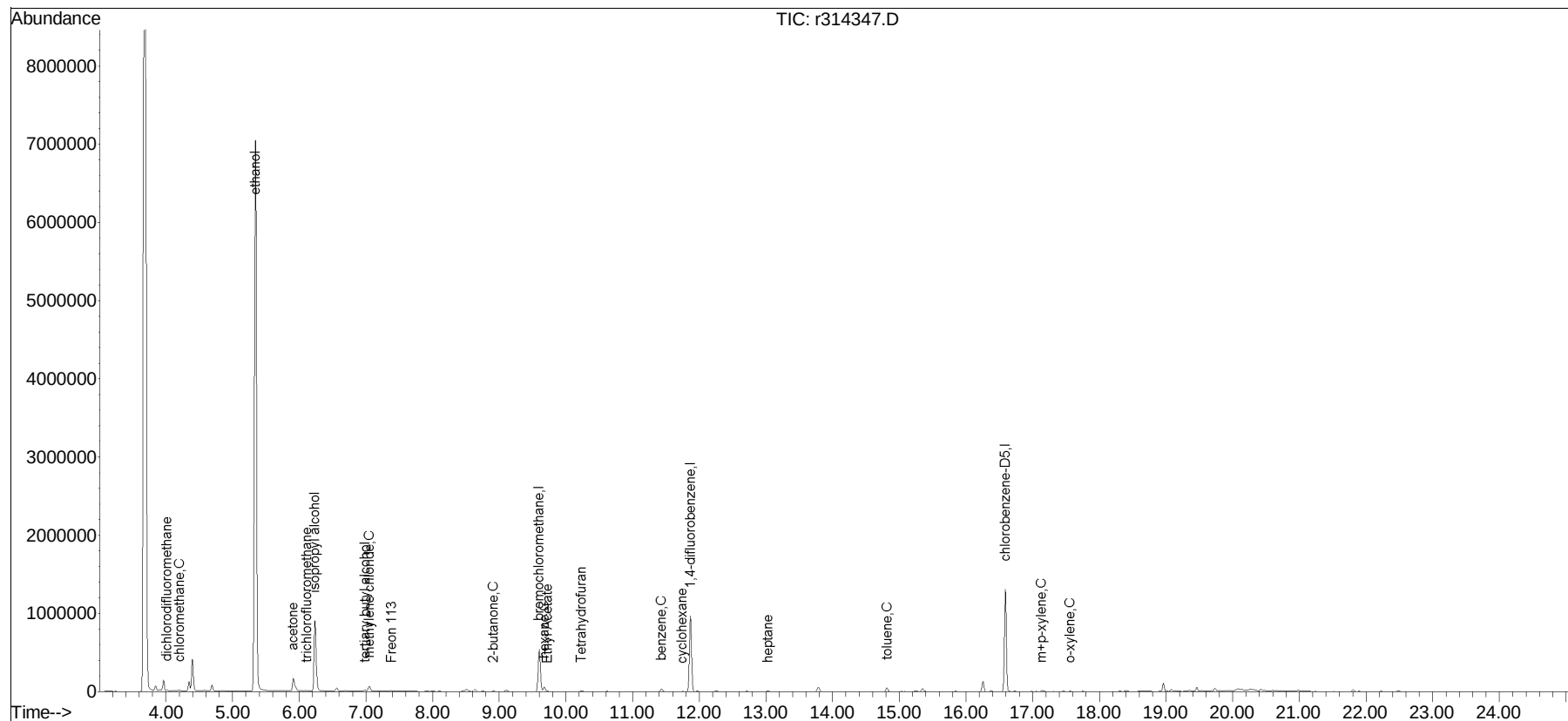
Quant Time: Mar 07 09:59:13 2021

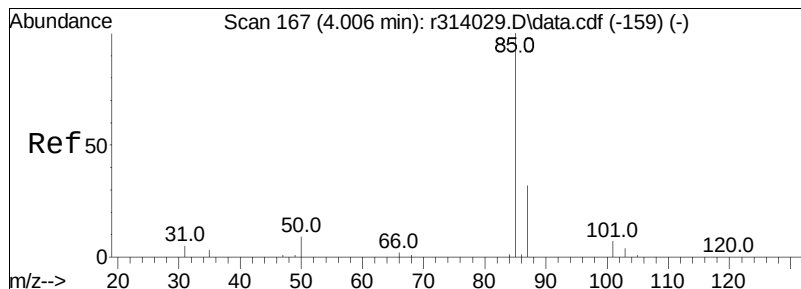
Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305T\TFS3_210219.M

Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis

QLast Update : Sun Mar 07 09:51:35 2021

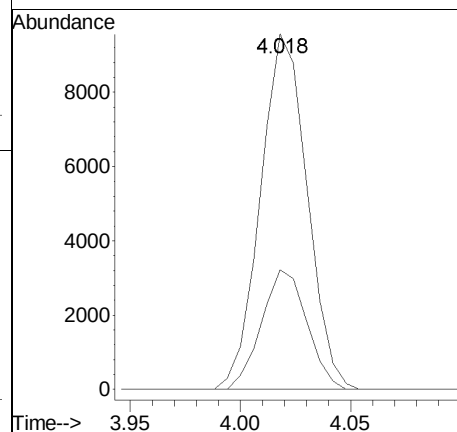
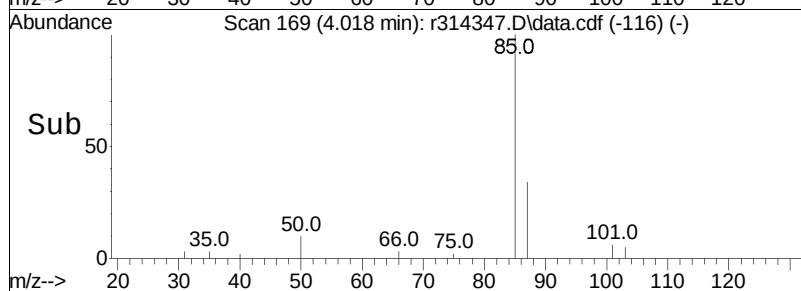
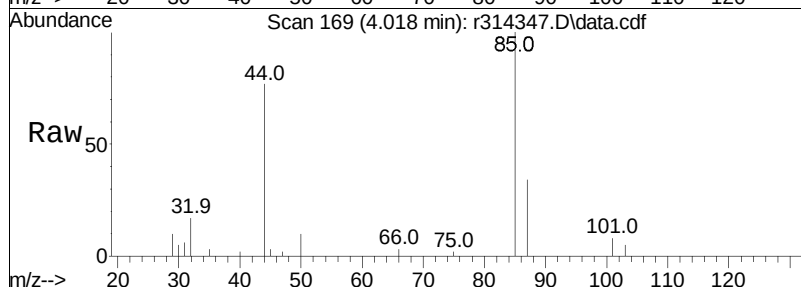
Response via : Initial Calibration

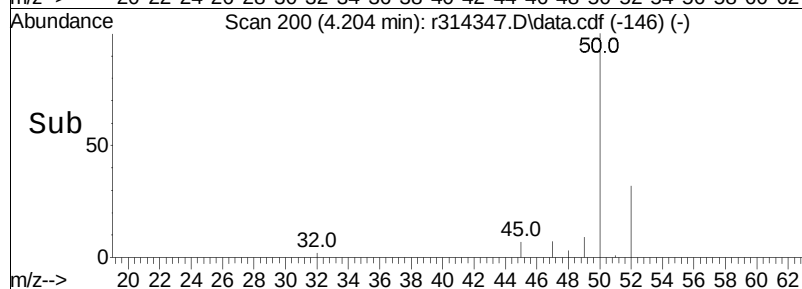
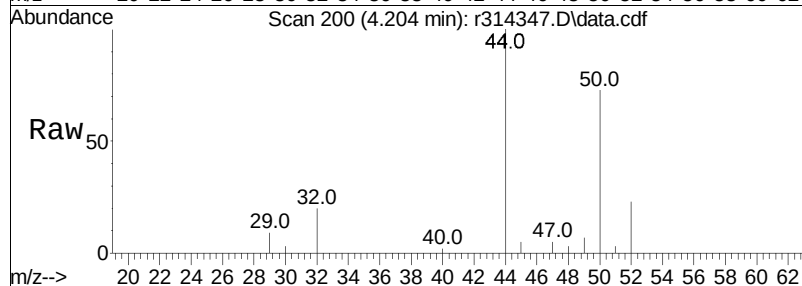
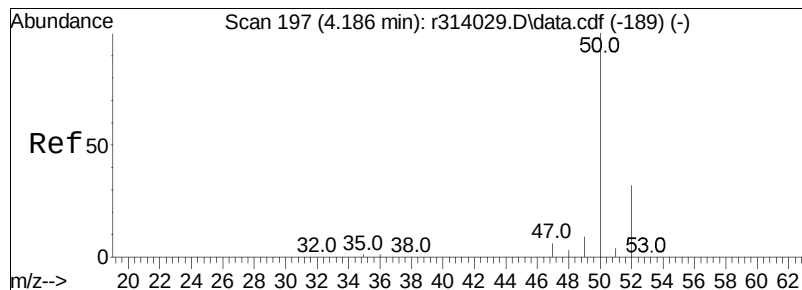




#5
dichlorodifluoromethane
Concen: 0.49 ppbV
RT: 4.018 min Scan# 169
Delta R.T. -0.012 min
Lab File: r314347.D
Acq: 5 Mar 2021 8:05 PM

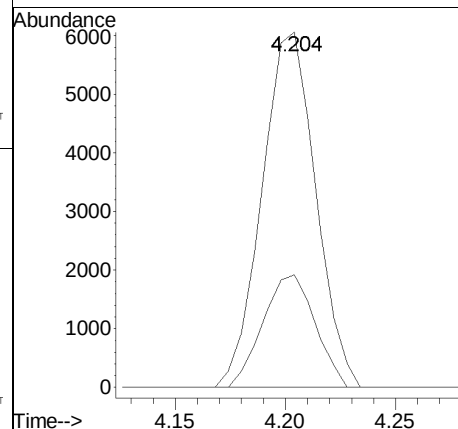
Tgt Ion: 85 Resp: 14085
Ion Ratio Lower Upper
85 100
87 33.7 25.4 38.0

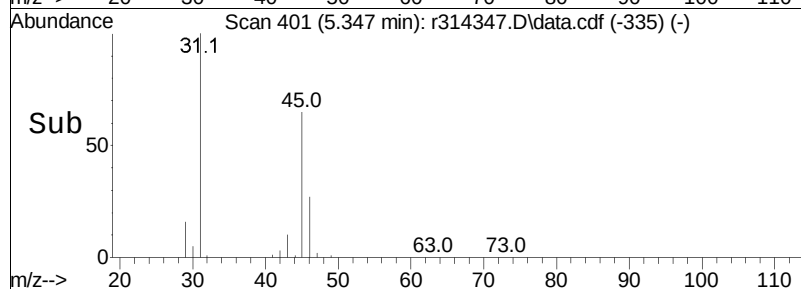
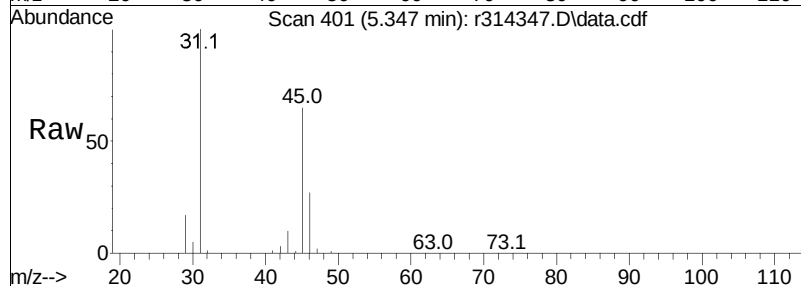
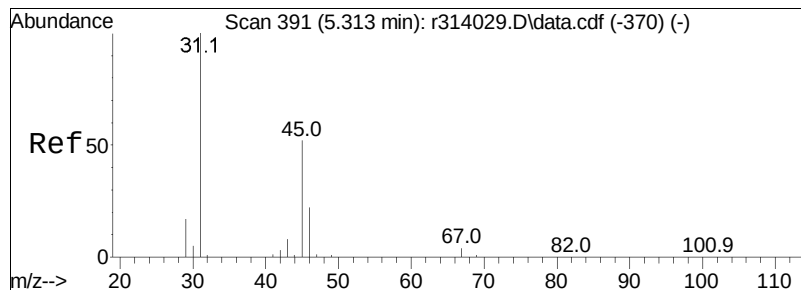




#6
 chloromethane
 Concen: 0.64 ppbV
 RT: 4.204 min Scan# 200
 Delta R.T. -0.006 min
 Lab File: r314347.D
 Acq: 5 Mar 2021 8:05 PM

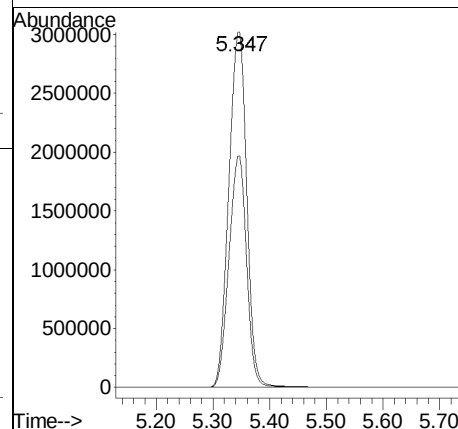
Tgt	Ion	Ratio	Lower	Upper
50	100			
52	31.7	26.0	39.0	

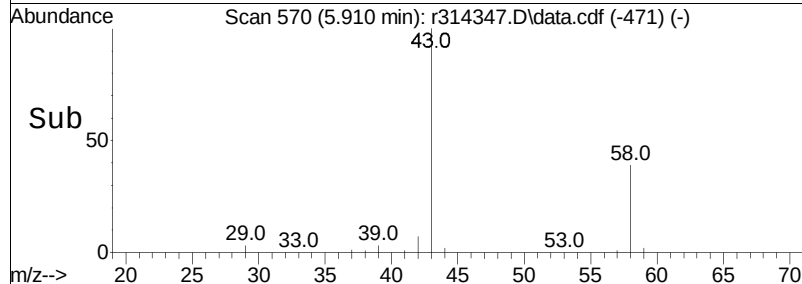
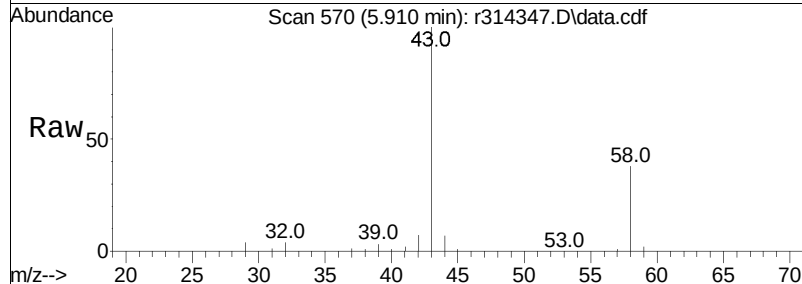
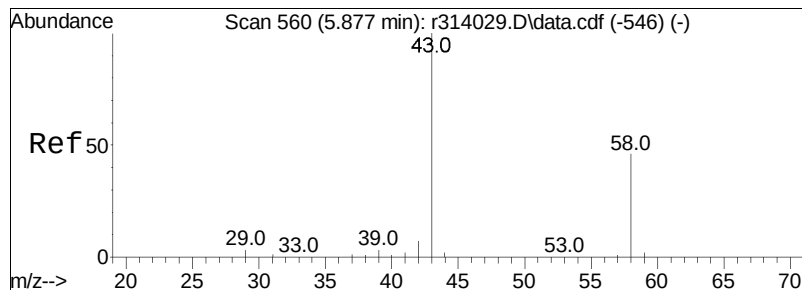




#15
ethanol
Concen: 436.96 ppbV
RT: 5.347 min Scan# 401
Delta R.T. 0.003 min
Lab File: r314347.D
Acq: 5 Mar 2021 8:05 PM

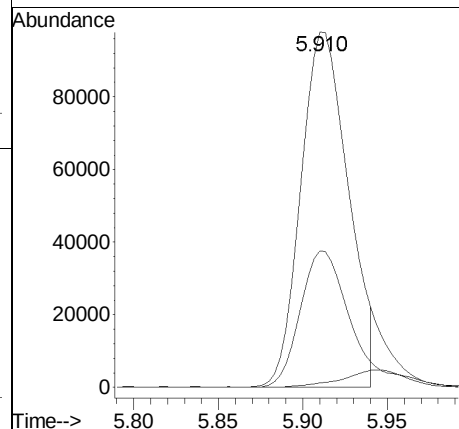
Tgt	Ion	Ratio	Lower	Upper
31	100			
45	65.2	41.9	62.9	

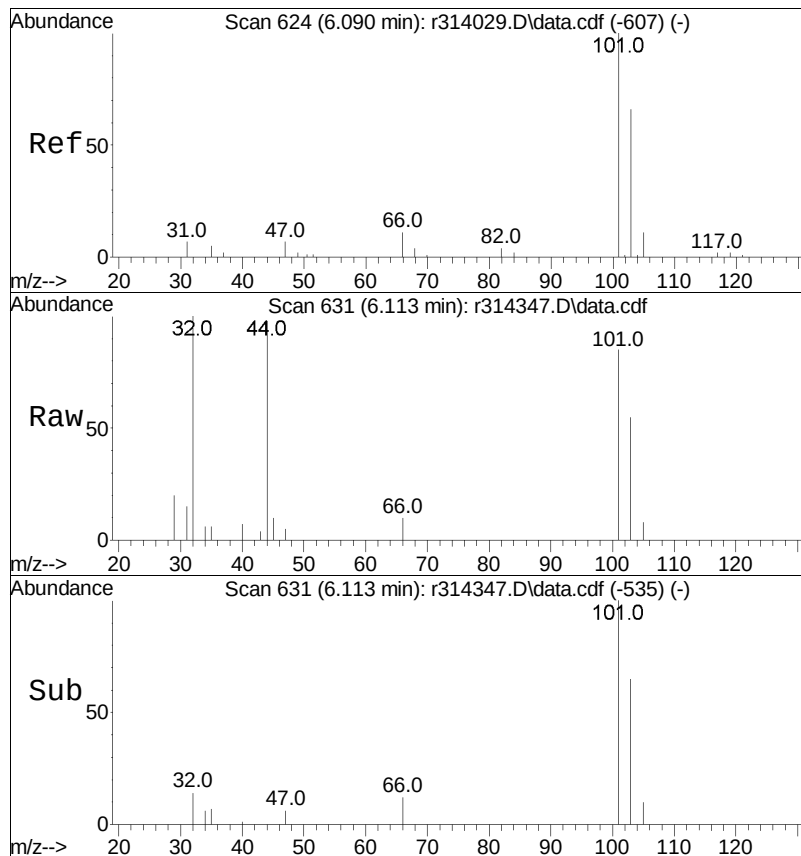




#19
acetone
Concen: 7.10 ppbV m
RT: 5.910 min Scan# 570
Delta R.T. 0.000 min
Lab File: r314347.D
Acq: 5 Mar 2021 8:05 PM

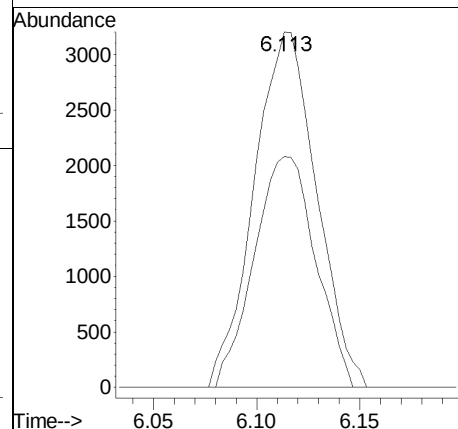
Tgt Ion	Ratio	Lower	Upper
43	100		
58	38.4	36.7	55.1
57	1.3	1.0	1.6

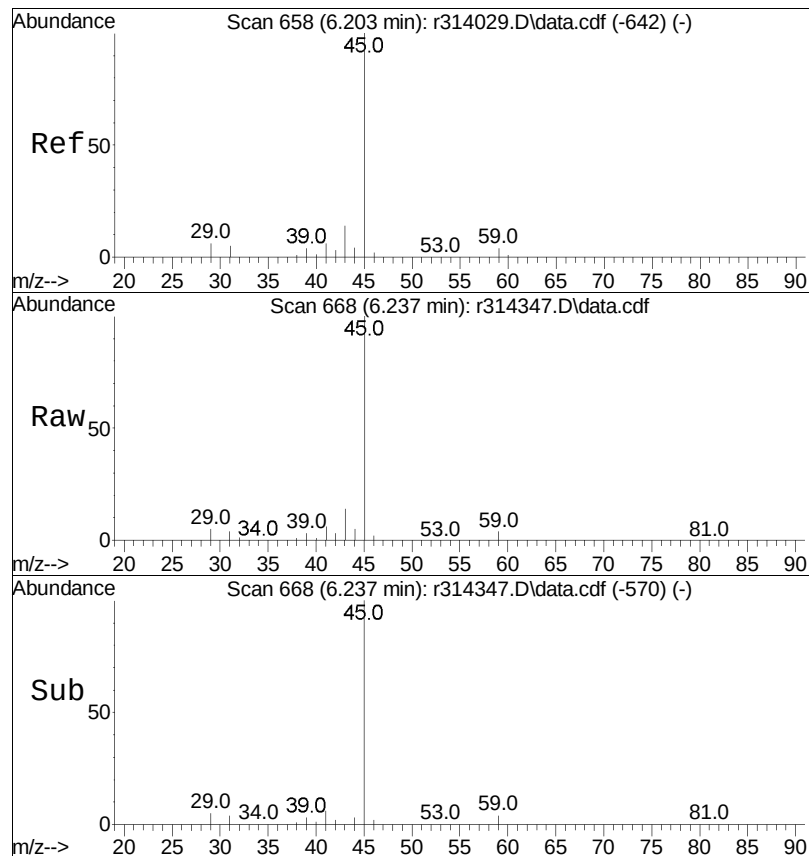




#21
 trichlorofluoromethane
 Concen: 0.30 ppbV
 RT: 6.113 min Scan# 631
 Delta R.T. -0.010 min
 Lab File: r314347.D
 Acq: 5 Mar 2021 8:05 PM

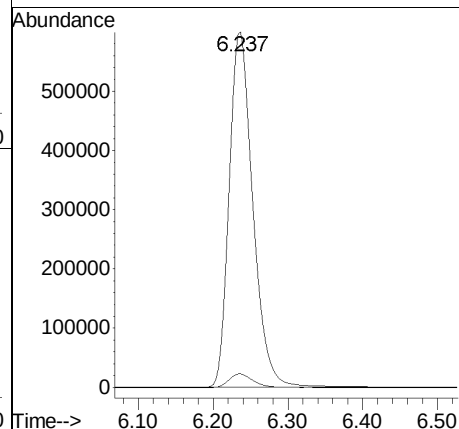
Tgt	Ion	Ratio	Lower	Upper
101	101	100		
103	65.0	52.6	78.8	

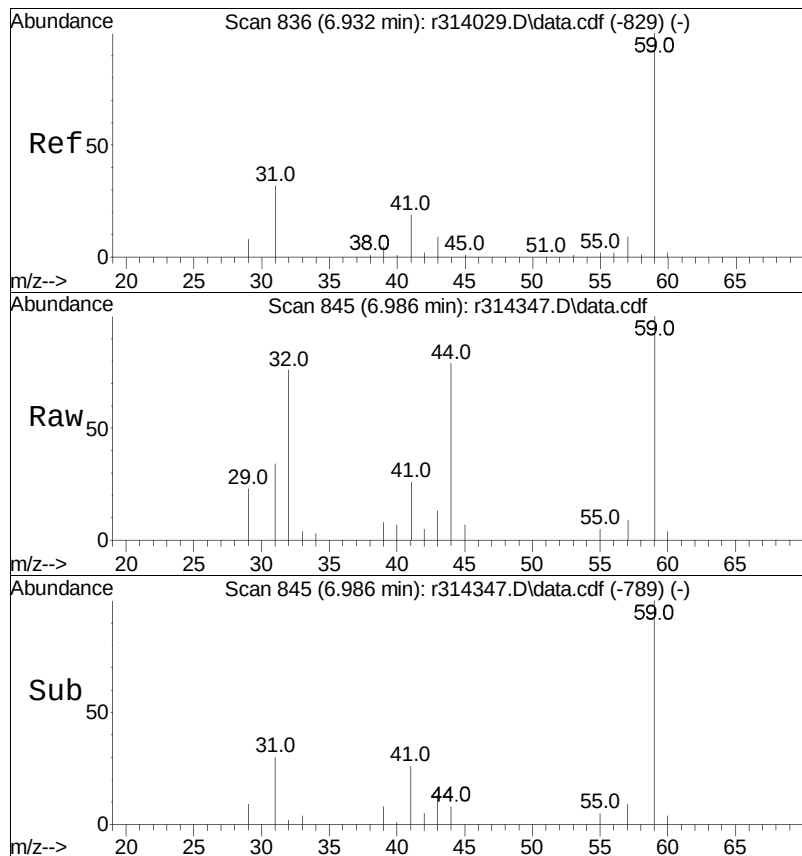




#22
 isopropyl alcohol
 Concen: 38.21 ppbV
 RT: 6.237 min Scan# 668
 Delta R.T. -0.003 min
 Lab File: r314347.D
 Acq: 5 Mar 2021 8:05 PM

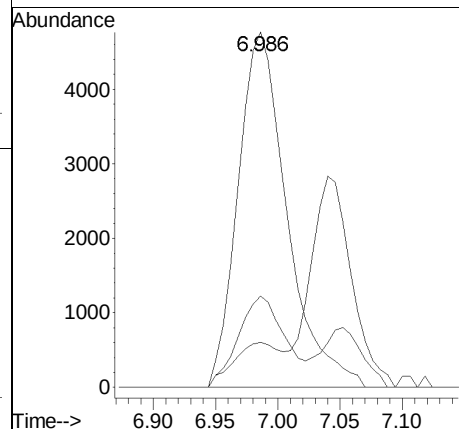
Tgt Ion	Ratio	Lower	Upper
45	100		
59	3.8	3.5	5.3

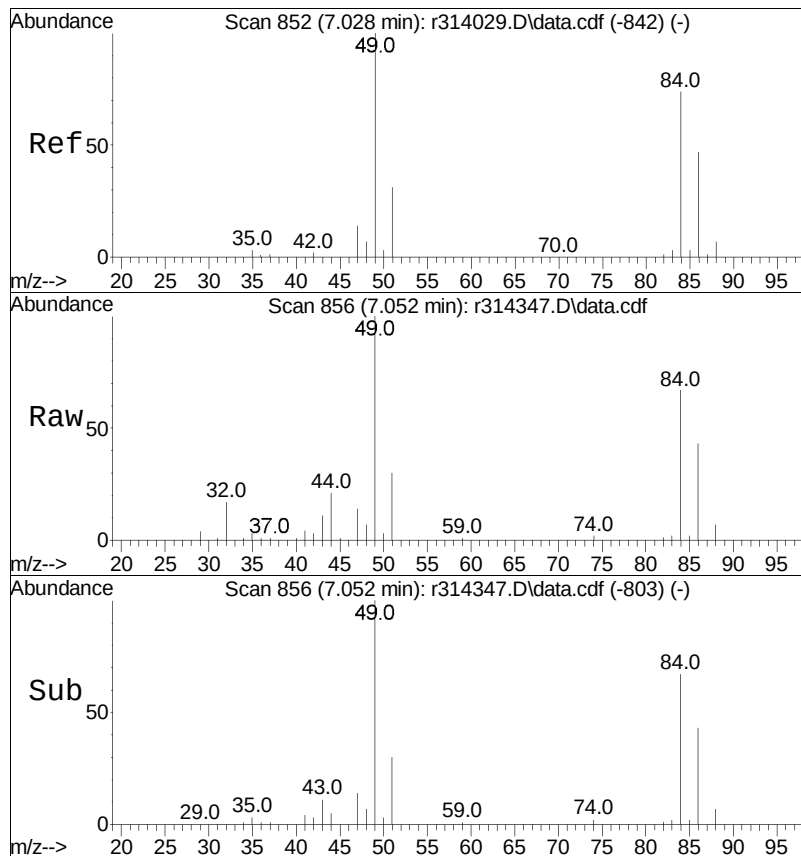




#27
 tertiary butyl alcohol
 Concen: 0.39 ppbV
 RT: 6.986 min Scan# 845
 Delta R.T. 0.012 min
 Lab File: r314347.D
 Acq: 5 Mar 2021 8:05 PM

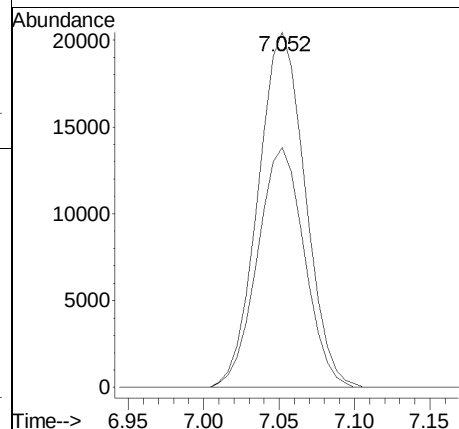
Tgt Ion:	59	Resp:	13024
Ion Ratio	Lower	Upper	
59	100		
41	25.7	15.0	22.6#
43	12.7	7.4	11.2#

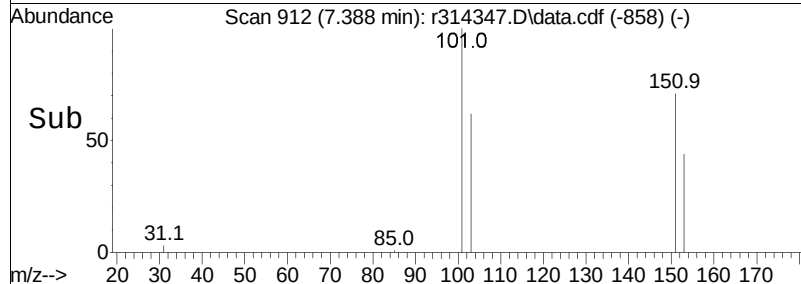
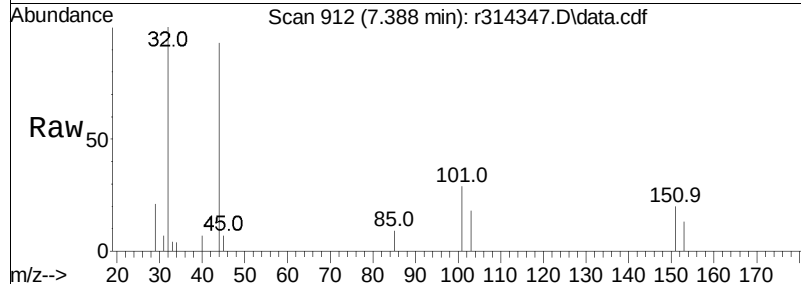
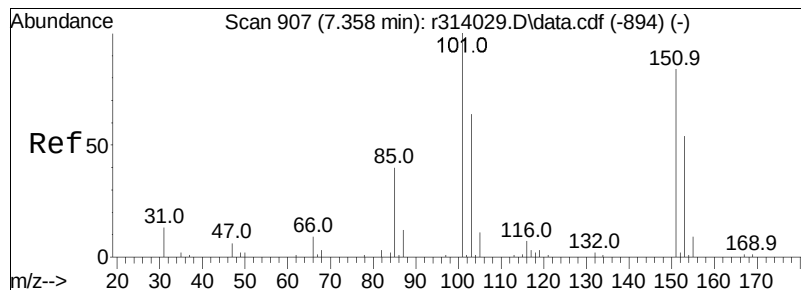




#28
 methylene chloride
 Concen: 2.18 ppbV
 RT: 7.052 min Scan# 856
 Delta R.T. -0.012 min
 Lab File: r314347.D
 Acq: 5 Mar 2021 8:05 PM

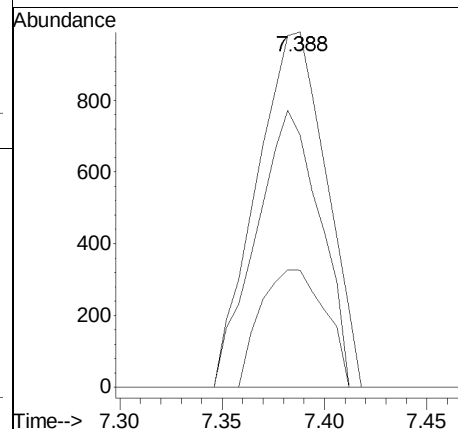
Tgt Ion:	49	84	Ratio	100	67.5	Resp:	44446	Lower	59.5	Upper	89.3
Ion	49	84	Ratio	100	67.5	Resp:	44446	Lower	59.5	Upper	89.3

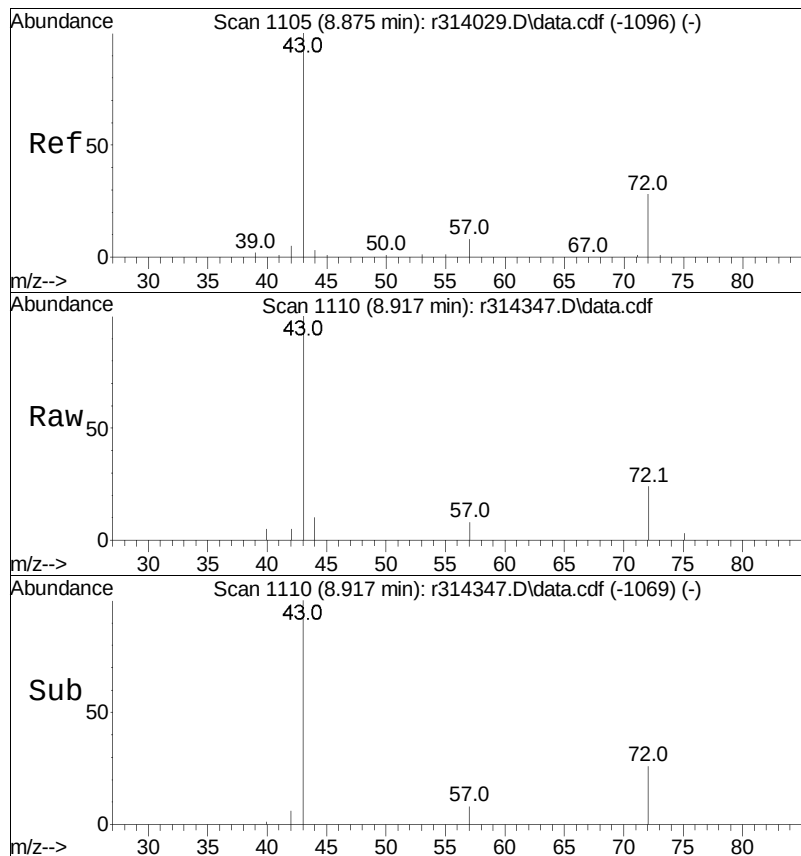




#31
 Freon 113
 Concen: 0.08 ppbV
 RT: 7.388 min Scan# 912
 Delta R.T. -0.006 min
 Lab File: r314347.D
 Acq: 5 Mar 2021 8:05 PM

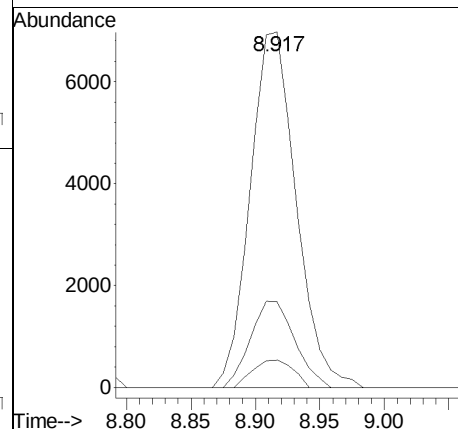
Tgt Ion	Ratio	Lower	Upper
101	100		
85	32.9	31.7	47.5
151	71.0	67.4	101.0

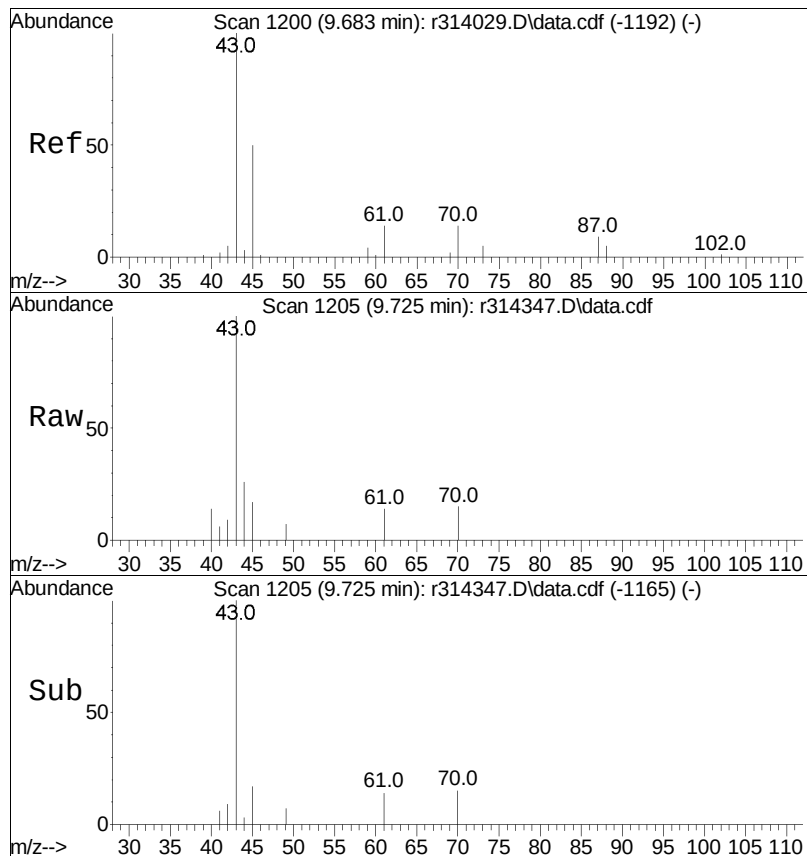




#36
 2-butanone
 Concen: 0.35 ppbV
 RT: 8.917 min Scan# 1110
 Delta R.T. 0.008 min
 Lab File: r314347.D
 Acq: 5 Mar 2021 8:05 PM

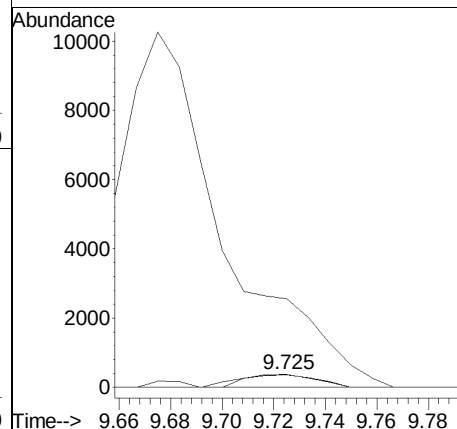
Tgt	Ion	Resp	Lower	Upper
43	100	17308		
72	24.1		22.2	33.2
57	7.7		6.3	9.5

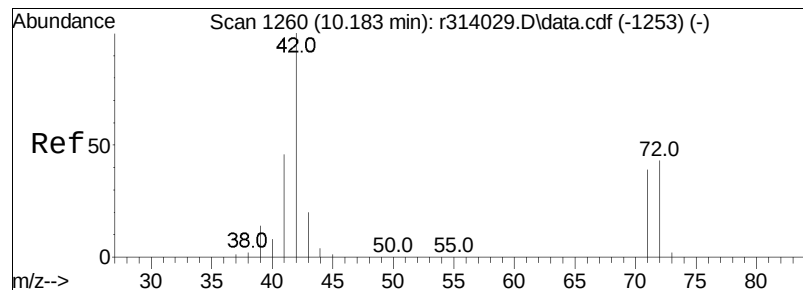




#38
 Ethyl Acetate
 Concen: 0.09 ppbV
 RT: 9.725 min Scan# 1205
 Delta R.T. 0.000 min
 Lab File: r314347.D
 Acq: 5 Mar 2021 8:05 PM

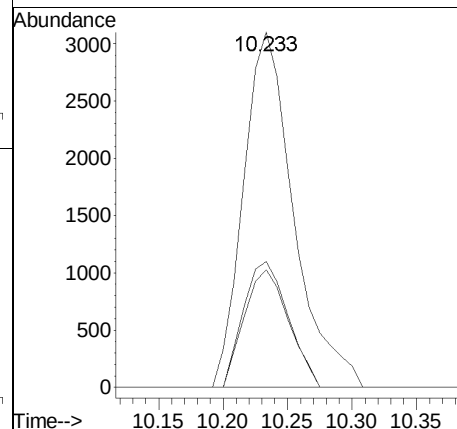
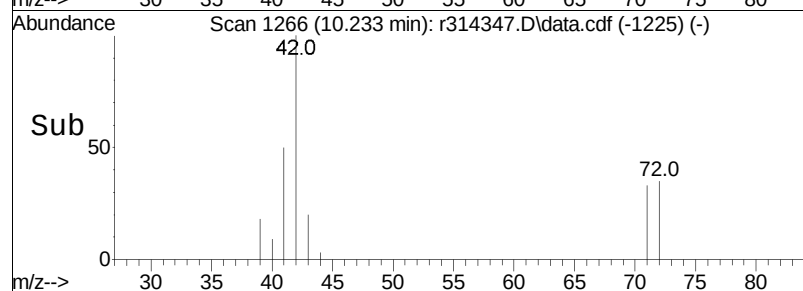
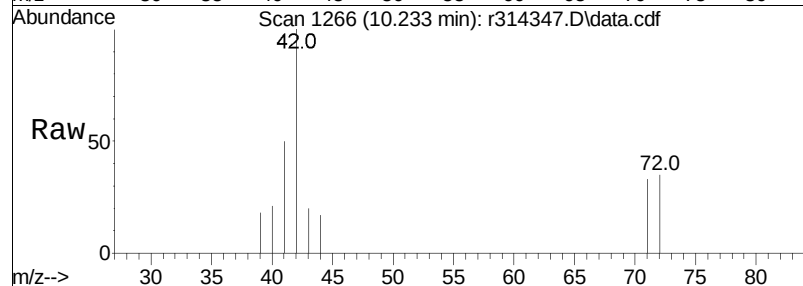
Tgt Ion:	61	Resp:	709
Ion Ratio	Lower	Upper	
61	100		
70	103.3	80.3	120.5
43	707.2	632.9	949.3

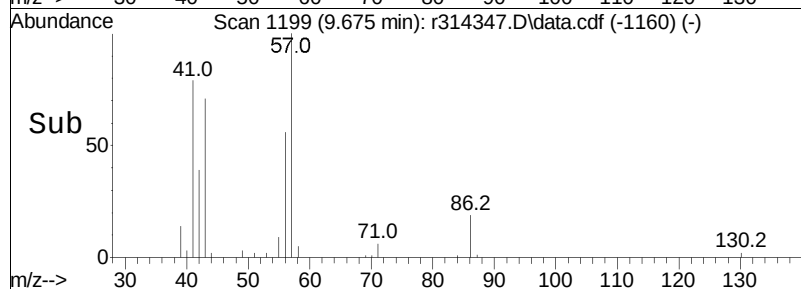
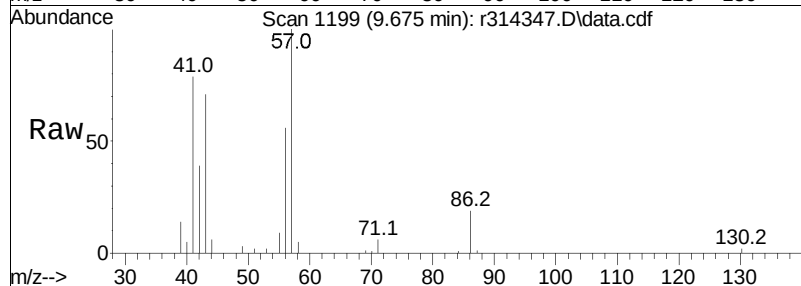
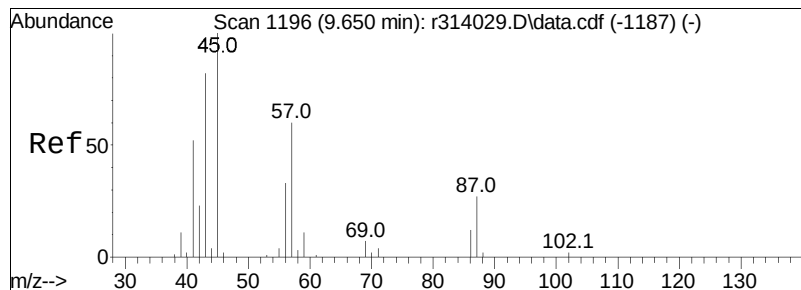




#40
Tetrahydrofuran
Concen: 0.27 ppbV
RT: 10.233 min Scan# 1266
Delta R.T. 0.008 min
Lab File: r314347.D
Acq: 5 Mar 2021 8:05 PM

Tgt Ion	Ratio	Lower	Upper
42	100		
71	33.1	31.0	46.6
72	35.4	34.1	51.1





#44

hexane

Concen: 0.86 ppbV

RT: 9.675 min Scan# 1199

Delta R.T. -0.008 min

Lab File: r314347.D

Acq: 5 Mar 2021 8:05 PM

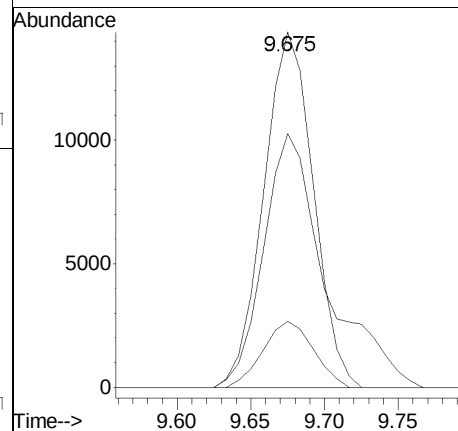
Tgt Ion: 57 Resp: 33611

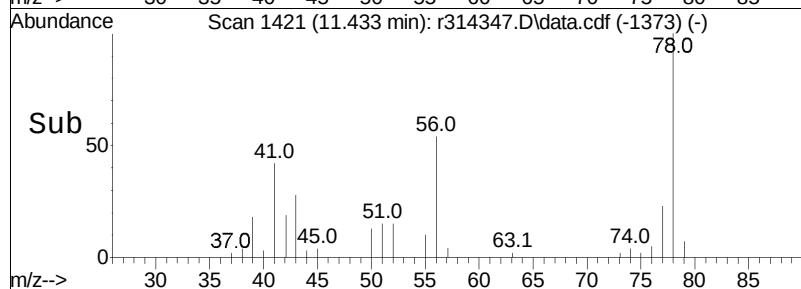
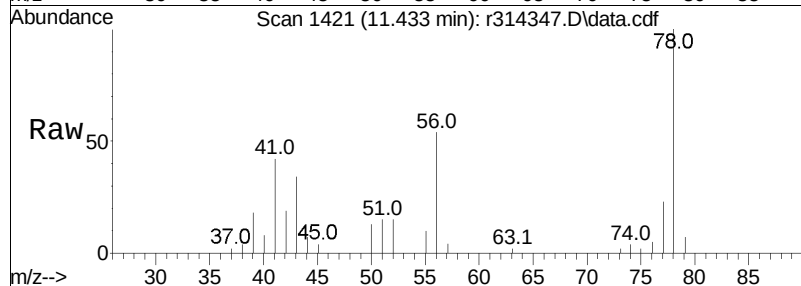
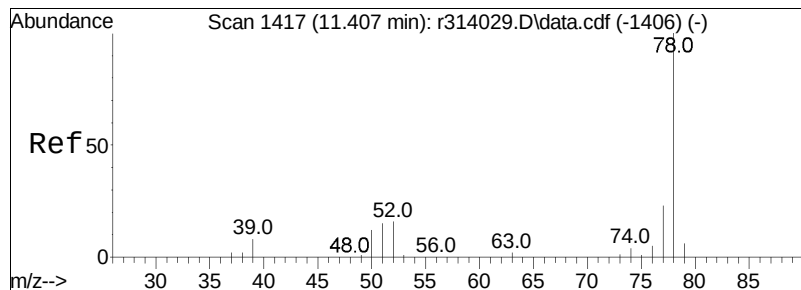
Ion Ratio Lower Upper

57 100

43 71.4 108.5 162.7#

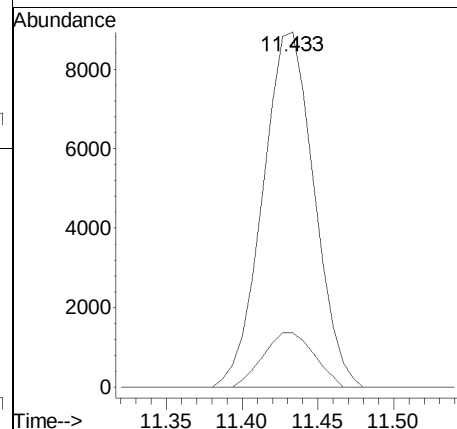
86 18.6 16.0 24.0

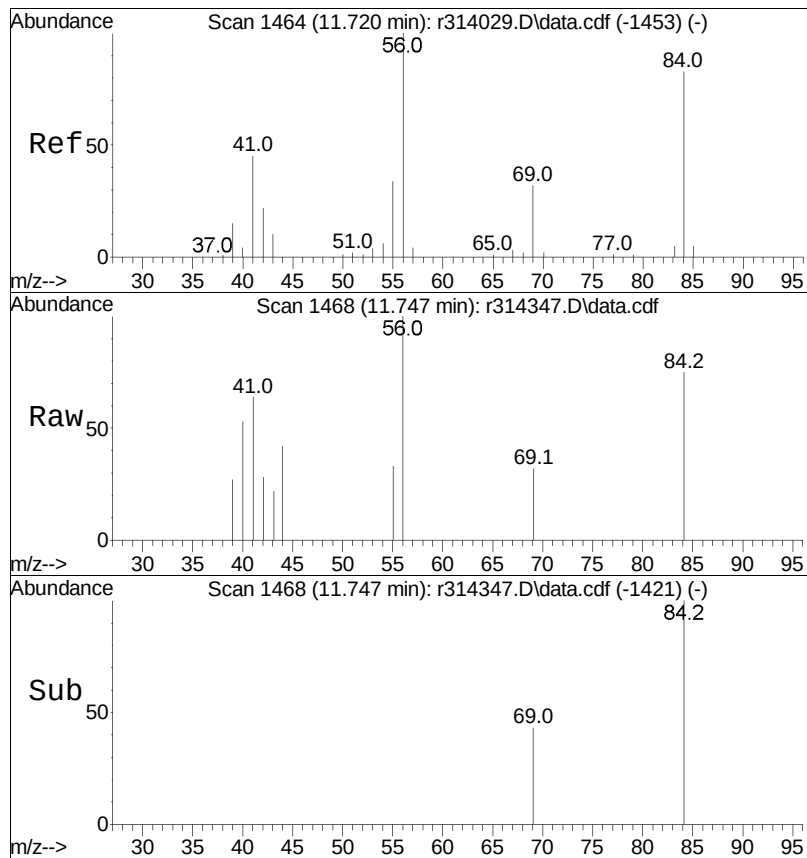




#50
benzene
Concen: 0.28 ppbV
RT: 11.433 min Scan# 1421
Delta R.T. -0.007 min
Lab File: r314347.D
Acq: 5 Mar 2021 8:05 PM

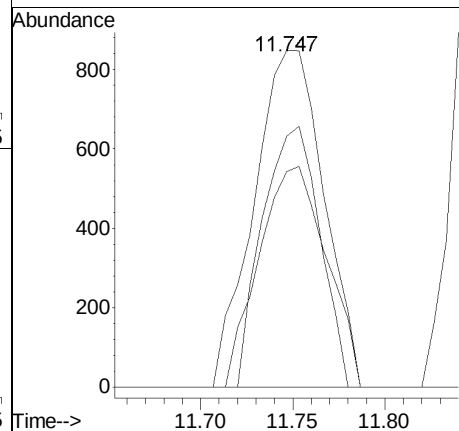
Tgt Ion	Ratio	Lower	Upper
78	100		
52	15.3	12.5	18.7

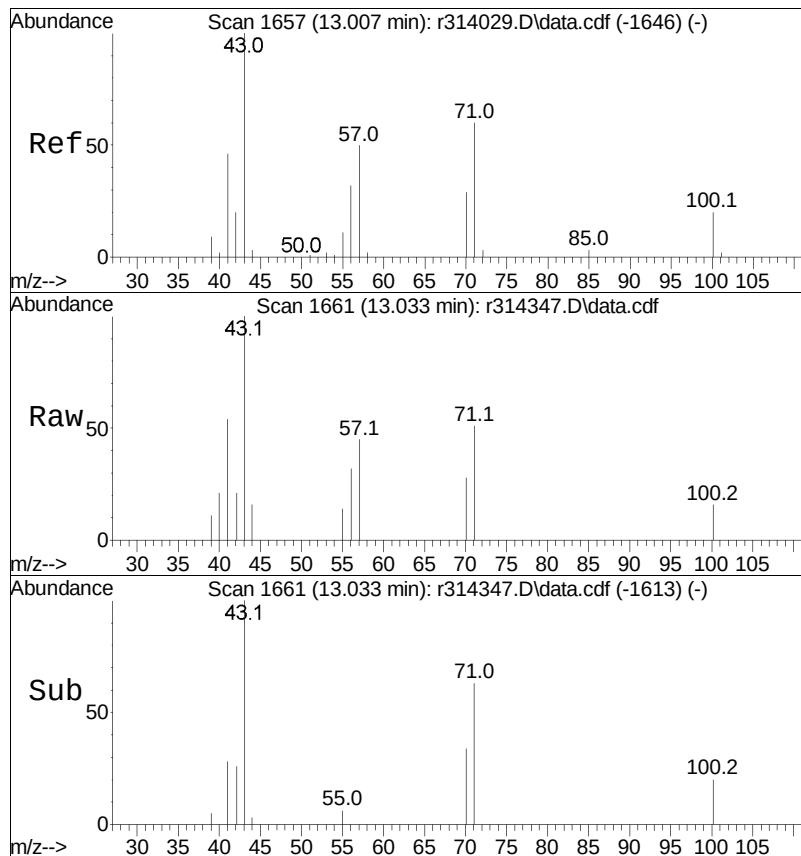




#53
cyclohexane
Concen: 0.05 ppbV
RT: 11.747 min Scan# 1468
Delta R.T. -0.013 min
Lab File: r314347.D
Acq: 5 Mar 2021 8:05 PM

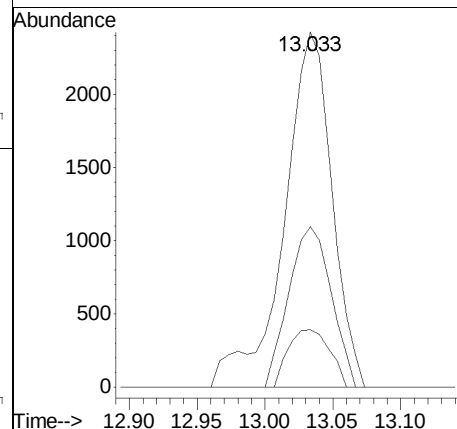
Tgt	Ion: 56	Resp:	2244
Ion	Ratio	Lower	Upper
56	100		
84	74.5	66.5	99.7
41	64.0	36.3	54.5#

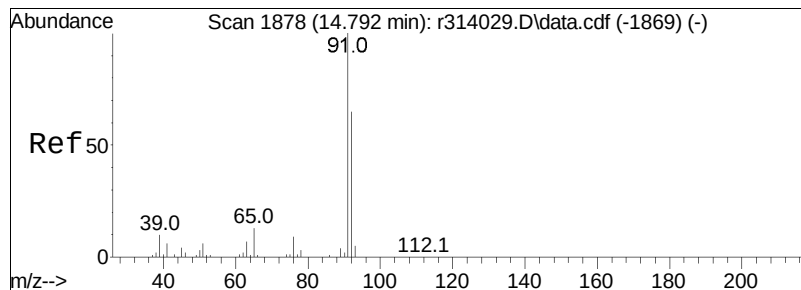




#62
 heptane
 Concen: 0.12 ppbV
 RT: 13.033 min Scan# 1661
 Delta R.T. -0.007 min
 Lab File: r314347.D
 Acq: 5 Mar 2021 8:05 PM

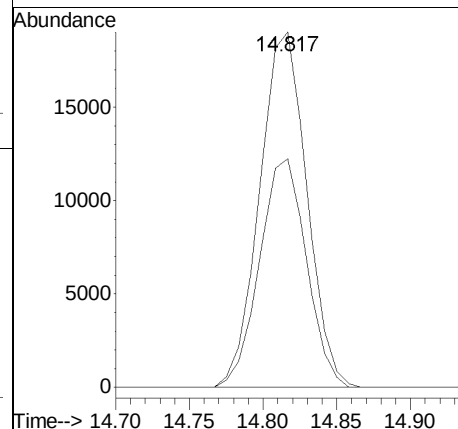
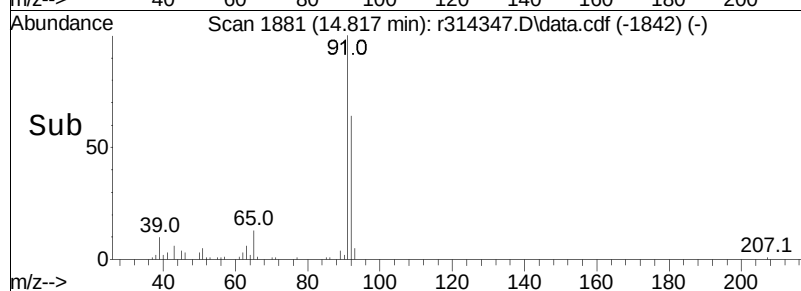
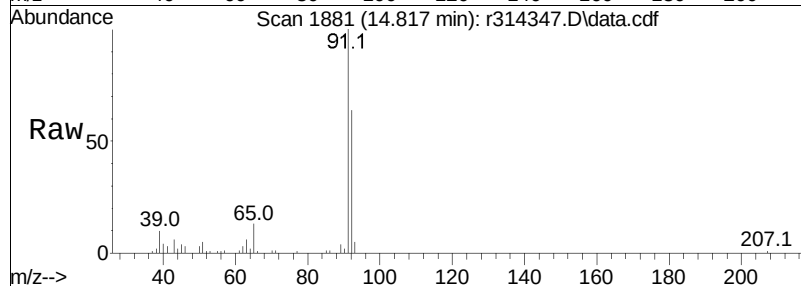
Tgt	Ion: 43	Resp:	5940
Ion	Ratio	Lower	Upper
43	100		
57	45.2	40.2	60.2
100	16.2	16.4	24.6#

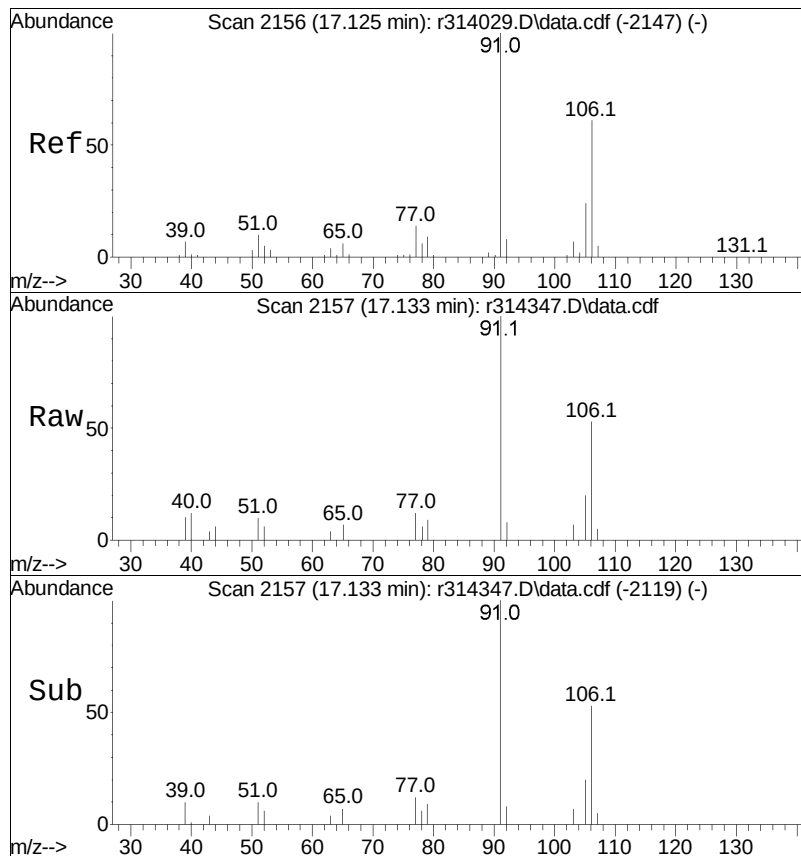




#68
toluene
Concen: 0.52 ppbV
RT: 14.817 min Scan# 1881
Delta R.T. -0.008 min
Lab File: r314347.D
Acq: 5 Mar 2021 8:05 PM

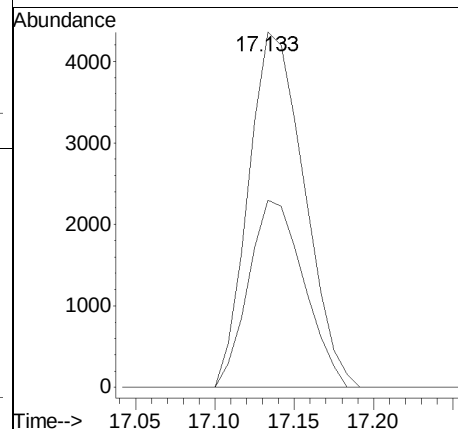
Tgt	Ion	Resp	Lower	Upper
91	100	42319		
92	64.4	51.8	77.8	

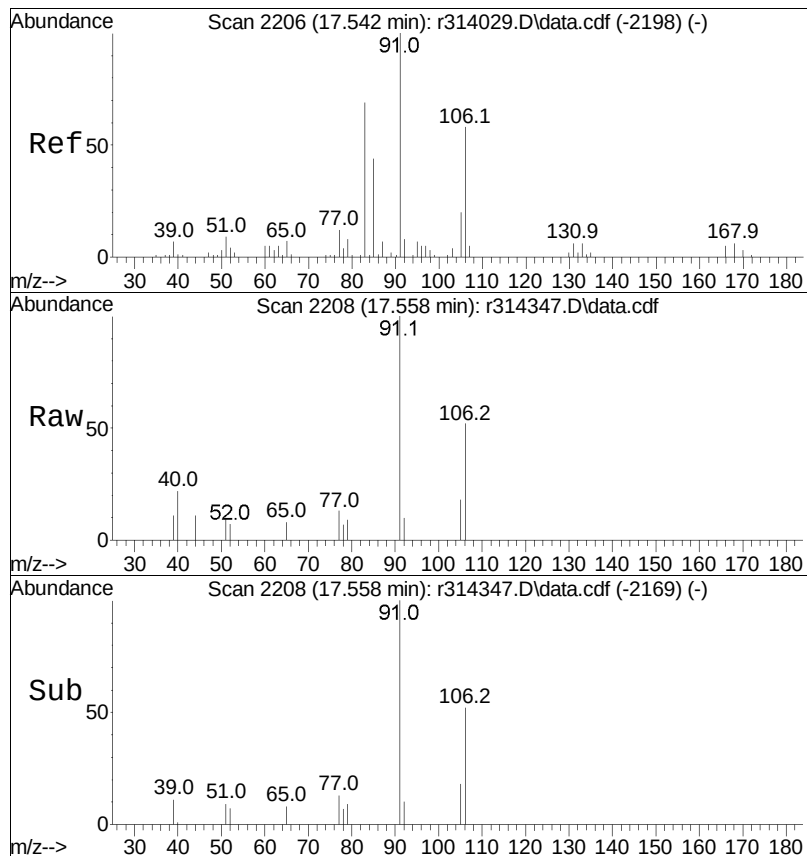




#83
 m+p-xylene
 Concen: 0.14 ppbV
 RT: 17.133 min Scan# 2157
 Delta R.T. -0.017 min
 Lab File: r314347.D
 Acq: 5 Mar 2021 8:05 PM

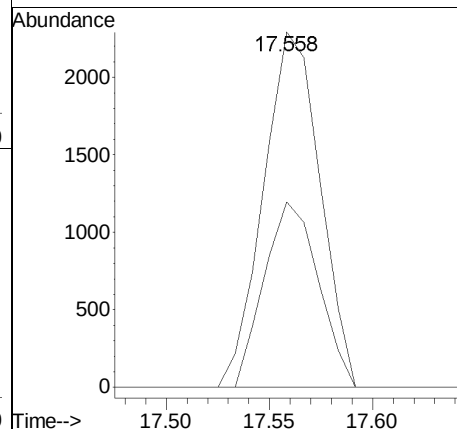
Tgt	Ion	Resp	Lower	Upper
91	100	10657		
106	52.7	48.7	73.1	





#87
o-xylene
Concen: 0.06 ppbV
RT: 17.558 min Scan# 2208
Delta R.T. -0.008 min
Lab File: r314347.D
Acq: 5 Mar 2021 8:05 PM

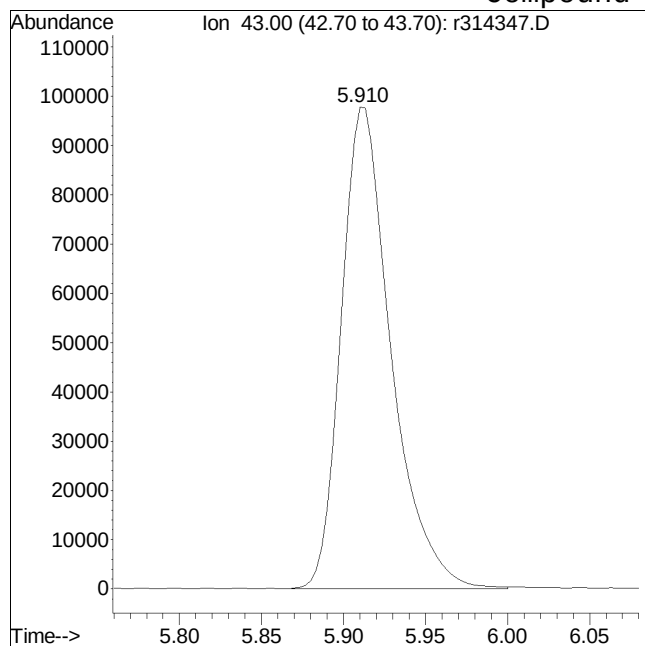
Tgt Ion	Ratio	Lower	Upper
91	100		
106	52.2	46.7	70.1



Manual Integration Report

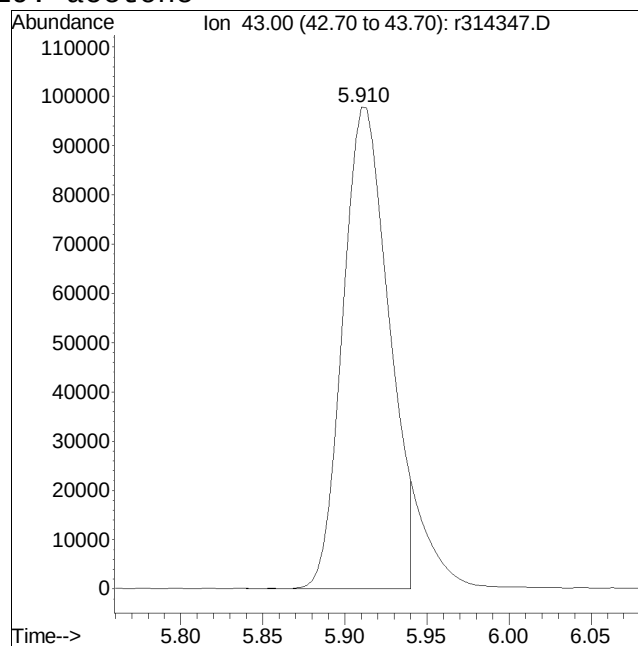
Data Path : 0:\Forensics\Data\AirpianoQMethod : TFS3_210219.M
Data File : r314347.D Operator : AIRPIAN03:EW
Date Inj'd : 3/5/2020 0:8: 5 Instrument :
Sample : WG1471270-5,3,250,250 Quant Date : 3/7/2021 9:52 am

Compound #19: acetone



Original Peak Response = 206938

M6 = Misassignment of peak valley by



Manual Peak Response = 191431 M6

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

Calculation of Volatile Organic Compounds in Air

The instrument will calculate the concentration (ppbv). If the sample is diluted (DF), the result is multiplied by the DF to generate the final result.

$$\text{Result, ppbv} = C_s \times \text{DF}$$

Where:

C_s = Concentration of sample (ppbv)

DF = Dilution Factor

Calculation of Instrument Dilution Factor

For dilutions, smaller sample volumes (< 250mL) are analyzed. The smallest volume that can be analyzed with accuracy is 10 mL.

Samples that arrive at the laboratory with pressures below -15 inches Hg must be pressurized with zero air to greater than -15 inches Hg. This pressurization results in a dilution factor.

Calculation of Dilution Factor

$$\text{DF} = V_{\text{cf}} / V_{\text{ci}}$$

Where:

V_{ci} = volume of air in canister prior to pressurization, L

P =

Conversion of ppbv to $\mu\text{g}/\text{m}^3$

$$\mu\text{g}/\text{m}^3 = (\text{ppbv}) \times \text{MW} / 24.47$$

Where:

24.47 = molar gas constant (g/g-mole)

MW = molecular weight of the compound of interest

Dilution Factor for Pressurization of Subatmospheric Samples: Three Steps

Step 1: Calculate the volume in the canister prior to pressurization (Assume a 2.7 liter canister is used).

Dilution Factor for Pressurization of Subatmospheric Samples: Three Steps

Step 1: Calculate the volume in the canister prior to pressurization (Assume a 2.7 liter canister is used).

$$V_{ci} = 2.7 * PI / 14.696$$

Step 2: Calculate the volume in the canister after pressurization.

$$V_{cf} = 2.7 * PF / 14.696$$

Step 3: Calculate the dilution factor.

$$DF = V_{cf} / V_{ci}$$

Where:

V_{ci} = volume of air in canister prior to pressurization, L

PI = pressure reading of canister prior to pressurization (psia)

V_{cf} = volume of air in canister after pressurization, L

PF = pressure reading of canister after pressurization (psia)

DF = dilution factor

14.696 = atmospheric pressure (psia)

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Mar 08 2021, 03:35 pm

Work Group: WG1471270 for Department: 3 GC/MS

Created: 05-MAR-21 Due: Operator: EW

Sample	Client ID	C Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L2109833-01	OA-1	S T015-LL	AIR	DONE	U	0330	0308	S0	Can-2.7
L2109833-02	OA-2	S T015-LL	AIR	DONE	U	0330	0308	S0	Can-2.7
L2109833-03	IA-1	S T015-LL	AIR	DONE	U	0330	0308	S0	Can-2.7
L2109833-04	IA-2	S T015-LL	AIR	DONE	U	0330	0308	S0	Can-2.7
L2109833-05	IA-3	S T015-LL	AIR	DONE	U	0330	0308	S0	Can-2.7
L2109929-01	SV-1	S T015-LL	SOIL_VAPOR	DONE	U	0331	0308	S0	Can-2.7
L2109929-02	SV-2	S T015-LL	SOIL_VAPOR	DONE	U	0331	0308	S0	Can-2.7
L2109929-03	SV-3	S T015-LL	SOIL_VAPOR	DONE	U	0331	0308	S0	Can-2.7
L2109929-04	SV-4	S T015-LL	SOIL_VAPOR	DONE	U	0331	0308	S0	Can-2.7
L2109987-01	1897-SS	S T015-LL	SOIL_VAPOR	DONE	U	0327	0308	S0	Can-6
L2109987-02	1897-IA	S T015-LL	AIR	DONE	U	0328	0308	S0	Can-6
L2109987-03	OA1	S T015-LL	AIR	DONE	U	0328	0308	S0	Can-6
L2110044-01	IA01_030121	S T015-LL	AIR	DONE	U	0331	0308	S0	Can-6
L2110044-02	IA02_030121	S T015-LL	AIR	DONE	U	0331	0308	S0	Can-6
L2110044-03	SSV01_030121	S T015-LL	SOIL_VAPOR	DONE	U	0331	0308	S0	Can-2.7
L2110044-04	SSV02_030121	S T015-LL	SOIL_VAPOR	DONE	U	0331	0308	S0	Can-2.7
L2110044-05	AA01_030121	S T015-LL	AIR	DONE	U	0331	0308	S0	Can-6
WG1471270-1	MS BFB Tune Standard	S T015-LL	SOIL_VAPOR	DONE	U				
WG1471270-1	MS BFB Tune Standard	S T015-LL	AIR	DONE	U				
WG1471270-2	Continuing Calibrati	S T015-LL	AIR	DONE	U				
WG1471270-2	Continuing Calibrati	S T015-LL	SOIL_VAPOR	DONE	U				
WG1471270-3	Laboratory Control S	S T015-LL	AIR	DONE	U				
WG1471270-3	Laboratory Control S	S T015-LL	SOIL_VAPOR	DONE	U				
WG1471270-4	Laboratory Method Bl	S T015-LL	SOIL_VAPOR	DONE	U				
WG1471270-4	Laboratory Method Bl	S T015-LL	AIR	DONE	U				
WG1471270-5	Duplicate Sample	S T015-LL	SOIL_VAPOR	DONE	U				
WG1471270-5	Duplicate Sample	S T015-LL	AIR	DONE	U				
Comments:									
WG1471270-5	L2109833-03								

Alpha Analytical Air Lab Instrument Run Log

Instrument ID: Airpiano3 Internal Standard/Surrogate IDs: SS20-009 / SS20-025

Date: 02/19/21 Internal Standard/Surrogate Volume: 100 ml

Analyst Initials: AR Sequence File Name: 210219.S

SIM ICAL# 17648		Full Scan ICAL# 17647		APH ICAL# 17650		PIANO ICAL#	
AS Position #	Sample ID	Acquisition Method	Data File ID	Standard ID or Batch ID #, ICAL Ref #	Comment (s)	Product/sublist	Check Pass? Y/N
1	BA3021901	TO15_SFS.qgm	R314018.qgd	250 mL			NA
1	BA3021902	TO15_SFS.qgm	R314019.qgd	250 mL			NA
1	BA3021903	TO15_SFS.qgm	R314020.qgd	250 mL			NA
1	TA3021901	TO15_SFS.qgm	R314021.qgd	250 mL	TUNE		NA
5	ITO15-SIMSTD0.02	TO15_SFS.qgm	R314022.qgd	50 mL SS21-002D	SIM ONLY	default	NA
5	ITO15-SIMSTD0.05	TO15_SFS.qgm	R314023.qgd	125 mL SS21-002D	SIM ONLY	default	NA
5	ITO15-SIMSTD0.1	TO15_SFS.qgm	R314024.qgd	250 mL SS21-002D	SIM ONLY	default	NA
6	ITO15-SIMSTD0.2	TO15_SFS.qgm	R314025.qgd	50 mL SS21-002C		default	NA
6	ITO15-SIMSTD0.5	TO15_SFS.qgm	R314026.qgd	125 mL SS21-002C		default	NA
6	ITO15-SIMSTD1.0	TO15_SFS.qgm	R314027.qgd	250 mL SS21-002C		default	NA
7	ITO15-SIMSTD5.0	TO15_SFS.qgm	R314028.qgd	125 mL SS21-002B		default	NA
7	ITO15-SIMSTD010	TO15_SFS.qgm	R314029.qgd	250 mL SS21-002B		default	NA
8	ITO15-SIMSTD020	TO15_SFS.qgm	R314030.qgd	50 mL SS21-002A		default	NA
8	ITO15-SIMSTD050	TO15_SFS.qgm	R314031.qgd	125 mL SS21-002A		default	NA
8	ITO15-LLSTD100	TO15_SFS.qgm	R314032.qgd	250 mL SS21-002A	LL ONLY	default	NA
1	BA3021901	TO15_SFS.qgm	R314033.qgd	250 mL		default	NA
1	BA3021902	TO15_SFS.qgm	R314034.qgd	250 mL		default	NA
2	CTO15-LLSTD010	TO15_SFS.qgm	R314035.qgd	250 mL SS20-043E	LL ICV	default	NA
2	CTO15-SIMSTD5.0	TO15_SFS.qgm	R314036.qgd	250 mL SS20-043E	SIM ICV	default	NA

Alpha Analytical Air Lab Instrument Run Log

Date(s) of Initial Calibration: Refer to Initial Calibration Summary Form 6

Date Acquired: see Instrument Performance Check Summary and/or quantitation report.

Sample ID information: L1301234-01,3,250,250 { Lab sample ID, dept #, actual volume
analyzed (mL), nominal volume
analyzed (mL) }

Dilution Factor: See Form 1 report, or divide nominal volume by actual volume analyzed

Alpha Analytical Air Lab Instrument Run Log

t ID: <u>Airpiano3</u>	Internal Standard/Surrogate IDs: <u>SS20-009 / SS20-025</u>
Date: <u>03/05/21</u>	Internal Standard/Surrogate Volume: <u>100 ml</u>
Initials: <u>EW / AW</u>	Sequence File Name: <u>210305.S</u>
SIM ICAL# <u>17648</u>	Full Scan ICAL# <u>17647</u> APH ICAL# <u> </u> PIANO ICAL# <u> </u>

Position	Sample ID	Method	Data File	Standard ID or	Comment	sublist	Che
1	TA3030501	TO15_SFS.qgm	R314336.qgd	250 mL	TUNE		NA
2	CA3030501	TO15_SFS.qgm	R314337.qgd	250 mL SS20-002G	NJ CC FAILED		NA
3	CTO15-LLSTD10.0	TO15_SFS.qgm	R314338.qgd	250 mL SS20-043E	LL LCS		NA
3	CTO15-SIMSTD5.0	TO15_SFS.qgm	R314339.qgd	125 mL SS20-043E	SIM LCS		NA
1	BA3030501	TO15_SFS.qgm	R314340.qgd	250 mL	FAILS IS		NA
1	BA3030502	TO15_SFS.qgm	R314341.qgd	250 mL	BLANK		NA
1	L2110044-05,3,250,250	TO15_SFS.qgm	R314342.qgd	WG1471270,ICAL17647		NY / 7-SIM	Y
2	L2109987-03,3,250,250	TO15_SFS.qgm	R314343.qgd	WG1471270,ICAL17647		NY / 7-SIM	Y
3	L2109833-01,3,250,250	TO15_SFS.qgm	R314344.qgd	WG1471270,ICAL17647		NY / 7-SIM	Y
4	L2109833-02,3,250,250	TO15_SFS.qgm	R314345.qgd	WG1471270,ICAL17647		NY / 7-SIM	Y
5	L2109833-03,3,250,250	TO15_SFS.qgm	R314346.qgd	WG1471270,ICAL17647		NY / 7-SIM	Y
5	L2109833-03DUP,3,250,250	TO15_SFS.qgm	R314347.qgd	WG1471270,ICAL17647	LL / SIM DUP	NY / 7-SIM	Y
6	L2109833-04,3,250,250	TO15_SFS.qgm	R314348.qgd	WG1471270,ICAL17647		NY / 7-SIM	Y
7	L2109833-05,3,250,250	TO15_SFS.qgm	R314349.qgd	WG1471270,ICAL17647	ETOH OVERCAL	NY / 7-SIM	Y
8	L2109987-02,3,250,250	TO15_SFS.qgm	R314350.qgd	WG1471270,ICAL17647		NY / 7-SIM	Y
9	L2110044-01,3,250,250	TO15_SFS.qgm	R314351.qgd	WG1471270,ICAL17647		NY / 7-SIM	Y
10	L2110044-02,3,250,250	TO15_SFS.qgm	R314352.qgd	WG1471270,ICAL17647		NY / 7-SIM	Y
11	L2110044-03,3,250,250	TO15_SFS.qgm	R314353.qgd	WG1471270,ICAL17647		NY	Y
12	L2110044-04D,3,120,250	TO15_SFS.qgm	R314354.qgd	WG1471270,ICAL17647		NY	Y
13	L2109987-01,3,250,250	TO15_SFS.qgm	R314355.qgd	WG1471270,ICAL17647		NY	Y
14	L2109929-01,3,250,250	TO15_SFS.qgm	R314356.qgd	WG1471270,ICAL17647		NY	Y
15	L2109929-02,3,250,250	TO15_SFS.qgm	R314357.qgd	WG1471270,ICAL17647		NY	Y
16	L2109929-03,3,250,250	TO15_SFS.qgm	R314358.qgd	WG1471270,ICAL17647		NY	Y
1	L2109929-04,3,250,250	TO15_SFS.qgm	R314359.qgd	WG1471270,ICAL17647		NY	Y
7	L2109833-05D,3,25,250	TO15_SFS.qgm	R314360.qgd	WG1471270,ICAL17647	ETOH ONLY	NY / 7-SIM	Y

Alpha Analytical Air Lab Instrument Run Log

Date(s) of Initial Calibration: Refer to Initial Calibration Summary Form 6

Date Acquired: see Instrument Performance Check Summary and/or quantitation report.

Sample ID information: L1301234-01,3,250,250 { Lab sample ID, dept #, actual volume
analyzed (mL), nominal volume
analyzed (mL) }

Dilution Factor: See Form 1 report, or divide nominal volume by actual volume analyzed

GC/MS VOA
Air Analysis
Selective Ion Monitoring

Volatiles QC Summary

Laboratory Control Sample Summary

Form 3

Air Volatiles

Client : Castleton Environmental, Inc. Lab Number : L2109987
 Project Name : LUNA2101 Project Number : LUNA2101
 Matrix : AIR
 LCS Sample ID : WG1471271-3 Analysis Date : 03/05/21 13:16 File ID : r314339_Ev2
 LCSD Sample ID : Analysis Date : File ID :

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ppbV)	Found (ppbV)	%R	True (ppbV)	Found (ppbV)	%R			
Vinyl chloride	5	5.40	108				-	70-130	25
1,1-Dichloroethene	5	5.35	107				-	70-130	25
cis-1,2-Dichloroethene	5	5.29	106				-	70-130	25
1,1,1-Trichloroethane	5	5.62	112				-	70-130	25
Carbon tetrachloride	5	4.96	99				-	70-130	25
Trichloroethene	5	5.29	106				-	70-130	25
Tetrachloroethene	5	4.89	98				-	70-130	25

Method Blank Summary
Form 4
Air Volatiles

Client	: Castleton Environmental, Inc.	Lab Number	: L2109987
Project Name	: LUNA2101	Project Number	: LUNA2101
Lab Sample ID	: WG1471271-4	Lab File ID	: r314341_Ev2
Instrument ID	: AIRPIANO3		
Matrix	: AIR	Analysis Date	: 03/05/21 15:36

Client Sample No.	Lab Sample ID	Analysis Date
WG1471271-3LCS	WG1471271-3	03/05/21 13:16
OA1	L2109987-03	03/05/21 17:26
IA-1DUP	WG1471271-5	03/05/21 20:05
1897-IA	L2109987-02	03/05/21 22:05

Instrument Performance Check (Tune) Summary

Form 5

Air Volatiles

Bromofluorobenzene (BFB)

Client : Castleton Environmental, Inc.	Lab Number : L2109987
Project Name : LUNA2101	Project Number : LUNA2101
Instrument ID : AIRPIANO3	Analysis Date : 02/19/21 16:46
Tune Standard : WG1466757-1	Tune File ID : r314021_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	8.0 - 40.0% of mass 95	14.6
75	30.0 - 66.0% of mass 95	39.1
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.6 (.8)1
174	50.0 - 120.0% of mass 95	73.7
175	4.0 - 9.0% of mass 174	5.4 (7.3)1
176	93.0 - 101% of mass 174	72.5 (98.4)1
177	5.0 - 9.0% of mass 176	4.8 (6.6)2

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

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
STD0.02	R1403596-1	R314022_EV2	02/19/21 17:25
STD0.05	R1403596-3	R314023_EV2	02/19/21 18:04
STD0.1	R1403596-2	R314024_EV2	02/19/21 18:46
STD0.2	R1403596-4	R314025_EV2	02/19/21 19:24
STD0.5	R1403596-5	R314026_EV2	02/19/21 20:04
STD1.0	R1403596-6	R314027_EV2	02/19/21 20:46
STD5.0	R1403596-7	R314028_EV2	02/19/21 21:25
STD010	R1403596-8	R314029_EV2	02/19/21 22:07
STD020	R1403596-9	R314030_EV2	02/19/21 22:45
STD050	R1403596-11	R314031_EV2	02/19/21 23:25
ICV Quant	R1403596-10	R314036_EV2	02/20/21 12:09

Instrument Performance Check (Tune) Summary

Form 5

Air Volatiles

Bromofluorobenzene (BFB)

Client : Castleton Environmental, Inc.	Lab Number : L2109987
Project Name : LUNA2101	Project Number : LUNA2101
Instrument ID : AIRPIANO3	Analysis Date : 03/05/21 11:12
Tune Standard : WG1471271-1	Tune File ID : r314336_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	8.0 - 40.0% of mass 95	13.2
75	30.0 - 66.0% of mass 95	35.7
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.4 (.6)1
174	50.0 - 120.0% of mass 95	69.3
175	4.0 - 9.0% of mass 174	5 (7.2)1
176	93.0 - 101% of mass 174	67 (96.6)1
177	5.0 - 9.0% of mass 176	4.5 (6.7)2

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

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG1471271-2CCAL	WG1471271-2	R314339_EV2	03/05/21 13:16
WG1471271-3LCS	WG1471271-3	R314339_EV2	03/05/21 13:16
WG1471271-4BLANK	WG1471271-4	R314341_EV2	03/05/21 15:36
OA1	L2109987-03	R314343_EV2	03/05/21 17:26
WG1471271-5DUP	WG1471271-5	R314347_EV2	03/05/21 20:05
1897-IA	L2109987-02	R314350_EV2	03/05/21 22:05

Internal Standard Area and RT Summary

Form 8a

Air Volatiles

Client : Castleton Environmental, Inc.
 Project Name : LUNA2101
 Instrument ID : AIRPIANO3
 Sample No : WG1471271-2

Lab Number : L2109987
 Project Number : LUNA2101
 Analysis Date : 03/05/21 13:16:00
 Lab File ID : R314339_EV2

	Bromochloromethane		1,4-Difluorobenzene		Chlorobenzene-d5	
	Area	RT	Area	RT	Area	RT
WG1471271-2	264380	9.61	686188	11.87	112949	16.59
Upper Limit	370132	9.94	960663	12.20	158129	16.92
Lower Limit	158628	9.28	411713	11.54	67769	16.26
Sample ID						
WG1471271-3 LCS	264380	9.61	686188	11.87	112949	16.59
WG1471271-4 BLANK	245990	9.61	639332	11.88	99885	16.56
OA1	237820	9.60	615521	11.87	101328	16.59
IA-1 DUP	238384	9.59	624131	11.87	102357	16.58
1897-IA	238895	9.59	619968	11.86	100542	16.58

Area Upper Limit = +40% of internal standard area
 Area Lower Limit = - 40% of internal standard area

RT Upper Limit = +0.33 minutes of internal standard RT
 RT Lower Limit = -0.33 minutes of internal standard RT

* Values outside of QC limits





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Volatile Organics in Air by TO-15 SIM (AIR)

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

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
1,1,1-Trichloroethane	71-55-6	0.02	0.0083	ppbV	70-130	25		25	25			
1,1,1,2-Tetrachloroethane	630-20-6	0.02	0.0053	ppbV	70-130	25		25	25			
1,1,2,2-Tetrachloroethane	79-34-5	0.02	0.0056	ppbV	70-130	25		25	25			
1,1,2-Trichloroethane	79-00-5	0.02	0.0058	ppbV	70-130	25		25	25			
1,1-Dichloroethane	75-34-3	0.02	0.0073	ppbV	70-130	25		25	25			
1,1-Dichloroethene	75-35-4	0.02	0.0084	ppbV	70-130	25		25	25			
1,2,3-Trichloropropane	96-18-4	0.02	0.0054	ppbV	70-130	25		25	25			
1,2,4-Trimethylbenzene	95-63-6	0.02	0.0043	ppbV	70-130	25		25	25			
1,2-Dibromoethane	106-93-4	0.02	0.008	ppbV	70-130	25		25	25			
1,2-Dibromo-3-chloropropane	96-12-8	0.02	0.0056	ppbV	70-130	25		25	25			
1,2-Dichlorobenzene	95-50-1	0.02	0.0098	ppbV	70-130	25		25	25			
1,2-Dichloroethane	107-06-2	0.02	0.0097	ppbV	70-130	25		25	25			
1,2-Dichloropropane	78-87-5	0.02	0.0054	ppbV	70-130	25		25	25			
1,3,5-Trimethylbenzene	108-67-8	0.02	0.0056	ppbV	70-130	25		25	25			
1,3-Butadiene	106-99-0	0.02	0.0097	ppbV	70-130	25		25	25			
1,3-Dichlorobenzene	541-73-1	0.02	0.0056	ppbV	70-130	25		25	25			
1,4-Dichlorobenzene	106-46-7	0.02	0.0053	ppbV	70-130	25		25	25			
1,4-Dioxane	123-91-1	0.1	0.032	ppbV	70-130	25		25	25			
1-Bromo-2-Chloroethane	107-04-0	0.02	0.0102	ppbV	70-130	25		25	25			
1-Bromo-3-Fluorobenzene	1073-06-9	0.02	0.0065	ppbV	70-130	25		25	25			
1-Bromo-4-Ethylbenzene	1585-07-5	0.05	0.004	ppbV	70-130	25		25	25			
2,2,4-Trimethylpentane	540-84-1	0.2	0.0063	ppbV	70-130	25		25	25			
2-Bromopyridine	109-04-6	0.1	0.0161	ppbV	30-150	25		25	25			
2-Hexanone	591-78-6	0.2	0.015	ppbV	70-130	25		25	25			
3,4-Dichlorobenzotrifluoride	328-84-7	0.02	0.0024	ppbV	70-130	25		25	25			
3-Amino-4-Chlorobenzotrifluoride	121-50-6	0.05	0.0178	ppbV	30-150	25		25	25			
3-Chloropropene	107-05-1	0.2	0.0067	ppbV	70-130	25		25	25			
3-Nitro-4-Chlorobenzotrifluoride	121-17-5	0.5	0.129	ppbV	30-150	25		25	25			
4-Bromofluorobenzene	460-00-4	0.05	0.0094	ppbV	70-130	25		25	25			
4-Chlorobenzotrifluoride	98-56-6	0.02	0.006	ppbV	70-130	25		25	25			
4-Ethyltoluene	622-96-8	0.02	0.0042	ppbV	70-130	25		25	25			
Benzene	71-43-2	0.1	0.005	ppbV	70-130	25		25	25			
Benzyl chloride	100-44-7	0.2	0.0072	ppbV	70-130	25		25	25			
Bromobenzene	108-86-1	0.2	0.0063	ppbV	70-130	25		25	25			
Bromodichloromethane	75-27-4	0.02	0.0067	ppbV	70-130	25		25	25			
Bromoform	75-25-2	0.02	0.0065	ppbV	70-130	25		25	25			
Bromomethane	74-83-9	0.02	0.0085	ppbV	70-130	25		25	25			
Carbon disulfide	75-15-0	0.2	0.0138	ppbV	70-130	25		25	25			
Carbon tetrachloride	56-23-5	0.02	0.01	ppbV	70-130	25		25	25			
Chlorobenzene	108-90-7	0.1	0.0064	ppbV	70-130	25		25	25			
Chloroethane	75-00-3	0.1	0.0135	ppbV	70-130	25		25	25			
Chloroform	67-66-3	0.02	0.0089	ppbV	70-130	25		25	25			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



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Volatile Organics in Air by TO-15 SIM (AIR)

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

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Chloromethane	74-87-3	0.2	0.024	ppbV	70-130	25		25	25			
cis-1,2-Dichloroethene	156-59-2	0.02	0.0096	ppbV	70-130	25		25	25			
trans-1,2-Dichloroethene	156-60-5	0.02	0.0076	ppbV	70-130	25		25	25			
1,2-Dichloroethene (total)	540-59-0	0.02	0.0076	ppbV				25	25			
cis-1,3-Dichloropropene	10061-01-5	0.02	0.007	ppbV	70-130	25		25	25			
1,3-Dichloropropene, Total	542-75-6	0.02	0.007	ppbV				25	25			
Cyclohexane	110-82-7	0.2	0.0064	ppbV	70-130	25		25	25			
Dibromochloromethane	124-48-1	0.02	0.0086	ppbV	70-130	25		25	25			
Dibromomethane	74-95-3	0.2	0.018	ppbV	70-130	25		25	25			
Dichlorodifluoromethane	75-71-8	0.2	0.018	ppbV	70-130	25		25	25			
Ethyl Alcohol	64-17-5	5	0.329	ppbV	40-160	25		25	25			
Ethyl Acetate	141-78-6	0.5	0.0307	ppbV	70-130	25		25	25			
Ethylbenzene	100-41-4	0.02	0.0049	ppbV	70-130	25		25	25			
Fluorobenzene	462-06-6	0.05	0.009	ppbV	70-130	25		25	25			
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	0.05	0.0088	ppbV	70-130	25		25	25			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	76-14-2	0.05	0.0072	ppbV	70-130	25		25	25			
Methylcyclohexane	108-87-2	0.02	0.0051	ppbV	70-130	25		25	25			
Methylene chloride	75-09-2	0.5	0.0131	ppbV	70-130	25		25	25			
Methyl tert butyl ether	1634-04-4	0.2	0.0083	ppbV	70-130	25		25	25			
m/p-Dibromobenzene	108-36-1/106-37-6	0.05	0.0137	ppbV	70-130	25		25	25			
Naphthalene	91-20-3	0.05	0.035	ppbV	70-130	25		25	25			
p/m-Xylene	179601-23-1	0.04	0.019	ppbV	70-130	25		25	25			
o-Xylene	95-47-6	0.02	0.0067	ppbV	70-130	25		25	25			
Heptane	142-82-5	0.2	0.0041	ppbV	70-130	25		25	25			
n-Hexane	110-54-3	0.2	0.0048	ppbV	70-130	25		25	25			
Propylene	115-07-1	0.5	0.0465	ppbV	70-130	25		25	25			
Styrene	100-42-5	0.02	0.0049	ppbV	70-130	25		25	25			
tert-Butyl Alcohol	75-65-0	0.5	0.012	ppbV	70-130	25		25	25			
Tetrachloroethene	127-18-4	0.02	0.0078	ppbV	70-130	25		25	25			
Tetrahydrofuran	109-99-9	0.5	0.0066	ppbV	70-130	25		25	25			
Toluene	108-88-3	0.05	0.014	ppbV	70-130	25		25	25			
trans-1,3-Dichloropropene	10061-02-6	0.02	0.007	ppbV	70-130	25		25	25			
Trichloroethene	79-01-6	0.02	0.0062	ppbV	70-130	25		25	25			
1,2,4-Trichlorobenzene	120-82-1	0.05	0.03	ppbV	70-130	25		25	25			
Trichlorofluoromethane	75-69-4	0.05	0.0095	ppbV	70-130	25		25	25			
Vinyl acetate	108-05-4	1	0.0111	ppbV	70-130	25		25	25			
Vinyl bromide	593-60-2	0.2	0.0099	ppbV	70-130	25		25	25			
Hexachlorobutadiene	87-68-3	0.05	0.017	ppbV	70-130	25		25	25			
iso-Propyl Alcohol	67-63-0	0.5	0.179	ppbV	40-160	25		25	25			
Vinyl chloride	75-01-4	0.02	0.0072	ppbV	70-130	25		25	25			
Acrylonitrile	107-13-1	0.5	0.0245	ppbV	70-130	25		25	25			
n-Butylbenzene	104-51-8	0.2	0.0048	ppbV	70-130	25		25	25			

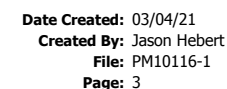
Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



8 Walkup Drive, Westborough, Massachusetts 01581 • 508-898-9220 • www.alphalab.com

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

[illegible]

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soll/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



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Volatiles Sample Data

Results Summary

Form 1

Volatile Organics in Air by SIM

Client : Castleton Environmental, Inc.
 Project Name : LUNA2101
 Lab ID : L2109987-02
 Client ID : 1897-IA
 Sample Location : 1897 DEER PARK AVE
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R314350_EV2
 Sample Amount : 250 ml

Lab Number : L2109987
 Project Number : LUNA2101
 Date Collected : 02/26/21 14:24
 Date Received : 03/01/21
 Date Analyzed : 03/05/21 22:05
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRPIANO3
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	--	ND	0.051	--	U
75-35-4	1,1-Dichloroethene	ND	0.020	--	ND	0.079	--	U
156-59-2	cis-1,2-Dichloroethene	0.043	0.020	--	0.170	0.079	--	
71-55-6	1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--	U
56-23-5	Carbon tetrachloride	0.070	0.020	--	0.440	0.126	--	
79-01-6	Trichloroethene	ND	0.020	--	ND	0.107	--	U
127-18-4	Tetrachloroethene	0.144	0.020	--	0.976	0.136	--	

Results Summary

Form 1

Volatile Organics in Air by SIM

Client : Castleton Environmental, Inc.
 Project Name : LUNA2101
 Lab ID : L2109987-03
 Client ID : OA1
 Sample Location : 1897 DEER PARK AVE
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R314343_EV2
 Sample Amount : 250 ml

Lab Number : L2109987
 Project Number : LUNA2101
 Date Collected : 02/26/21 14:20
 Date Received : 03/01/21
 Date Analyzed : 03/05/21 17:26
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRPIANO3
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	--	ND	0.051	--	U
75-35-4	1,1-Dichloroethene	ND	0.020	--	ND	0.079	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--	U
56-23-5	Carbon tetrachloride	0.074	0.020	--	0.465	0.126	--	
79-01-6	Trichloroethene	ND	0.020	--	ND	0.107	--	U
127-18-4	Tetrachloroethene	ND	0.020	--	ND	0.136	--	U

Results Summary

Form 1

Volatile Organics in Air by SIM

Client : Castleton Environmental, Inc.
 Project Name : LUNA2101
 Lab ID : WG1471271-4
 Client ID : WG1471271-4BLANK
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R314341_EV2
 Sample Amount : 250 ml

Lab Number : L2109987
 Project Number : LUNA2101
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 03/05/21 15:36
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRPIANO3
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	--	ND	0.051	--	U
75-35-4	1,1-Dichloroethene	ND	0.020	--	ND	0.079	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--	U
56-23-5	Carbon tetrachloride	ND	0.020	--	ND	0.126	--	U
79-01-6	Trichloroethene	ND	0.020	--	ND	0.107	--	U
127-18-4	Tetrachloroethene	ND	0.020	--	ND	0.136	--	U

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\
 Data File : r314343_Ev2.D
 Acq On : 5 Mar 2021 5:26 PM
 Operator : AIRPIAN03:EW
 Sample : L2109987-03,3,250,250
 Misc : WG1471271,ICAL17648
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 06 10:36:19 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 13:38:17 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\r314339_Ev2.D
 Sub List : 7-NY-SIM - .

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

Internal Standards						
1) bromochloromethane	9.600	49	237820	10.000	ppbV	0.03
Standard Area = 264380			Recovery =		89.95%	
33) 1,4-difluorobenzene	11.873	114	615521	10.000	ppbV #	0.03
Standard Area = 686188			Recovery =		89.70%	
51) chlorobenzene-D5	16.592	54	101328	10.000	ppbV	0.03
Standard Area = 112949			Recovery =		89.71%	

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
6) vinyl chloride	4.456		0		N.D.	
17) 1,1-dichloroethene	0.000		0		N.D.	
28) cis-1,2-dichloroethene	0.000		0		N.D.	
36) 1,1,1-trichloroethane	10.783		0		N.D.	
38) carbon tetrachloride	11.607	117	1127	0.074	ppbV #	88
44) trichloroethene	12.653		0		N.D.	
57) tetrachloroethene	15.975		0		N.D.	

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

Sub List : 7-NY-SIM - .\Data\Airpiano3\2021\03\0305SIM\r314339_Ev2.D

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\

Data File : r314343_Ev2.D

Acq On : 5 Mar 2021 5:26 PM

Operator : AIRPIANO3:EW

Sample : L2109987-03,3,250,250

Misc : WG1471271,ICAL17648

ALS Vial : 0 Sample Multiplier: 1

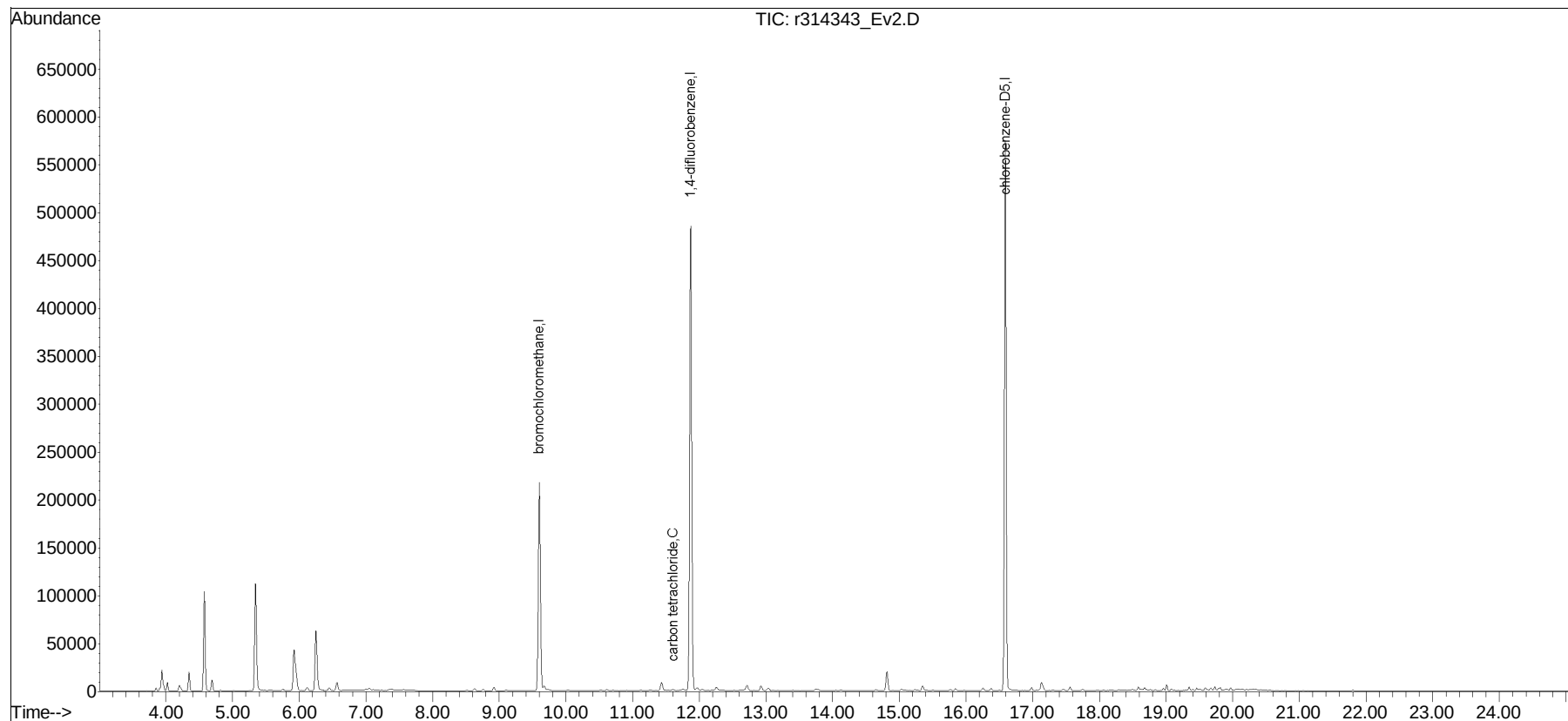
Quant Time: Mar 06 10:36:19 2021

Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\TSIM3_210219.M

Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis

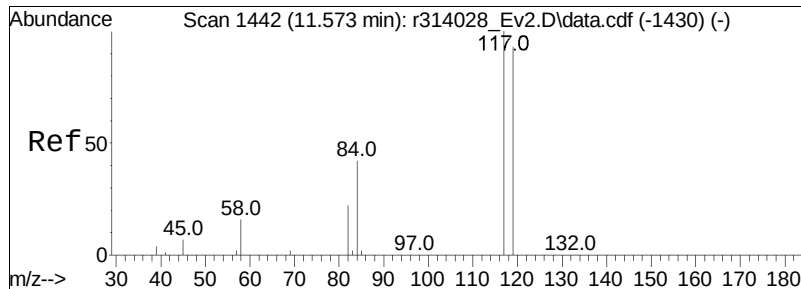
QLast Update : Sat Feb 20 13:38:17 2021

Response via : Initial Calibration



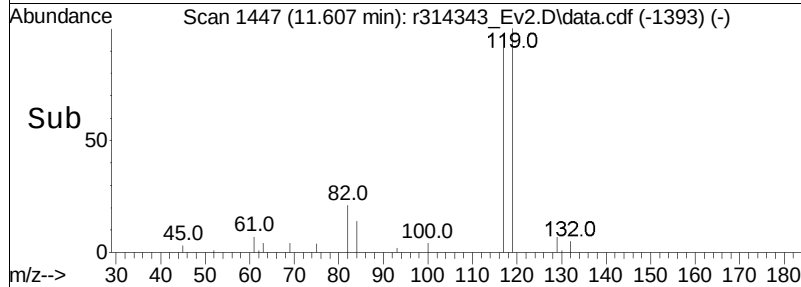
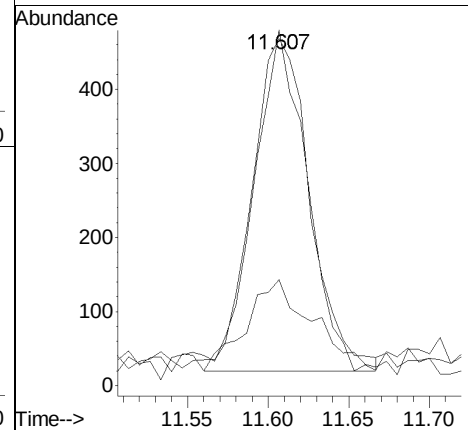
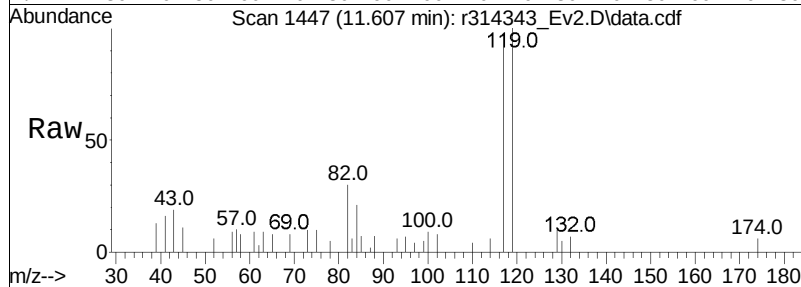
TSIM3_210219.M Sun Mar 07 10:29:19 2021

Page: 2



#38
 carbon tetrachloride
 Concen: 0.07 ppbV
 RT: 11.607 min Scan# 1447
 Delta R.T. 0.033 min
 Lab File: r314343_Ev2.D
 Acq: 5 Mar 2021 5:26 PM

Tgt Ion	Ratio	Resp	Lower	Upper
117	100			
119	102.3	74.0	111.0	
82	30.5	17.8	26.6	



Manual Integration Report

Data Path : 0:\Forensics\Data\AirpianoQMethod : TSIM3_210219.M
Data File : r314343_Ev2.D Operator : AIRPIAN03:EW
Date Inj'd : 3/5/2020 0:5: 6 Instrument :
Sample : L2109987-03,3,250,250 Quant Date : 3/6/2021 10:36 am

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

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\
 Data File : r314350_Ev2.D
 Acq On : 5 Mar 2021 10:05 PM
 Operator : AIRPIAN03:EW
 Sample : L2109987-02,3,250,250
 Misc : WG1471271,ICAL17648
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 06 10:37:39 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 13:38:17 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\r314339_Ev2.D
 Sub List : 7-NY-SIM - .

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

Internal Standards						
1) bromochloromethane	9.592	49	238895	10.000	ppbV	0.02
Standard Area = 264380			Recovery =		90.36%	
33) 1,4-difluorobenzene	11.860	114	619968	10.000	ppbV	# 0.02
Standard Area = 686188			Recovery =		90.35%	
51) chlorobenzene-D5	16.583	54	100542	10.000	ppbV	0.02
Standard Area = 112949			Recovery =		89.02%	

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
6) vinyl chloride	4.414		0		N.D.	
17) 1,1-dichloroethene	6.812	61	171	0.011	ppbV	# 51
28) cis-1,2-dichloroethene	9.400	61	753	0.043	ppbV	98
36) 1,1,1-trichloroethane	11.020		0		N.D.	
38) carbon tetrachloride	11.593	117	1082	0.070	ppbV	99
44) trichloroethene	12.653		0		N.D.	
57) tetrachloroethene	15.967	166	3221	0.144	ppbV	96

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

Sub List : 7-NY-SIM - .\Data\Airpiano3\2021\03\0305SIM\r314339_Ev2.D

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\

Data File : r314350_Ev2.D

Acq On : 5 Mar 2021 10:05 PM

Operator : AIRPIANO3:EW

Sample : L2109987-02,3,250,250

Misc : WG1471271,ICAL17648

ALS Vial : 0 Sample Multiplier: 1

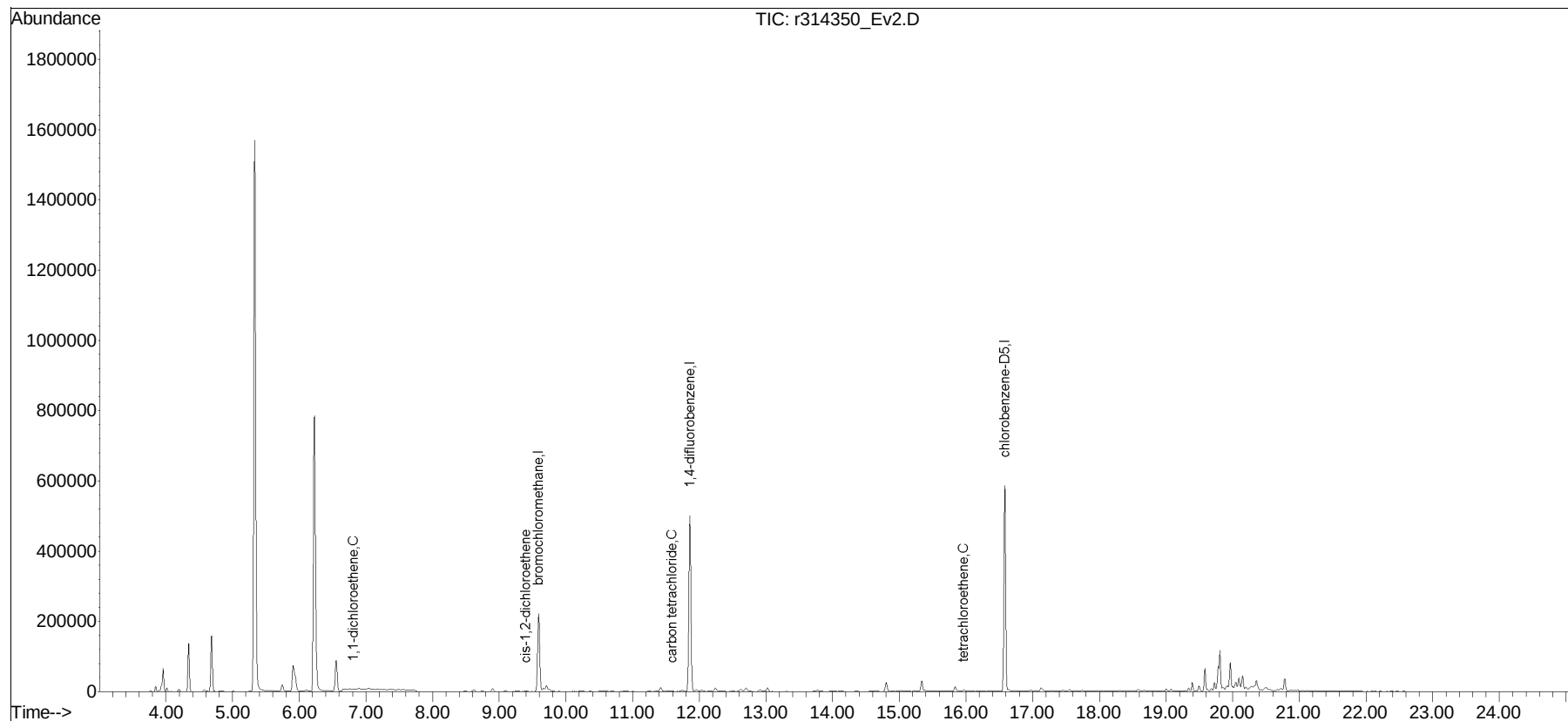
Quant Time: Mar 06 10:37:39 2021

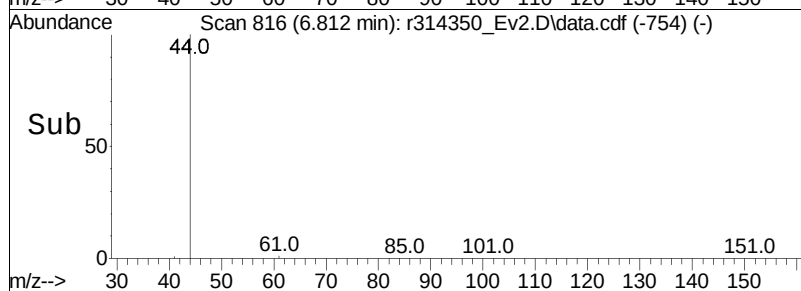
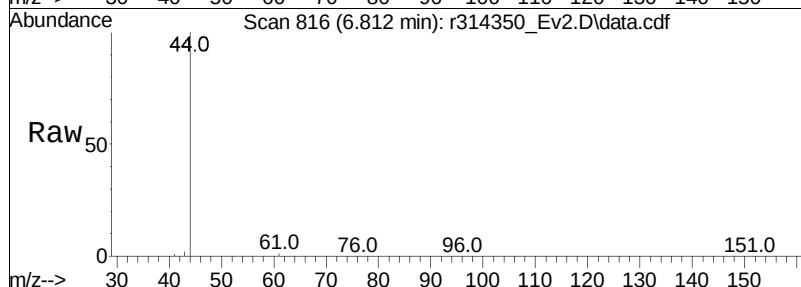
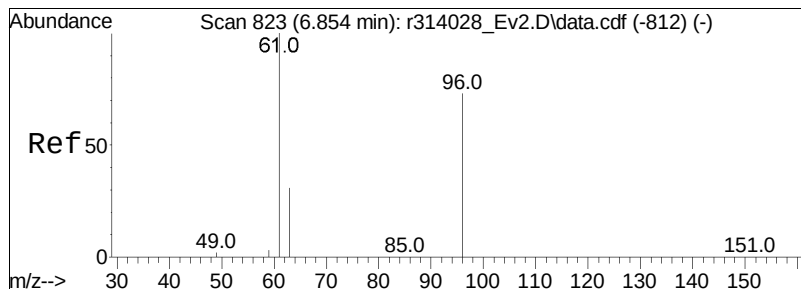
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Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis

QLast Update : Sat Feb 20 13:38:17 2021

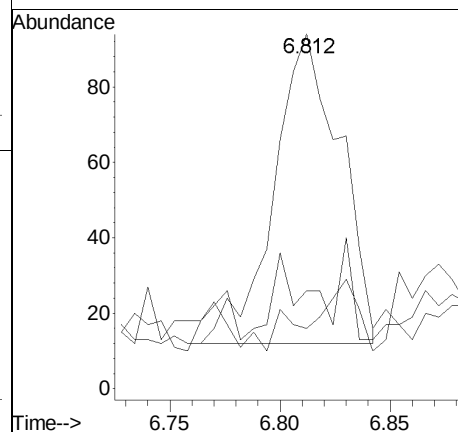
Response via : Initial Calibration

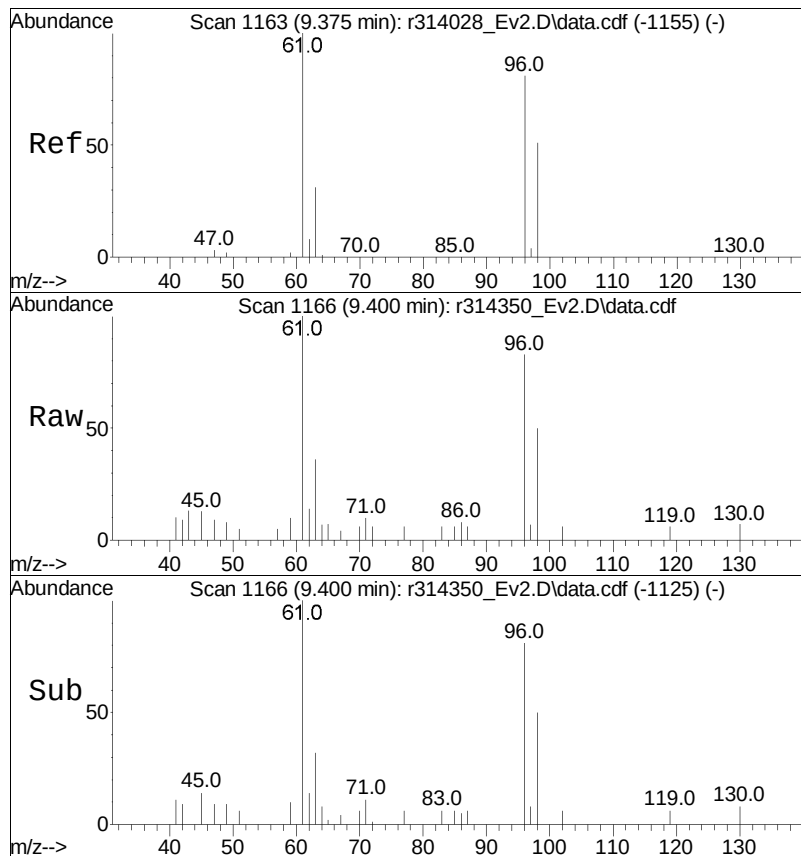




#17
 1,1-dichloroethene
 Concen: 0.01 ppbV
 RT: 6.812 min Scan# 816
 Delta R.T. -0.042 min
 Lab File: r314350_Ev2.D
 Acq: 5 Mar 2021 10:05 PM

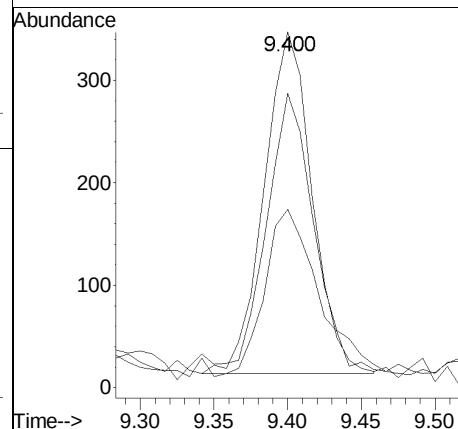
Tgt Ion: 61 Resp: 171
 Ion Ratio Lower Upper
 61 100
 96 17.0 58.6 87.8#
 63 27.7 24.9 37.3

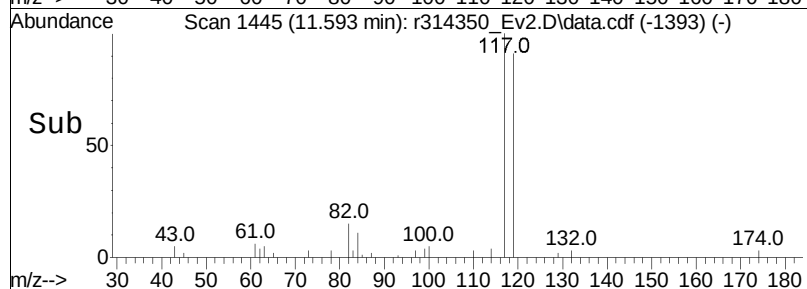
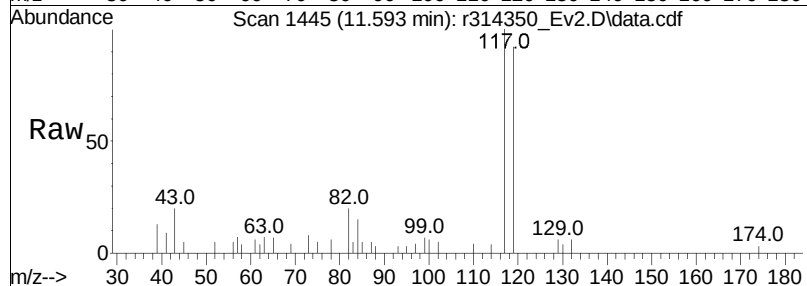
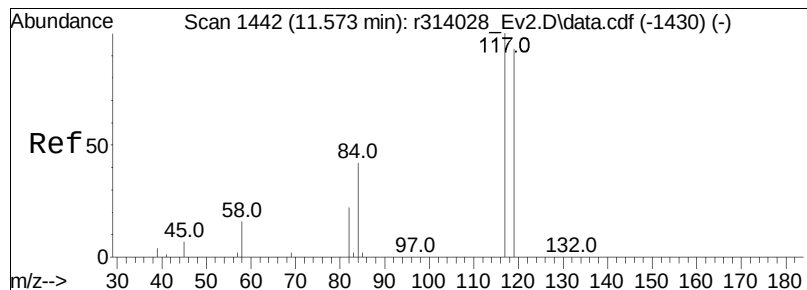




#28
 cis-1,2-dichloroethene
 Concen: 0.04 ppbV
 RT: 9.400 min Scan# 1166
 Delta R.T. 0.025 min
 Lab File: r314350_Ev2.D
 Acq: 5 Mar 2021 10:05 PM

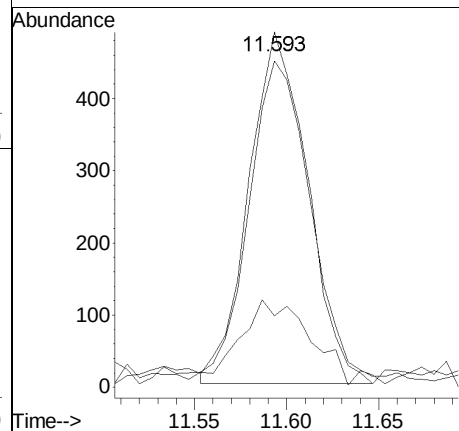
Tgt Ion:	61	Resp:	753
Ion Ratio	Lower	Upper	
61	100		
96	82.7	65.1	97.7
98	50.1	41.1	61.7

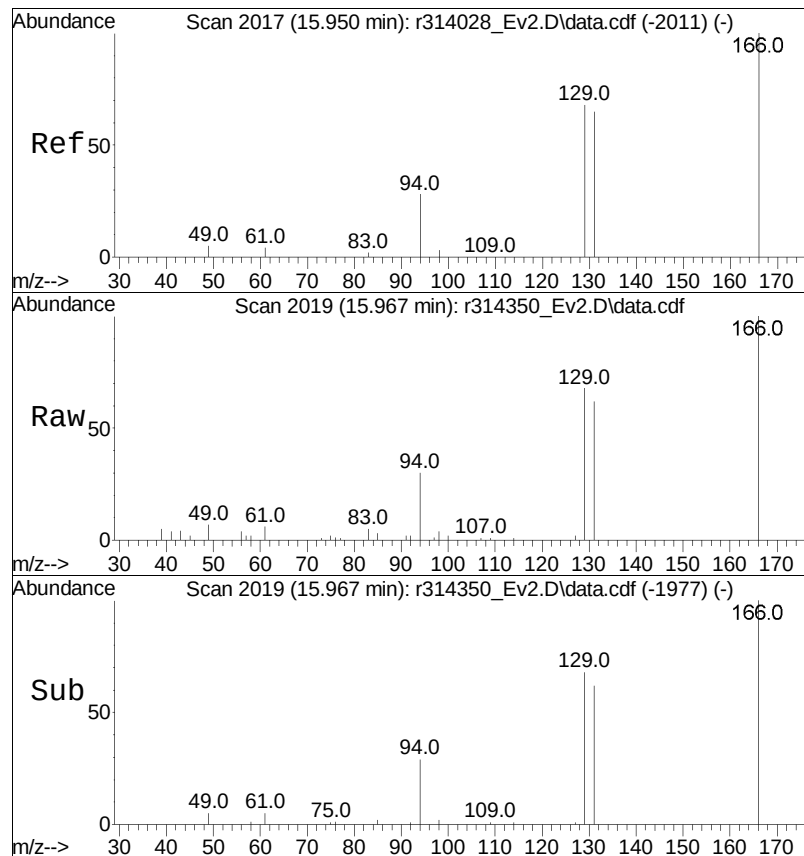




#38
carbon tetrachloride
Concen: 0.07 ppbV
RT: 11.593 min Scan# 1445
Delta R.T. 0.020 min
Lab File: r314350_Ev2.D
Acq: 5 Mar 2021 10:05 PM

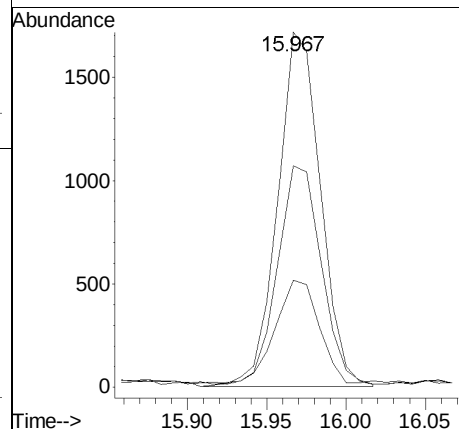
Tgt Ion	Ratio	Lower	Upper
117	100		
119	91.9	74.0	111.0
82	20.1	17.8	26.6





#57
 tetrachloroethene
 Concen: 0.14 ppbV
 RT: 15.967 min Scan# 2019
 Delta R.T. 0.017 min
 Lab File: r314350_Ev2.D
 Acq: 5 Mar 2021 10:05 PM

Tgt Ion:	166	Resp:	3221
Ion Ratio	Lower	Upper	
166	100		
131	62.4	52.2	78.4
94	30.1	22.6	33.8



Manual Integration Report

Data Path : 0:\Forensics\Data\AirpianoQMethod : TSIM3_210219.M
Data File : r314350_Ev2.D Operator : AIRPIAN03:EW
Date Inj'd : 3/5/2020 0:0: 5 Instrument :
Sample : L2109987-02,3,250,250 Quant Date : 3/6/2021 10:37 am

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

Volatiles Standards Data

Initial Calibration

Initial Calibration Summary

Form 6

Air Volatiles

Client : Castleton Environmental, Inc.
 Project Name : LUNA2101
 Instrument ID : AIRPIANO3
 Calibration dates : 02/19/21 17:25 02/19/21 23:25

Lab Number : L2109987
 Project Number : LUNA2101
 Ical Ref : ICAL17648

Calibration Files

0.02=r314022_Ev2.D 0.05=r314023_Ev2.D 0.1 =r314024_Ev2.D 0.2 =r314025_Ev2.D 0.5 =r314026_Ev2.D
 1.0 =r314027_Ev2.D 5.0 =r314028_Ev2.D 10.0=r314029_Ev2.D 20.0=r314030_Ev2.D 50.0=r314031_Ev2.D

Compound	0.02	0.05	0.1	0.2	0.5	1.0	5.0	10.0	20.0	50.0	Avg	%RSD
1) I bromochloromethane	-----ISTD-----											
2) propylene				0.570	0.554	0.523	0.493	0.471	0.455	0.405	0.4958	11.70
3) dichlorodifluoromethane				0.879	0.899	0.880	0.793	0.746	0.706	0.616	0.7884	13.43
4) C chloromethane				0.479	0.480	0.474	0.424	0.405	0.396	0.366	0.4321	10.64
5) Freon-114		1.185	1.157	1.211	1.229	1.213	1.095	1.028	0.970	0.810	1.0997	12.80
6) C vinyl chloride	0.612	0.520	0.528	0.548	0.543	0.544	0.493	0.470	0.457	0.416	0.5131	10.83
7) C 1,3-butadiene	0.518	0.484	0.461	0.506	0.510	0.499	0.458	0.437	0.423	0.388	0.4683	9.16
8) C bromomethane	0.505	0.424	0.401	0.420	0.418	0.418	0.374	0.356	0.343	0.307	0.3965	13.81
9) C chloroethane	0.323	0.291	0.288	0.300	0.298	0.290	0.263	0.250	0.263	0.243	0.2809	8.91
10) ethanol					0.653	0.565	0.441	0.417	0.389	0.337	0.4673	25.37
11) C vinyl bromide				0.467	0.470	0.468	0.425	0.401	0.382	0.337	0.4214	12.14
12) C acrolein		0.400	0.311	0.282	0.265	0.266	0.234	0.225	0.221	0.206	0.2676	22.35
13) acetone				0.858	0.853	0.845	0.732	0.686	0.651	0.549	0.7391	16.08
14) trichlorofluoromethane		0.602	0.635	0.666	0.706	0.695	0.624	0.585	0.552	0.486	0.6168	11.37
15) isopropyl alcohol				1.037	1.055	1.045	0.930	0.885	0.858	0.763	0.9391	11.87
16) C acrylonitrile			0.443	0.451	0.457	0.460	0.417	0.404	0.399	0.370	0.4252	7.68
17) C 1,1-dichloroethene	0.683	0.672	0.640	0.670	0.691	0.687	0.620	0.588	0.565	0.502	0.6319	9.94
18) tertiary butyl alcohol				1.036	1.036	1.007	0.911	0.867	0.842	0.765	0.9234	11.47
19) C methylene chloride					0.614	0.608	0.544	0.522	0.508	0.464	0.5434	10.80
20) C 3-chloropropene				0.784	0.798	0.788	0.729	0.702	0.680	0.624	0.7291	8.94
21) C carbon disulfide				1.730	1.756	1.746	1.594	1.522	1.450	1.277	1.5820	11.34
22) Freon 113		0.851	0.799	0.863	0.867	0.861	0.776	0.735	0.700	0.605	0.7841	11.54
23) trans-1,2-dichloroethene	0.912	0.856	0.754	0.918	0.928	0.831	0.835	0.810	0.778	0.656	0.8277	10.17
24) C 1,1-dichloroethane	1.052	1.028	1.000	1.051	1.066	1.063	0.957	0.931	0.903	0.823	0.9875	8.27
25) C MTBE	1.833	1.642	1.690	1.784	1.824	1.810	1.646	1.597	1.527	1.380	1.6733	8.78
26) C vinyl acetate					1.502	1.492	1.348	1.331	1.314	1.237	1.3706	7.66
27) C 2-butanone				1.464	1.453	1.443	1.299	1.271	1.230	1.133	1.3276	9.70
28) cis-1,2-dichloroethene	0.801	0.797	0.725	0.791	0.788	0.784	0.707	0.692	0.669	0.604	0.7358	9.16
29) Ethyl Acetate				0.270	0.238	0.242	0.220	0.216	0.210	0.191	0.2267	11.21
30) C chloroform	1.035	0.986	1.001	1.021	1.050	1.036	0.925	0.893	0.854	0.752	0.9553	10.20
31) Tetrahydrofuran				0.883	0.899	0.897	0.822	0.807	0.784	0.729	0.8316	7.76
32) C 1,2-dichloroethane	0.623	0.571	0.583	0.576	0.591	0.581	0.524	0.504	0.485	0.436	0.5474	10.57
33) I 1,4-difluorobenzene	-----ISTD-----											
34) C hexane				0.447	0.444	0.442	0.403	0.392	0.370	0.326	0.4035	11.19
35) s 1,2-dichloroethane-D4	0.223	0.220	0.224	0.219	0.223	0.224	0.221	0.217	0.218	0.210	0.2197	1.89
36) C 1,1,1-trichloroethane	0.323	0.272	0.273	0.291	0.289	0.288	0.262	0.255	0.266	0.241	0.2761	8.33



Initial Calibration Summary

Form 6

Air Volatiles

Client : Castleton Environmental, Inc.
 Project Name : LUNA2101
 Instrument ID : AIRPIANO3
 Calibration dates : 02/19/21 17:25 02/19/21 23:25

Lab Number : L2109987
 Project Number : LUNA2101
 Ical Ref : ICAL17648

Calibration Files

0.02=r314022_Ev2.D 0.05=r314023_Ev2.D 0.1 =r314024_Ev2.D 0.2 =r314025_Ev2.D 0.5 =r314026_Ev2.D
 1.0 =r314027_Ev2.D 5.0 =r314028_Ev2.D 10.0=r314029_Ev2.D 20.0=r314030_Ev2.D 50.0=r314031_Ev2.D

	Compound	0.02	0.05	0.1	0.2	0.5	1.0	5.0	10.0	20.0	50.0	Avg	%RSD
37) C	benzene	1.115	1.119	0.931	0.882	0.854	0.745	0.730	0.706	0.647	0.8589	20.03	
38) C	carbon tetrachloride	0.238	0.268	0.253	0.266	0.261	0.266	0.244	0.243	0.235	0.213	0.2485	7.07
39)	cyclohexane			0.482	0.473	0.471	0.431	0.423	0.407	0.372	0.4371	9.19	
40)	Dibromomethane	0.294	0.216	0.224	0.206	0.203	0.178	0.173	0.167	0.149	0.2011	21.15	
41) C	1,2-dichloropropane	0.277	0.254	0.278	0.272	0.268	0.266	0.240	0.235	0.230	0.210	0.2530	9.18
42)	bromodichloromethane	0.434	0.405	0.371	0.400	0.406	0.406	0.376	0.367	0.355	0.322	0.3841	8.41
43) C	1,4-dioxane		0.193	0.191	0.185	0.183	0.170	0.167	0.162	0.146	0.1745	9.27	
44) C	trichloroethene	0.315	0.288	0.288	0.297	0.304	0.301	0.270	0.260	0.251	0.226	0.2800	9.88
45) C	2,2,4-trimethylpentane			1.430	1.417	1.381	1.306	1.233	1.177	1.024	1.2810	11.50	
46)	heptane			0.547	0.545	0.546	0.502	0.491	0.474	0.442	0.5065	8.13	
47) C	cis-1,3-dichloropropene	0.378	0.355	0.351	0.364	0.358	0.358	0.333	0.327	0.322	0.301	0.3447	6.73
48) C	4-methyl-2-pentanone				0.616	0.620	0.574	0.563	0.545	0.508	0.5710	7.53	
49)	trans-1,3-dichloropropene	0.417	0.378	0.382	0.392	0.391	0.392	0.362	0.356	0.348	0.325	0.3742	7.18
50) C	1,1,2-trichloroethane	0.290	0.273	0.248	0.267	0.264	0.264	0.239	0.233	0.227	0.208	0.2513	9.86
51) I	chlorobenzene-D5	-----ISTD-----											
52) C	toluene	7.332	7.507	6.164	5.887	5.633	5.081	4.889	4.627	4.178	5.6998	20.28	
53) s	toluene-D8	6.267	6.212	6.166	6.133	6.136	6.122	6.297	6.220	6.264	6.321	6.2137	1.17
54)	2-hexanone			3.409	3.431	3.517	3.461	3.414	3.282	3.095	3.3726	4.19	
55)	dibromochloromethane	2.328	2.108	1.985	2.140	2.083	2.111	2.077	2.032	1.943	1.775	2.0583	6.97
56) C	1,2-dibromoethane	2.720	2.620	2.496	2.586	2.525	2.495	2.362	2.274	2.193	2.029	2.4299	8.77
57) C	tetrachloroethene	2.430	2.443	2.295	2.379	2.323	2.310	2.164	2.066	1.996	1.819	2.2225	9.26
58)	1,1,1,2-tetrachloroethane	1.747	1.689	1.635	1.761	1.686	1.684	1.608	1.560	1.501	1.348	1.6219	7.73
59) C	chlorobenzene	4.289	4.663	4.366	4.558	4.461	4.420	4.145	4.003	3.846	3.439	4.2189	8.79
60) C	ethylbenzene	7.504	7.081	6.713	6.880	6.739	6.715	6.278	6.036	5.662	5.029	6.4637	11.25
61) C	m+p-xylene	6.332	5.606	5.426	5.633	5.550	5.524	5.107	4.873	4.513	3.854	5.2418	13.18
62) C	bromoform	2.348	1.862	1.793	1.941	1.918	1.935	1.996	1.992	1.926	1.759	1.9470	8.27
63) C	styrene	5.018	4.845	4.623	4.758	4.780	4.805	4.583	4.428	4.284	3.921	4.6045	6.97
64) C	1,1,2,2-tetrachloroethane	4.101	4.139	3.822	3.940	3.888	3.906	3.632	3.453	3.215	2.753	3.6849	11.79
65) C	o-xylene	6.250	5.608	5.460	5.703	5.593	5.592	5.148	4.849	4.444	3.712	5.2359	13.94
66)	1,2,3-Trichloropropane	3.484	3.099	3.031	3.082	3.163	3.164	2.963	2.869	2.785	2.593	3.0233	8.03
67) s	bromofluorobenzene	4.193	4.084	3.912	4.053	4.072	4.092	4.194	4.183	4.320	4.309	4.1415	2.99
68) C	isopropylbenzene			7.806	7.657	7.693	7.160	6.819	6.454	5.611	7.0286	11.38	
69)	Bromobenzene			4.210	4.176	4.206	3.923	3.788	3.679	3.361	3.9062	8.22	
70)	4-ethyl toluene	7.667	8.493	7.927	8.424	8.334	8.554	8.129	7.730	7.198	6.147	7.8603	9.41
71)	1,3,5-trimethylbenzene	7.814	7.285	6.845	7.080	6.991	7.053	6.605	6.280	5.872	4.942	6.6768	12.14
72)	tert-butylbenzene			6.855	6.752	6.713	6.169	5.778	5.260	4.193	5.9601	16.33	



Initial Calibration Summary

Form 6

Air Volatiles

Client : Castleton Environmental, Inc.
 Project Name : LUNA2101
 Instrument ID : AIRPIANO3
 Calibration dates : 02/19/21 17:25 02/19/21 23:25

Lab Number : L2109987
 Project Number : LUNA2101
 Ical Ref : ICAL17648

Calibration Files

0.02=r314022_Ev2.D 0.05=r314023_Ev2.D 0.1 =r314024_Ev2.D 0.2 =r314025_Ev2.D 0.5 =r314026_Ev2.D
 1.0 =r314027_Ev2.D 5.0 =r314028_Ev2.D 10.0=r314029_Ev2.D 20.0=r314030_Ev2.D 50.0=r314031_Ev2.D

	Compound	0.02	0.05	0.1	0.2	0.5	1.0	5.0	10.0	20.0	50.0	Avg	%RSD
73)	1,2,4-trimethylbenzene	6.892	6.646	6.622	6.761	6.651	6.776	6.374	6.008	5.441	4.152	6.2324	13.67
74) C	Benzyl Chloride				3.236	3.419	3.892	4.363	4.499	4.300	3.827	3.9337	12.29
75)	1,3-dichlorobenzene	3.810	3.785	3.785	3.832	3.917	3.995	3.849	3.717	3.524	3.078	3.7293	6.98
76) C	1,4-dichlorobenzene	3.520	3.588	3.621	3.638	3.723	3.852	3.749	3.643	3.489	3.065	3.5889	5.94
77)	sec-butylbenzene				9.970	9.866	9.957	9.200	8.702	8.074	6.602	8.9101	13.96
78)	p-isopropyltoluene				8.262	8.077	8.096	7.422	6.894	6.244	4.812	7.1152	17.60
79)	1,2-dichlorobenzene	3.754	3.592	3.636	3.557	3.688	3.779	3.648	3.549	3.342	3.017	3.5561	6.35
80)	n-butylbenzene				6.419	6.550	6.723	6.443	6.207	5.741	4.866	6.1357	10.44
81)	1,2-dibromo-3-chloropr...	1.549	1.482	1.415	1.395	1.432	1.497	1.546	1.570	1.505	1.377	1.4766	4.64
82) C	1,2,4-trichlorobenzene		1.697	1.609	1.655	1.805	2.082	2.433	2.668	2.479	2.438	2.0963	19.81
83)	naphthalene		7.393	6.070	5.643	5.739	6.120	6.905	7.174	6.675	6.084	6.4226	9.86
84)	1,2,3-trichlorobenzene		2.267	2.170	2.006	2.225	2.431	2.743	2.880	2.726	2.582	2.4480	12.30
85) C	hexachlorobutadiene		2.708	2.646	2.607	2.695	2.800	2.829	2.760	2.391	2.035	2.6079	9.62



Response Factor Report

Method Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Method File : TSIM3_210219.M
 Title : T0-14A/T0-15 SIM/Full Scan Analysis
 Last Update : Sat Feb 20 13:38:17 2021
 Response Via : Initial Calibration

Calibration Files

0.02=r314022_Ev2.D 0.05=r314023_Ev2.D 0.1 =r314024_Ev2.D 0.2 =r314025_Ev2.D 0.5 =r314026_Ev2.D
 1.0 =r314027_Ev2.D 5.0 =r314028_Ev2.D 10.0=r314029_Ev2.D 20.0=r314030_Ev2.D 50.0=r314031_Ev2.D

Compound		0.02	0.05	0.1	0.2	0.5	1.0	5.0	10.0	20.0	50.0	Avg	%RSD
-----ISTD-----													
1) I	bromochloromethane												
2)	propylene				0.570	0.554	0.523	0.493	0.471	0.455	0.405	0.4958	11.70
3)	dichlorodifluorome...				0.879	0.899	0.880	0.793	0.746	0.706	0.616	0.7884	13.43
4) C	chloromethane				0.479	0.480	0.474	0.424	0.405	0.396	0.366	0.4321	10.64
5)	Freon-114		1.185	1.157	1.211	1.229	1.213	1.095	1.028	0.970	0.810	1.0997	12.80
6) C	vinyl chloride	0.612	0.520	0.528	0.548	0.543	0.544	0.493	0.470	0.457	0.416	0.5131	10.83
7) C	1,3-butadiene	0.518	0.484	0.461	0.506	0.510	0.499	0.458	0.437	0.423	0.388	0.4683	9.16
8) C	bromomethane	0.505	0.424	0.401	0.420	0.418	0.418	0.374	0.356	0.343	0.307	0.3965	13.81
9) C	chloroethane	0.323	0.291	0.288	0.300	0.298	0.290	0.263	0.250	0.263	0.243	0.2809	8.91
10)	ethanol					0.653	0.565	0.441	0.417	0.389	0.337	0.4673	25.37
11) C	vinyl bromide				0.467	0.470	0.468	0.425	0.401	0.382	0.337	0.4214	12.14
12) C	acrolein		0.400	0.311	0.282	0.265	0.266	0.234	0.225	0.221	0.206	0.2676	22.35
13)	acetone				0.858	0.853	0.845	0.732	0.686	0.651	0.549	0.7391	16.08
14)	trichlorofluoromet...		0.602	0.635	0.666	0.706	0.695	0.624	0.585	0.552	0.486	0.6168	11.37
15)	isopropyl alcohol				1.037	1.055	1.045	0.930	0.885	0.858	0.763	0.9391	11.87
16) C	acrylonitrile			0.443	0.451	0.457	0.460	0.417	0.404	0.399	0.370	0.4252	7.68
17) C	1,1-dichloroethene	0.683	0.672	0.640	0.670	0.691	0.687	0.620	0.588	0.565	0.502	0.6319	9.94
18)	tertiary butyl alc...				1.036	1.036	1.007	0.911	0.867	0.842	0.765	0.9234	11.47
19) C	methylene chloride					0.614	0.608	0.544	0.522	0.508	0.464	0.5434	10.80
20) C	3-chloropropene				0.784	0.798	0.788	0.729	0.702	0.680	0.624	0.7291	8.94
21) C	carbon disulfide				1.730	1.756	1.746	1.594	1.522	1.450	1.277	1.5820	11.34
22)	Freon 113		0.851	0.799	0.863	0.867	0.861	0.776	0.735	0.700	0.605	0.7841	11.54
23)	trans-1,2-dichloro...	0.912	0.856	0.754	0.918	0.928	0.831	0.835	0.810	0.778	0.656	0.8277	10.17
24) C	1,1-dichloroethane	1.052	1.028	1.000	1.051	1.066	1.063	0.957	0.931	0.903	0.823	0.9875	8.27
25) C	MTBE	1.833	1.642	1.690	1.784	1.824	1.810	1.646	1.597	1.527	1.380	1.6733	8.78
26) C	vinyl acetate					1.502	1.492	1.348	1.331	1.314	1.237	1.3706	7.66
27) C	2-butanone				1.464	1.453	1.443	1.299	1.271	1.230	1.133	1.3276	9.70
28)	cis-1,2-dichloroet...	0.801	0.797	0.725	0.791	0.788	0.784	0.707	0.692	0.669	0.604	0.7358	9.16
29)	Ethyl Acetate				0.270	0.238	0.242	0.220	0.216	0.210	0.191	0.2267	11.21
30) C	chloroform	1.035	0.986	1.001	1.021	1.050	1.036	0.925	0.893	0.854	0.752	0.9553	10.20
31)	Tetrahydrofuran				0.883	0.899	0.897	0.822	0.807	0.784	0.729	0.8316	7.76

Response Factor Report

Method Path : O:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
Method File : TSIM3_210219.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Sat Feb 20 13:38:17 2021
Response Via : Initial Calibration

Calibration Files

0.02=r314022_Ev2.D 0.05=r314023_Ev2.D 0.1=r314024_Ev2.D 0.2=r314025_Ev2.D 0.5=r314026_Ev2.D
1.0=r314027_Ev2.D 5.0=r314028_Ev2.D 10.0=r314029_Ev2.D 20.0=r314030_Ev2.D 50.0=r314031_Ev2.D

	Compound	0.02	0.05	0.1	0.2	0.5	1.0	5.0	10.0	20.0	50.0	Avg	%RSD
32) C	1,2-dichloroethane	0.623	0.571	0.583	0.576	0.591	0.581	0.524	0.504	0.485	0.436	0.5474	10.57
33) I	1,4-difluorobenzene	-----ISTD-----											
34) C	hexane				0.447	0.444	0.442	0.403	0.392	0.370	0.326	0.4035	11.19
35) S	1,2-dichloroethane-D4	0.223	0.220	0.224	0.219	0.223	0.224	0.221	0.217	0.218	0.210	0.2197	1.89
36) C	1,1,1-trichloroethane	0.323	0.272	0.273	0.291	0.289	0.288	0.262	0.255	0.266	0.241	0.2761	8.33
37) C	benzene		1.115	1.119	0.931	0.882	0.854	0.745	0.730	0.706	0.647	0.8589	20.03
38) C	carbon tetrachloride	0.238	0.268	0.253	0.266	0.261	0.266	0.244	0.243	0.235	0.213	0.2485	7.07
39)	cyclohexane				0.482	0.473	0.471	0.431	0.423	0.407	0.372	0.4371	9.19
40)	Dibromomethane		0.294	0.216	0.224	0.206	0.203	0.178	0.173	0.167	0.149	0.2011	21.15
41) C	1,2-dichloropropane	0.277	0.254	0.278	0.272	0.268	0.266	0.240	0.235	0.230	0.210	0.2530	9.18
42)	bromodichloromethane	0.434	0.405	0.371	0.400	0.406	0.406	0.376	0.367	0.355	0.322	0.3841	8.41
43) C	1,4-dioxane			0.193	0.191	0.185	0.183	0.170	0.167	0.162	0.146	0.1745	9.27
44) C	trichloroethene	0.315	0.288	0.288	0.297	0.304	0.301	0.270	0.260	0.251	0.226	0.2800	9.88
45) C	2,2,4-trimethylpen...				1.430	1.417	1.381	1.306	1.233	1.177	1.024	1.2810	11.50
46)	heptane				0.547	0.545	0.546	0.502	0.491	0.474	0.442	0.5065	8.13
47) C	cis-1,3-dichloropr...	0.378	0.355	0.351	0.364	0.358	0.358	0.333	0.327	0.322	0.301	0.3447	6.73
48) C	4-methyl-2-pentanone					0.616	0.620	0.574	0.563	0.545	0.508	0.5710	7.53
49)	trans-1,3-dichloro...	0.417	0.378	0.382	0.392	0.391	0.392	0.362	0.356	0.348	0.325	0.3742	7.18
50) C	1,1,2-trichloroethane	0.290	0.273	0.248	0.267	0.264	0.264	0.239	0.233	0.227	0.208	0.2513	9.86
51) I	chlorobenzene-D5	-----ISTD-----											
52) C	toluene		7.332	7.507	6.164	5.887	5.633	5.081	4.889	4.627	4.178	5.6998	20.28
53) S	toluene-D8	6.267	6.212	6.166	6.133	6.136	6.122	6.297	6.220	6.264	6.321	6.2137	1.17
54)	2-hexanone				3.409	3.431	3.517	3.461	3.414	3.282	3.095	3.3726	4.19
55)	dibromochloromethane	2.328	2.108	1.985	2.140	2.083	2.111	2.077	2.032	1.943	1.775	2.0583	6.97
56) C	1,2-dibromoethane	2.720	2.620	2.496	2.586	2.525	2.495	2.362	2.274	2.193	2.029	2.4299	8.77
57) C	tetrachloroethene	2.430	2.443	2.295	2.379	2.323	2.310	2.164	2.066	1.996	1.819	2.2225	9.26
58)	1,1,1,2-tetrachlor...	1.747	1.689	1.635	1.761	1.686	1.684	1.608	1.560	1.501	1.348	1.6219	7.73
59) C	chlorobenzene	4.289	4.663	4.366	4.558	4.461	4.420	4.145	4.003	3.846	3.439	4.2189	8.79
60) C	ethylbenzene	7.504	7.081	6.713	6.880	6.739	6.715	6.278	6.036	5.662	5.029	6.4637	11.25
61) C	m+p-xylene	6.332	5.606	5.426	5.633	5.550	5.524	5.107	4.873	4.513	3.854	5.2418	13.18

Response Factor Report

Method Path : O:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Method File : TSIM3_210219.M
 Title : T0-14A/T0-15 SIM/Full Scan Analysis
 Last Update : Sat Feb 20 13:38:17 2021
 Response Via : Initial Calibration

Calibration Files

0.02=r314022_Ev2.D 0.05=r314023_Ev2.D 0.1 =r314024_Ev2.D 0.2 =r314025_Ev2.D 0.5 =r314026_Ev2.D
 1.0 =r314027_Ev2.D 5.0 =r314028_Ev2.D 10.0=r314029_Ev2.D 20.0=r314030_Ev2.D 50.0=r314031_Ev2.D

	Compound	0.02	0.05	0.1	0.2	0.5	1.0	5.0	10.0	20.0	50.0	Avg	%RSD
62)	C bromoform	2.348	1.862	1.793	1.941	1.918	1.935	1.996	1.992	1.926	1.759	1.9470	8.27
63)	C styrene	5.018	4.845	4.623	4.758	4.780	4.805	4.583	4.428	4.284	3.921	4.6045	6.97
64)	C 1,1,2,2-tetrachlor...	4.101	4.139	3.822	3.940	3.888	3.906	3.632	3.453	3.215	2.753	3.6849	11.79
65)	C o-xylene	6.250	5.608	5.460	5.703	5.593	5.592	5.148	4.849	4.444	3.712	5.2359	13.94
66)	1,2,3-Trichloropro...	3.484	3.099	3.031	3.082	3.163	3.164	2.963	2.869	2.785	2.593	3.0233	8.03
67)	s bromofluorobenzene	4.193	4.084	3.912	4.053	4.072	4.092	4.194	4.183	4.320	4.309	4.1415	2.99
68)	C isopropylbenzene				7.806	7.657	7.693	7.160	6.819	6.454	5.611	7.0286	11.38
69)	Bromobenzene				4.210	4.176	4.206	3.923	3.788	3.679	3.361	3.9062	8.22
70)	4-ethyl toluene	7.667	8.493	7.927	8.424	8.334	8.554	8.129	7.730	7.198	6.147	7.8603	9.41
71)	1,3,5-trimethylben...	7.814	7.285	6.845	7.080	6.991	7.053	6.605	6.280	5.872	4.942	6.6768	12.14
72)	tert-butylbenzene				6.855	6.752	6.713	6.169	5.778	5.260	4.193	5.9601	16.33
73)	1,2,4-trimethylben...	6.892	6.646	6.622	6.761	6.651	6.776	6.374	6.008	5.441	4.152	6.2324	13.67
74)	C Benzyl Chloride				3.236	3.419	3.892	4.363	4.499	4.300	3.827	3.9337	12.29
75)	1,3-dichlorobenzene	3.810	3.785	3.785	3.832	3.917	3.995	3.849	3.717	3.524	3.078	3.7293	6.98
76)	C 1,4-dichlorobenzene	3.520	3.588	3.621	3.638	3.723	3.852	3.749	3.643	3.489	3.065	3.5889	5.94
77)	sec-butylbenzene				9.970	9.866	9.957	9.200	8.702	8.074	6.602	8.9101	13.96
78)	p-isopropyltoluene				8.262	8.077	8.096	7.422	6.894	6.244	4.812	7.1152	17.60
79)	1,2-dichlorobenzene	3.754	3.592	3.636	3.557	3.688	3.779	3.648	3.549	3.342	3.017	3.5561	6.35
80)	n-butylbenzene				6.419	6.550	6.723	6.443	6.207	5.741	4.866	6.1357	10.44
81)	1,2-dibromo-3-chlo...	1.549	1.482	1.415	1.395	1.432	1.497	1.546	1.570	1.505	1.377	1.4766	4.64
82)	C 1,2,4-trichloroben...		1.697	1.609	1.655	1.805	2.082	2.433	2.668	2.479	2.438	2.0963	19.81
83)	naphthalene		7.393	6.070	5.643	5.739	6.120	6.905	7.174	6.675	6.084	6.4226	9.86
84)	1,2,3-trichloroben...		2.267	2.170	2.006	2.225	2.431	2.743	2.880	2.726	2.582	2.4480	12.30
85)	C hexachlorobutadiene		2.708	2.646	2.607	2.695	2.800	2.829	2.760	2.391	2.035	2.6079	9.62

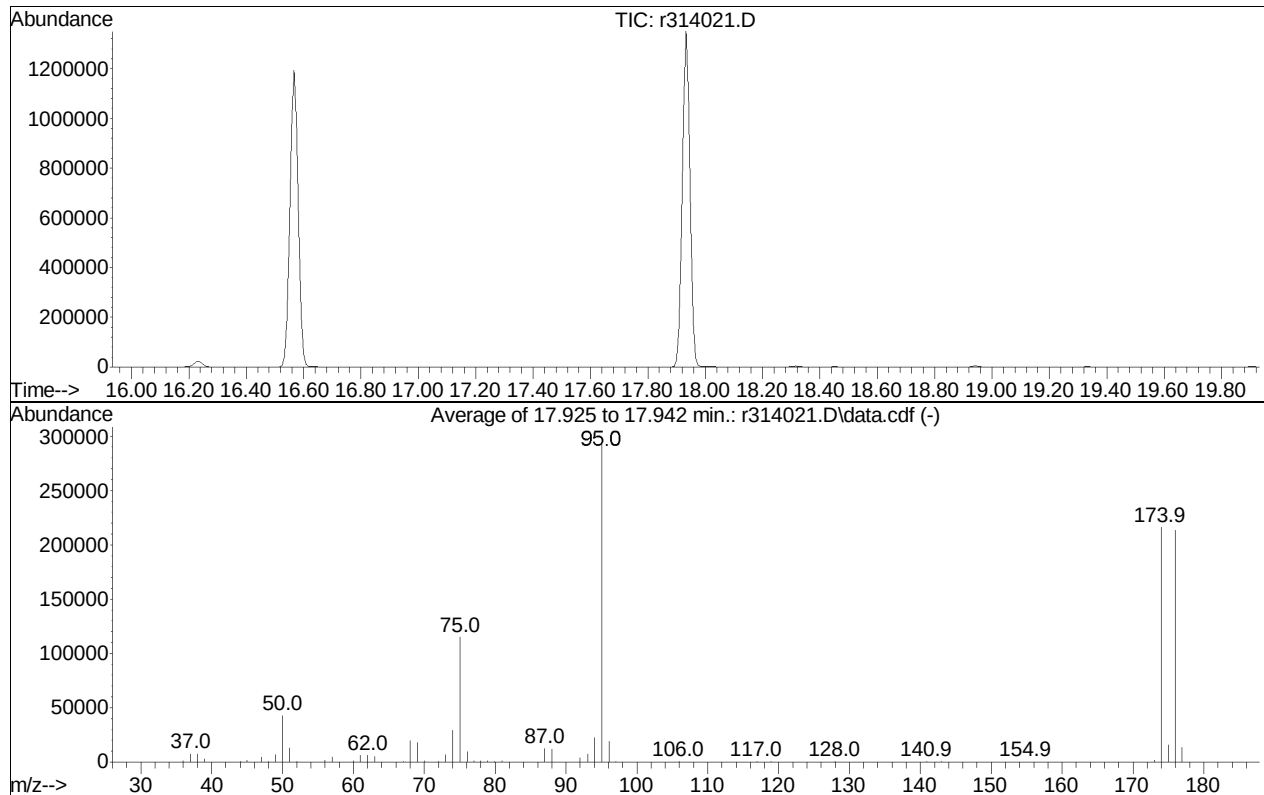
(#) = Out of Range

BFB

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314021.D
 Acq On : 19 Feb 2021 4:46 PM
 Operator : AIRPIANO3:AR
 Sample : WG1466757-1
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Integration File: rteint.p

Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Title : T0-14A/T0-15 SIM/Full Scan Analysis
 Last Update : Sat Feb 20 13:38:17 2021



AutoFind: Scans 2252, 2253, 2254; Background Corrected with Scan 2246

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	14.6	42836	PASS
75	95	30	66	39.1	114970	PASS
95	95	100	100	100.0	294098	PASS
96	95	5	9	6.7	19586	PASS
173	174	0.00	2	0.8	1779	PASS
174	95	50	120	73.7	216653	PASS
175	174	4	9	7.3	15896	PASS
176	174	93	101	98.4	213253	PASS
177	176	5	9	6.6	13982	PASS

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314022_Ev2.D
 Acq On : 19 Feb 2021 5:25 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-SIMSTD0.02
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:15:45 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 08:05:58 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\r314028_Ev2.D
 Sub List : Default - All compounds listed

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

Internal Standards						
1) bromochloromethane	9.567	49	224720	10.000	ppbV	0.00
Standard Area = 228008			Recovery =		98.56%	
33) 1,4-difluorobenzene	11.833	114	629466	10.000	ppbV	0.00
Standard Area = 639167			Recovery =		98.48%	
51) chlorobenzene-D5	16.558	54	98153	10.000	ppbV	0.00
Standard Area = 98211			Recovery =		99.94%	
System Monitoring Compounds						
35) 1,2-dichloroethane-D4	10.450	65	140058	10.081	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		100.81%	
53) toluene-D8	14.675	98	615141	9.953	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		99.53%	
67) bromofluorobenzene	17.933	95	411596	9.999	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		99.99%	
Target Compounds						
					Qvalue	
2) propylene	3.922	41	327M6	0.030	ppbV	
3) dichlorodifluoromethane	4.000	85	423	0.024	ppbV #	86
4) chloromethane	4.180	50	250	0.026	ppbV #	79
5) Freon-114	4.306	85	543	0.022	ppbV	98
6) vinyl chloride	4.438	62	275	0.025	ppbV #	74
7) 1,3-butadiene	4.606	54	233	0.023	ppbV	84
8) bromomethane	4.924	94	227	0.027	ppbV	90
9) chloroethane	5.140	64	145	0.025	ppbV #	78
10) ethanol	5.320	31	6652	0.671	ppbV	99
11) vinyl bromide	5.570	106	163	0.017	ppbV	98
12) acrolein	5.723	56	242M1	0.046	ppbV	
13) acetone	5.897	43	2685	0.163	ppbV #	92
14) trichlorofluoromethane	6.090	101	293M4	0.021	ppbV	
15) isopropyl alcohol	6.233	45	1291	0.062	ppbV #	92
16) acrylonitrile	6.457	53	218M4	0.023	ppbV	
17) 1,1-dichloroethene	6.854	61	307	0.022	ppbV #	84
18) tertiary butyl alcohol	6.974	59	689	0.034	ppbV #	84
19) methylene chloride	7.022	49	474	0.039	ppbV	91
20) 3-chloropropene	7.160	41	356	0.022	ppbV #	91
21) carbon disulfide	7.310	76	750	0.021	ppbV #	1
22) Freon 113	7.352	101	365	0.021	ppbV #	88
23) trans-1,2-dichloroethene	8.150	61	410	0.022	ppbV	92
24) 1,1-dichloroethane	8.383	63	473	0.022	ppbV	94

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314022_Ev2.D
 Acq On : 19 Feb 2021 5:25 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-SIMSTD0.02
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:15:45 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 08:05:58 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\r314028_Ev2.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
25) MTBE	8.492	73	824	0.022	ppbV	#	76
26) vinyl acetate	8.600	43	759	0.025	ppbV	#	87
27) 2-butanone	8.892	43	861	0.029	ppbV	#	89
28) cis-1,2-dichloroethene	9.375	61	360	0.023	ppbV	#	90
29) Ethyl Acetate	9.700	61	159M4	0.032	ppbV		
30) chloroform	9.725	83	465M4	0.022	ppbV		
31) Tetrahydrofuran	10.217	42	414	0.022	ppbV		95
32) 1,2-dichloroethane	10.575	62	280	0.024	ppbV	#	64
34) hexane	9.642	57	676	0.027	ppbV	#	68
36) 1,1,1-trichloroethane	10.867	97	407	0.025	ppbV	#	93
37) benzene	11.393	78	2438	0.052	ppbV	#	91
38) carbon tetrachloride	11.573	117	299	0.020	ppbV	#	76
39) cyclohexane	11.707	56	669	0.025	ppbV	#	85
40) Dibromomethane	12.320	93	572	0.051	ppbV	#	83
41) 1,2-dichloropropane	12.353	63	349	0.023	ppbV	#	82
42) bromodichloromethane	12.587	83	546	0.023	ppbV	#	83
43) 1,4-dioxane	12.667	88	367M3	0.034	ppbV		
44) trichloroethene	12.633	130	396M4	0.023	ppbV		
45) 2,2,4-trimethylpentane	12.680	57	1835	0.022	ppbV	#	92
46) heptane	13.000	43	729	0.023	ppbV		93
47) cis-1,3-dichloropropene	14.275	75	476	0.023	ppbV	#	82
48) 4-methyl-2-pentanone	13.717	43	899	0.025	ppbV	#	89
49) trans-1,3-dichloropropene	13.650	75	525	0.023	ppbV	#	85
50) 1,1,2-trichloroethane	14.475	97	365	0.024	ppbV	#	87
52) toluene	14.783	91	2392	0.048	ppbV		99
54) 2-hexanone	15.092	43	742	0.022	ppbV	#	93
55) dibromochloromethane	15.233	129	457	0.022	ppbV		94
56) 1,2-dibromoethane	15.483	107	534	0.023	ppbV		92
57) tetrachloroethene	15.950	166	477	0.022	ppbV	#	94
58) 1,1,1,2-tetrachloroethane	16.592	131	343	0.022	ppbV	#	89
59) chlorobenzene	16.608	112	842M4	0.021	ppbV		
60) ethylbenzene	16.958	91	1473	0.024	ppbV		98
61) m+p-xylene	17.117	91	2486	0.050	ppbV		99
62) bromoform	17.192	173	461M4	0.024	ppbV		
63) styrene	17.442	104	985	0.022	ppbV		92
64) 1,1,2,2-tetrachloroethane	17.533	83	805	0.023	ppbV		97
65) o-xylene	17.533	91	1227	0.024	ppbV		93
66) 1,2,3-Trichloropropane	17.650	75	684	0.024	ppbV	#	92
68) isopropylbenzene	18.042	105	1630	0.023	ppbV		93
69) Bromobenzene	18.117	77	846	0.022	ppbV		94

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314022_Ev2.D
 Acq On : 19 Feb 2021 5:25 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-SIMSTD0.02
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:15:45 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 08:05:58 2021
 Response via : Initial Calibration

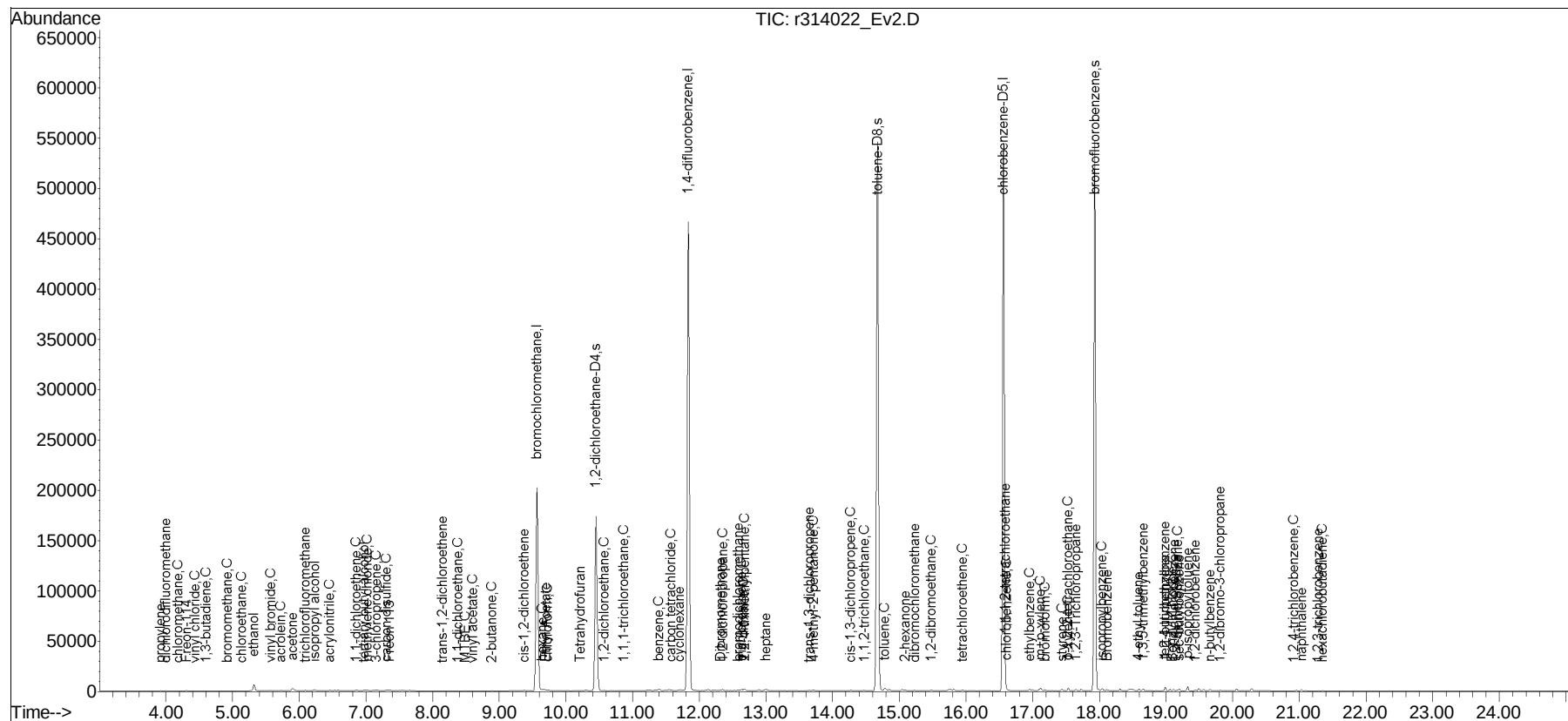
CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\r314028_Ev2.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) 4-ethyl toluene	18.592	105	1505	0.019	ppbV #	95
71) 1,3,5-trimethylbenzene	18.658	105	1534	0.024	ppbV #	96
72) tert-butylbenzene	18.983	119	1331	0.022	ppbV	95
73) 1,2,4-trimethylbenzene	18.983	105	1353	0.022	ppbV	94
74) Benzyl Chloride	19.100	91	679	0.016	ppbV	93
75) 1,3-dichlorobenzene	19.117	146	748M3	0.020	ppbV	
76) 1,4-dichlorobenzene	19.175	146	691	0.019	ppbV	98
77) sec-butylbenzene	19.200	105	1978	0.022	ppbV	98
78) p-isopropyltoluene	19.325	119	1772	0.024	ppbV	97
79) 1,2-dichlorobenzene	19.442	146	737	0.021	ppbV	91
80) n-butylbenzene	19.658	91	1280	0.020	ppbV	99
81) 1,2-dibromo-3-chloropr...	19.808	75	304	0.020	ppbV	97
82) 1,2,4-trichlorobenzene	20.917	180	414	0.017	ppbV #	82
83) naphthalene	21.033	128	2516	0.037	ppbV	96
84) 1,2,3-trichlorobenzene	21.283	180	491	0.018	ppbV #	80
85) hexachlorobutadiene	21.350	225	569	0.020	ppbV #	92

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

```
Data Path   : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
Data File  : r314022_Ev2.D
Acq On     : 19 Feb 2021   5:25 PM
Operator   : AIRPIANO3:AR
Sample     : IT015-SIMSTD0.02
Misc       : WG1466757
ALS Vial   : 0   Sample Multiplier: 1
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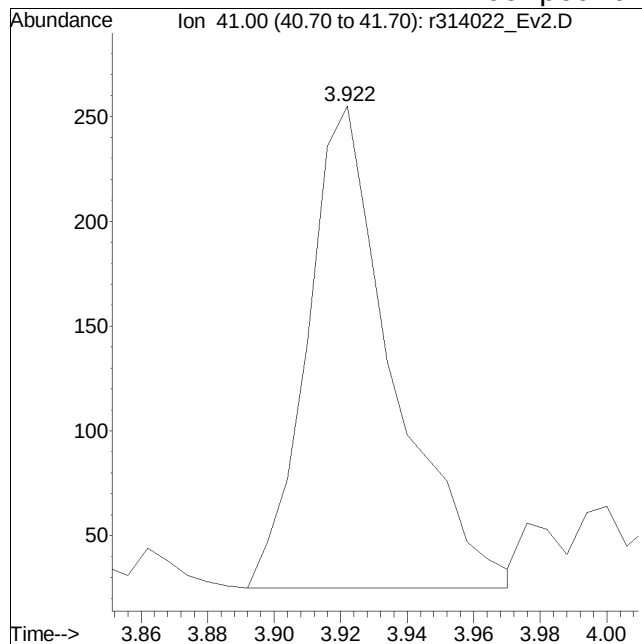
Quant Time: Feb 20 13:15:45 2021
Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Sat Feb 20 08:05:58 2021
Response via : Initial Calibration



Manual Integration/Negative Proof Report

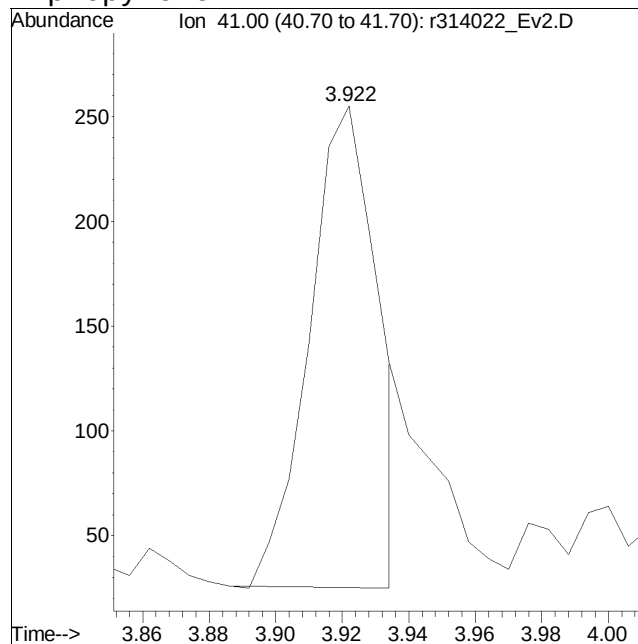
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TSIM3_210219.M
Data File : r314022_Ev2.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:5: 5 Instrument :
Sample : IT015-SIMSTD0.02 Quant Date : 2/20/2021 8:07 am

Compound #2: propylene



Original Peak Response = 411

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

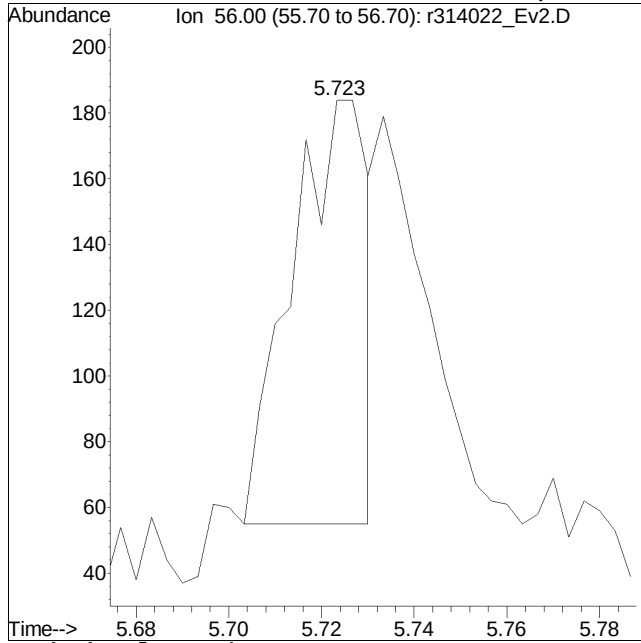


Manual Peak Response = 327 M6

Manual Integration/Negative Proof Report

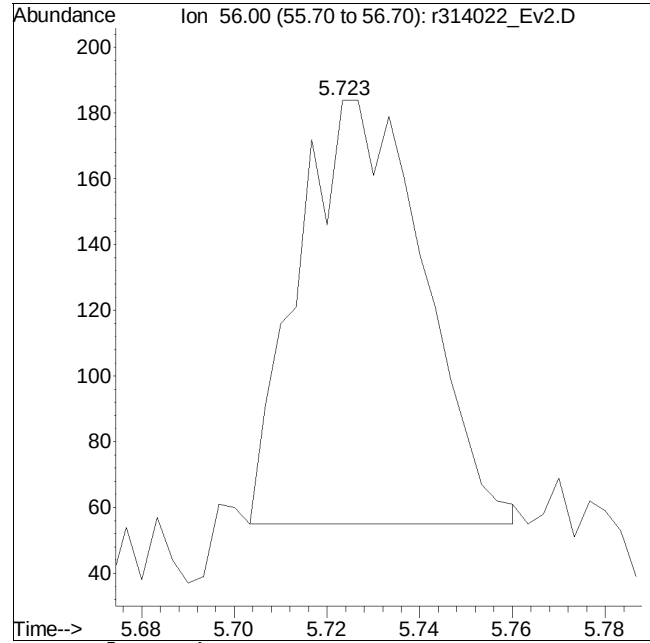
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TSIM3_210219.M
Data File : r314022_Ev2.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:5: 5 Instrument :
Sample : IT015-SIMSTD0.02 Quant Date : 2/20/2021 8:07 am

Compound #12: acrolein



Original Peak Response = 147

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

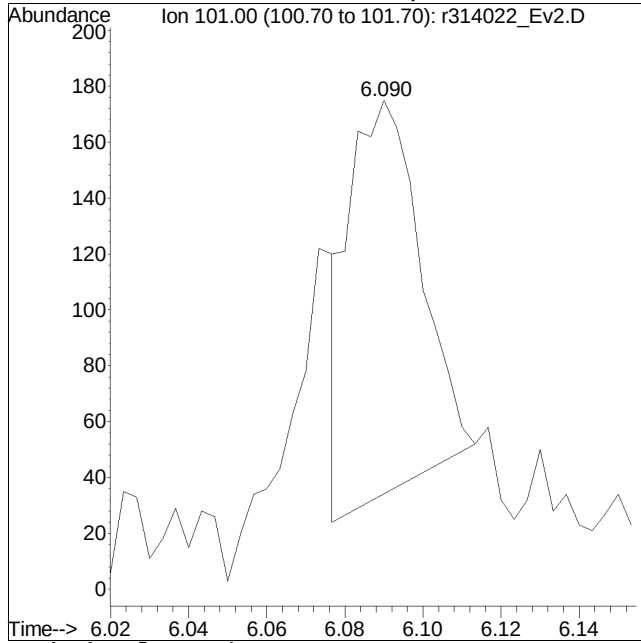


Manual Peak Response = 242 M1

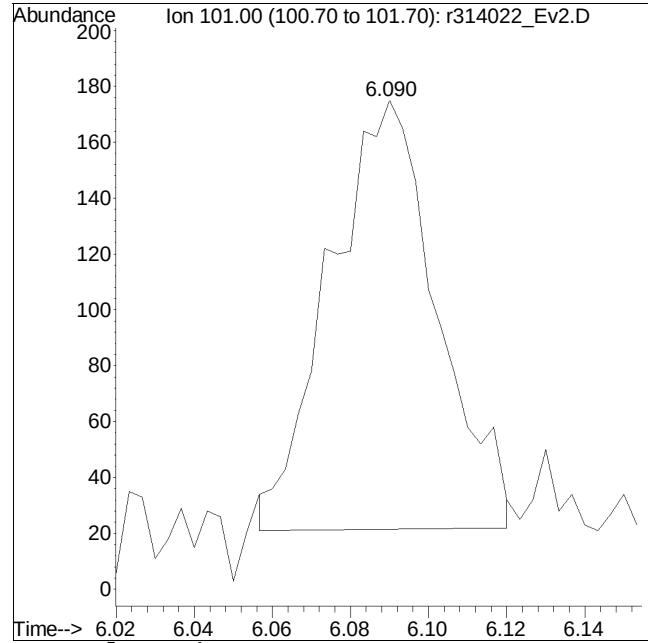
Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\Airpiano3QMethod : TSIM3_210219.M
Data File : r314022_Ev2.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:5: 5 Instrument :
Sample : IT015-SIMSTD0.02 Quant Date : 2/20/2021 8:07 am

Compound #14: trichlorofluoromethane



Original Peak Response = 180

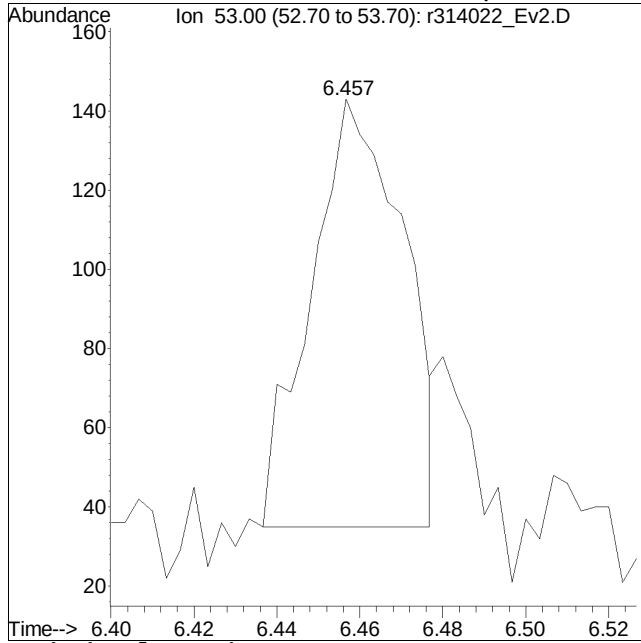


Manual Peak Response = 293 M4

Manual Integration/Negative Proof Report

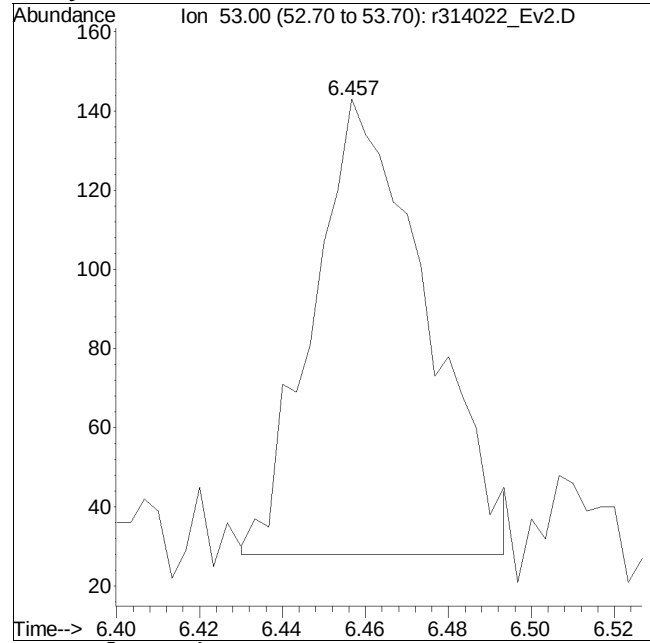
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TSIM3_210219.M
Data File : r314022_Ev2.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:5: 5 Instrument :
Sample : IT015-SIMSTD0.02 Quant Date : 2/20/2021 8:07 am

Compound #16: acrylonitrile



Original Peak Response = 168

M4 = Poor automated baseline construction.

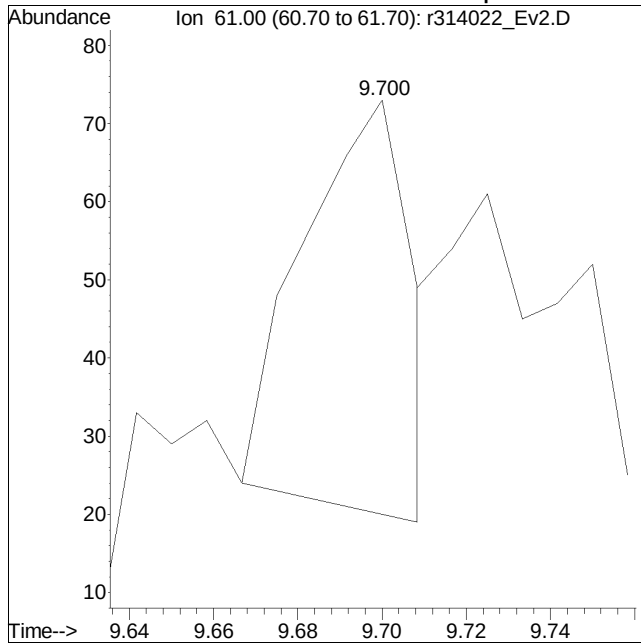


Manual Peak Response = 218 M4

Manual Integration/Negative Proof Report

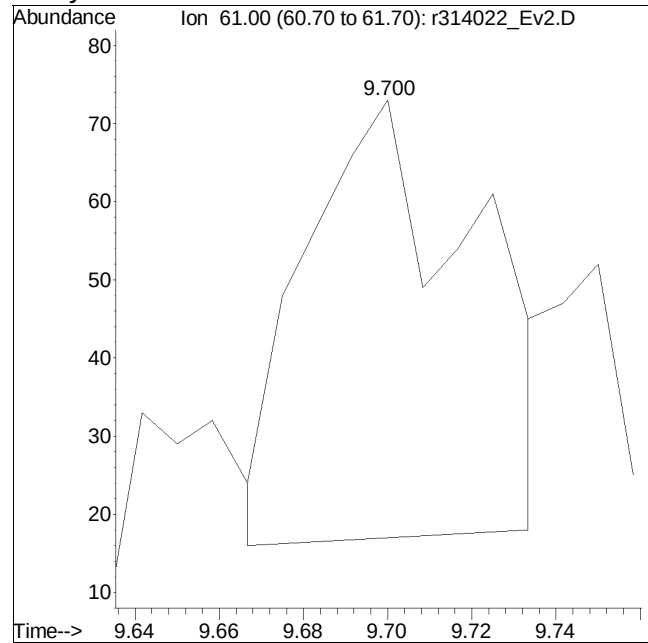
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TSIM3_210219.M
Data File : r314022_Ev2.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:5: 5 Instrument :
Sample : IT015-SIMSTD0.02 Quant Date : 2/20/2021 8:07 am

Compound #29: Ethyl Acetate



Original Peak Response = 93

M4 = Poor automated baseline construction.

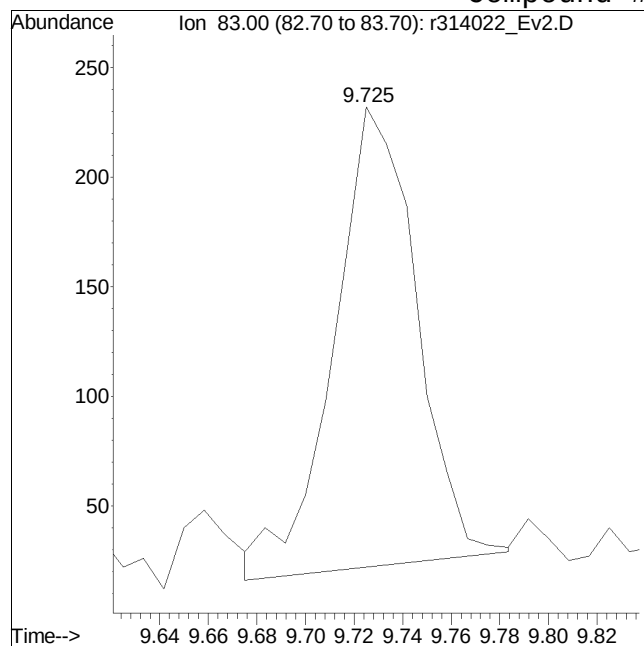


Manual Peak Response = 159 M4

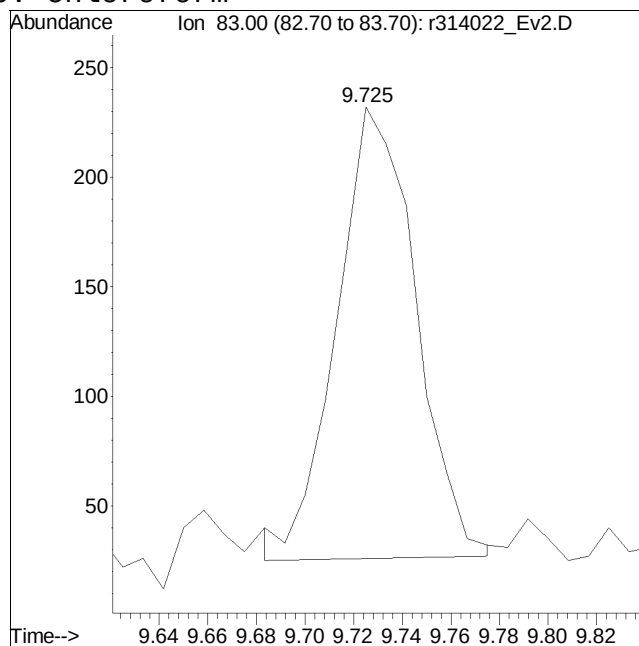
Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\Airpiano3QMethod : TSIM3_210219.M
 Data File : r314022_Ev2.D Operator : AIRPIAN03:AR
 Date Inj'd : 2/19/2020 0:5: 5 Instrument :
 Sample : IT015-SIMSTD0.02 Quant Date : 2/20/2021 8:07 am

Compound #30: chloroform



Original Peak Response = 497



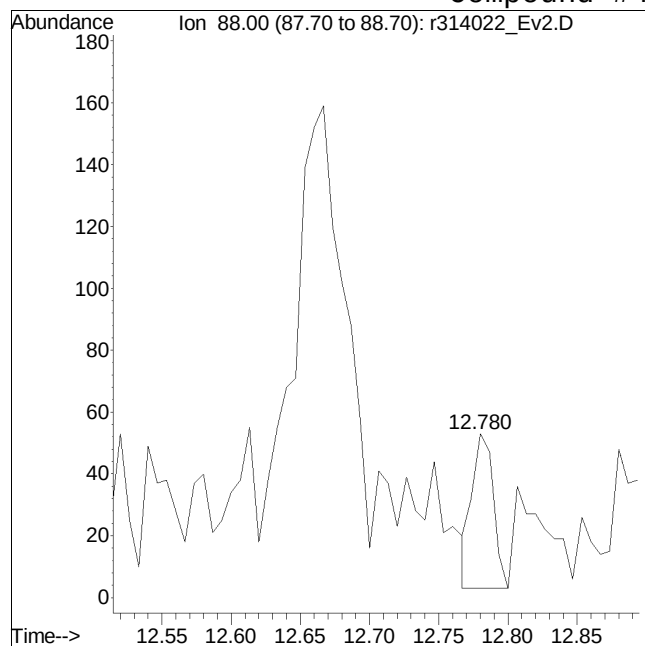
Manual Peak Response = 465 M4

M4 = Poor automated baseline construction.

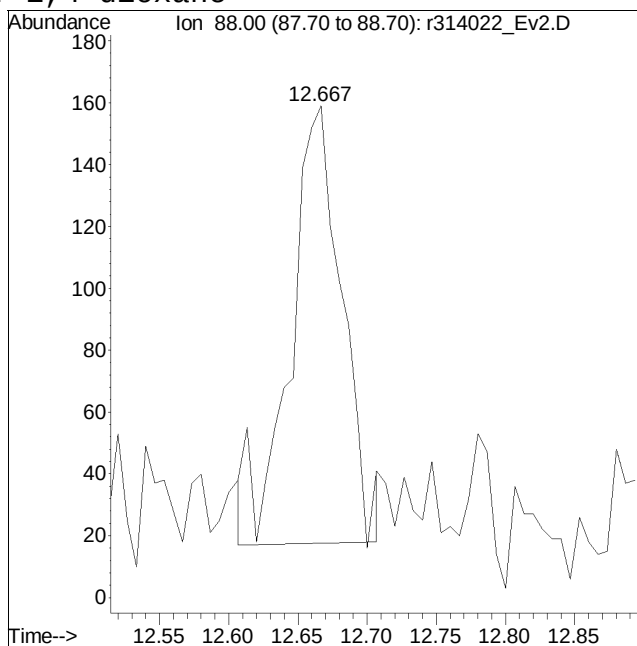
Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\Airpiano3QMethod : TSIM3_210219.M
 Data File : r314022_Ev2.D Operator : AIRPIAN03:AR
 Date Inj'd : 2/19/2020 0:5: 5 Instrument :
 Sample : IT015-SIMSTD0.02 Quant Date : 2/20/2021 8:07 am

Compound #43: 1,4-dioxane



Original Peak Response = 54



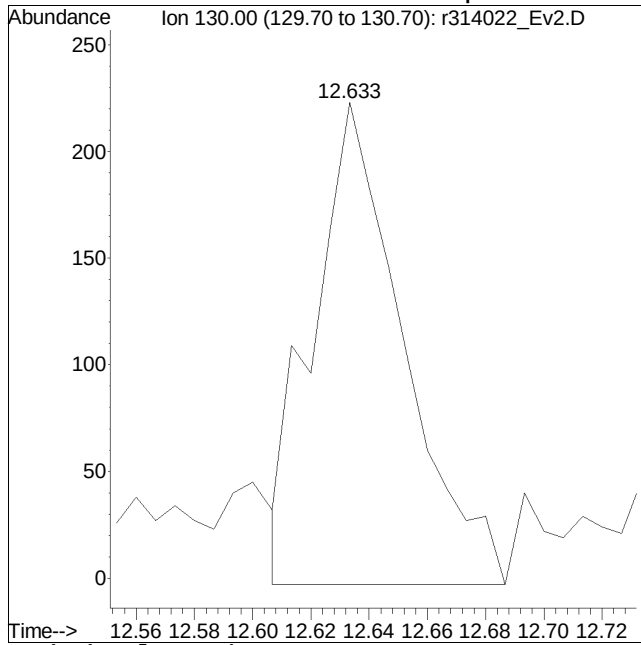
Manual Peak Response = 367 M3

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

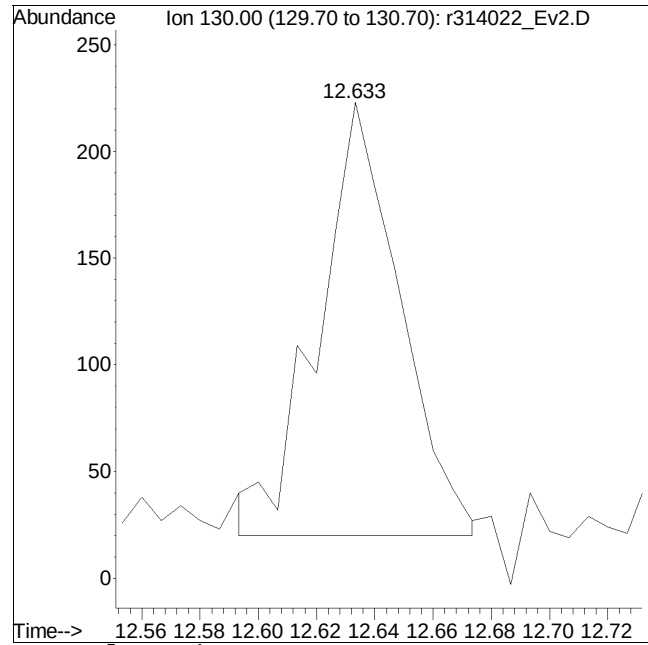
Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\Airpiano3QMethod : TSIM3_210219.M
Data File : r314022_Ev2.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:5: 5 Instrument :
Sample : IT015-SIMSTD0.02 Quant Date : 2/20/2021 8:07 am

Compound #44: trichloroethene



Original Peak Response = 486



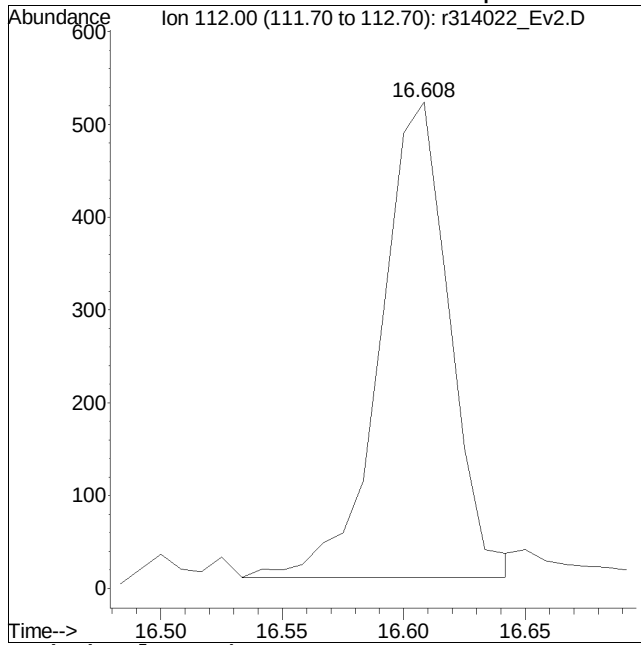
Manual Peak Response = 396 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

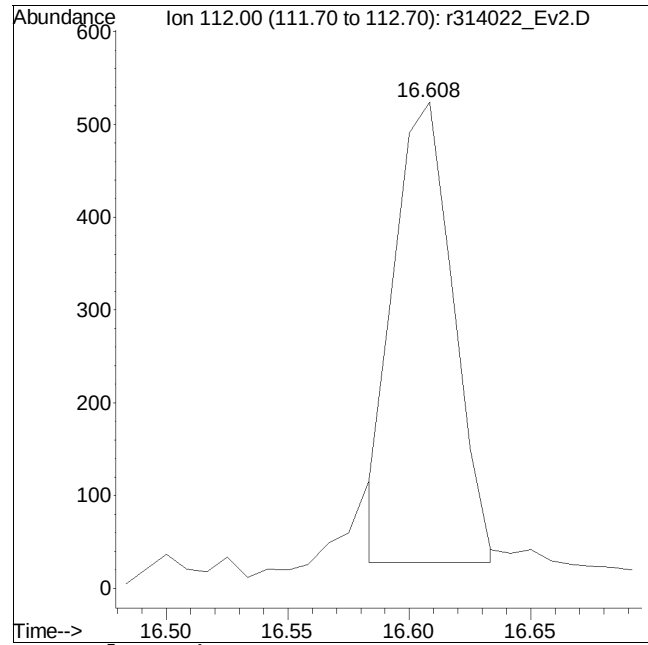
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TSIM3_210219.M
Data File : r314022_Ev2.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:5: 5 Instrument :
Sample : IT015-SIMSTD0.02 Quant Date : 2/20/2021 8:07 am

Compound #59: chlorobenzene



Original Peak Response = 1013

M4 = Poor automated baseline construction.

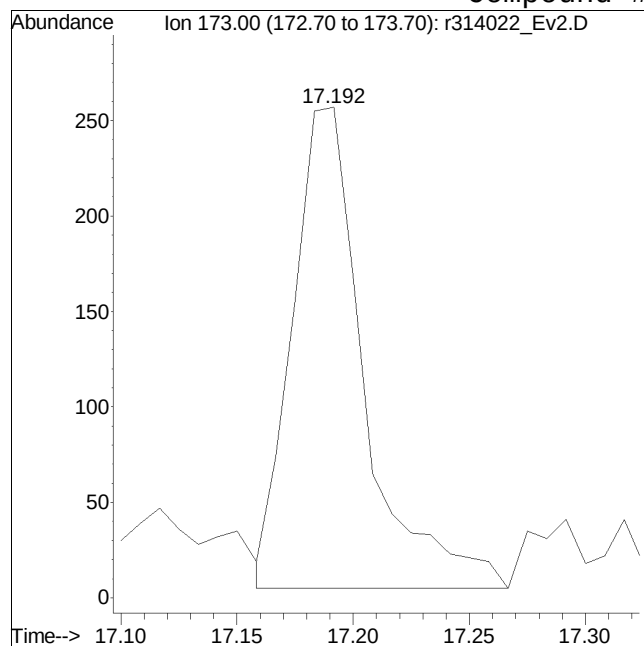


Manual Peak Response = 842 M4

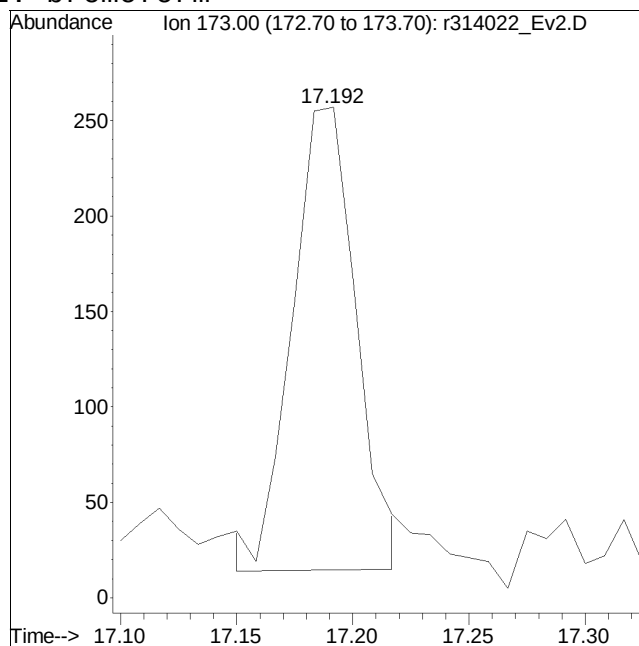
Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\Airpiano3QMethod : TSIM3_210219.M
 Data File : r314022_Ev2.D Operator : AIRPIAN03:AR
 Date Inj'd : 2/19/2020 0:5: 5 Instrument :
 Sample : IT015-SIMSTD0.02 Quant Date : 2/20/2021 8:07 am

Compound #62: bromoform



Original Peak Response = 544



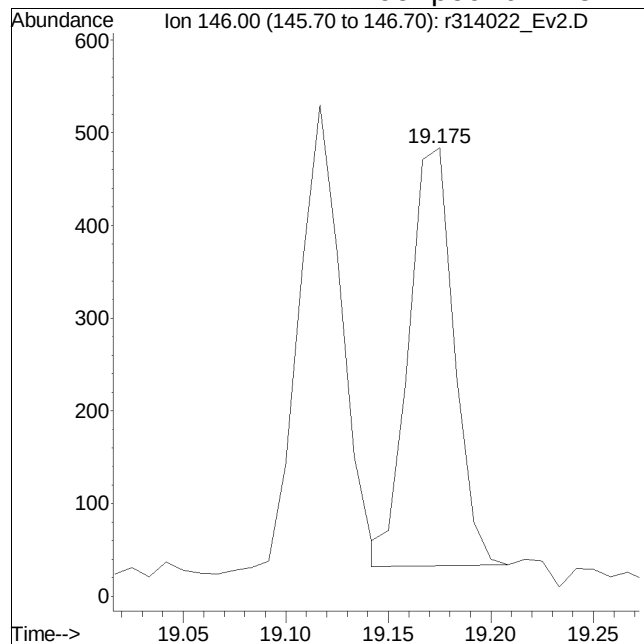
Manual Peak Response = 461 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

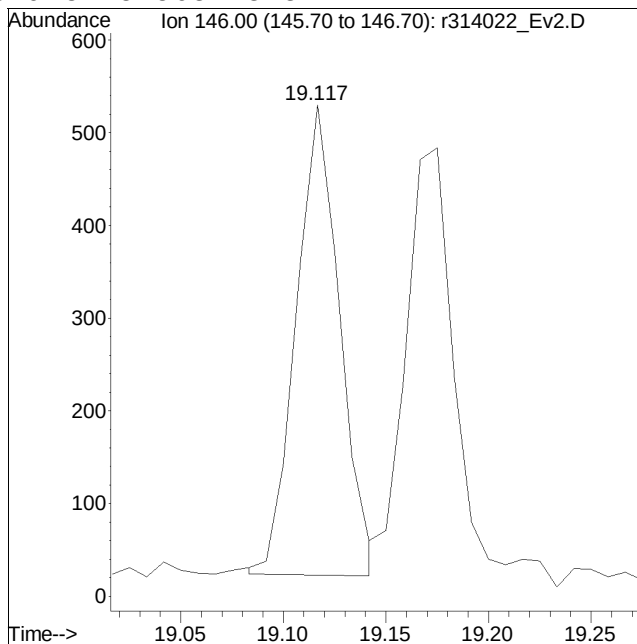
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TSIM3_210219.M
 Data File : r314022_Ev2.D Operator : AIRPIAN03:AR
 Date Inj'd : 2/19/2020 0:5: 5 Instrument :
 Sample : IT015-SIMSTD0.02 Quant Date : 2/20/2021 8:07 am

Compound #75: 1,3-dichlorobenzene



Original Peak Response = 691

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



Manual Peak Response = 748 M3

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314023_Ev2.D
 Acq On : 19 Feb 2021 6:04 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-SIMSTD0.05
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:16:30 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 08:05:58 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\r314028_Ev2.D
 Sub List : Default - All compounds listed

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

Internal Standards						
1) bromochloromethane	9.567	49	225544	10.000	ppbV	0.00
Standard Area = 228008			Recovery =		98.92%	
33) 1,4-difluorobenzene	11.833	114	632330	10.000	ppbV	0.00
Standard Area = 639167			Recovery =		98.93%	
51) chlorobenzene-D5	16.558	54	97329	10.000	ppbV	0.00
Standard Area = 98211			Recovery =		99.10%	
System Monitoring Compounds						
35) 1,2-dichloroethane-D4	10.450	65	138798	9.945	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		99.45%	
53) toluene-D8	14.675	98	604605	9.865	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		98.65%	
67) bromofluorobenzene	17.933	95	397524	9.738	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		97.38%	
Target Compounds						
					Qvalue	
2) propylene	3.916	41	671M4	0.060	ppbV	
3) dichlorodifluoromethane	4.000	85	973	0.054	ppbV	98
4) chloromethane	4.180	50	553	0.058	ppbV	91
5) Freon-114	4.306	85	1336	0.054	ppbV	98
6) vinyl chloride	4.438	62	586	0.053	ppbV #	89
7) 1,3-butadiene	4.600	54	546	0.053	ppbV	93
8) bromomethane	4.918	94	478	0.057	ppbV	98
9) chloroethane	5.140	64	328	0.055	ppbV #	84
10) ethanol	5.320	31	6256	0.629	ppbV	98
11) vinyl bromide	5.563	106	519	0.054	ppbV	96
12) acrolein	5.727	56	451M3	0.085	ppbV	
13) acetone	5.893	43	5352	0.324	ppbV #	98
14) trichlorofluoromethane	6.087	101	679	0.048	ppbV	91
15) isopropyl alcohol	6.227	45	3013	0.144	ppbV #	94
16) acrylonitrile	6.457	53	490	0.052	ppbV #	87
17) 1,1-dichloroethene	6.854	61	758	0.054	ppbV	94
18) tertiary butyl alcohol	6.968	59	1264	0.062	ppbV	95
19) methylene chloride	7.016	49	885	0.072	ppbV	96
20) 3-chloropropene	7.154	41	886	0.054	ppbV	96
21) carbon disulfide	7.310	76	1798	0.050	ppbV #	1
22) Freon 113	7.352	101	960	0.055	ppbV	97
23) trans-1,2-dichloroethene	8.142	61	965	0.051	ppbV	98
24) 1,1-dichloroethane	8.375	63	1159	0.054	ppbV	92

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314023_Ev2.D
 Acq On : 19 Feb 2021 6:04 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-SIMSTD0.05
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:16:30 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 08:05:58 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\r314028_Ev2.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
25) MTBE	8.492	73	1852	0.050	ppbV	#	89
26) vinyl acetate	8.600	43	1681	0.055	ppbV	#	92
27) 2-butanone	8.883	43	1870	0.064	ppbV	#	96
28) cis-1,2-dichloroethene	9.375	61	899	0.056	ppbV		96
29) Ethyl Acetate	9.692	61	314	0.063	ppbV	#	56
30) chloroform	9.725	83	1112	0.053	ppbV	#	95
31) Tetrahydrofuran	10.208	42	1015	0.055	ppbV		93
32) 1,2-dichloroethane	10.575	62	644	0.054	ppbV	#	87
34) hexane	9.642	57	1359	0.053	ppbV	#	72
36) 1,1,1-trichloroethane	10.867	97	860	0.052	ppbV	#	85
37) benzene	11.393	78	3526	0.075	ppbV		97
38) carbon tetrachloride	11.573	117	847	0.055	ppbV		95
39) cyclohexane	11.713	56	1507	0.055	ppbV		96
40) Dibromomethane	12.320	93	929	0.082	ppbV	#	88
41) 1,2-dichloropropane	12.353	63	802	0.053	ppbV	#	93
42) bromodichloromethane	12.580	83	1279	0.054	ppbV	#	98
43) 1,4-dioxane	12.660	88	760	0.071	ppbV		84
44) trichloroethene	12.633	130	912	0.054	ppbV		96
45) 2,2,4-trimethylpentane	12.680	57	4286	0.052	ppbV	#	98
46) heptane	13.000	43	1674	0.053	ppbV		98
47) cis-1,3-dichloropropene	14.267	75	1121	0.053	ppbV		91
48) 4-methyl-2-pentanone	13.708	43	1906	0.052	ppbV	#	94
49) trans-1,3-dichloropropene	13.642	75	1194	0.052	ppbV	#	86
50) 1,1,2-trichloroethane	14.467	97	864	0.057	ppbV		93
52) toluene	14.783	91	3568	0.072	ppbV		99
54) 2-hexanone	15.083	43	1788	0.053	ppbV	#	98
55) dibromochloromethane	15.233	129	1026	0.051	ppbV	#	95
56) 1,2-dibromoethane	15.483	107	1275	0.055	ppbV		96
57) tetrachloroethene	15.950	166	1189	0.056	ppbV	#	90
58) 1,1,1,2-tetrachloroethane	16.592	131	822	0.053	ppbV		97
59) chlorobenzene	16.600	112	2269	0.056	ppbV		94
60) ethylbenzene	16.950	91	3446	0.056	ppbV		98
61) m+p-xylene	17.108	91	5456	0.110	ppbV		99
62) bromoform	17.192	173	906	0.047	ppbV		98
63) styrene	17.442	104	2358	0.053	ppbV		98
64) 1,1,2,2-tetrachloroethane	17.533	83	2014	0.057	ppbV		99
65) o-xylene	17.533	91	2729	0.054	ppbV		98
66) 1,2,3-Trichloropropane	17.650	75	1508	0.052	ppbV		98
68) isopropylbenzene	18.042	105	3766	0.054	ppbV		99
69) Bromobenzene	18.117	77	2071	0.054	ppbV		97

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314023_Ev2.D
 Acq On : 19 Feb 2021 6:04 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-SIMSTD0.05
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:16:30 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 08:05:58 2021
 Response via : Initial Calibration

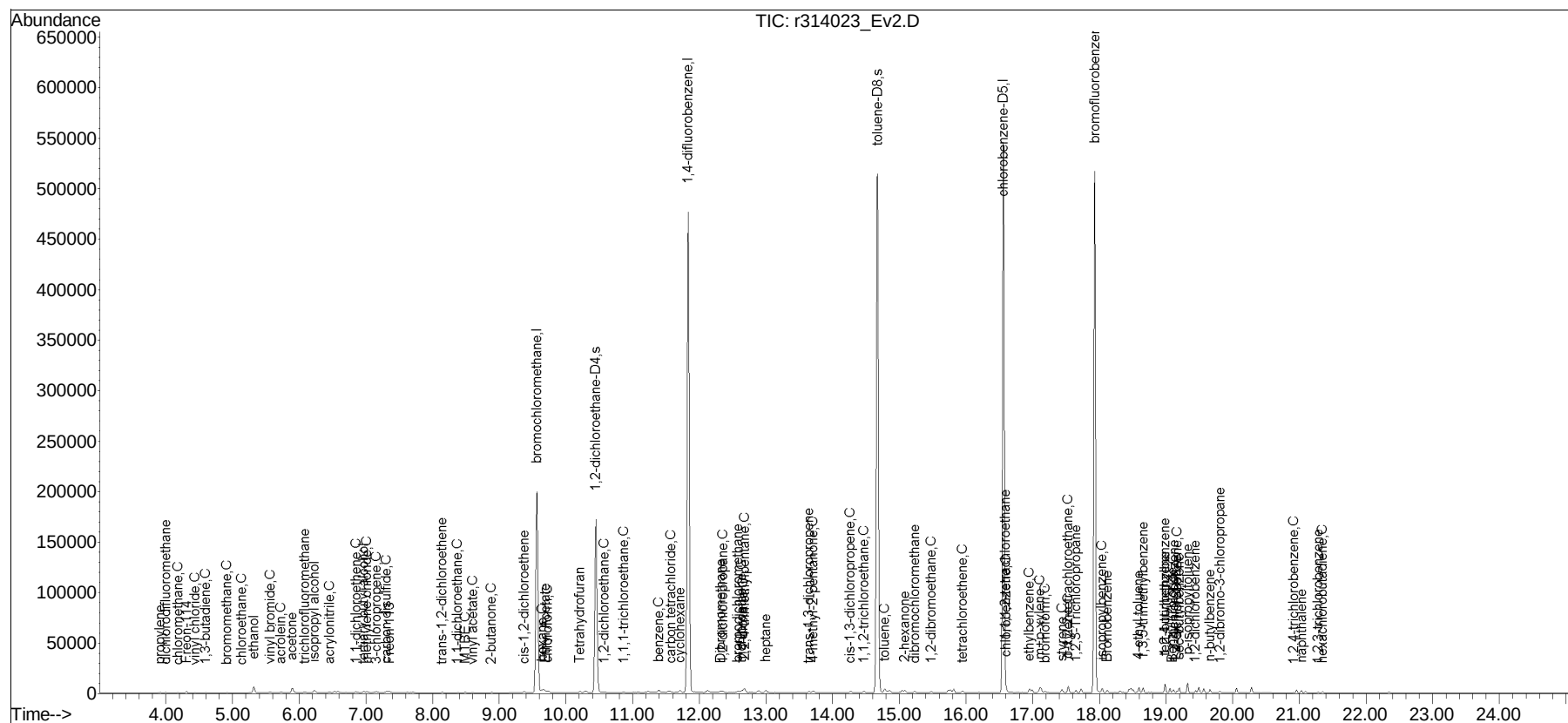
CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\r314028_Ev2.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) 4-ethyl toluene	18.592	105	4133	0.052	ppbV	98
71) 1,3,5-trimethylbenzene	18.658	105	3545	0.055	ppbV #	98
72) tert-butylbenzene	18.983	119	3310	0.055	ppbV	100
73) 1,2,4-trimethylbenzene	18.983	105	3234	0.052	ppbV	95
74) Benzyl Chloride	19.100	91	1550	0.037	ppbV	98
75) 1,3-dichlorobenzene	19.117	146	1842	0.049	ppbV	97
76) 1,4-dichlorobenzene	19.167	146	1746	0.048	ppbV	97
77) sec-butylbenzene	19.200	105	4743	0.053	ppbV	99
78) p-isopropyltoluene	19.325	119	4022	0.056	ppbV	99
79) 1,2-dichlorobenzene	19.442	146	1748	0.049	ppbV	96
80) n-butylbenzene	19.658	91	2980	0.048	ppbV	99
81) 1,2-dibromo-3-chloropr...	19.808	75	721	0.048	ppbV	95
82) 1,2,4-trichlorobenzene	20.917	180	826	0.035	ppbV #	89
83) naphthalene	21.033	128	3598	0.054	ppbV #	96
84) 1,2,3-trichlorobenzene	21.283	180	1103	0.041	ppbV #	93
85) hexachlorobutadiene	21.350	225	1318	0.048	ppbV	92

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

```
Data Path   : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
Data File  : r314023_Ev2.D
Acq On     : 19 Feb 2021    6:04 PM
Operator   : AIRPIANO3:AR
Sample     : IT015-SIMSTD0.05
Misc       : WG1466757
ALS Vial   : 0    Sample Multiplier: 1
```

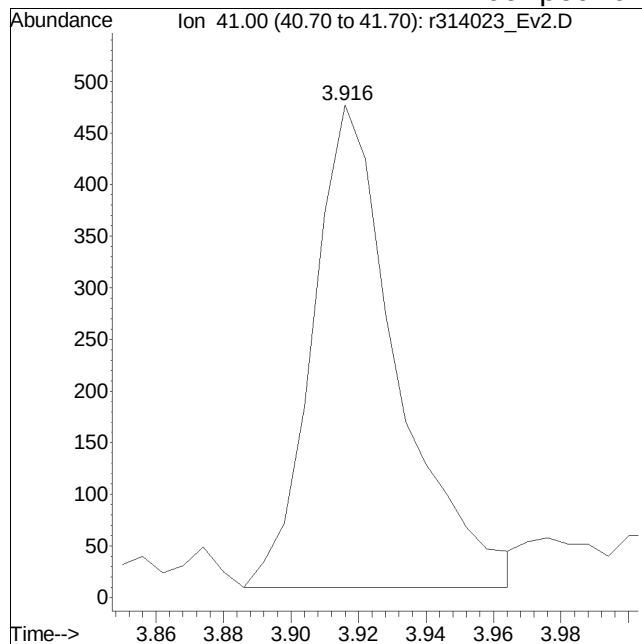
Quant Time: Feb 20 13:16:30 2021
Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Sat Feb 20 08:05:58 2021
Response via : Initial Calibration



Manual Integration/Negative Proof Report

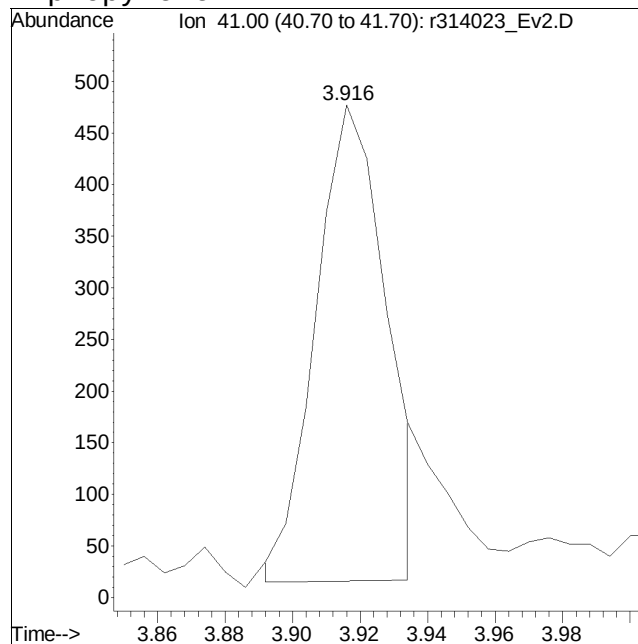
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TSIM3_210219.M
Data File : r314023_Ev2.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:6: 4 Instrument :
Sample : IT015-SIMSTD0.05 Quant Date : 2/20/2021 8:07 am

Compound #2: propylene



Original Peak Response = 818

M4 = Poor automated baseline construction.

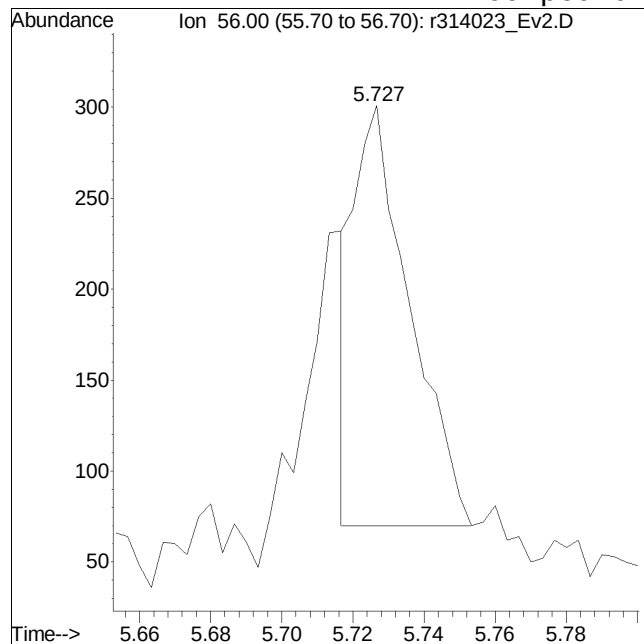


Manual Peak Response = 671 M4

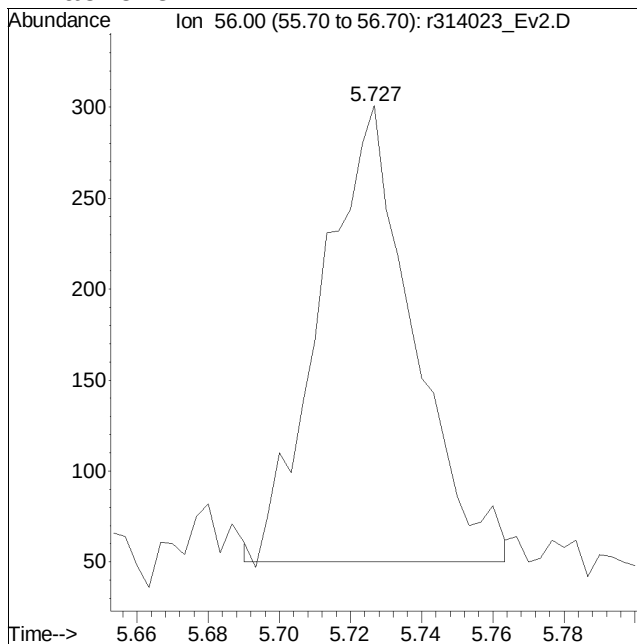
Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\Airpiano3QMethod : TSIM3_210219.M
 Data File : r314023_Ev2.D Operator : AIRPIAN03:AR
 Date Inj'd : 2/19/2020 0:6: 4 Instrument :
 Sample : IT015-SIMSTD0.05 Quant Date : 2/20/2021 8:07 am

Compound #12: acrolein



Original Peak Response = 253



Manual Peak Response = 451 M3

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

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314024_Ev2.D
 Acq On : 19 Feb 2021 6:46 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-SIMSTD0.1
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:17:44 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 08:05:58 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\r314028_Ev2.D
 Sub List : Default - All compounds listed

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

Internal Standards						
1) bromochloromethane	9.567	49	225720	10.000	ppbV	0.00
Standard Area = 228008			Recovery =	99.00%		
33) 1,4-difluorobenzene	11.833	114	634652	10.000	ppbV	0.00
Standard Area = 639167			Recovery =	99.29%		
51) chlorobenzene-D5	16.558	54	99518	10.000	ppbV	0.00
Standard Area = 98211			Recovery =	101.33%		
System Monitoring Compounds						
35) 1,2-dichloroethane-D4	10.450	65	141849	10.126	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	101.26%		
53) toluene-D8	14.675	98	613640	9.792	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	97.92%		
67) bromofluorobenzene	17.933	95	389363	9.329	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	93.29%		
Target Compounds						
					Qvalue	
2) propylene	3.922	41	1278M6	0.115	ppbV	
3) dichlorodifluoromethane	4.000	85	1845	0.103	ppbV	97
4) chloromethane	4.180	50	1101	0.115	ppbV	92
5) Freon-114	4.306	85	2611	0.106	ppbV	99
6) vinyl chloride	4.438	62	1192	0.107	ppbV	91
7) 1,3-butadiene	4.606	54	1040	0.101	ppbV	100
8) bromomethane	4.918	94	905	0.107	ppbV	96
9) chloroethane	5.140	64	651	0.110	ppbV	91
10) ethanol	5.320	31	14141	1.420	ppbV	99
11) vinyl bromide	5.570	106	988	0.103	ppbV	99
12) acrolein	5.727	56	702	0.133	ppbV	96
13) acetone	5.897	43	10495	0.635	ppbV #	100
14) trichlorofluoromethane	6.090	101	1433	0.102	ppbV	92
15) isopropyl alcohol	6.227	45	5897	0.281	ppbV	97
16) acrylonitrile	6.460	53	1000	0.106	ppbV	91
17) 1,1-dichloroethene	6.854	61	1444	0.103	ppbV	97
18) tertiary butyl alcohol	6.968	59	2432	0.118	ppbV #	97
19) methylene chloride	7.016	49	1538	0.125	ppbV	100
20) 3-chloropropene	7.160	41	1622	0.099	ppbV	95
21) carbon disulfide	7.310	76	3657	0.102	ppbV #	1
22) Freon 113	7.352	101	1803	0.103	ppbV	99
23) trans-1,2-dichloroethene	8.142	61	1702	0.090	ppbV	98
24) 1,1-dichloroethane	8.383	63	2257	0.104	ppbV	95

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314024_Ev2.D
 Acq On : 19 Feb 2021 6:46 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-SIMSTD0.1
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:17:44 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 08:05:58 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\r314028_Ev2.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
25) MTBE	8.492	73	3814	0.103	ppbV	#	94
26) vinyl acetate	8.600	43	3369	0.111	ppbV		98
27) 2-butanone	8.883	43	3473	0.118	ppbV	#	98
28) cis-1,2-dichloroethene	9.375	61	1636	0.103	ppbV		98
29) Ethyl Acetate	9.692	61	549	0.111	ppbV		67
30) chloroform	9.733	83	2260	0.108	ppbV	#	97
31) Tetrahydrofuran	10.208	42	2024	0.109	ppbV		95
32) 1,2-dichloroethane	10.575	62	1315	0.111	ppbV	#	91
34) hexane	9.642	57	2583	0.101	ppbV	#	71
36) 1,1,1-trichloroethane	10.867	97	1731	0.104	ppbV		97
37) benzene	11.400	78	7100	0.150	ppbV		98
38) carbon tetrachloride	11.573	117	1604	0.104	ppbV	#	96
39) cyclohexane	11.713	56	2869	0.105	ppbV		99
40) Dibromomethane	12.320	93	1369	0.121	ppbV	#	100
41) 1,2-dichloropropane	12.353	63	1765	0.116	ppbV		95
42) bromodichloromethane	12.587	83	2352	0.098	ppbV	#	98
43) 1,4-dioxane	12.653	88	1223	0.113	ppbV		93
44) trichloroethene	12.633	130	1830	0.107	ppbV		95
45) 2,2,4-trimethylpentane	12.680	57	8530	0.103	ppbV	#	96
46) heptane	13.000	43	3336	0.105	ppbV		97
47) cis-1,3-dichloropropene	14.275	75	2228	0.105	ppbV		98
48) 4-methyl-2-pentanone	13.708	43	3757	0.103	ppbV		98
49) trans-1,3-dichloropropene	13.650	75	2427	0.106	ppbV		97
50) 1,1,2-trichloroethane	14.475	97	1576	0.104	ppbV		95
52) toluene	14.783	91	7471	0.148	ppbV		99
54) 2-hexanone	15.083	43	3589	0.104	ppbV		97
55) dibromochloromethane	15.233	129	1975	0.096	ppbV		98
56) 1,2-dibromoethane	15.483	107	2484	0.106	ppbV		98
57) tetrachloroethene	15.950	166	2284	0.106	ppbV		98
58) 1,1,1,2-tetrachloroethane	16.592	131	1627	0.102	ppbV		98
59) chlorobenzene	16.608	112	4345	0.105	ppbV		98
60) ethylbenzene	16.958	91	6681	0.107	ppbV		98
61) m+p-xylene	17.117	91	10799	0.212	ppbV		100
62) bromoform	17.192	173	1784	0.090	ppbV		99
63) styrene	17.442	104	4601	0.101	ppbV		98
64) 1,1,2,2-tetrachloroethane	17.533	83	3804	0.105	ppbV		98
65) o-xylene	17.533	91	5434	0.106	ppbV		98
66) 1,2,3-Trichloropropane	17.650	75	3016	0.102	ppbV		98
68) isopropylbenzene	18.042	105	7527	0.106	ppbV		100
69) Bromobenzene	18.117	77	4083	0.105	ppbV		98

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314024_Ev2.D
 Acq On : 19 Feb 2021 6:46 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-SIMSTD0.1
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:17:44 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 08:05:58 2021
 Response via : Initial Calibration

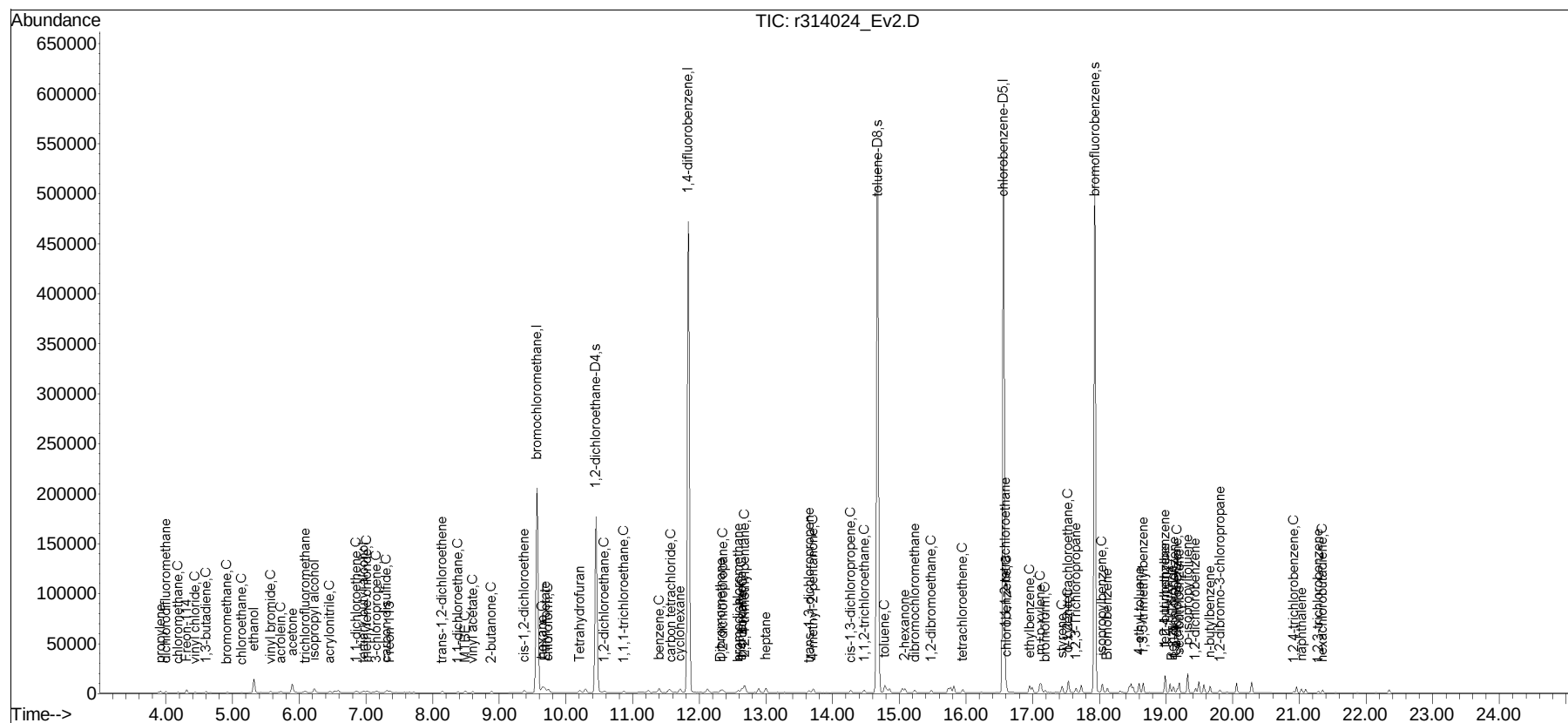
CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\r314028_Ev2.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) 4-ethyl toluene	18.600	105	7889	0.098	ppbV	97
71) 1,3,5-trimethylbenzene	18.658	105	6812	0.104	ppbV	100
72) tert-butylbenzene	18.983	119	6472	0.105	ppbV	99
73) 1,2,4-trimethylbenzene	18.983	105	6590	0.104	ppbV	97
74) Benzyl Chloride	19.100	91	3105	0.072	ppbV	100
75) 1,3-dichlorobenzene	19.117	146	3767	0.098	ppbV	98
76) 1,4-dichlorobenzene	19.167	146	3604	0.097	ppbV	96
77) sec-butylbenzene	19.200	105	9427	0.103	ppbV	99
78) p-isopropyltoluene	19.325	119	7859	0.106	ppbV	100
79) 1,2-dichlorobenzene	19.442	146	3618	0.100	ppbV	96
80) n-butylbenzene	19.658	91	6074	0.095	ppbV	98
81) 1,2-dibromo-3-chloropr...	19.808	75	1408	0.092	ppbV	95
82) 1,2,4-trichlorobenzene	20.917	180	1601	0.066	ppbV	94
83) naphthalene	21.033	128	6041	0.088	ppbV	97
84) 1,2,3-trichlorobenzene	21.283	180	2160	0.079	ppbV	95
85) hexachlorobutadiene	21.350	225	2633	0.094	ppbV	97

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

```
Data Path   : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
Data File  : r314024_Ev2.D
Acq On     : 19 Feb 2021   6:46 PM
Operator   : AIRPIANO3:AR
Sample     : IT015-SIMSTD0.1
Misc       : WG1466757
ALS Vial   : 0    Sample Multiplier: 1
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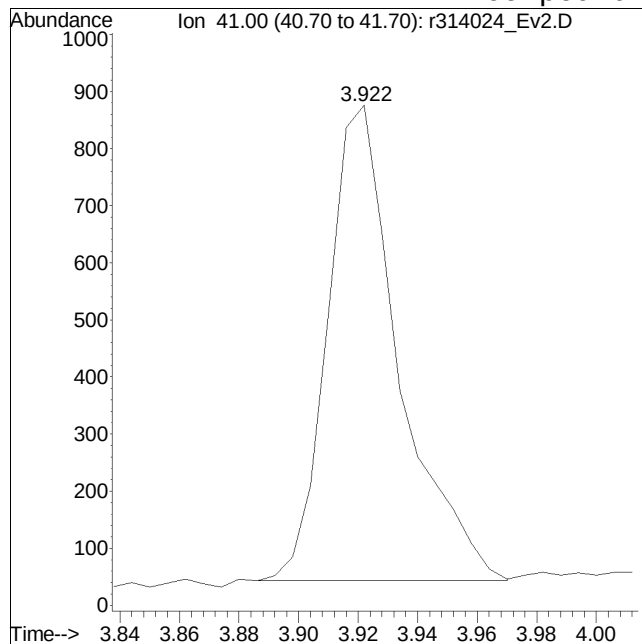
Quant Time: Feb 20 13:17:44 2021
Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Sat Feb 20 08:05:58 2021
Response via : Initial Calibration



Manual Integration/Negative Proof Report

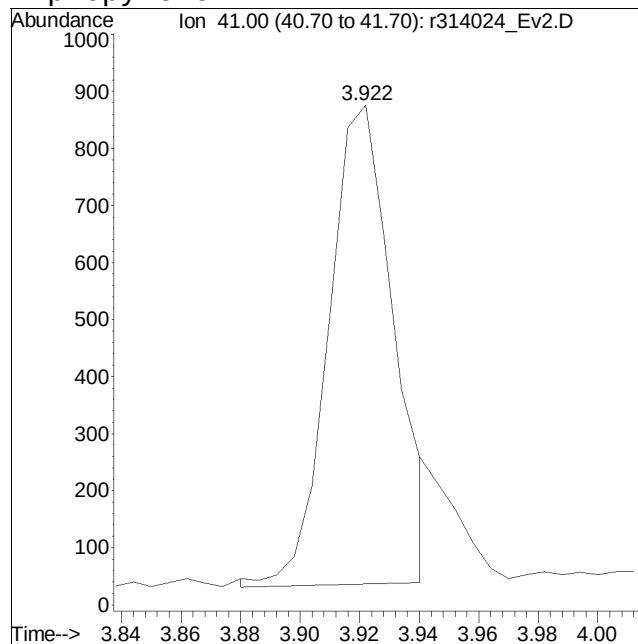
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Data File : r314024_Ev2.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:6: 6 Instrument :
Sample : IT015-SIMSTD0.1 Quant Date : 2/20/2021 8:07 am

Compound #2: propylene



Original Peak Response = 1388

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



Manual Peak Response = 1278 M6

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314025_Ev2.D
 Acq On : 19 Feb 2021 7:24 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-SIMSTD0.2
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:19:45 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 08:05:58 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\r314028_Ev2.D
 Sub List : Default - All compounds listed

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

Internal Standards						
1) bromochloromethane	9.567	49	227759	10.000	ppbV	0.00
Standard Area = 228008			Recovery =		99.89%	
33) 1,4-difluorobenzene	11.833	114	636491	10.000	ppbV	0.00
Standard Area = 639167			Recovery =		99.58%	
51) chlorobenzene-D5	16.558	54	98672	10.000	ppbV	0.00
Standard Area = 98211			Recovery =		100.47%	
System Monitoring Compounds						
35) 1,2-dichloroethane-D4	10.450	65	139523	9.932	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		99.32%	
53) toluene-D8	14.675	98	605129	9.739	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		97.39%	
67) bromofluorobenzene	17.933	95	399953	9.665	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		96.65%	
Target Compounds						
					Qvalue	
2) propylene	3.916	41	2595M6	0.231	ppbV	
3) dichlorodifluoromethane	4.000	85	4005	0.222	ppbV	98
4) chloromethane	4.180	50	2181	0.226	ppbV	96
5) Freon-114	4.306	85	5516	0.221	ppbV	98
6) vinyl chloride	4.438	62	2494	0.222	ppbV	96
7) 1,3-butadiene	4.600	54	2303	0.221	ppbV	95
8) bromomethane	4.918	94	1912	0.225	ppbV	99
9) chloroethane	5.140	64	1366	0.228	ppbV	95
10) ethanol	5.317	31	13679	1.361	ppbV	99
11) vinyl bromide	5.567	106	2125	0.219	ppbV	98
12) acrolein	5.727	56	1283	0.241	ppbV	96
13) acetone	5.890	43	19539	1.172	ppbV #	100
14) trichlorofluoromethane	6.087	101	3032	0.213	ppbV	97
15) isopropyl alcohol	6.223	45	11804	0.557	ppbV	99
16) acrylonitrile	6.457	53	2054	0.216	ppbV	99
17) 1,1-dichloroethene	6.854	61	3052	0.216	ppbV	98
18) tertiary butyl alcohol	6.962	59	4720	0.228	ppbV	97
19) methylene chloride	7.016	49	2890	0.233	ppbV	99
20) 3-chloropropene	7.160	41	3572	0.215	ppbV	99
21) carbon disulfide	7.310	76	7879	0.217	ppbV #	49
22) Freon 113	7.352	101	3931	0.222	ppbV	99
23) trans-1,2-dichloroethene	8.142	61	4180	0.220	ppbV	96
24) 1,1-dichloroethane	8.383	63	4788	0.220	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314025_Ev2.D
 Acq On : 19 Feb 2021 7:24 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-SIMSTD0.2
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:19:45 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 08:05:58 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\r314028_Ev2.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) MTBE	8.483	73	8127	0.217	ppbV	97
26) vinyl acetate	8.600	43	6655	0.217	ppbV	99
27) 2-butanone	8.883	43	6669	0.225	ppbV	99
28) cis-1,2-dichloroethene	9.375	61	3605	0.224	ppbV	99
29) Ethyl Acetate	9.692	61	1228	0.246	ppbV	72
30) chloroform	9.733	83	4649	0.221	ppbV	98
31) Tetrahydrofuran	10.200	42	4020	0.215	ppbV	98
32) 1,2-dichloroethane	10.575	62	2625	0.220	ppbV	96
34) hexane	9.642	57	5686	0.222	ppbV #	75
36) 1,1,1-trichloroethane	10.867	97	3710	0.223	ppbV	98
37) benzene	11.393	78	11851	0.250	ppbV	98
38) carbon tetrachloride	11.573	117	3383	0.218	ppbV	97
39) cyclohexane	11.713	56	6133	0.223	ppbV	98
40) Dibromomethane	12.320	93	2848	0.251	ppbV #	99
41) 1,2-dichloropropane	12.353	63	3465	0.227	ppbV	96
42) bromodichloromethane	12.580	83	5092	0.213	ppbV	100
43) 1,4-dioxane	12.653	88	2429	0.225	ppbV	91
44) trichloroethene	12.633	130	3775	0.220	ppbV	98
45) 2,2,4-trimethylpentane	12.680	57	18204M6	0.219	ppbV	
46) heptane	13.000	43	6958	0.218	ppbV	95
47) cis-1,3-dichloropropene	14.267	75	4631	0.219	ppbV	99
48) 4-methyl-2-pentanone	13.700	43	7760	0.212	ppbV	98
49) trans-1,3-dichloropropene	13.650	75	4992	0.217	ppbV	98
50) 1,1,2-trichloroethane	14.475	97	3395	0.223	ppbV	99
52) toluene	14.783	91	12165	0.243	ppbV	99
54) 2-hexanone	15.083	43	6727	0.197	ppbV	100
55) dibromochloromethane	15.233	129	4223	0.206	ppbV	99
56) 1,2-dibromoethane	15.483	107	5103	0.219	ppbV	99
57) tetrachloroethene	15.950	166	4695	0.220	ppbV	98
58) 1,1,1,2-tetrachloroethane	16.592	131	3476	0.219	ppbV	98
59) chlorobenzene	16.600	112	8995	0.220	ppbV	95
60) ethylbenzene	16.958	91	13577	0.219	ppbV	99
61) m+p-xylene	17.117	91	22234	0.441	ppbV	98
62) bromoform	17.192	173	3830	0.194	ppbV	99
63) styrene	17.442	104	9390	0.208	ppbV	99
64) 1,1,2,2-tetrachloroethane	17.533	83	7775	0.217	ppbV	99
65) o-xylene	17.533	91	11255	0.222	ppbV	99
66) 1,2,3-Trichloropropane	17.650	75	6083	0.208	ppbV	99
68) isopropylbenzene	18.042	105	15404	0.218	ppbV	100
69) Bromobenzene	18.117	77	8309	0.215	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314025_Ev2.D
 Acq On : 19 Feb 2021 7:24 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-SIMSTD0.2
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:19:45 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 08:05:58 2021
 Response via : Initial Calibration

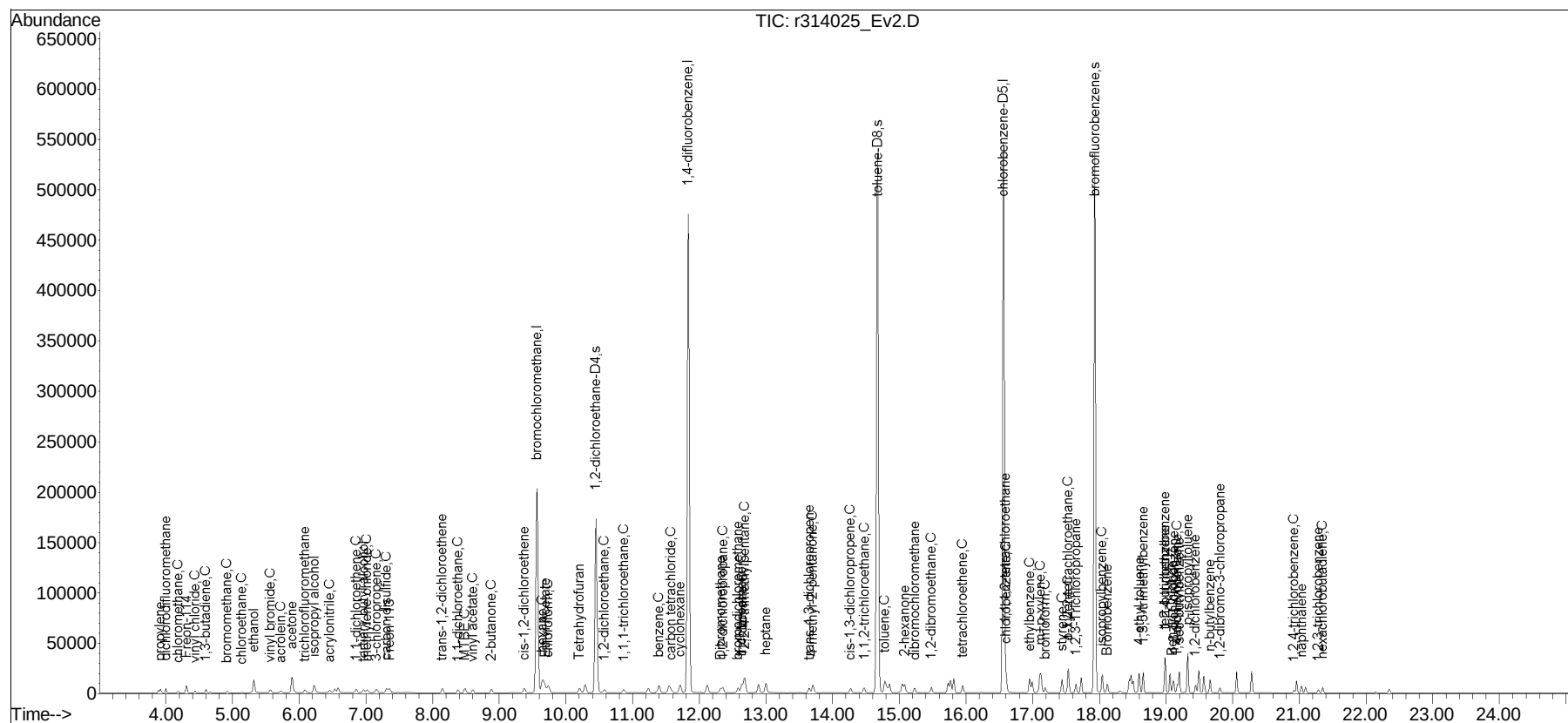
CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\r314028_Ev2.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) 4-ethyl toluene	18.600	105	16624	0.207	ppbV	97
71) 1,3,5-trimethylbenzene	18.658	105	13971	0.214	ppbV	99
72) tert-butylbenzene	18.983	119	13528	0.222	ppbV	99
73) 1,2,4-trimethylbenzene	18.983	105	13343	0.212	ppbV	96
74) Benzyl Chloride	19.100	91	6387	0.148	ppbV	98
75) 1,3-dichlorobenzene	19.117	146	7563	0.199	ppbV	99
76) 1,4-dichlorobenzene	19.167	146	7180	0.194	ppbV	97
77) sec-butylbenzene	19.200	105	19676	0.217	ppbV	99
78) p-isopropyltoluene	19.325	119	16304	0.223	ppbV	98
79) 1,2-dichlorobenzene	19.442	146	7019	0.195	ppbV	97
80) n-butylbenzene	19.658	91	12668	0.199	ppbV	96
81) 1,2-dibromo-3-chloropr...	19.808	75	2752	0.180	ppbV	95
82) 1,2,4-trichlorobenzene	20.917	180	3267	0.136	ppbV	96
83) naphthalene	21.033	128	11137	0.163	ppbV	99
84) 1,2,3-trichlorobenzene	21.283	180	3958	0.146	ppbV	98
85) hexachlorobutadiene	21.350	225	5145	0.184	ppbV	99

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

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Data Path   : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
Data File  : r314025_Ev2.D
Acq On     : 19 Feb 2021    7:24 PM
Operator   : AIRPIANO3:AR
Sample     : IT015-SIMSTD0.2
Misc       : WG1466757
ALS Vial   : 0    Sample Multiplier: 1
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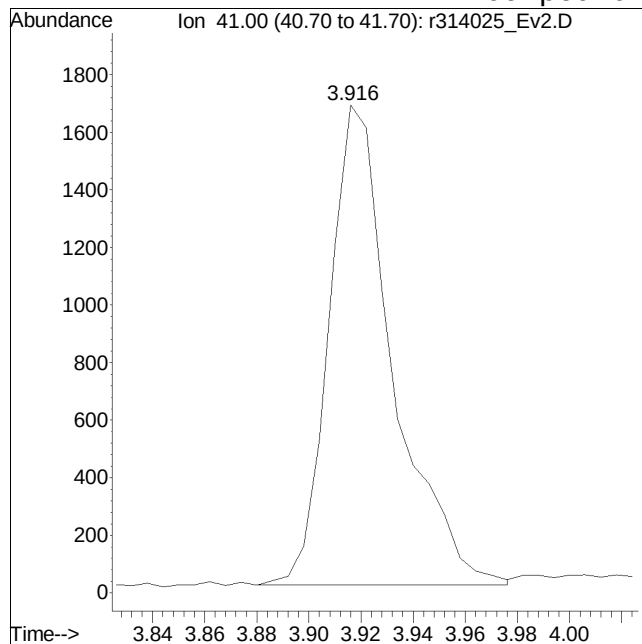
Quant Time: Feb 20 13:19:45 2021
Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Sat Feb 20 08:05:58 2021
Response via : Initial Calibration



Manual Integration/Negative Proof Report

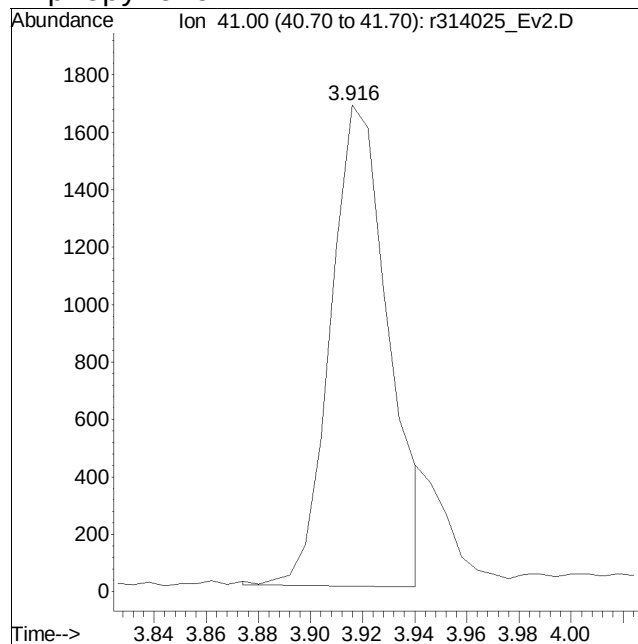
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Data File : r314025_Ev2.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:7: 4 Instrument :
Sample : IT015-SIMSTD0.2 Quant Date : 2/20/2021 8:07 am

Compound #2: propylene



Original Peak Response = 2857

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

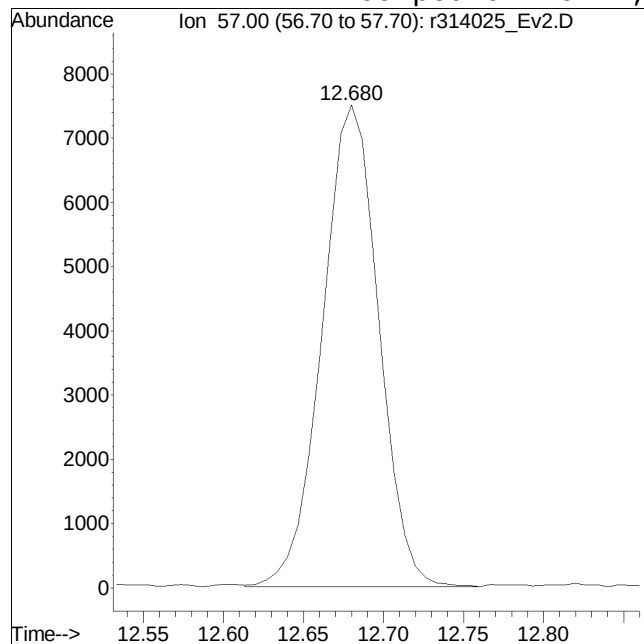


Manual Peak Response = 2595 M6

Manual Integration/Negative Proof Report

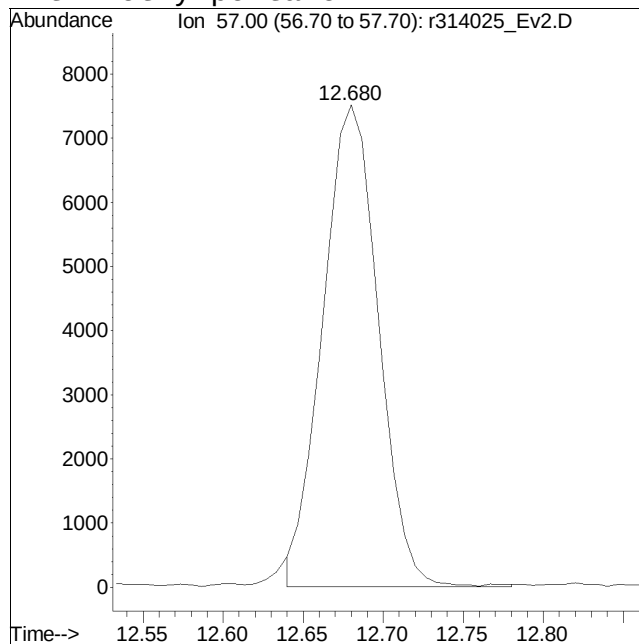
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TSIM3_210219.M
 Data File : r314025_Ev2.D Operator : AIRPIAN03:AR
 Date Inj'd : 2/19/2020 0:7: 4 Instrument :
 Sample : IT015-SIMSTD0.2 Quant Date : 2/20/2021 8:07 am

Compound #45: 2,2,4-trimethylpentane



Original Peak Response = 18404

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



Manual Peak Response = 18204 M6

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314026_Ev2.D
 Acq On : 19 Feb 2021 8:04 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-SIMSTD0.5
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:21:10 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 08:05:58 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\r314028_Ev2.D
 Sub List : Default - All compounds listed

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

Internal Standards						
1) bromochloromethane	9.567	49	223088	10.000	ppbV	0.00
Standard Area = 228008			Recovery =		97.84%	
33) 1,4-difluorobenzene	11.833	114	632245	10.000	ppbV	0.00
Standard Area = 639167			Recovery =		98.92%	
51) chlorobenzene-D5	16.558	54	99681	10.000	ppbV	0.00
Standard Area = 98211			Recovery =		101.50%	
System Monitoring Compounds						
35) 1,2-dichloroethane-D4	10.450	65	140819	10.091	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		100.91%	
53) toluene-D8	14.675	98	611605	9.744	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		97.44%	
67) bromofluorobenzene	17.933	95	405913	9.709	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		97.09%	
Target Compounds						
					Qvalue	
2) propylene	3.922	41	6181M6	0.562	ppbV	
3) dichlorodifluoromethane	4.000	85	10031	0.567	ppbV	99
4) chloromethane	4.180	50	5359	0.567	ppbV	99
5) Freon-114	4.306	85	13710	0.561	ppbV	99
6) vinyl chloride	4.438	62	6062	0.551	ppbV	99
7) 1,3-butadiene	4.606	54	5687	0.557	ppbV	100
8) bromomethane	4.918	94	4657	0.558	ppbV	100
9) chloroethane	5.140	64	3322	0.567	ppbV	96
10) ethanol	5.317	31	36439	3.701	ppbV	99
11) vinyl bromide	5.570	106	5244	0.553	ppbV	98
12) acrolein	5.723	56	2956	0.566	ppbV	97
13) acetone	5.887	43	47547	2.912	ppbV	98
14) trichlorofluoromethane	6.087	101	7877	0.566	ppbV	98
15) isopropyl alcohol	6.217	45	29425	1.418	ppbV	100
16) acrylonitrile	6.460	53	5102	0.548	ppbV	98
17) 1,1-dichloroethene	6.854	61	7705	0.557	ppbV	99
18) tertiary butyl alcohol	6.956	59	11552	0.569	ppbV	99
19) methylene chloride	7.022	49	6854	0.565	ppbV	99
20) 3-chloropropene	7.160	41	8897	0.547	ppbV	99
21) carbon disulfide	7.310	76	19589	0.551	ppbV #	81
22) Freon 113	7.352	101	9671	0.559	ppbV	99
23) trans-1,2-dichloroethene	8.150	61	10347	0.555	ppbV	99
24) 1,1-dichloroethane	8.383	63	11894	0.557	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314026_Ev2.D
 Acq On : 19 Feb 2021 8:04 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-SIMSTD0.5
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:21:10 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 08:05:58 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\r314028_Ev2.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) MTBE	8.483	73	20341	0.554	ppbV	99
26) vinyl acetate	8.600	43	16752	0.557	ppbV	99
27) 2-butanone	8.875	43	16212	0.560	ppbV	99
28) cis-1,2-dichloroethene	9.375	61	8790	0.558	ppbV	98
29) Ethyl Acetate	9.692	61	2651	0.541	ppbV	72
30) chloroform	9.733	83	11716	0.568	ppbV	100
31) Tetrahydrofuran	10.200	42	10033	0.547	ppbV	96
32) 1,2-dichloroethane	10.575	62	6593	0.564	ppbV	99
34) hexane	9.642	57	14039	0.552	ppbV	82
36) 1,1,1-trichloroethane	10.867	97	9128	0.552	ppbV	99
37) benzene	11.400	78	27873	0.591	ppbV	100
38) carbon tetrachloride	11.573	117	8252	0.536	ppbV	99
39) cyclohexane	11.713	56	14942	0.548	ppbV	100
40) Dibromomethane	12.320	93	6498	0.576	ppbV #	99
41) 1,2-dichloropropane	12.353	63	8484	0.559	ppbV	97
42) bromodichloromethane	12.587	83	12846	0.540	ppbV	100
43) 1,4-dioxane	12.647	88	5859	0.545	ppbV	96
44) trichloroethene	12.633	130	9623	0.565	ppbV	98
45) 2,2,4-trimethylpentane	12.680	57	44783M6	0.542	ppbV	
46) heptane	13.000	43	17216	0.542	ppbV	99
47) cis-1,3-dichloropropene	14.267	75	11332	0.538	ppbV	99
48) 4-methyl-2-pentanone	13.700	43	19469	0.536	ppbV	99
49) trans-1,3-dichloropropene	13.650	75	12375	0.541	ppbV	99
50) 1,1,2-trichloroethane	14.475	97	8337	0.551	ppbV	99
52) toluene	14.783	91	29339	0.579	ppbV	100
54) 2-hexanone	15.075	43	17101	0.496	ppbV	99
55) dibromochloromethane	15.233	129	10382	0.501	ppbV	99
56) 1,2-dibromoethane	15.483	107	12586	0.535	ppbV	100
57) tetrachloroethene	15.950	166	11578	0.537	ppbV	98
58) 1,1,1,2-tetrachloroethane	16.592	131	8401	0.524	ppbV	99
59) chlorobenzene	16.608	112	22233	0.538	ppbV	99
60) ethylbenzene	16.958	91	33588	0.537	ppbV	99
61) m+p-xylene	17.117	91	55327	1.087	ppbV	98
62) bromoform	17.192	173	9560	0.480	ppbV	99
63) styrene	17.442	104	23823	0.521	ppbV	99
64) 1,1,2,2-tetrachloroethane	17.533	83	19379	0.535	ppbV	100
65) o-xylene	17.533	91	27876	0.543	ppbV	99
66) 1,2,3-Trichloropropane	17.650	75	15763	0.534	ppbV	99
68) isopropylbenzene	18.042	105	38161	0.535	ppbV	100
69) Bromobenzene	18.117	77	20812	0.532	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314026_Ev2.D
 Acq On : 19 Feb 2021 8:04 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-SIMSTD0.5
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:21:10 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 08:05:58 2021
 Response via : Initial Calibration

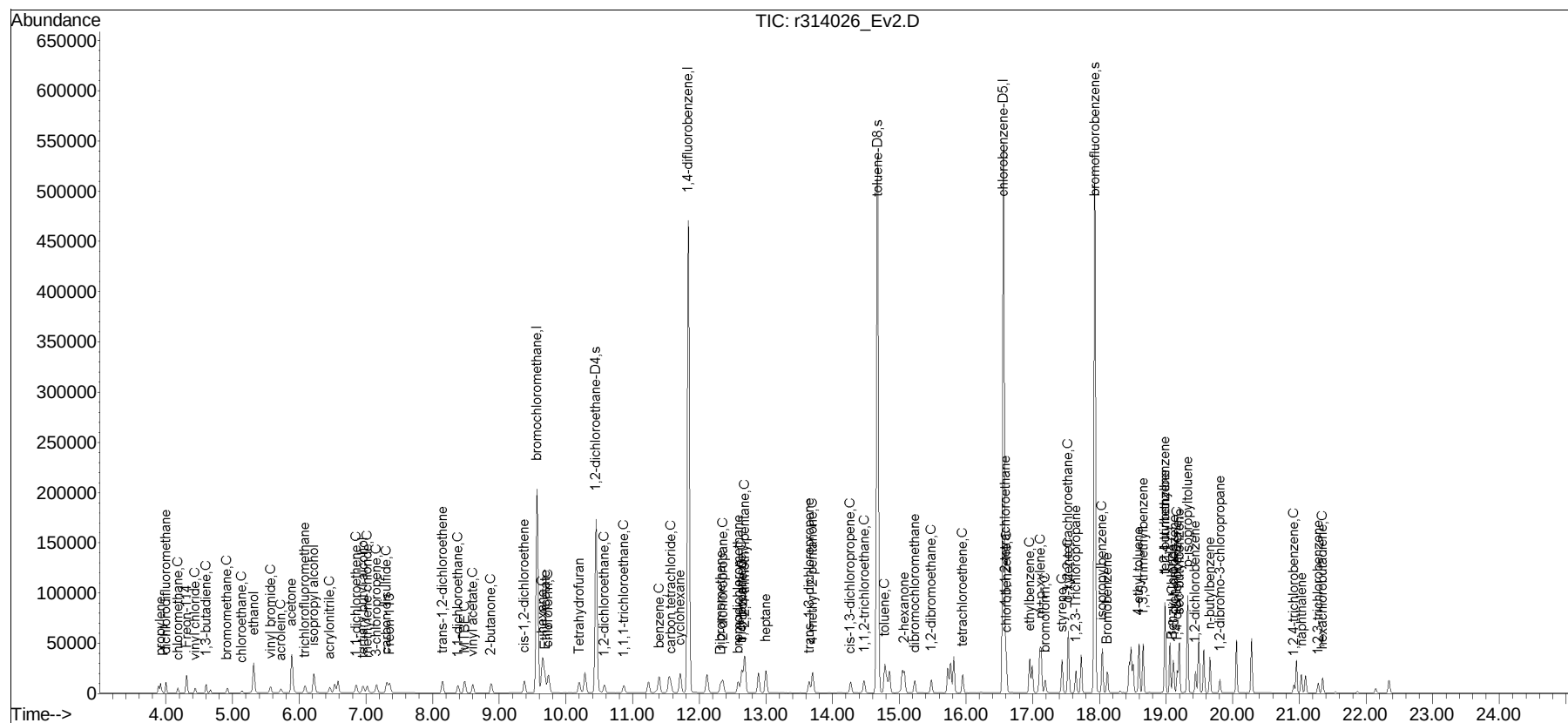
CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\r314028_Ev2.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) 4-ethyl toluene	18.592	105	41539	0.513	ppbV	100
71) 1,3,5-trimethylbenzene	18.658	105	34844	0.529	ppbV	100
72) tert-butylbenzene	18.983	119	33653	0.547	ppbV	99
73) 1,2,4-trimethylbenzene	18.983	105	33150	0.522	ppbV	98
74) Benzyl Chloride	19.100	91	17040	0.392	ppbV	99
75) 1,3-dichlorobenzene	19.117	146	19524	0.509	ppbV	100
76) 1,4-dichlorobenzene	19.167	146	18557	0.497	ppbV	100
77) sec-butylbenzene	19.200	105	49171	0.536	ppbV	99
78) p-isopropyltoluene	19.325	119	40257	0.544	ppbV	99
79) 1,2-dichlorobenzene	19.442	146	18381	0.506	ppbV	100
80) n-butylbenzene	19.658	91	32647	0.508	ppbV	98
81) 1,2-dibromo-3-chloropr...	19.808	75	7137	0.463	ppbV	97
82) 1,2,4-trichlorobenzene	20.917	180	8998	0.371	ppbV	99
83) naphthalene	21.033	128	28604	0.416	ppbV	100
84) 1,2,3-trichlorobenzene	21.283	180	11092	0.406	ppbV	99
85) hexachlorobutadiene	21.350	225	13431	0.476	ppbV	99

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

```
Data Path   : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
Data File  : r314026_Ev2.D
Acq On     : 19 Feb 2021    8:04 PM
Operator   : AIRPIANO3:AR
Sample     : IT015-SIMSTD0.5
Misc       : WG1466757
ALS Vial   : 0    Sample Multiplier: 1
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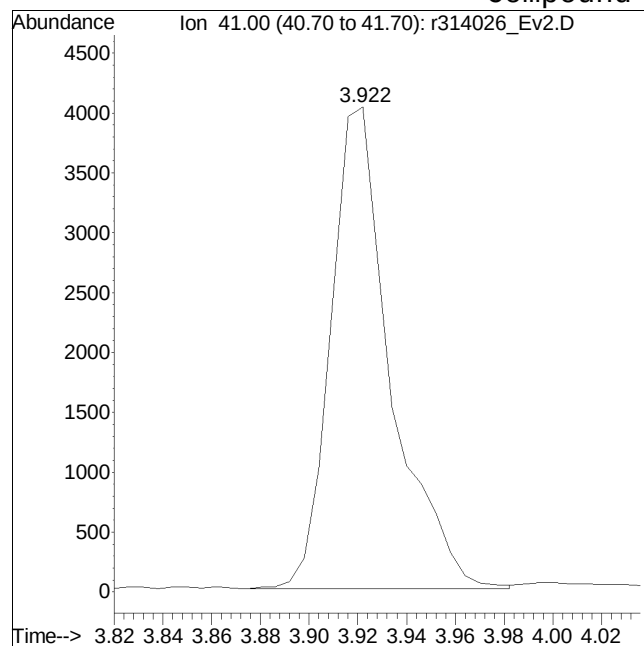
Quant Time: Feb 20 13:21:10 2021
Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Sat Feb 20 08:05:58 2021
Response via : Initial Calibration



Manual Integration/Negative Proof Report

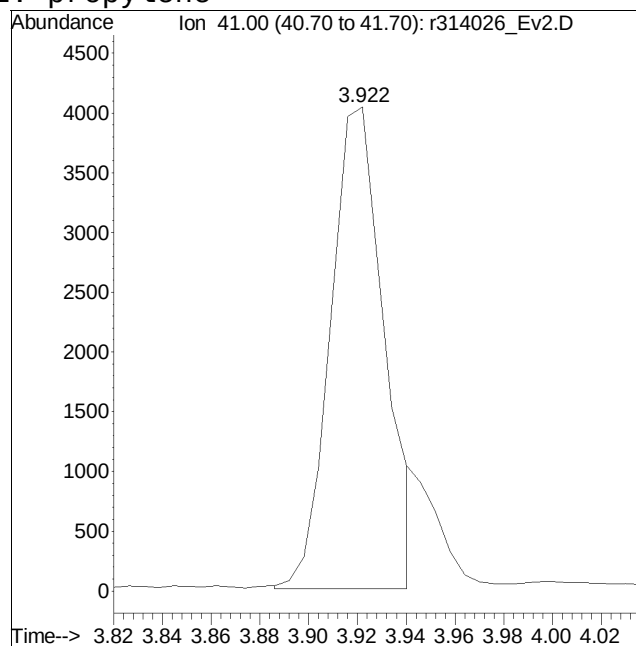
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TSIM3_210219.M
Data File : r314026_Ev2.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:8: 4 Instrument :
Sample : IT015-SIMSTD0.5 Quant Date : 2/20/2021 8:07 am

Compound #2: propylene



Original Peak Response = 6906

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

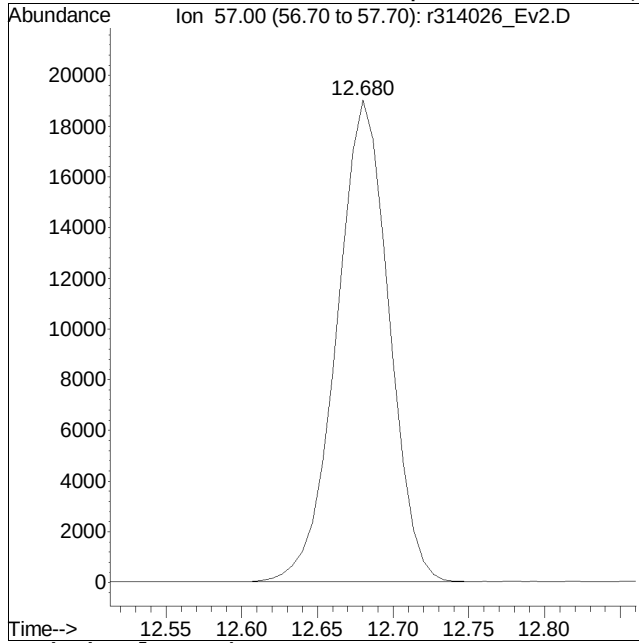


Manual Peak Response = 6181 M6

Manual Integration/Negative Proof Report

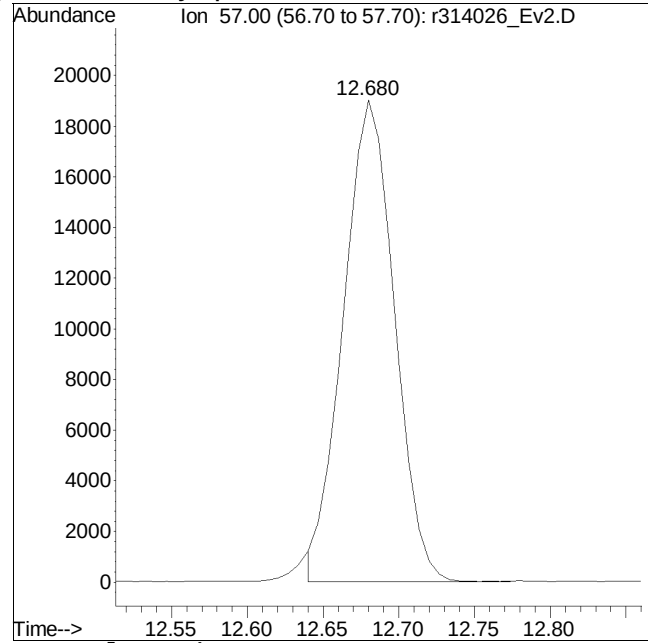
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TSIM3_210219.M
Data File : r314026_Ev2.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:8: 4 Instrument :
Sample : IT015-SIMSTD0.5 Quant Date : 2/20/2021 8:07 am

Compound #45: 2,2,4-trimethylpentane



Original Peak Response = 45572

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



Manual Peak Response = 44783 M6

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314027_Ev2.D
 Acq On : 19 Feb 2021 8:46 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-SIMSTD1.0
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:24:22 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 08:05:58 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\r314028_Ev2.D
 Sub List : Default - All compounds listed

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

Internal Standards						
1) bromochloromethane	9.567	49	225210	10.000	ppbV	0.00
Standard Area = 228008			Recovery =	98.77%		
33) 1,4-difluorobenzene	11.840	114	632382	10.000	ppbV	0.00
Standard Area = 639167			Recovery =	98.94%		
51) chlorobenzene-D5	16.558	54	100229	10.000	ppbV	0.00
Standard Area = 98211			Recovery =	102.05%		
System Monitoring Compounds						
35) 1,2-dichloroethane-D4	10.450	65	141887	10.165	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	101.65%		
53) toluene-D8	14.675	98	613560	9.722	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	97.22%		
67) bromofluorobenzene	17.933	95	410177	9.758	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	97.58%		
Target Compounds						
					Qvalue	
2) propylene	3.916	41	11779M6	1.061	ppbV	
3) dichlorodifluoromethane	4.000	85	19824	1.111	ppbV	100
4) chloromethane	4.180	50	10679	1.119	ppbV	99
5) Freon-114	4.306	85	27324	1.108	ppbV	99
6) vinyl chloride	4.438	62	12241	1.102	ppbV	99
7) 1,3-butadiene	4.600	54	11235	1.089	ppbV	96
8) bromomethane	4.918	94	9404	1.117	ppbV	100
9) chloroethane	5.140	64	6536	1.105	ppbV	100
10) ethanol	5.310	31	63605	6.400	ppbV	99
11) vinyl bromide	5.567	106	10543	1.101	ppbV	99
12) acrolein	5.723	56	5983	1.135	ppbV	100
13) acetone	5.883	43	95128	5.770	ppbV	100
14) trichlorofluoromethane	6.087	101	15646	1.113	ppbV	99
15) isopropyl alcohol	6.210	45	58825	2.807	ppbV	100
16) acrylonitrile	6.457	53	10363	1.102	ppbV	98
17) 1,1-dichloroethene	6.854	61	15483	1.109	ppbV	99
18) tertiary butyl alcohol	6.944	59	22669	1.105	ppbV	99
19) methylene chloride	7.016	49	13692	1.118	ppbV	99
20) 3-chloropropene	7.160	41	17745	1.081	ppbV	100
21) carbon disulfide	7.310	76	39312	1.095	ppbV #	92
22) Freon 113	7.352	101	19396	1.110	ppbV	100
23) trans-1,2-dichloroethene	8.150	61	18718	0.995	ppbV	99
24) 1,1-dichloroethane	8.383	63	23934	1.110	ppbV	100

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314027_Ev2.D
 Acq On : 19 Feb 2021 8:46 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-SIMSTD1.0
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:24:22 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 08:05:58 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\r314028_Ev2.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) MTBE	8.475	73	40757	1.099	ppbV	100
26) vinyl acetate	8.600	43	33608	1.107	ppbV	100
27) 2-butanone	8.875	43	32508	1.111	ppbV	99
28) cis-1,2-dichloroethene	9.375	61	17664	1.110	ppbV	99
29) Ethyl Acetate	9.683	61	5458	1.104	ppbV	87
30) chloroform	9.733	83	23327	1.120	ppbV	100
31) Tetrahydrofuran	10.192	42	20199	1.091	ppbV	97
32) 1,2-dichloroethane	10.575	62	13078	1.108	ppbV	99
34) hexane	9.642	57	27982	1.099	ppbV	88
36) 1,1,1-trichloroethane	10.867	97	18239	1.103	ppbV	99
37) benzene	11.400	78	54030	1.146	ppbV	99
38) carbon tetrachloride	11.573	117	16834	1.093	ppbV	99
39) cyclohexane	11.713	56	29763	1.091	ppbV	99
40) Dibromomethane	12.320	93	12814	1.136	ppbV #	99
41) 1,2-dichloropropane	12.353	63	16810	1.108	ppbV	98
42) bromodichloromethane	12.587	83	25663	1.078	ppbV	99
43) 1,4-dioxane	12.640	88	11554	1.075	ppbV	99
44) trichloroethene	12.633	130	19007	1.115	ppbV	100
45) 2,2,4-trimethylpentane	12.680	57	87316M6	1.058	ppbV	
46) heptane	13.000	43	34535	1.088	ppbV	99
47) cis-1,3-dichloropropene	14.275	75	22644	1.076	ppbV	97
48) 4-methyl-2-pentanone	13.692	43	39229	1.080	ppbV	100
49) trans-1,3-dichloropropene	13.650	75	24791	1.084	ppbV	100
50) 1,1,2-trichloroethane	14.475	97	16691	1.102	ppbV	99
52) toluene	14.783	91	56460	1.109	ppbV	100
54) 2-hexanone	15.075	43	35249	1.016	ppbV	99
55) dibromochloromethane	15.233	129	21163	1.017	ppbV	100
56) 1,2-dibromoethane	15.483	107	25006	1.056	ppbV	100
57) tetrachloroethene	15.950	166	23148	1.067	ppbV	98
58) 1,1,1,2-tetrachloroethane	16.592	131	16874	1.047	ppbV	100
59) chlorobenzene	16.608	112	44297	1.066	ppbV	99
60) ethylbenzene	16.958	91	67302	1.070	ppbV	99
61) m+p-xylene	17.117	91	110734	2.163	ppbV	99
62) bromoform	17.192	173	19397	0.969	ppbV	100
63) styrene	17.442	104	48162	1.049	ppbV	99
64) 1,1,2,2-tetrachloroethane	17.533	83	39149	1.075	ppbV	100
65) o-xylene	17.533	91	56045	1.086	ppbV	98
66) 1,2,3-Trichloropropane	17.650	75	31711	1.068	ppbV	99
68) isopropylbenzene	18.042	105	77111	1.075	ppbV	100
69) Bromobenzene	18.117	77	42153	1.072	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314027_Ev2.D
 Acq On : 19 Feb 2021 8:46 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-SIMSTD1.0
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:24:22 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 08:05:58 2021
 Response via : Initial Calibration

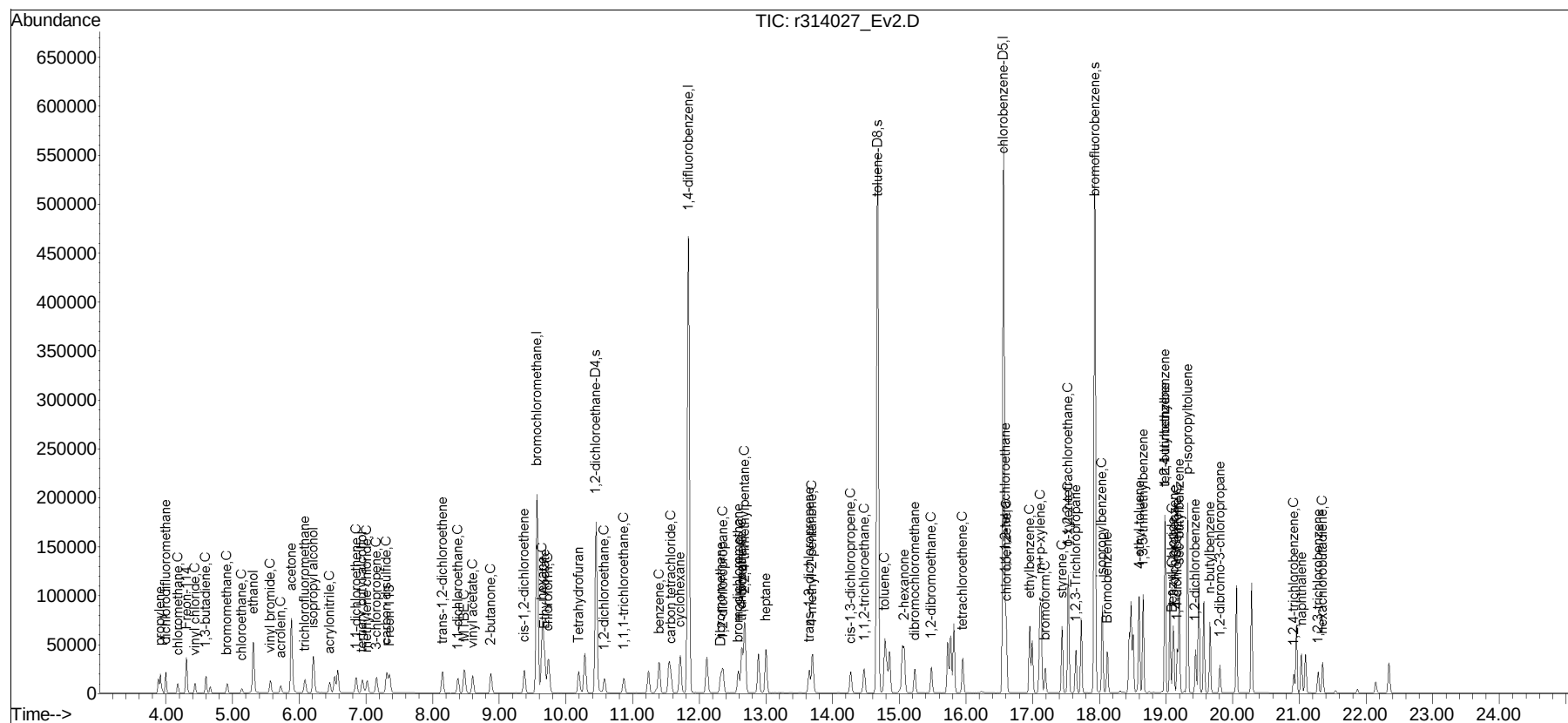
CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\r314028_Ev2.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) 4-ethyl toluene	18.600	105	85733	1.052	ppbV	97
71) 1,3,5-trimethylbenzene	18.658	105	70691	1.068	ppbV	99
72) tert-butylbenzene	18.983	119	67286	1.088	ppbV	100
73) 1,2,4-trimethylbenzene	18.983	105	67920	1.063	ppbV	98
74) Benzyl Chloride	19.100	91	39008	0.892	ppbV	99
75) 1,3-dichlorobenzene	19.117	146	40038	1.038	ppbV	99
76) 1,4-dichlorobenzene	19.167	146	38612	1.028	ppbV	99
77) sec-butylbenzene	19.200	105	99803	1.082	ppbV	99
78) p-isopropyltoluene	19.325	119	81142	1.091	ppbV	99
79) 1,2-dichlorobenzene	19.442	146	37879	1.036	ppbV	99
80) n-butylbenzene	19.658	91	67384	1.043	ppbV	97
81) 1,2-dibromo-3-chloropr...	19.808	75	15002	0.968	ppbV	98
82) 1,2,4-trichlorobenzene	20.917	180	20868	0.856	ppbV	99
83) naphthalene	21.033	128	61337	0.886	ppbV	100
84) 1,2,3-trichlorobenzene	21.283	180	24369	0.886	ppbV	100
85) hexachlorobutadiene	21.350	225	28063	0.990	ppbV	99

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


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Data Path   : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
Data File  : r314027_Ev2.D
Acq On     : 19 Feb 2021    8:46 PM
Operator   : AIRPIANO3:AR
Sample     : IT015-SIMSTD1.0
Misc       : WG1466757
ALS Vial   : 0    Sample Multiplier: 1
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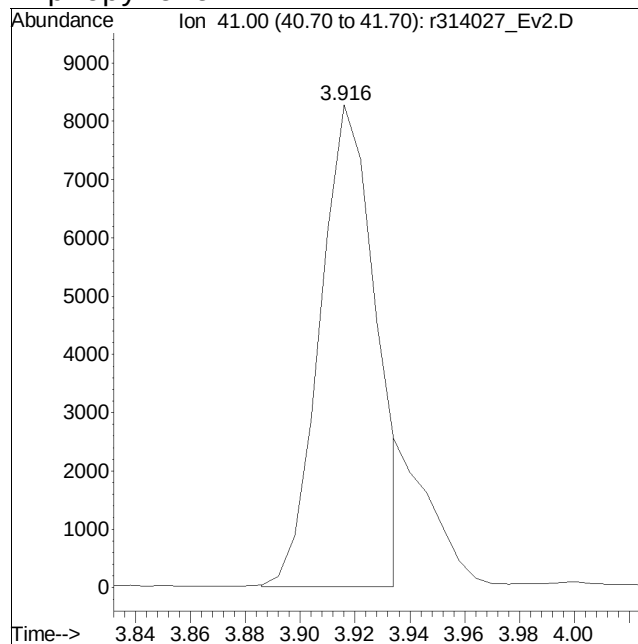
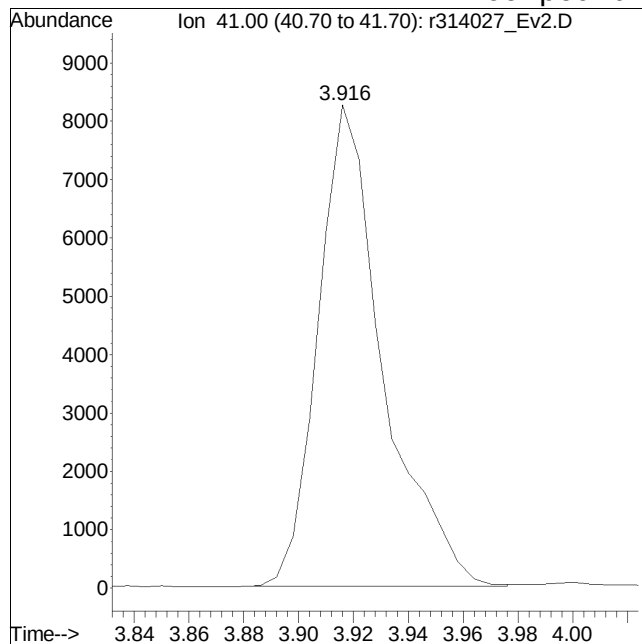
Quant Time: Feb 20 13:24:22 2021
Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Sat Feb 20 08:05:58 2021
Response via : Initial Calibration



Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\Airpiano3QMethod : TSIM3_210219.M
 Data File : r314027_Ev2.D Operator : AIRPIAN03:AR
 Date Inj'd : 2/19/2020 0:8: 6 Instrument :
 Sample : IT015-SIMSTD1.0 Quant Date : 2/20/2021 8:07 am

Compound #2: propylene



Original Peak Response = 13593

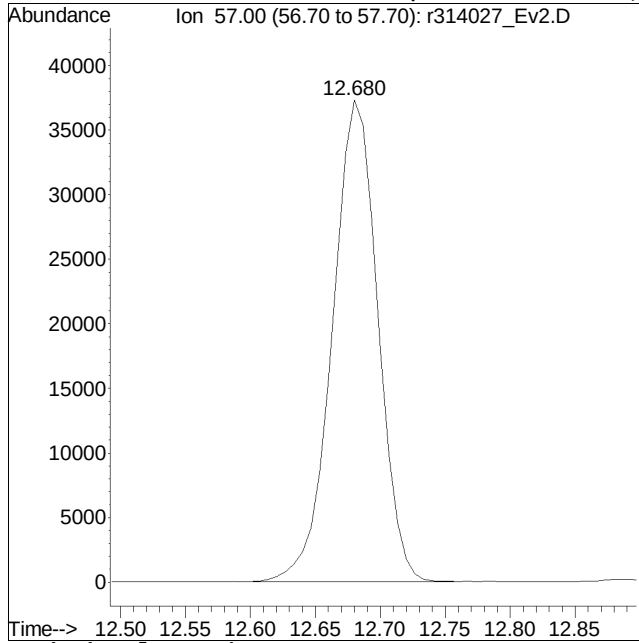
Manual Peak Response = 11779 M6

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

Manual Integration/Negative Proof Report

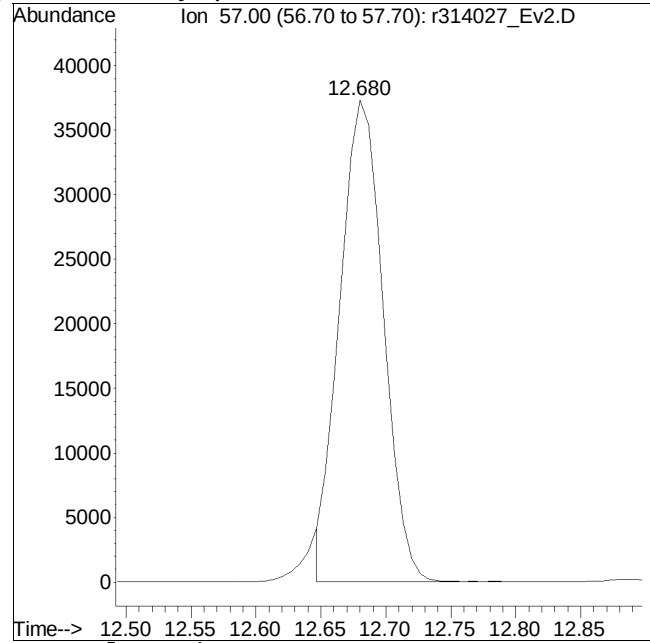
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Data File : r314027_Ev2.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:8: 6 Instrument :
Sample : IT015-SIMSTD1.0 Quant Date : 2/20/2021 8:07 am

Compound #45: 2,2,4-trimethylpentane



Original Peak Response = 90649

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



Manual Peak Response = 87316 M6

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314028_Ev2.D
 Acq On : 19 Feb 2021 9:25 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-SIMSTD5.0
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 08:05:21 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sun Feb 14 07:48:08 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\r314028_Ev2.D
 Sub List : Default - All compounds listed

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

Internal Standards						
1) bromochloromethane	9.567	49	228008	10.000	ppbV	# 0.02
Standard Area = 228008			Recovery =	100.00%		
33) 1,4-difluorobenzene	11.840	114	639167	10.000	ppbV	0.03
Standard Area = 639167			Recovery =	100.00%		
51) chlorobenzene-D5	16.558	54	98211	10.000	ppbV	# 0.00
Standard Area = 98211			Recovery =	100.00%		
System Monitoring Compounds						
35) 1,2-dichloroethane-D4	10.450	65	141075	7.384	ppbV	0.02
Spiked Amount 10.000	Range 70 - 130		Recovery =	73.84%		
53) toluene-D8	14.675	98	618426	7.643	ppbV	0.02
Spiked Amount 10.000	Range 70 - 130		Recovery =	76.43%		
67) bromofluorobenzene	17.933	95	411900	7.900	ppbV	0.02
Spiked Amount 10.000	Range 70 - 130		Recovery =	79.00%		
Target Compounds						
						Qvalue
2) propylene	3.916	41	56200M6	2.868	ppbV	
3) dichlorodifluoromethane	4.000	85	90360	3.653	ppbV	97
4) chloromethane	4.180	50	48322	4.486	ppbV	100
5) Freon-114	4.306	85	124863	3.746	ppbV #	85
6) vinyl chloride	4.438	62	56255	3.112	ppbV	96
7) 1,3-butadiene	4.606	54	52221	4.213	ppbV #	54
8) bromomethane	4.918	94	42628	3.166	ppbV	94
9) chloroethane	5.140	64	29952	2.902	ppbV #	85
10) ethanol	5.310	31	251562	19.207	ppbV	88
11) vinyl bromide	5.570	106	48488	2.843	ppbV	97
12) acrolein	5.720	56	26673	3.723	ppbV	97
13) acetone	5.877	43	417251	14.974	ppbV #	85
14) trichlorofluoromethane	6.087	101	71154	2.714	ppbV	98
15) isopropyl alcohol	6.203	45	265177	8.527	ppbV	100
16) acrylonitrile	6.457	53	47596	4.358	ppbV	100
17) 1,1-dichloroethene	6.854	61	70658	3.206	ppbV	96
18) tertiary butyl alcohol	6.932	59	103811	3.379	ppbV	93
19) methylene chloride	7.022	49	62019	4.294	ppbV	90
20) 3-chloropropene	7.160	41	83113	2.885	ppbV	92
21) carbon disulfide	7.316	76	181682	3.293	ppbV	95
22) Freon 113	7.352	101	88485	2.694	ppbV #	86
23) trans-1,2-dichloroethene	8.150	61	95205	3.075	ppbV	96
24) 1,1-dichloroethane	8.383	63	109137	2.864	ppbV	100

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314028_Ev2.D
 Acq On : 19 Feb 2021 9:25 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-SIMSTD5.0
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 08:05:21 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sun Feb 14 07:48:08 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\r314028_Ev2.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) MTBE	8.467	73	187662	3.541	ppbV	97
26) vinyl acetate	8.600	43	153633	3.591	ppbV	96
27) 2-butanone	8.867	43	148071	3.648	ppbV	100
28) cis-1,2-dichloroethene	9.375	61	80572	3.011	ppbV	94
29) Ethyl Acetate	9.675	61	25027	3.171	ppbV #	48
30) chloroform	9.733	83	105423	4.073	ppbV	99
31) Tetrahydrofuran	10.175	42	93738	3.526	ppbV	98
32) 1,2-dichloroethane	10.575	62	59752	2.629	ppbV #	87
34) hexane	9.642	57	128653	5.443	ppbV	98
36) 1,1,1-trichloroethane	10.867	97	83572	3.831	ppbV #	98
37) benzene	11.400	78	238199	5.335	ppbV	97
38) carbon tetrachloride	11.573	117	77839	4.436	ppbV	98
39) cyclohexane	11.713	56	137888	5.691	ppbV #	90
40) Dibromomethane	12.320	93	57002	4.167	ppbV #	70
41) 1,2-dichloropropane	12.353	63	76660	4.054	ppbV	98
42) bromodichloromethane	12.587	83	120258	5.635	ppbV	99
43) 1,4-dioxane	12.627	88	54316	5.089	ppbV	93
44) trichloroethene	12.633	130	86154	4.687	ppbV	94
45) 2,2,4-trimethylpentane	12.680	57	417267	5.402	ppbV #	92
46) heptane	13.000	43	160451	5.243	ppbV	97
47) cis-1,3-dichloropropene	14.267	75	106374	5.294	ppbV #	85
48) 4-methyl-2-pentanone	13.683	43	183594	5.272	ppbV	94
49) trans-1,3-dichloropropene	13.650	75	115534	5.426	ppbV #	82
50) 1,1,2-trichloroethane	14.475	97	76518	4.263	ppbV #	79
52) toluene	14.783	91	249488	3.819	ppbV	99
54) 2-hexanone	15.067	43	169932	4.752	ppbV	95
55) dibromochloromethane	15.233	129	101989	4.043	ppbV	99
56) 1,2-dibromoethane	15.483	107	115995	4.064	ppbV	97
57) tetrachloroethene	15.950	166	106271	4.981	ppbV #	84
58) 1,1,1,2-tetrachloroethane	16.592	131	78962	3.845	ppbV	97
59) chlorobenzene	16.608	112	203543	4.426	ppbV	93
60) ethylbenzene	16.958	91	308299	4.153	ppbV	98
61) m+p-xylene	17.117	91	501555	9.208	ppbV	99
62) bromoform	17.192	173	98036	4.955	ppbV	99
63) styrene	17.442	104	225044	4.145	ppbV #	92
64) 1,1,2,2-tetrachloroethane	17.533	83	178369	5.213	ppbV	97
65) o-xylene	17.533	91	252775	4.079	ppbV	98
66) 1,2,3-Trichloropropane	17.650	75	145494	5.040	ppbV #	88
68) isopropylbenzene	18.042	105	351592	4.113	ppbV	97
69) Bromobenzene	18.117	77	192631	5.412	ppbV	90

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314028_Ev2.D
 Acq On : 19 Feb 2021 9:25 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-SIMSTD5.0
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 08:05:21 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sun Feb 14 07:48:08 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\r314028_Ev2.D
 Sub List : Default - All compounds listed

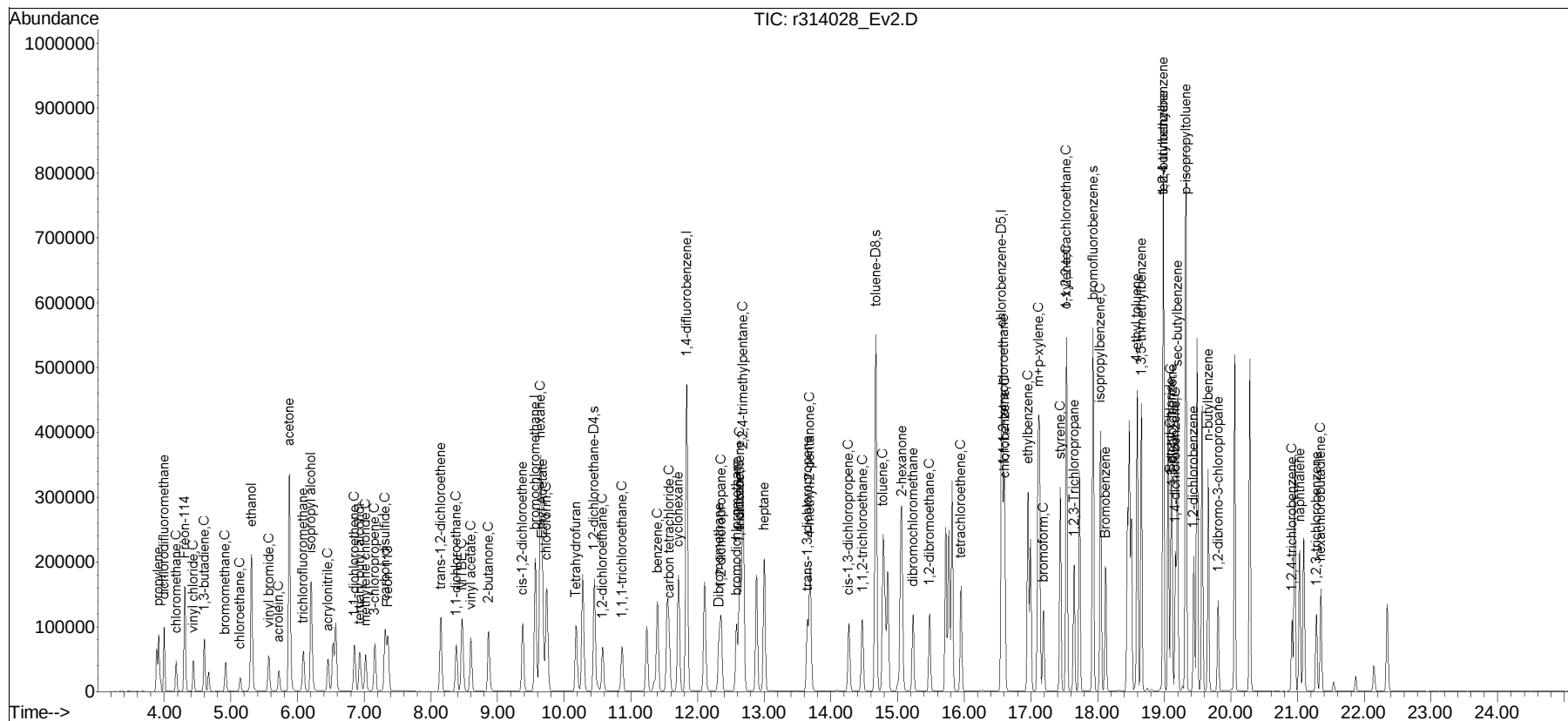
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) 4-ethyl toluene	18.592	105	399158	4.248	ppbV	97
71) 1,3,5-trimethylbenzene	18.658	105	324354	4.126	ppbV	92
72) tert-butylbenzene	18.983	119	302919	4.284	ppbV	98
73) 1,2,4-trimethylbenzene	18.983	105	312997	4.136	ppbV	92
74) Benzyl Chloride	19.100	91	214235	4.369	ppbV	99
75) 1,3-dichlorobenzene	19.117	146	189004	4.286	ppbV	98
76) 1,4-dichlorobenzene	19.167	146	184091M3	4.439	ppbV	
77) sec-butylbenzene	19.200	105	451755	4.085	ppbV	95
78) p-isopropyltoluene	19.325	119	364452	4.285	ppbV	100
79) 1,2-dichlorobenzene	19.442	146	179114	4.294	ppbV #	89
80) n-butylbenzene	19.658	91	316387	4.233	ppbV	96
81) 1,2-dibromo-3-chloropr...	19.808	75	75929	4.973	ppbV #	91
82) 1,2,4-trichlorobenzene	20.917	180	119475	6.266	ppbV #	85
83) naphthalene	21.033	128	339061	5.040	ppbV	96
84) 1,2,3-trichlorobenzene	21.283	180	134719	5.989	ppbV #	86
85) hexachlorobutadiene	21.350	225	138934	5.102	ppbV	96

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

Sub List : Default - All compounds listed21\02\0219SIM_I\r314028_Ev2.D

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
Data File : r314028_Ev2.D
Acq On : 19 Feb 2021 9:25 PM
Operator : AIRPIANO3:AR
Sample : IT015-SIMSTD5.0
Misc : WG1466757
ALS Vial : 0 Sample Multiplier: 1

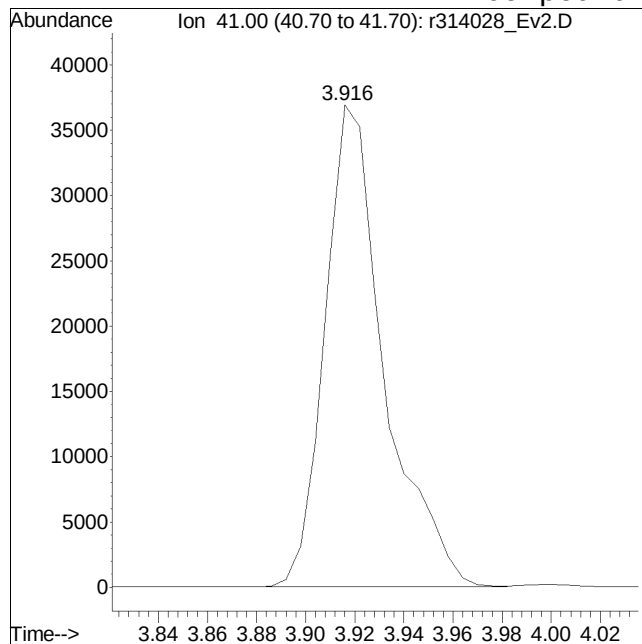
Quant Time: Feb 20 08:05:21 2021
Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Sun Feb 14 07:48:08 2021
Response via : Initial Calibration



Manual Integration/Negative Proof Report

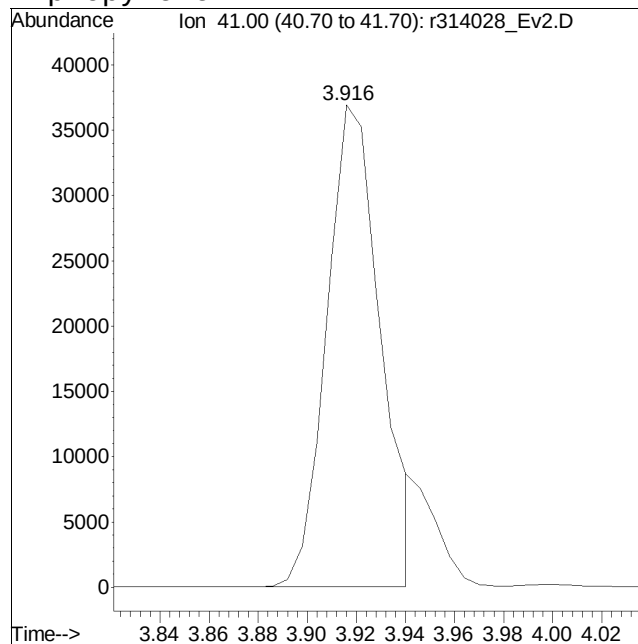
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 Data File : r314028_Ev2.D Operator : AIRPIAN03:AR
 Date Inj'd : 2/19/2020 0:9: 5 Instrument :
 Sample : IT015-SIMSTD5.0 Quant Date : 2/20/2021 8:01 am

Compound #2: propylene



Original Peak Response = 61910

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



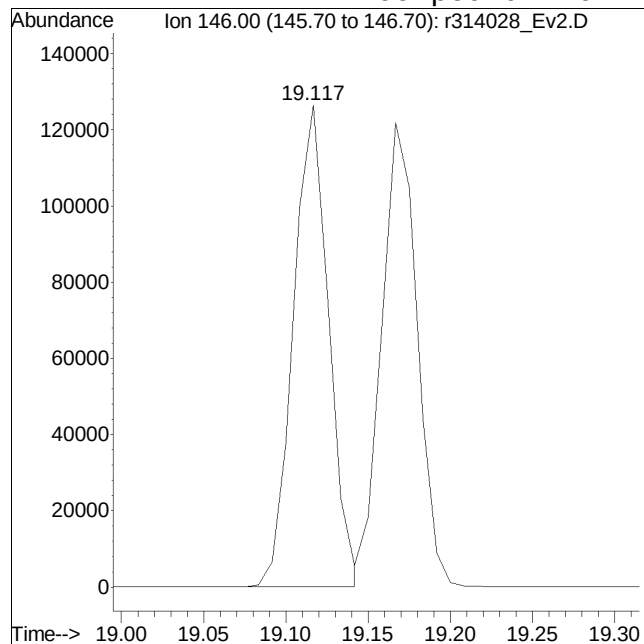
Manual Peak Response = 56200 M6

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

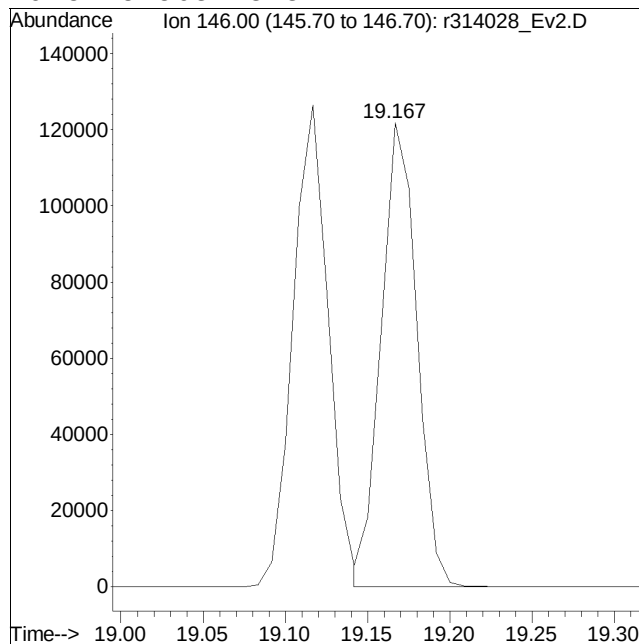
Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\Airpiano3QMethod : TSIM3_210219.M
 Data File : r314028_Ev2.D Operator : AIRPIAN03:AR
 Date Inj'd : 2/19/2020 0:9: 5 Instrument :
 Sample : IT015-SIMSTD5.0 Quant Date : 2/20/2021 8:01 am

Compound #76: 1,4-dichlorobenzene



Original Peak Response = 189004



Manual Peak Response = 184091 M3

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

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314029_Ev2.D
 Acq On : 19 Feb 2021 10:07 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-SIMSTD010
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:25:47 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 08:05:58 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\r314028_Ev2.D
 Sub List : Default - All compounds listed

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

Internal Standards						
1) bromochloromethane	9.567	49	234709	10.000	ppbV	0.00
Standard Area = 228008			Recovery = 102.94%			
33) 1,4-difluorobenzene	11.840	114	652015	10.000	ppbV	0.00
Standard Area = 639167			Recovery = 102.01%			
51) chlorobenzene-D5	16.567	54	100239	10.000	ppbV	0.00
Standard Area = 98211			Recovery = 102.06%			
System Monitoring Compounds						
35) 1,2-dichloroethane-D4	10.450	65	141480	9.831	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.31%			
53) toluene-D8	14.675	98	623478	9.878	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.78%			
67) bromofluorobenzene	17.933	95	419349	9.975	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.75%			
Target Compounds						
					Qvalue	
2) propylene	3.916	41	110599M6	9.559	ppbV	
3) dichlorodifluoromethane	4.000	85	175055	9.410	ppbV	100
4) chloromethane	4.180	50	95088	9.558	ppbV	100
5) Freon-114	4.306	85	241210	9.383	ppbV	100
6) vinyl chloride	4.438	62	110236	9.518	ppbV	100
7) 1,3-butadiene	4.606	54	102481	9.532	ppbV	100
8) bromomethane	4.924	94	83514	9.516	ppbV	99
9) chloroethane	5.140	64	58766	9.530	ppbV	99
10) ethanol	5.310	31	489419	47.249	ppbV	99
11) vinyl bromide	5.570	106	94141	9.431	ppbV	99
12) acrolein	5.720	56	52762	9.608	ppbV	100
13) acetone	5.873	43	805012	46.856	ppbV	100
14) trichlorofluoromethane	6.087	101	137310	9.373	ppbV	99
15) isopropyl alcohol	6.203	45	519266	23.778	ppbV	100
16) acrylonitrile	6.457	53	94727	9.667	ppbV	99
17) 1,1-dichloroethene	6.854	61	138107	9.494	ppbV	99
18) tertiary butyl alcohol	6.932	59	203597	9.526	ppbV	100
19) methylene chloride	7.022	49	122546	9.598	ppbV	100
20) 3-chloropropene	7.160	41	164719	9.626	ppbV	99
21) carbon disulfide	7.316	76	357121	9.548	ppbV	99
22) Freon 113	7.352	101	172467	9.467	ppbV	100
23) trans-1,2-dichloroethene	8.150	61	190146	9.701	ppbV	99
24) 1,1-dichloroethane	8.383	63	218518	9.725	ppbV	100

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314029_Ev2.D
 Acq On : 19 Feb 2021 10:07 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-SIMSTD010
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:25:47 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 08:05:58 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\r314028_Ev2.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) MTBE	8.467	73	374889	9.703	ppbV	99
26) vinyl acetate	8.600	43	312426	9.878	ppbV	100
27) 2-butanone	8.867	43	298199	9.782	ppbV	99
28) cis-1,2-dichloroethene	9.375	61	162362	9.788	ppbV	98
29) Ethyl Acetate	9.675	61	50726	9.845	ppbV	96
30) chloroform	9.733	83	209684	9.661	ppbV	100
31) Tetrahydrofuran	10.175	42	189467	9.818	ppbV	98
32) 1,2-dichloroethane	10.575	62	118409	9.625	ppbV	99
34) hexane	9.642	57	255611	9.738	ppbV	100
36) 1,1,1-trichloroethane	10.867	97	166534	9.767	ppbV	100
37) benzene	11.400	78	475946	9.794	ppbV	100
38) carbon tetrachloride	11.573	117	158280	9.967	ppbV	98
39) cyclohexane	11.713	56	276002	9.811	ppbV	100
40) Dibromomethane	12.320	93	112881	9.706	ppbV #	100
41) 1,2-dichloropropane	12.353	63	153490	9.814	ppbV	100
42) bromodichloromethane	12.587	83	239233	9.751	ppbV	100
43) 1,4-dioxane	12.627	88	108852	9.823	ppbV	100
44) trichloroethene	12.633	130	169680	9.653	ppbV	98
45) 2,2,4-trimethylpentane	12.680	57	803959M6	9.444	ppbV	
46) heptane	13.000	43	320087	9.778	ppbV	99
47) cis-1,3-dichloropropene	14.267	75	213268	9.827	ppbV	100
48) 4-methyl-2-pentanone	13.683	43	366945	9.796	ppbV	100
49) trans-1,3-dichloropropene	13.650	75	231804	9.834	ppbV	100
50) 1,1,2-trichloroethane	14.475	97	152058	9.740	ppbV	99
52) toluene	14.783	91	490052	9.622	ppbV	100
54) 2-hexanone	15.067	43	342193	9.865	ppbV	100
55) dibromochloromethane	15.233	129	203676	9.783	ppbV	99
56) 1,2-dibromoethane	15.483	107	227895	9.625	ppbV	100
57) tetrachloroethene	15.950	166	207115	9.548	ppbV	100
58) 1,1,1,2-tetrachloroethane	16.592	131	156333	9.699	ppbV	99
59) chlorobenzene	16.608	112	401282	9.658	ppbV	99
60) ethylbenzene	16.958	91	605004	9.613	ppbV	99
61) m+p-xylene	17.125	91	976848	19.082	ppbV	98
62) bromoform	17.192	173	199695	9.979	ppbV	100
63) styrene	17.442	104	443861	9.662	ppbV	99
64) 1,1,2,2-tetrachloroethane	17.533	83	346151	9.507	ppbV	99
65) o-xylene	17.533	91	486028	9.419	ppbV	99
66) 1,2,3-Trichloropropane	17.642	75	287609	9.684	ppbV	100
68) isopropylbenzene	18.042	105	683576	9.524	ppbV	99
69) Bromobenzene	18.117	77	379730	9.657	ppbV	100

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314029_Ev2.D
 Acq On : 19 Feb 2021 10:07 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-SIMSTD010
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:25:47 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 08:05:58 2021
 Response via : Initial Calibration

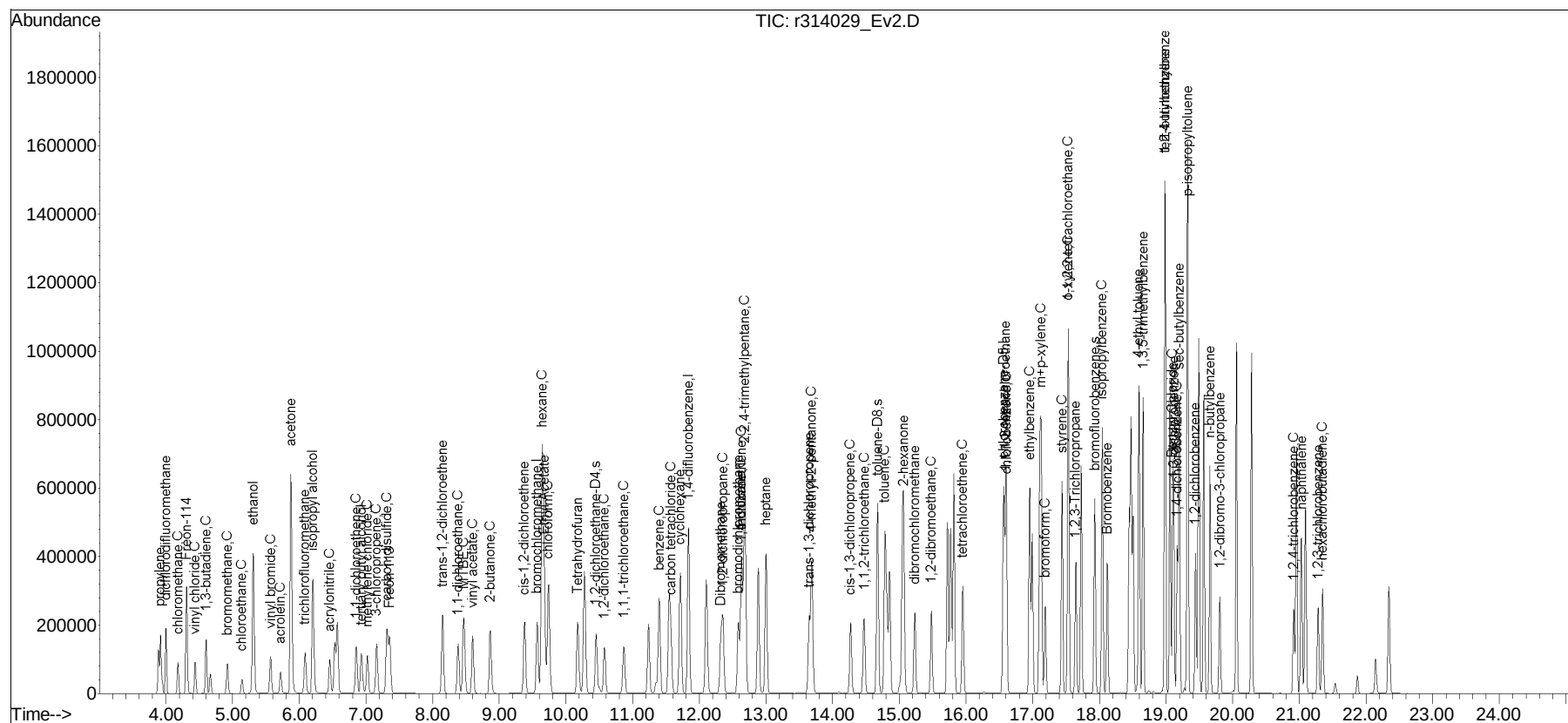
CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\r314028_Ev2.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) 4-ethyl toluene	18.592	105	774870	9.510	ppbV	99
71) 1,3,5-trimethylbenzene	18.658	105	629551	9.508	ppbV	100
72) tert-butylbenzene	18.983	119	579183	9.367	ppbV	99
73) 1,2,4-trimethylbenzene	18.983	105	602191	9.425	ppbV	100
74) Benzyl Chloride	19.100	91	450965	10.312	ppbV	99
75) 1,3-dichlorobenzene	19.117	146	372611	9.658	ppbV	99
76) 1,4-dichlorobenzene	19.167	146	365151	9.717	ppbV	99
77) sec-butylbenzene	19.200	105	872231	9.458	ppbV	99
78) p-isopropyltoluene	19.325	119	691073	9.289	ppbV	98
79) 1,2-dichlorobenzene	19.442	146	355791	9.731	ppbV	100
80) n-butylbenzene	19.658	91	622159	9.633	ppbV	99
81) 1,2-dibromo-3-chloropr...	19.808	75	157328	10.151	ppbV	99
82) 1,2,4-trichlorobenzene	20.917	180	267432	10.966	ppbV	99
83) naphthalene	21.033	128	719098	10.390	ppbV	100
84) 1,2,3-trichlorobenzene	21.283	180	288691	10.498	ppbV	99
85) hexachlorobutadiene	21.350	225	276621	9.754	ppbV	99

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

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Data Path   : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
Data File  : r314029_Ev2.D
Acq On     : 19 Feb 2021  10:07 PM
Operator   : AIRPIANO3:AR
Sample     : IT015-SIMSTD010
Misc       : WG1466757
ALS Vial   : 0      Sample Multiplier: 1
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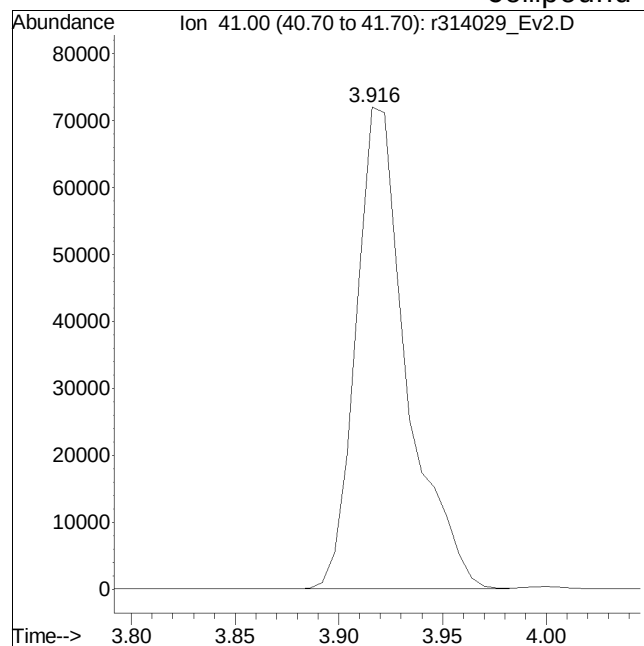
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Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Sat Feb 20 08:05:58 2021
Response via : Initial Calibration



Manual Integration/Negative Proof Report

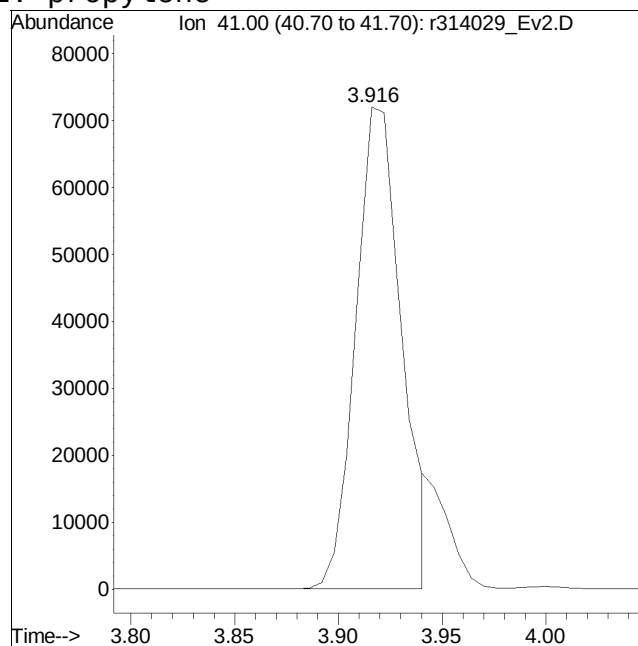
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TSIM3_210219.M
 Data File : r314029_Ev2.D Operator : AIRPIAN03:AR
 Date Inj'd : 2/19/2020 0:0: 7 Instrument :
 Sample : IT015-SIMSTD010 Quant Date : 2/20/2021 8:07 am

Compound #2: propylene



Original Peak Response = 122607

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



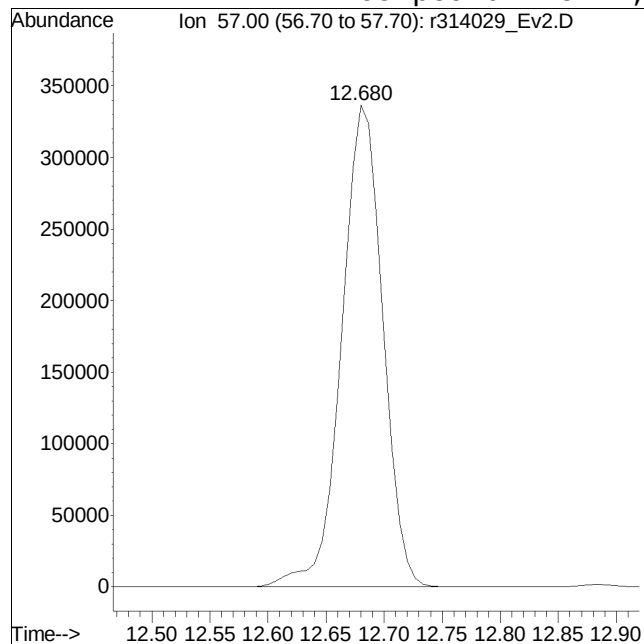
Manual Peak Response = 110599 M6

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

Manual Integration/Negative Proof Report

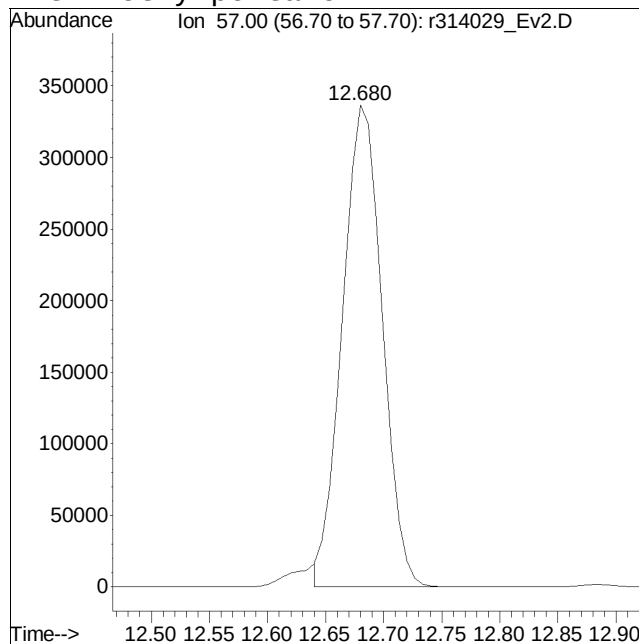
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TSIM3_210219.M
Data File : r314029_Ev2.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:0: 7 Instrument :
Sample : IT015-SIMSTD010 Quant Date : 2/20/2021 8:07 am

Compound #45: 2,2,4-trimethylpentane



Original Peak Response = 828662

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



Manual Peak Response = 803959 M6

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314030_Ev2.D
 Acq On : 19 Feb 2021 10:45 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-SIMSTD020
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:34:30 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 08:05:58 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\r314028_Ev2.D
 Sub List : Default - All compounds listed

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

Internal Standards						
1) bromochloromethane	9.575	49	235644	10.000	ppbV	0.00
Standard Area = 228008			Recovery = 103.35%			
33) 1,4-difluorobenzene	11.840	114	653805	10.000	ppbV	0.00
Standard Area = 639167			Recovery = 102.29%			
51) chlorobenzene-D5	16.567	54	101110	10.000	ppbV	0.00
Standard Area = 98211			Recovery = 102.95%			
System Monitoring Compounds						
35) 1,2-dichloroethane-D4	10.458	65	142266	9.859	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.59%			
53) toluene-D8	14.675	98	633312	9.947	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.47%			
67) bromofluorobenzene	17.933	95	436841	10.301	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.01%			
Target Compounds						
					Qvalue	
2) propylene	3.922	41	214505M6	18.466	ppbV	
3) dichlorodifluoromethane	4.000	85	332524	17.804	ppbV	100
4) chloromethane	4.180	50	186741	18.696	ppbV	100
5) Freon-114	4.312	85	457049	17.709	ppbV	97
6) vinyl chloride	4.444	62	215433	18.527	ppbV	99
7) 1,3-butadiene	4.606	54	199309	18.465	ppbV	98
8) bromomethane	4.924	94	161652	18.346	ppbV	100
9) chloroethane	5.146	64	123734	19.986	ppbV	100
10) ethanol	5.313	31	917753	88.250	ppbV	98
11) vinyl bromide	5.573	106	179898	17.950	ppbV	100
12) acrolein	5.723	56	103924	18.850	ppbV	99
13) acetone	5.877	43	1534474	88.960	ppbV	98
14) trichlorofluoromethane	6.090	101	260331	17.701	ppbV	99
15) isopropyl alcohol	6.203	45	1011182	46.121	ppbV	100
16) acrylonitrile	6.460	53	187928	19.102	ppbV	99
17) 1,1-dichloroethene	6.860	61	266435	18.243	ppbV	98
18) tertiary butyl alcohol	6.932	59	397032	18.503	ppbV	100
19) methylene chloride	7.028	49	239209	18.660	ppbV	99
20) 3-chloropropene	7.166	41	320377	18.649	ppbV	99
21) carbon disulfide	7.316	76	683586	18.203	ppbV	99
22) Freon 113	7.358	101	329805	18.032	ppbV	100
23) trans-1,2-dichloroethene	8.150	61	366486	18.624	ppbV	97
24) 1,1-dichloroethane	8.383	63	425720	18.872	ppbV	100

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314030_Ev2.D
 Acq On : 19 Feb 2021 10:45 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-SIMSTD020
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:34:30 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 08:05:58 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\r314028_Ev2.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) MTBE	8.467	73	719498	18.549	ppbV	99
26) vinyl acetate	8.600	43	619125	19.497	ppbV	100
27) 2-butanone	8.867	43	579711	18.941	ppbV	99
28) cis-1,2-dichloroethene	9.383	61	315375	18.937	ppbV	97
29) Ethyl Acetate	9.675	61	99163	19.169	ppbV	99
30) chloroform	9.733	83	402635	18.477	ppbV	99
31) Tetrahydrofuran	10.175	42	369513	19.071	ppbV	96
32) 1,2-dichloroethane	10.583	62	228663	18.514	ppbV	98
34) hexane	9.642	57	483972	18.388	ppbV	99
36) 1,1,1-trichloroethane	10.875	97	348364	20.376	ppbV	97
37) benzene	11.400	78	923754	18.956	ppbV	100
38) carbon tetrachloride	11.573	117	306677	19.258	ppbV	99
39) cyclohexane	11.720	56	532565	18.879	ppbV	99
40) Dibromomethane	12.327	93	218640	18.749	ppbV #	100
41) 1,2-dichloropropane	12.353	63	300265	19.146	ppbV	99
42) bromodichloromethane	12.587	83	463795	18.852	ppbV	100
43) 1,4-dioxane	12.627	88	211428	19.027	ppbV	98
44) trichloroethene	12.640	130	328750	18.652	ppbV	99
45) 2,2,4-trimethylpentane	12.680	57	1538537M6	18.023	ppbV	
46) heptane	13.000	43	619508	18.873	ppbV	99
47) cis-1,3-dichloropropene	14.275	75	421366	19.362	ppbV	97
48) 4-methyl-2-pentanone	13.683	43	712436	18.968	ppbV	99
49) trans-1,3-dichloropropene	13.650	75	454646	19.235	ppbV	100
50) 1,1,2-trichloroethane	14.475	97	296289	18.927	ppbV	100
52) toluene	14.783	91	935724	18.215	ppbV	100
54) 2-hexanone	15.067	43	663628	18.966	ppbV	100
55) dibromochloromethane	15.233	129	392973	18.713	ppbV	99
56) 1,2-dibromoethane	15.483	107	443423	18.566	ppbV	100
57) tetrachloroethene	15.950	166	403592	18.444	ppbV	100
58) 1,1,1,2-tetrachloroethane	16.592	131	303537	18.669	ppbV	99
59) chlorobenzene	16.608	112	777744	18.557	ppbV	99
60) ethylbenzene	16.958	91	1144993	18.037	ppbV	98
61) m+p-xylene	17.117	91	1825384	35.351	ppbV	97
62) bromoform	17.192	173	389538	19.297	ppbV	99
63) styrene	17.442	104	866244	18.694	ppbV	99
64) 1,1,2,2-tetrachloroethane	17.533	83	650199	17.704	ppbV	99
65) o-xylene	17.533	91	898661	17.266	ppbV	96
66) 1,2,3-Trichloropropane	17.650	75	563122	18.797	ppbV	99
68) isopropylbenzene	18.050	105	1305209	18.029	ppbV	95
69) Bromobenzene	18.125	77	744051	18.759	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314030_Ev2.D
 Acq On : 19 Feb 2021 10:45 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-SIMSTD020
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:34:30 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 08:05:58 2021
 Response via : Initial Calibration

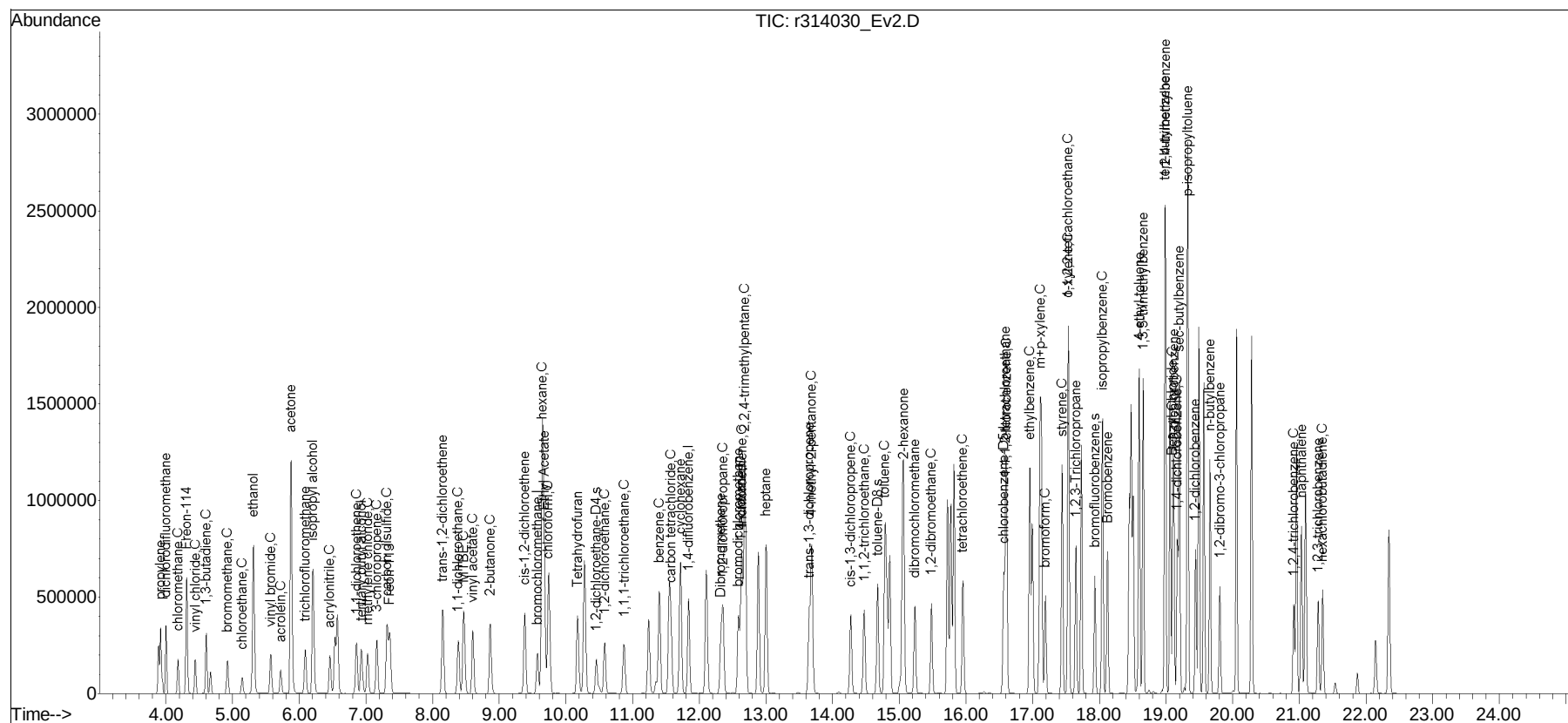
CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\r314028_Ev2.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) 4-ethyl toluene	18.600	105	1455619	17.711	ppbV	96
71) 1,3,5-trimethylbenzene	18.658	105	1187511	17.781	ppbV	99
72) tert-butylbenzene	18.983	119	1063695	17.054	ppbV	98
73) 1,2,4-trimethylbenzene	18.992	105	1100301	17.073	ppbV	91
74) Benzyl Chloride	19.100	91	869476	19.711	ppbV	99
75) 1,3-dichlorobenzene	19.117	146	712535	18.309	ppbV	98
76) 1,4-dichlorobenzene	19.167	146	705483	18.612	ppbV	98
77) sec-butylbenzene	19.200	105	1632759	17.553	ppbV	98
78) p-isopropyltoluene	19.325	119	1262605	16.825	ppbV	97
79) 1,2-dichlorobenzene	19.442	146	675733	18.322	ppbV	98
80) n-butylbenzene	19.658	91	1161004	17.822	ppbV	97
81) 1,2-dibromo-3-chloropr...	19.808	75	304271	19.462	ppbV	98
82) 1,2,4-trichlorobenzene	20.917	180	501244	20.375	ppbV	99
83) naphthalene	21.033	128	1349815	19.334	ppbV	99
84) 1,2,3-trichlorobenzene	21.283	180	551344	19.876	ppbV	99
85) hexachlorobutadiene	21.350	225	483466	16.900	ppbV	99

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

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Data Path   : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
Data File  : r314030_Ev2.D
Acq On     : 19 Feb 2021  10:45 PM
Operator   : AIRPIANO3:AR
Sample     : IT015-SIMSTD020
Misc       : WG1466757
ALS Vial   : 0    Sample Multiplier: 1
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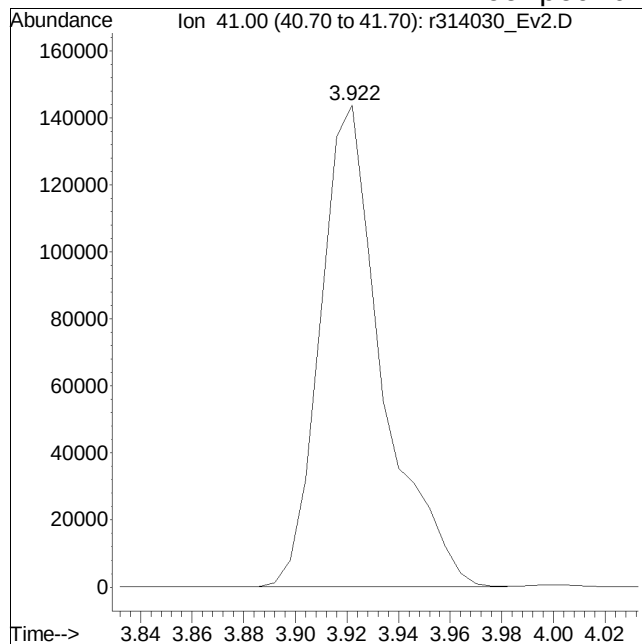
Quant Time: Feb 20 13:34:30 2021
Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Sat Feb 20 08:05:58 2021
Response via : Initial Calibration



Manual Integration/Negative Proof Report

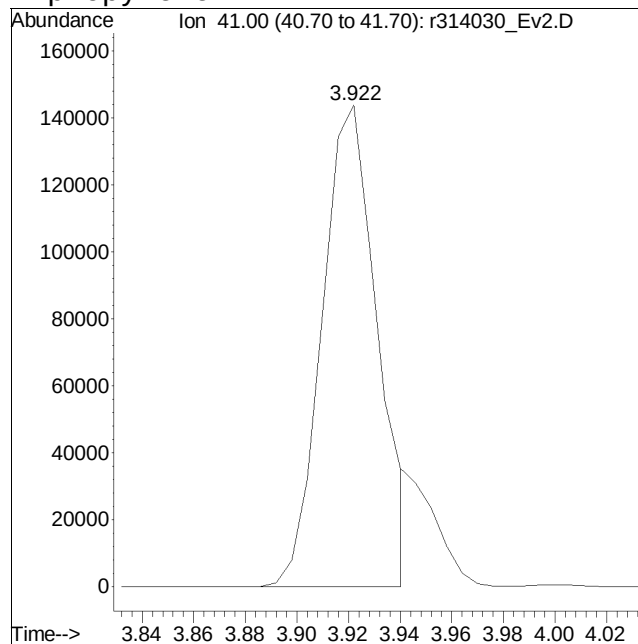
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TSIM3_210219.M
Data File : r314030_Ev2.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:0: 5 Instrument :
Sample : IT015-SIMSTD020 Quant Date : 2/20/2021 8:08 am

Compound #2: propylene



Original Peak Response = 240333

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



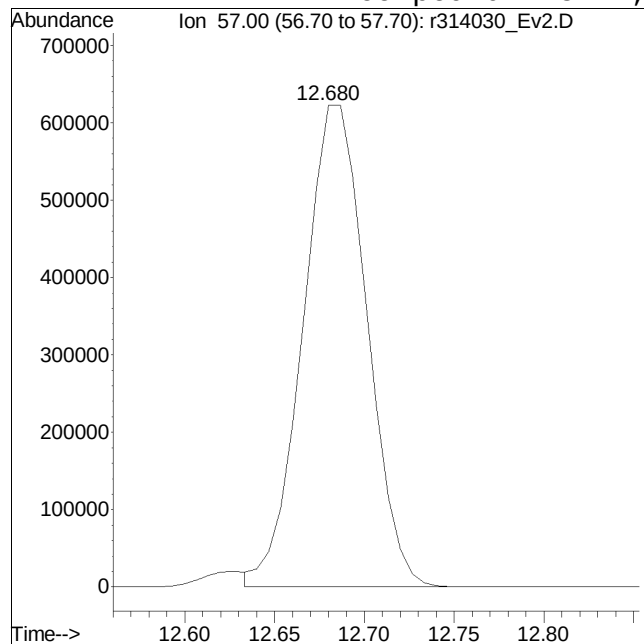
Manual Peak Response = 214505 M6

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

Manual Integration/Negative Proof Report

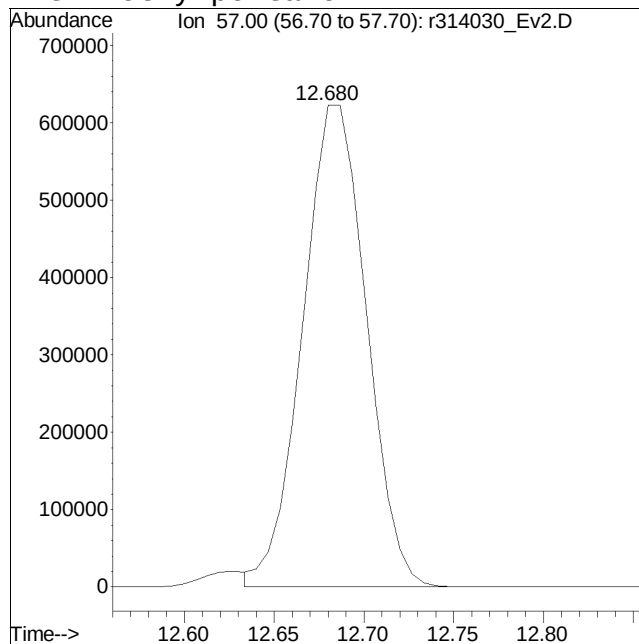
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TSIM3_210219.M
 Data File : r314030_Ev2.D Operator : AIRPIAN03:AR
 Date Inj'd : 2/19/2020 0:0: 5 Instrument :
 Sample : IT015-SIMSTD020 Quant Date : 2/20/2021 8:08 am

Compound #45: 2,2,4-trimethylpentane



Original Peak Response = 1537788

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



Manual Peak Response = 1538537 M6

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314031_Ev2.D
 Acq On : 19 Feb 2021 11:25 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-SIMSTD050
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:36:45 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 08:05:58 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\r314028_Ev2.D
 Sub List : Default - All compounds listed

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

Internal Standards						
1) bromochloromethane	9.575	49	243225	10.000	ppbV	0.00
Standard Area = 228008			Recovery = 106.67%			
33) 1,4-difluorobenzene	11.840	114	661018	10.000	ppbV	0.00
Standard Area = 639167			Recovery = 103.42%			
51) chlorobenzene-D5	16.567	54	99422	10.000	ppbV	0.00
Standard Area = 98211			Recovery = 101.23%			
System Monitoring Compounds						
35) 1,2-dichloroethane-D4	10.458	65	139023	9.529	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.29%			
53) toluene-D8	14.675	98	628453	10.038	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.38%			
67) bromofluorobenzene	17.933	95	428447	10.275	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.75%			
Target Compounds						
					Qvalue	
2) propylene	3.916	41	491925M6	41.027	ppbV	
3) dichlorodifluoromethane	4.000	85	749579	38.882	ppbV	99
4) chloromethane	4.180	50	445506	43.214	ppbV	100
5) Freon-114	4.306	85	985224	36.984	ppbV	98
6) vinyl chloride	4.438	62	506409	42.194	ppbV	99
7) 1,3-butadiene	4.606	54	471411	42.312	ppbV	100
8) bromomethane	4.924	94	373582	41.077	ppbV	100
9) chloroethane	5.140	64	296027	46.325	ppbV	99
10) ethanol	5.320	31	2052080	191.175	ppbV	96
11) vinyl bromide	5.573	106	409908	39.625	ppbV	100
12) acrolein	5.720	56	250145	43.957	ppbV	99
13) acetone	5.877	43	3340533	187.629	ppbV	98
14) trichlorofluoromethane	6.090	101	590936	38.927	ppbV	100
15) isopropyl alcohol	6.210	45	2320748	102.552	ppbV	100
16) acrylonitrile	6.460	53	450429	44.358	ppbV	99
17) 1,1-dichloroethene	6.860	61	611015	40.532	ppbV	97
18) tertiary butyl alcohol	6.932	59	929992	41.990	ppbV	100
19) methylene chloride	7.028	49	564666	42.676	ppbV	100
20) 3-chloropropene	7.166	41	758345	42.767	ppbV	99
21) carbon disulfide	7.316	76	1552880	40.062	ppbV	99
22) Freon 113	7.358	101	735700	38.971	ppbV	99
23) trans-1,2-dichloroethene	8.150	61	797700	39.273	ppbV	99
24) 1,1-dichloroethane	8.383	63	1001195	42.999	ppbV	100

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314031_Ev2.D
 Acq On : 19 Feb 2021 11:25 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-SIMSTD050
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:36:45 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 08:05:58 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\r314028_Ev2.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) MTBE	8.467	73	1678807	41.931	ppbV	99
26) vinyl acetate	8.600	43	1504677	45.906	ppbV	100
27) 2-butanone	8.867	43	1377617	43.608	ppbV	99
28) cis-1,2-dichloroethene	9.383	61	734433	42.725	ppbV	96
29) Ethyl Acetate	9.683	61	232852	43.610	ppbV	77
30) chloroform	9.742	83	914257	40.649	ppbV	100
31) Tetrahydrofuran	10.175	42	886388	44.322	ppbV	96
32) 1,2-dichloroethane	10.583	62	529765	41.557	ppbV	97
34) hexane	9.642	57	1078522	40.530	ppbV	96
36) 1,1,1-trichloroethane	10.875	97	796715	46.091	ppbV	98
37) benzene	11.407	78	2138178	43.399	ppbV	100
38) carbon tetrachloride	11.580	117	704713	43.771	ppbV	99
39) cyclohexane	11.720	56	1230844	43.157	ppbV	96
40) Dibromomethane	12.327	93	493739	41.877	ppbV #	99
41) 1,2-dichloropropane	12.360	63	694316	43.788	ppbV	99
42) bromodichloromethane	12.593	83	1063322	42.749	ppbV	100
43) 1,4-dioxane	12.627	88	482702	42.966	ppbV	97
44) trichloroethene	12.640	130	746299	41.880	ppbV	97
45) 2,2,4-trimethylpentane	12.687	57	3385785M6	39.230	ppbV	
46) heptane	13.007	43	1459320	43.972	ppbV	98
47) cis-1,3-dichloropropene	14.275	75	995229	45.233	ppbV	98
48) 4-methyl-2-pentanone	13.692	43	1677609	44.178	ppbV	98
49) trans-1,3-dichloropropene	13.650	75	1073434	44.920	ppbV	99
50) 1,1,2-trichloroethane	14.475	97	685932	43.340	ppbV	98
52) toluene	14.792	91	2077130	41.121	ppbV	100
54) 2-hexanone	15.067	43	1538737	44.724	ppbV	96
55) dibromochloromethane	15.233	129	882555	42.740	ppbV	98
56) 1,2-dibromoethane	15.483	107	1008453	42.940	ppbV	98
57) tetrachloroethene	15.958	166	904154	42.022	ppbV	99
58) 1,1,1,2-tetrachloroethane	16.592	131	670153	41.918	ppbV	99
59) chlorobenzene	16.608	112	1709472	41.481	ppbV	97
60) ethylbenzene	16.958	91	2500054	40.052	ppbV	95
61) m+p-xylene	17.125	91	3831382	75.460	ppbV	95
62) bromoform	17.192	173	874213	44.043	ppbV	97
63) styrene	17.442	104	1949034	42.776	ppbV	97
64) 1,1,2,2-tetrachloroethane	17.533	83	1368366	37.891	ppbV	99
65) o-xylene	17.542	91	1845515	36.060	ppbV	93
66) 1,2,3-Trichloropropane	17.650	75	1289193	43.764	ppbV	98
68) isopropylbenzene	18.050	105	2789249	39.183	ppbV	91
69) Bromobenzene	18.125	77	1670690	42.837	ppbV	97

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314031_Ev2.D
 Acq On : 19 Feb 2021 11:25 PM
 Operator : AIRPIAN03:AR
 Sample : IT015-SIMSTD050
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:36:45 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 08:05:58 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\r314028_Ev2.D
 Sub List : Default - All compounds listed

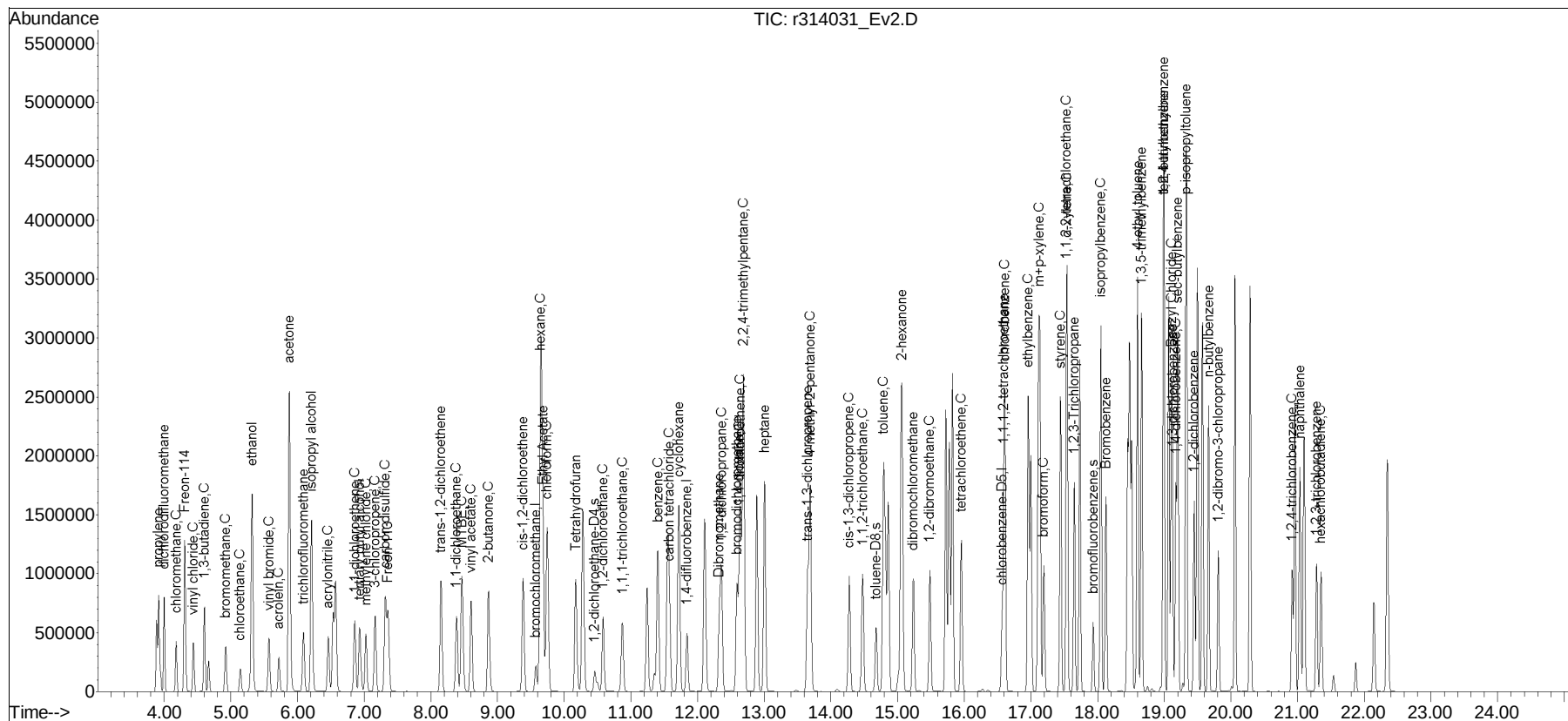
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) 4-ethyl toluene	18.600	105	3055755	37.811	ppbV	91
71) 1,3,5-trimethylbenzene	18.658	105	2456930	37.413	ppbV	96
72) tert-butylbenzene	18.992	119	2084625	33.990	ppbV	94
73) 1,2,4-trimethylbenzene	18.992	105	2064095	32.571	ppbV	95
74) Benzyl Chloride	19.108	91	1902528	43.862	ppbV #	89
75) 1,3-dichlorobenzene	19.125	146	1530214	39.988	ppbV	99
76) 1,4-dichlorobenzene	19.175	146	1523752	40.882	ppbV	98
77) sec-butylbenzene	19.200	105	3281898	35.881	ppbV	95
78) p-isopropyltoluene	19.325	119	2391988	32.417	ppbV	95
79) 1,2-dichlorobenzene	19.450	146	1499669	41.354	ppbV	98
80) n-butylbenzene	19.667	91	2419005	37.763	ppbV #	88
81) 1,2-dibromo-3-chloropr...	19.808	75	684732	44.541	ppbV	96
82) 1,2,4-trichlorobenzene	20.917	180	1212178	50.111	ppbV	98
83) naphthalene	21.033	128	3024327	44.055	ppbV	97
84) 1,2,3-trichlorobenzene	21.283	180	1283777	47.066	ppbV	99
85) hexachlorobutadiene	21.350	225	1011675	35.965	ppbV	97

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

Sub List : Default - All compounds listed21\02\0219SIM_I\r314028_Ev2.D

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
Data File : r314031_Ev2.D
Acq On : 19 Feb 2021 11:25 PM
Operator : AIRPIANO3:AR
Sample : IT015-SIMSTD050
Misc : WG1466757
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:36:45 2021
Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Sat Feb 20 08:05:58 2021
Response via : Initial Calibration



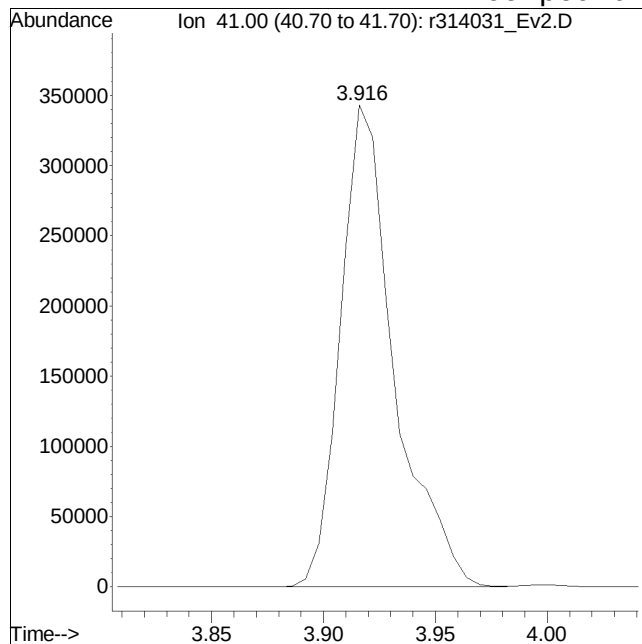
TSIM3_210219.M Sat Feb 20 22:57:41 2021

Page: 4

Manual Integration/Negative Proof Report

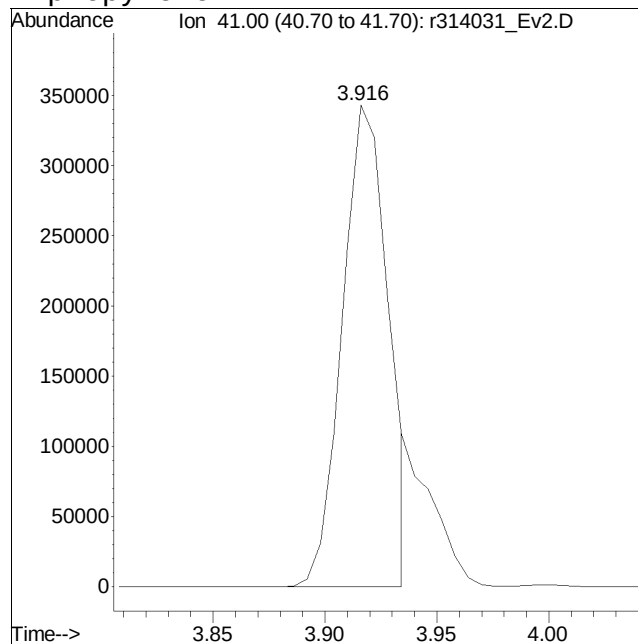
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TSIM3_210219.M
 Data File : r314031_Ev2.D Operator : AIRPIAN03:AR
 Date Inj'd : 2/19/2020 0:1: 5 Instrument :
 Sample : IT015-SIMSTD050 Quant Date : 2/20/2021 8:08 am

Compound #2: propylene



Original Peak Response = 573538

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



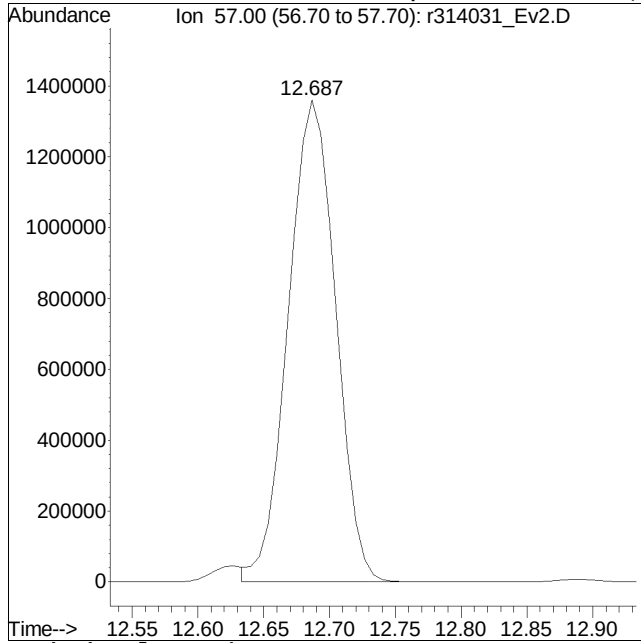
Manual Peak Response = 491925 M6

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

Manual Integration/Negative Proof Report

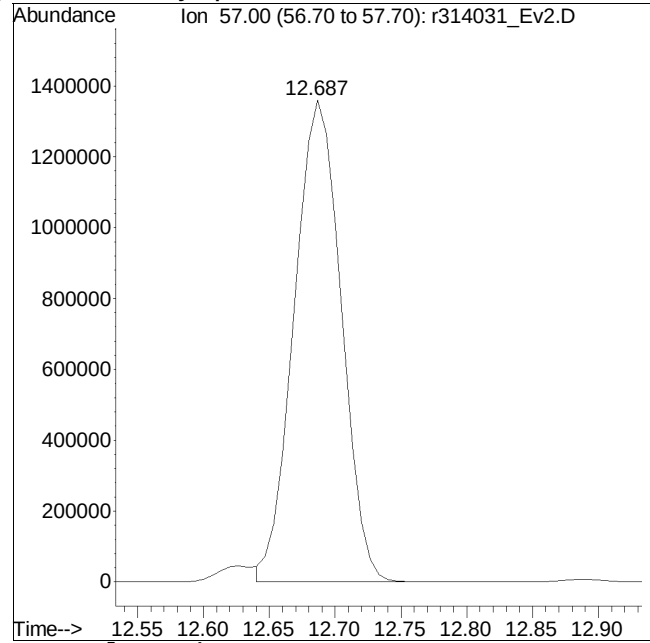
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Data File : r314031_Ev2.D Operator : AIRPIAN03:AR
Date Inj'd : 2/19/2020 0:1: 5 Instrument :
Sample : IT015-SIMSTD050 Quant Date : 2/20/2021 8:08 am

Compound #45: 2,2,4-trimethylpentane



Original Peak Response = 3402859

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



Manual Peak Response = 3385785 M6

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314036_Ev2.D
 Acq On : 20 Feb 2021 12:09 PM
 Operator : AIRPIAN03:AR
 Sample : CT015-SIMSTD5.0
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:41:11 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 13:38:17 2021
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	bromochloromethane	1.000	1.000	0.0	105	0.00
2	propylene	0.496	0.538	-8.5	115	0.00
3	dichlorodifluoromethane	0.788	0.716	9.1	95	0.00
4 C	chloromethane	0.432	0.425	1.6	106	0.00
5	Freon-114	1.100	1.051	4.5	101	0.00
6 C	vinyl chloride	0.513	0.480	6.4	103	0.00
7 C	1,3-butadiene	0.468	0.466	0.4	107	0.00
8 C	bromomethane	0.396	0.361	8.8	102	0.00
9 C	chloroethane	0.281	0.257	8.5	103	0.00
10	ethanol	0.467	0.358	23.3	85	0.00
11 C	vinyl bromide	0.421	0.391	7.1	97	0.00
12 C	acrolein	0.268	0.184	31.3#	83	0.00
13	acetone	0.739	0.526	28.8	76	0.00
14	trichlorofluoromethane	0.617	0.544	11.8	92	0.00
15	isopropyl alcohol	0.939	0.774	17.6	88	0.00
16 C	acrylonitrile	0.425	0.347	18.4	88	0.00
17 C	1,1-dichloroethene	0.632	0.586	7.3	100	0.00
18	tertiary butyl alcohol	0.923	0.707	23.4	82	0.00
19 C	methylene chloride	0.543	0.544	-0.2	105	0.00
20 C	3-chloropropene	0.729	0.766	-5.1	111	0.00
21 C	carbon disulfide	1.582	1.461	7.6	97	0.00
22	Freon 113	0.784	0.757	3.4	103	0.00
23	trans-1,2-dichloroethene	0.828	0.647	21.9	82	0.00
24 C	1,1-dichloroethane	0.988	0.955	3.3	105	0.00
25 C	MTBE	1.673	1.625	2.9	104	0.00
26 C	vinyl acetate	1.371	1.350	1.5	106	0.00
27 C	2-butanone	1.328	1.360	-2.4	110	0.00
28	cis-1,2-dichloroethene	0.736	0.720	2.2	107	0.00
29	Ethyl Acetate	0.227	0.230	-1.3	111	0.00
30 C	chloroform	0.955	0.921	3.6	105	0.00
31	Tetrahydrofuran	0.832	0.850	-2.2	109	0.00
32 C	1,2-dichloroethane	0.547	0.479	12.4	96	0.00
33 I	1,4-difluorobenzene	1.000	1.000	0.0	103	0.00
34 C	hexane	0.403	0.414	-2.7	106	0.00
35 s	1,2-dichloroethane-D4	0.220	0.204	7.3	95	0.00
36 C	1,1,1-trichloroethane	0.276	0.256	7.2	101	0.00
37 C	benzene	0.859	0.773	10.0	107	0.00
38 C	carbon tetrachloride	0.249	0.240	3.6	101	0.00

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314036_Ev2.D
 Acq On : 20 Feb 2021 12:09 PM
 Operator : AIRPIAN03:AR
 Sample : CT015-SIMSTD5.0
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:41:11 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 13:38:17 2021
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
39	cyclohexane	0.437	0.454	-3.9	108	0.00
40	Dibromomethane	0.201	0.146	27.4	84	0.00
41 C	1,2-dichloropropane	0.253	0.255	-0.8	110	0.00
42	bromodichloromethane	0.384	0.378	1.6	103	0.00
43 C	1,4-dioxane	0.175	0.181	-3.4	110	0.00
44 C	trichloroethene	0.280	0.276	1.4	105	0.00
45 C	2,2,4-trimethylpentane	1.281	1.326	-3.5	105	0.00
46	heptane	0.507	0.542	-6.9	111	0.00
47 C	cis-1,3-dichloropropene	0.345	0.312	9.6	96	0.00
48 C	4-methyl-2-pentanone	0.571	0.621	-8.8	111	0.00
49	trans-1,3-dichloropropene	0.374	0.399	-6.7	114	0.00
50 C	1,1,2-trichloroethane	0.251	0.255	-1.6	110	0.00
51 I	chlorobenzene-D5	1.000	1.000	0.0	104	0.00
52 C	toluene	5.700	5.190	8.9	106	0.00
53 s	toluene-D8	6.214	6.219	-0.1	102	0.00
54	2-hexanone	3.373	3.675	-9.0	110	0.00
55	dibromochloromethane	2.058	2.130	-3.5	106	0.00
56 C	1,2-dibromoethane	2.430	2.453	-0.9	108	0.00
57 C	tetrachloroethene	2.222	2.190	1.4	105	0.00
58	1,1,1,2-tetrachloroethane	1.622	1.285	20.8	83	0.00
59 C	chlorobenzene	4.219	4.369	-3.6	109	0.00
60 C	ethylbenzene	6.464	6.477	-0.2	107	0.00
61 C	m+p-xylene	5.242	5.231	0.2	106	0.00
62 C	bromoform	1.947	2.079	-6.8	108	0.00
63 C	styrene	4.604	4.803	-4.3	109	0.00
64 C	1,1,2,2-tetrachloroethane	3.685	3.903	-5.9	111	0.00
65 C	o-xylene	5.236	5.295	-1.1	107	0.00
66	1,2,3-Trichloropropane	3.023	2.470	18.3	86	0.00
67 s	bromofluorobenzene	4.142	4.190	-1.2	104	0.00
68 C	isopropylbenzene	7.029	6.045	14.0	88	0.00
69	Bromobenzene	3.906	3.307	15.3	87	0.00
70	4-ethyl toluene	7.860	8.138	-3.5	104	0.00
71	1,3,5-trimethylbenzene	6.677	6.744	-1.0	106	0.00
72	tert-butylbenzene	5.960	5.101	14.4	86	0.02
73	1,2,4-trimethylbenzene	6.232	6.696	-7.4	109	0.02
74 C	Benzyl Chloride	3.934	4.389	-11.6	104	0.02
75	1,3-dichlorobenzene	3.729	4.119	-10.5	111	0.02
76 C	1,4-dichlorobenzene	3.589	4.119	-14.8	114	-0.03

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314036_Ev2.D
 Acq On : 20 Feb 2021 12:09 PM
 Operator : AIRPIAN03:AR
 Sample : CT015-SIMSTD5.0
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:41:11 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 13:38:17 2021
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
77	sec-butylbenzene	8.910	7.582	14.9	85	0.03
78	p-isopropyltoluene	7.115	5.594	21.4	78	0.03
79	1,2-dichlorobenzene	3.556	3.881	-9.1	110	0.05
80	n-butylbenzene	6.136	5.509	10.2	89	0.06
81	1,2-dibromo-3-chloropropane	1.477	1.290	12.7	86	0.06
82 C	1,2,4-trichlorobenzene	2.096	2.789	-33.1#	119	0.07
83	naphthalene	6.423	5.670	11.7	85	0.07
84	1,2,3-trichlorobenzene	2.448	2.355	3.8	89	0.07
85 C	hexachlorobutadiene	2.608	3.018	-15.7	111	0.07

* Evaluation of CC level amount vs concentration.
 (#) = Out of Range SPCC's out = 0 CCC's out = 2

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314036_Ev2.D
 Acq On : 20 Feb 2021 12:09 PM
 Operator : AIRPIAN03:AR
 Sample : CT015-SIMSTD5.0
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:41:11 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 13:38:17 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\r314028_Ev2.D
 Sub List : Default - All compounds listed

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

Internal Standards						
1) bromochloromethane	9.575	49	240248	10.000	ppbV	0.00
Standard Area = 228008			Recovery = 105.37%			
33) 1,4-difluorobenzene	11.840	114	658290	10.000	ppbV	0.00
Standard Area = 639167			Recovery = 102.99%			
51) chlorobenzene-D5	16.567	54	101846	10.000	ppbV	0.00
Standard Area = 98211			Recovery = 103.70%			
System Monitoring Compounds						
35) 1,2-dichloroethane-D4	10.458	65	134116	9.271	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.71%			
53) toluene-D8	14.675	98	633424	10.009	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.09%			
67) bromofluorobenzene	17.933	95	426750	10.117	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.17%			
Target Compounds						
					Qvalue	
2) propylene	3.922	41	64630M6	5.426	ppbV	
3) dichlorodifluoromethane	4.000	85	86007	4.540	ppbV	99
4) chloromethane	4.180	50	51007	4.913	ppbV	100
5) Freon-114	4.312	85	126296	4.780	ppbV	99
6) vinyl chloride	4.438	62	57706	4.681	ppbV	100
7) 1,3-butadiene	4.606	54	55923	4.971	ppbV	99
8) bromomethane	4.924	94	43307	4.547	ppbV	99
9) chloroethane	5.146	64	30855	4.572	ppbV	100
10) ethanol	5.313	31	214761	19.131	ppbV	98
11) vinyl bromide	5.573	106	47012	4.643	ppbV	99
12) acrolein	5.723	56	22055	3.431	ppbV	99
13) acetone	5.880	43	315895	17.790	ppbV	98
14) trichlorofluoromethane	6.090	101	65315	4.408	ppbV	99
15) isopropyl alcohol	6.207	45	232506	10.306	ppbV	99
16) acrylonitrile	6.460	53	41695	4.081	ppbV	99
17) 1,1-dichloroethene	6.860	61	70424	4.639	ppbV	97
18) tertiary butyl alcohol	6.938	59	84915	3.828	ppbV	100
19) methylene chloride	7.022	49	65390	5.009	ppbV	98
20) 3-chloropropene	7.166	41	92048	5.255	ppbV	98
21) carbon disulfide	7.316	76	175530	4.618	ppbV	100
22) Freon 113	7.358	101	90907	4.826	ppbV	98
23) trans-1,2-dichloroethene	8.150	61	77778	3.911	ppbV	98
24) 1,1-dichloroethane	8.383	63	114695	4.834	ppbV	100

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314036_Ev2.D
 Acq On : 20 Feb 2021 12:09 PM
 Operator : AIRPIAN03:AR
 Sample : CT015-SIMSTD5.0
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:41:11 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 13:38:17 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\r314028_Ev2.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) MTBE	8.475	73	195202	4.856	ppbV	99
26) vinyl acetate	8.608	43	162191	4.925	ppbV	100
27) 2-butanone	8.867	43	163349	5.121	ppbV	97
28) cis-1,2-dichloroethene	9.383	61	86518	4.894	ppbV	97
29) Ethyl Acetate	9.683	61	27687	5.083	ppbV	90
30) chloroform	9.733	83	110627	4.820	ppbV	99
31) Tetrahydrofuran	10.183	42	102119	5.111	ppbV	100
32) 1,2-dichloroethane	10.583	62	57548	4.376	ppbV	96
34) hexane	9.642	57	136239	5.129	ppbV	82
36) 1,1,1-trichloroethane	10.875	97	84145	4.630	ppbV	98
37) benzene	11.400	78	254525	4.502	ppbV	100
38) carbon tetrachloride	11.580	117	78840	4.819	ppbV	98
39) cyclohexane	11.720	56	149297	5.189	ppbV	99
40) Dibromomethane	12.327	93	48011	3.627	ppbV #	99
41) 1,2-dichloropropane	12.360	63	84026	5.044	ppbV	99
42) bromodichloromethane	12.593	83	124326	4.917	ppbV	100
43) 1,4-dioxane	12.633	88	59647	5.192	ppbV	100
44) trichloroethene	12.640	130	90841	4.929	ppbV	99
45) 2,2,4-trimethylpentane	12.687	57	436509M6	5.176	ppbV	
46) heptane	13.007	43	178551	5.355	ppbV	98
47) cis-1,3-dichloropropene	14.275	75	102547	4.519	ppbV	98
48) 4-methyl-2-pentanone	13.692	43	204527	5.441	ppbV	99
49) trans-1,3-dichloropropene	13.650	75	131395	5.334	ppbV	100
50) 1,1,2-trichloroethane	14.475	97	83867	5.070	ppbV	98
52) toluene	14.792	91	264265	4.552	ppbV	100
54) 2-hexanone	15.075	43	187165	5.449	ppbV	99
55) dibromochloromethane	15.233	129	108486	5.175	ppbV	99
56) 1,2-dibromoethane	15.483	107	124891	5.047	ppbV	100
57) tetrachloroethene	15.958	166	111544	4.928	ppbV	99
58) 1,1,1,2-tetrachloroethane	16.592	131	65453	3.963	ppbV	99
59) chlorobenzene	16.608	112	222469	5.178	ppbV	98
60) ethylbenzene	16.958	91	329827	5.010	ppbV	99
61) m+p-xylene	17.125	91	532776	9.980	ppbV	99
62) bromoform	17.192	173	105889	5.340	ppbV	100
63) styrene	17.442	104	244585	5.216	ppbV	99
64) 1,1,2,2-tetrachloroethane	17.533	83	198729	5.295	ppbV	99
65) o-xylene	17.542	91	269624	5.056	ppbV	96
66) 1,2,3-Trichloropropane	17.650	75	125787	4.085	ppbV	98
68) isopropylbenzene	18.050	105	307823	4.300	ppbV	99
69) Bromobenzene	18.125	77	168402	4.233	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
 Data File : r314036_Ev2.D
 Acq On : 20 Feb 2021 12:09 PM
 Operator : AIRPIAN03:AR
 Sample : CT015-SIMSTD5.0
 Misc : WG1466757
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:41:11 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 13:38:17 2021
 Response via : Initial Calibration

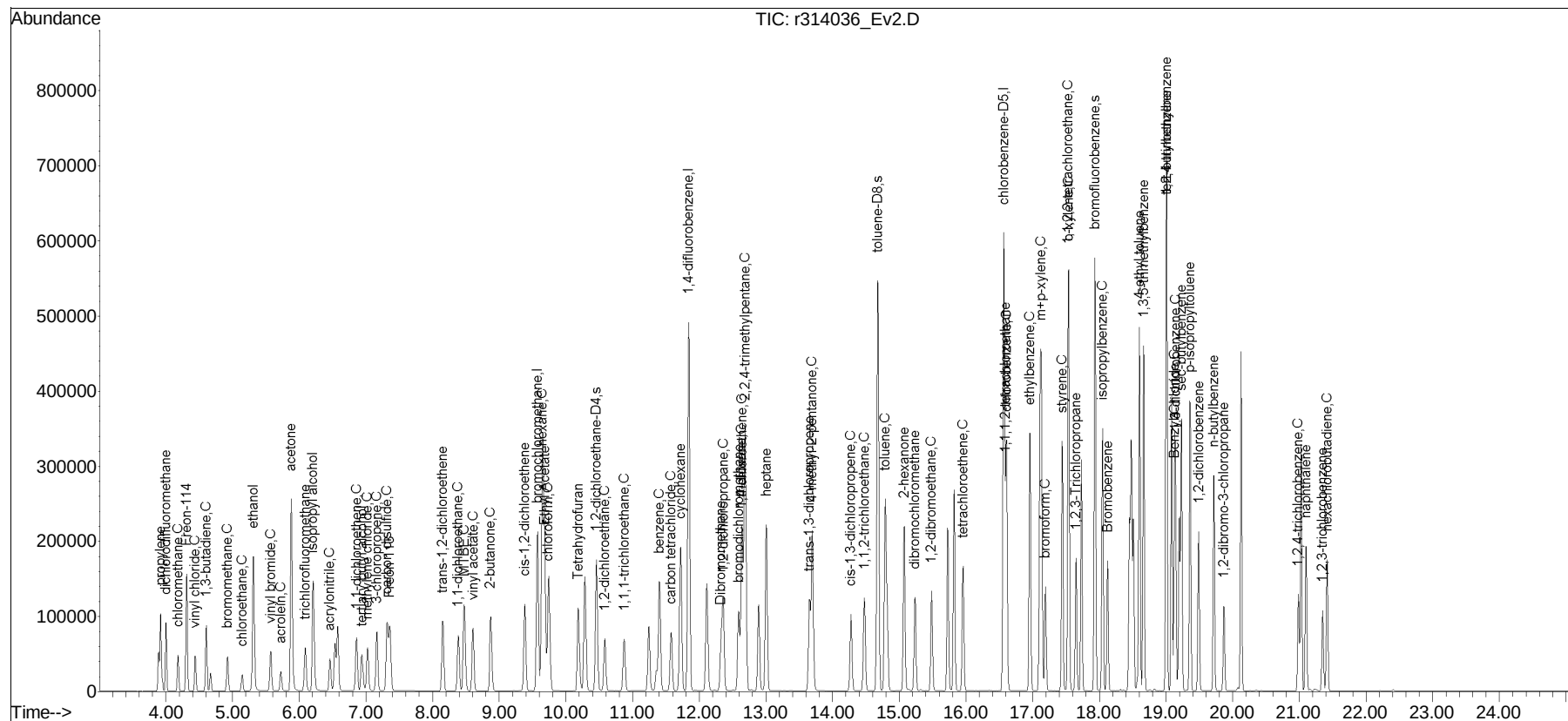
CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\r314028_Ev2.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) 4-ethyl toluene	18.600	105	414390	5.176	ppbV	100
71) 1,3,5-trimethylbenzene	18.667	105	343444	5.051	ppbV	99
72) tert-butylbenzene	19.008	119	259760	4.279	ppbV	100
73) 1,2,4-trimethylbenzene	19.008	105	340986	5.372	ppbV #	87
74) Benzyl Chloride	19.125	91	223498	5.579	ppbV	99
75) 1,3-dichlorobenzene	19.142	146	209751	5.522	ppbV	97
76) 1,4-dichlorobenzene	19.142	146	209751	5.739	ppbV	98
77) sec-butylbenzene	19.233	105	386103	4.255	ppbV	99
78) p-isopropyltoluene	19.358	119	284869	3.931	ppbV	98
79) 1,2-dichlorobenzene	19.492	146	197635	5.457	ppbV	96
80) n-butylbenzene	19.717	91	280544	4.489	ppbV	99
81) 1,2-dibromo-3-chloropr...	19.867	75	65677	4.367	ppbV	100
82) 1,2,4-trichlorobenzene	20.983	180	142040	6.653	ppbV	98
83) naphthalene	21.100	128	288741	4.414	ppbV	100
84) 1,2,3-trichlorobenzene	21.350	180	119938	4.811	ppbV	100
85) hexachlorobutadiene	21.417	225	153693	5.787	ppbV	99

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

```
Data Path   : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\
Data File  : r314036_Ev2.D
Acq On     : 20 Feb 2021  12:09 PM
Operator   : AIRPIANO3:AR
Sample     : CT015-SIMSTD5.0
Misc       : WG1466757
ALS Vial   : 0      Sample Multiplier: 1
```

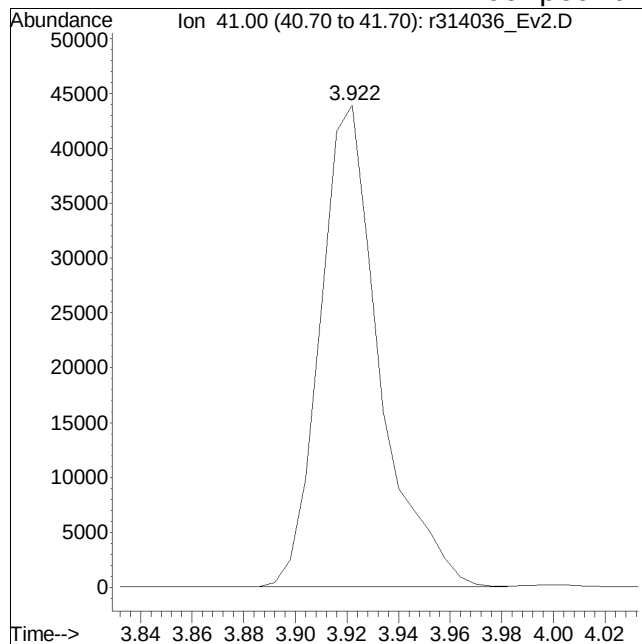
Quant Time: Feb 20 13:41:11 2021
Quant Method : 0:\Forensics\Data\Airpiano3\2021\02\0219SIM_I\TSIM3_210219.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Sat Feb 20 13:38:17 2021
Response via : Initial Calibration



Manual Integration/Negative Proof Report

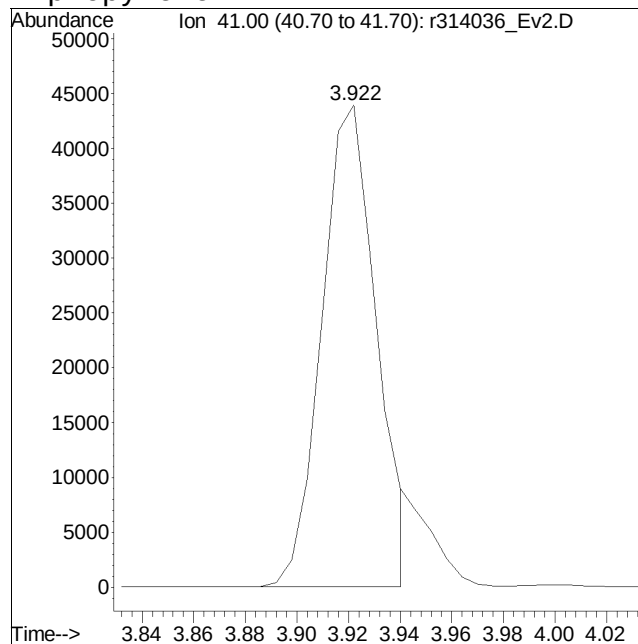
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TSIM3_210219.M
 Data File : r314036_Ev2.D Operator : AIRPIAN03:AR
 Date Inj'd : 2/20/2020 0:2: 9 Instrument :
 Sample : CT015-SIMSTD5.0 Quant Date : 2/20/2021 1:40 pm

Compound #2: propylene



Original Peak Response = 70273

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



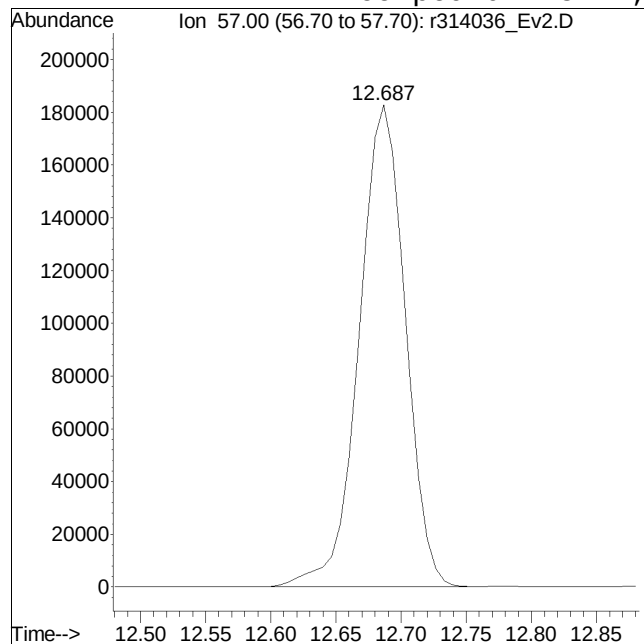
Manual Peak Response = 64630 M6

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

Manual Integration/Negative Proof Report

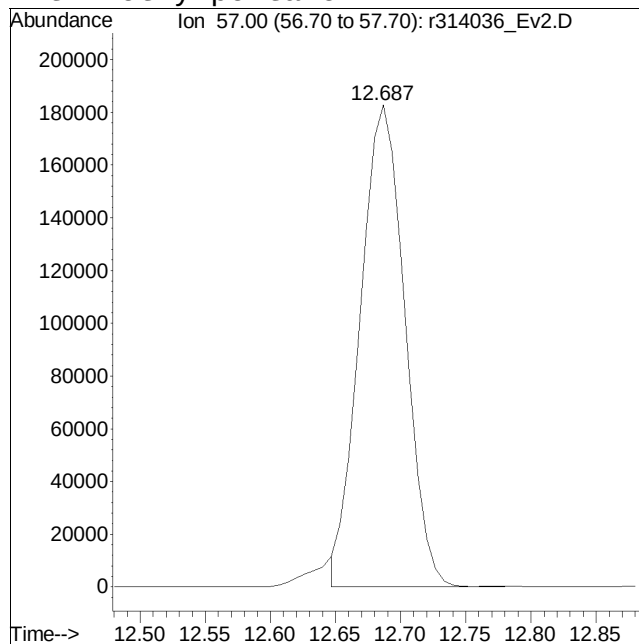
Data Path : 0:\Forensics\Data\Airpiano3QMethod : TSIM3_210219.M
 Data File : r314036_Ev2.D Operator : AIRPIAN03:AR
 Date Inj'd : 2/20/2020 0:2: 9 Instrument :
 Sample : CT015-SIMSTD5.0 Quant Date : 2/20/2021 1:40 pm

Compound #45: 2,2,4-trimethylpentane



Original Peak Response = 450752

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



Manual Peak Response = 436509 M6

Continuing Calibration

Calibration Verification Summary

Form 7

Air Volatiles

Client : Castleton Environmental, Inc.
 Project Name : LUNA2101
 Instrument ID : AIRPIANO3
 Lab File ID : R314339_EV2
 Sample No : WG1471271-2
 Channel :

Lab Number : L2109987
 Project Number : LUNA2101
 Calibration Date : 03/05/21 13:16
 Init. Calib. Date(s) : 02/19/21 02/19/21
 Init. Calib. Times : 17:25 23:25

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
bromochloromethane	1	1	-	0	30	116	.04
propylene	0.496	0.611	-	-23.2	30	144	.02
dichlorodifluoromethane	0.788	0.737	-	6.5	30	108	.02
chloromethane	0.432	0.486	-	-12.5	30	133	.02
Freon-114	1.1	1.11	-	-0.9	30	118	.02
vinyl chloride	0.513	0.554	-	-8	30	130	.02
1,3-butadiene	0.468	0.513	-	-9.6	30	130	.02
bromomethane	0.396	0.436	-	-10.1	30	135	.03
chloroethane	0.281	0.339	-	-20.6	30	149	.03
ethanol	0.467	0.359	-	23.1	30	94	.03
vinyl bromide	0.421	0.476	-	-13.1	30	130	.03
acrolein	0.268	0.202	-	24.6	30	100	.03
acetone	0.739	0.671	-	9.2	30	106	.04
trichlorofluoromethane	0.617	0.698	-	-13.1	30	130	.04
isopropyl alcohol	0.939	0.955	-	-1.7	30	119	.04
acrylonitrile	0.425	0.384	-	9.6	30	107	.04
1,1-dichloroethene	0.632	0.677	-	-7.1	30	127	.04
tertiary butyl alcohol	0.923	0.776	-	15.9	30	99	.04
methylene chloride	0.543	0.637	-	-17.3	30	136	.04
3-chloropropene	0.729	0.926	-	-27	30	147	.04
carbon disulfide	1.582	1.676	-	-5.9	30	122	.04
Freon 113	0.784	0.945	-	-20.5	30	141	.04
trans-1,2-dichloroethene	0.828	0.877	-	-5.9	30	122	.03
1,1-dichloroethane	0.988	1.084	-	-9.7	30	131	.03
MTBE	1.673	1.553	-	7.2	30	109	.04
vinyl acetate	1.371	1.515	-	-10.5	30	130	.04
2-butanone	1.328	1.5	-	-13	30	134	.03
cis-1,2-dichloroethene	0.736	0.779	-	-5.8	30	128	.04
Ethyl Acetate	0.227	0.251	-	-10.6	30	133	.04
chloroform	0.955	0.894	-	6.4	30	112	.03
Tetrahydrofuran	0.832	0.937	-	-12.6	30	132	.04
1,2-dichloroethane	0.547	0.544	-	0.5	30	120	.04
1,4-difluorobenzene	1	1	-	0	30	107	.03
hexane	0.403	0.433	-	-7.4	30	116	.03
1,1,1-trichloroethane	0.276	0.31	-	-12.3	30	127	.04
benzene	0.859	0.742	-	13.6	30	107	.04
carbon tetrachloride	0.249	0.247	-	0.8	30	109	.04
cyclohexane	0.437	0.458	-	-4.8	30	114	.04
Dibromomethane	0.201	0.168	-	16.4	30	101	.04
1,2-dichloropropane	0.253	0.295	-	-16.6	30	132	.04
bromodichloromethane	0.384	0.386	-	-0.5	30	110	.03
1,4-dioxane	0.175	0.194	-	-10.9	30	122	.04
trichloroethene	0.28	0.296	-	-5.7	30	118	.04

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Air Volatiles

Client : Castleton Environmental, Inc.
 Project Name : LUNA2101
 Instrument ID : AIRPIANO3
 Lab File ID : R314339_EV2
 Sample No : WG1471271-2
 Channel :

Lab Number : L2109987
 Project Number : LUNA2101
 Calibration Date : 03/05/21 13:16
 Init. Calib. Date(s) : 02/19/21 02/19/21
 Init. Calib. Times : 17:25 23:25

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
2,2,4-trimethylpentane	1.281	1.416	-	-10.5	30	116	.04
heptane	0.507	0.619	-	-22.1	30	132	.04
cis-1,3-dichloropropene	0.345	0.294	-	14.8	30	95	.04
4-methyl-2-pentanone	0.571	0.712	-	-24.7	30	133	.04
trans-1,3-dichloropropene	0.374	0.381	-	-1.9	30	113	.03
1,1,2-trichloroethane	0.251	0.275	-	-9.6	30	123	.03
chlorobenzene-D5	1	1	-	0	30	115	.03
toluene	5.7	5.423	-	4.9	30	123	.03
2-hexanone	3.373	3.937	-	-16.7	30	131	.03
dibromochloromethane	2.058	2.26	-	-9.8	30	125	.03
1,2-dibromoethane	2.43	2.2	-	9.5	30	107	.03
tetrachloroethene	2.222	2.173	-	2.2	30	115	.03
1,1,1,2-tetrachloroethane	1.622	1.261	-	22.3	30	90	.03
chlorobenzene	4.219	3.892	-	7.8	30	108	.02
ethylbenzene	6.464	6.575	-	-1.7	30	120	.03
m+p-xylene	5.242	5.388	-	-2.8	30	121	.03
bromoform	1.947	2.128	-	-9.3	30	123	.02
styrene	4.604	4.157	-	9.7	30	104	.02
1,1,2,2-tetrachloroethane	3.685	3.938	-	-6.9	30	125	.02
o-xylene	5.236	5.505	-	-5.1	30	123	.02
1,2,3-Trichloropropane	3.023	2.248	-	25.6	30	87	.03
isopropylbenzene	7.029	5.236	-	25.5	30	84	.03
Bromobenzene	3.906	2.982	-	23.7	30	87	.03
4-ethyl toluene	7.86	7.106	-	9.6	30	101	.03
1,3,5-trimethylbenzene	6.677	6.712	-	-0.5	30	117	.02
tert-butylbenzene	5.96	4.955	-	16.9	30	92	.04
1,2,4-trimethylbenzene	6.232	5.959	-	4.4	30	108	.05
Benzyl Chloride	3.934	4.381	-	-11.4	30	115	.05
1,3-dichlorobenzene	3.729	3.704	-	0.7	30	111	.05
1,4-dichlorobenzene	3.589	3.614	-	-0.7	30	111	.06
sec-butylbenzene	8.91	6.669	-	25.2	30	83	.05
p-isopropyltoluene	7.115	5.445	-	23.5	30	84	.06
1,2-dichlorobenzene	3.556	3.527	-	0.8	30	111	.07
n-butylbenzene	6.136	5.76	-	6.1	30	103	.07
1,2-dibromo-3-chloropropan	1.477	1.218	-	17.5	30	91	.07
1,2,4-trichlorobenzene	2.096	2.791	-	-33.2*	30	132	.08
naphthalene	6.423	5.837	-	9.1	30	97	.08
1,2,3-trichlorobenzene	2.448	2.317	-	5.4	30	97	.08
hexachlorobutadiene	2.608	2.873	-	-10.2	30	117	.08

* Value outside of QC limits.



Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\
 Data File : r314339_Ev2.D
 Acq On : 5 Mar 2021 1:16 PM
 Operator : AIRPIAN03:EW
 Sample : WG1471271-2,3,250,250
 Misc : WG1471271,ICAL17648
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 05 14:00:32 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 13:38:17 2021
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	bromochloromethane	1.000	1.000	0.0	116	0.04
2	propylene	0.496	0.611	-23.2	144#	0.02
3	dichlorodifluoromethane	0.788	0.737	6.5	108	0.02
4 C	chloromethane	0.432	0.486	-12.5	133	0.02
5	Freon-114	1.100	1.110	-0.9	118	0.02
6 C	vinyl chloride	0.513	0.554	-8.0	130	0.02
7 C	1,3-butadiene	0.468	0.513	-9.6	130	0.02
8 C	bromomethane	0.396	0.436	-10.1	135	0.03
9 C	chloroethane	0.281	0.339	-20.6	149#	0.03
10	ethanol	0.467	0.359	23.1	94	0.03
11 C	vinyl bromide	0.421	0.476	-13.1	130	0.03
12 C	acrolein	0.268	0.202	24.6	100	0.03
13	acetone	0.739	0.671	9.2	106	0.04
14	trichlorofluoromethane	0.617	0.698	-13.1	130	0.04
15	isopropyl alcohol	0.939	0.955	-1.7	119	0.04
16 C	acrylonitrile	0.425	0.384	9.6	107	0.04
17 C	1,1-dichloroethene	0.632	0.677	-7.1	127	0.04
18	tertiary butyl alcohol	0.923	0.776	15.9	99	0.04
19 C	methylene chloride	0.543	0.637	-17.3	136	0.04
20 C	3-chloropropene	0.729	0.926	-27.0	147#	0.04
21 C	carbon disulfide	1.582	1.676	-5.9	122	0.04
22	Freon 113	0.784	0.945	-20.5	141#	0.04
23	trans-1,2-dichloroethene	0.828	0.877	-5.9	122	0.03
24 C	1,1-dichloroethane	0.988	1.084	-9.7	131	0.03
25 C	MTBE	1.673	1.553	7.2	109	0.04
26 C	vinyl acetate	1.371	1.515	-10.5	130	0.04
27 C	2-butanone	1.328	1.500	-13.0	134	0.03
28	cis-1,2-dichloroethene	0.736	0.779	-5.8	128	0.04
29	Ethyl Acetate	0.227	0.251	-10.6	133	0.04
30 C	chloroform	0.955	0.894	6.4	112	0.03
31	Tetrahydrofuran	0.832	0.937	-12.6	132	0.04
32 C	1,2-dichloroethane	0.547	0.544	0.5	120	0.04
33 I	1,4-difluorobenzene	1.000	1.000	0.0	107	0.03
34 C	hexane	0.403	0.433	-7.4	116	0.03
36 C	1,1,1-trichloroethane	0.276	0.310	-12.3	127	0.04
37 C	benzene	0.859	0.742	13.6	107	0.04
38 C	carbon tetrachloride	0.249	0.247	0.8	109	0.04
39	cyclohexane	0.437	0.458	-4.8	114	0.04

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\
 Data File : r314339_Ev2.D
 Acq On : 5 Mar 2021 1:16 PM
 Operator : AIRPIAN03:EW
 Sample : WG1471271-2,3,250,250
 Misc : WG1471271,ICAL17648
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 05 14:00:32 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 13:38:17 2021
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40	Dibromomethane	0.201	0.168	16.4	101	0.04
41 C	1,2-dichloropropane	0.253	0.295	-16.6	132	0.04
42	bromodichloromethane	0.384	0.386	-0.5	110	0.03
43 C	1,4-dioxane	0.175	0.194	-10.9	122	0.04
44 C	trichloroethene	0.280	0.296	-5.7	118	0.04
45 C	2,2,4-trimethylpentane	1.281	1.416	-10.5	116	0.04
46	heptane	0.507	0.619	-22.1	132	0.04
47 C	cis-1,3-dichloropropene	0.345	0.294	14.8	95	0.04
48 C	4-methyl-2-pentanone	0.571	0.712	-24.7	133	0.04
49	trans-1,3-dichloropropene	0.374	0.381	-1.9	113	0.03
50 C	1,1,2-trichloroethane	0.251	0.275	-9.6	123	0.03
51 I	chlorobenzene-D5	1.000	1.000	0.0	115	0.03
52 C	toluene	5.700	5.423	4.9	123	0.03
54	2-hexanone	3.373	3.937	-16.7	131	0.03
55	dibromochloromethane	2.058	2.260	-9.8	125	0.03
56 C	1,2-dibromoethane	2.430	2.200	9.5	107	0.03
57 C	tetrachloroethene	2.222	2.173	2.2	115	0.03
58	1,1,1,2-tetrachloroethane	1.622	1.261	22.3	90	0.03
59 C	chlorobenzene	4.219	3.892	7.8	108	0.02
60 C	ethylbenzene	6.464	6.575	-1.7	120	0.03
61 C	m+p-xylene	5.242	5.388	-2.8	121	0.03
62 C	bromofom	1.947	2.128	-9.3	123	0.02
63 C	styrene	4.604	4.157	9.7	104	0.02
64 C	1,1,2,2-tetrachloroethane	3.685	3.938	-6.9	125	0.02
65 C	o-xylene	5.236	5.505	-5.1	123	0.02
66	1,2,3-Trichloropropane	3.023	2.248	25.6	87	0.03
68 C	isopropylbenzene	7.029	5.236	25.5	84	0.03
69	Bromobenzene	3.906	2.982	23.7	87	0.03
70	4-ethyl toluene	7.860	7.106	9.6	101	0.03
71	1,3,5-trimethylbenzene	6.677	6.712	-0.5	117	0.02
72	tert-butylbenzene	5.960	4.955	16.9	92	0.04
73	1,2,4-trimethylbenzene	6.232	5.959	4.4	108	0.05
74 C	Benzyl Chloride	3.934	4.381	-11.4	115	0.05
75	1,3-dichlorobenzene	3.729	3.704	0.7	111	0.05
76 C	1,4-dichlorobenzene	3.589	3.614	-0.7	111	0.06
77	sec-butylbenzene	8.910	6.669	25.2	83	0.05
78	p-isopropyltoluene	7.115	5.445	23.5	84	0.06
79	1,2-dichlorobenzene	3.556	3.527	0.8	111	0.07

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\
 Data File : r314339_Ev2.D
 Acq On : 5 Mar 2021 1:16 PM
 Operator : AIRPIAN03:EW
 Sample : WG1471271-2,3,250,250
 Misc : WG1471271,ICAL17648
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 05 14:00:32 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 13:38:17 2021
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
80	n-butylbenzene	6.136	5.760	6.1	103	0.07
81	1,2-dibromo-3-chloropropane	1.477	1.218	17.5	91	0.07
82 C	1,2,4-trichlorobenzene	2.096	2.791	-33.2#	132	0.08
83	naphthalene	6.423	5.837	9.1	97	0.08
84	1,2,3-trichlorobenzene	2.448	2.317	5.4	97	0.08
85 C	hexachlorobutadiene	2.608	2.873	-10.2	117	0.08

* Evaluation of CC level amount vs concentration.
 (#) = Out of Range SPCC's out = 0 CCC's out = 1

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\
 Data File : r314339_Ev2.D
 Acq On : 5 Mar 2021 1:16 PM
 Operator : AIRPIAN03:EW
 Sample : WG1471271-2,3,250,250
 Misc : WG1471271,ICAL17648
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 05 14:00:32 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 13:38:17 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\r314339_Ev2.D
 Sub List : Default-LCS-AP2 - All compounds listed

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

Internal Standards						
1) bromochloromethane	9.608	49	264380	10.000	ppbV	0.04
Standard Area = 264380			Recovery = 100.00%			
33) 1,4-difluorobenzene	11.873	114	686188	10.000	ppbV	# 0.03
Standard Area = 686188			Recovery = 100.00%			
51) chlorobenzene-D5	16.592	54	112949	10.000	ppbV	0.03
Standard Area = 112949			Recovery = 100.00%			

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) propylene	3.940	41	80781M6	6.163	ppbV	
3) dichlorodifluoromethane	4.024	85	97450	4.675	ppbV	99
4) chloromethane	4.204	50	64308	5.629	ppbV	99
5) Freon-114	4.330	85	146771	5.048	ppbV	95
6) vinyl chloride	4.462	62	73211	5.397	ppbV	97
7) 1,3-butadiene	4.630	54	67863	5.481	ppbV	94
8) bromomethane	4.948	94	57643	5.499	ppbV	97
9) chloroethane	5.170	64	44759	6.027	ppbV	100
10) ethanol	5.343	31	237506	19.226	ppbV	86
11) vinyl bromide	5.603	106	62909	5.646	ppbV	96
12) acrolein	5.753	56	26711	3.776	ppbV	99
13) acetone	5.913	43	443298	22.686	ppbV	94
14) trichlorofluoromethane	6.123	101	92287	5.660	ppbV	98
15) isopropyl alcohol	6.240	45	315736	12.717	ppbV	98
16) acrylonitrile	6.493	53	50750	4.514	ppbV	99
17) 1,1-dichloroethene	6.890	61	89449	5.354	ppbV	92
18) tertiary butyl alcohol	6.974	59	102631	4.204	ppbV	94
19) methylene chloride	7.058	49	84249	5.864	ppbV	92
20) 3-chloropropene	7.196	41	122373	6.348	ppbV	94
21) carbon disulfide	7.352	76	221592	5.298	ppbV	99
22) Freon 113	7.388	101	124900	6.025	ppbV	87
23) trans-1,2-dichloroethene	8.183	61	115895	5.296	ppbV	94
24) 1,1-dichloroethane	8.417	63	143286	5.488	ppbV	100
25) MTBE	8.508	73	205271	4.640	ppbV	97
26) vinyl acetate	8.642	43	200309	5.528	ppbV	97
27) 2-butanone	8.900	43	198237	5.648	ppbV	92
28) cis-1,2-dichloroethene	9.417	61	102955	5.292	ppbV	99
29) Ethyl Acetate	9.717	61	33174	5.534	ppbV	94
30) chloroform	9.767	83	118232	4.681	ppbV	97

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\
 Data File : r314339_Ev2.D
 Acq On : 5 Mar 2021 1:16 PM
 Operator : AIRPIAN03:EW
 Sample : WG1471271-2,3,250,250
 Misc : WG1471271,ICAL17648
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 05 14:00:32 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 13:38:17 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\r314339_Ev2.D
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Tetrahydrofuran	10.217	42	123881	5.635	ppbV	91
32) 1,2-dichloroethane	10.617	62	71939	4.971	ppbV	96
34) hexane	9.675	57	148632	5.369	ppbV	90
36) 1,1,1-trichloroethane	10.908	97	106481	5.620	ppbV	98
37) benzene	11.440	78	254624	4.321	ppbV	99
38) carbon tetrachloride	11.613	117	84633	4.963	ppbV	99
39) cyclohexane	11.753	56	157285	5.244	ppbV	94
40) Dibromomethane	12.360	93	57656	4.179	ppbV #	90
41) 1,2-dichloropropane	12.393	63	101344	5.837	ppbV	98
42) bromodichloromethane	12.620	83	132402	5.024	ppbV	98
43) 1,4-dioxane	12.667	88	66419	5.546	ppbV	98
44) trichloroethene	12.673	130	101635	5.290	ppbV	96
45) 2,2,4-trimethylpentane	12.720	57	485917	5.528	ppbV	94
46) heptane	13.040	43	212472	6.113	ppbV	92
47) cis-1,3-dichloropropene	14.308	75	100910	4.266	ppbV #	92
48) 4-methyl-2-pentanone	13.725	43	244186	6.232	ppbV	95
49) trans-1,3-dichloropropene	13.683	75	130655	5.088	ppbV #	90
50) 1,1,2-trichloroethane	14.508	97	94485	5.480	ppbV	96
52) toluene	14.817	91	306239	4.757	ppbV	100
54) 2-hexanone	15.100	43	222335	5.837	ppbV #	92
55) dibromochloromethane	15.267	129	127607	5.489	ppbV	100
56) 1,2-dibromoethane	15.508	107	124271	4.528	ppbV	100
57) tetrachloroethene	15.983	166	122704	4.888	ppbV	100
58) 1,1,1,2-tetrachloroethane	16.617	131	71193	3.886	ppbV	97
59) chlorobenzene	16.633	112	219809	4.613	ppbV	98
60) ethylbenzene	16.983	91	371335	5.086	ppbV	90
61) m+p-xylene	17.150	91	608584	10.279	ppbV	89
62) bromoform	17.217	173	120153	5.464	ppbV	99
63) styrene	17.467	104	234758	4.514	ppbV	98
64) 1,1,2,2-tetrachloroethane	17.558	83	222421	5.344	ppbV	99
65) o-xylene	17.558	91	310883	5.257	ppbV	89
66) 1,2,3-Trichloropropane	17.675	75	126965	3.718	ppbV #	95
68) isopropylbenzene	18.075	105	295710	3.725	ppbV	91
69) Bromobenzene	18.150	77	168425	3.817	ppbV	98
70) 4-ethyl toluene	18.625	105	401308	4.520	ppbV	93
71) 1,3,5-trimethylbenzene	18.683	105	379082	5.027	ppbV	95
72) tert-butylbenzene	19.025	119	279829	4.157	ppbV	96
73) 1,2,4-trimethylbenzene	19.033	105	336556	4.781	ppbV	88
74) Benzyl Chloride	19.150	91	247441	5.569	ppbV	99
75) 1,3-dichlorobenzene	19.167	146	209170	4.966	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\
 Data File : r314339_Ev2.D
 Acq On : 5 Mar 2021 1:16 PM
 Operator : AIRPIAN03:EW
 Sample : WG1471271-2,3,250,250
 Misc : WG1471271,ICAL17648
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 05 14:00:32 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 13:38:17 2021
 Response via : Initial Calibration

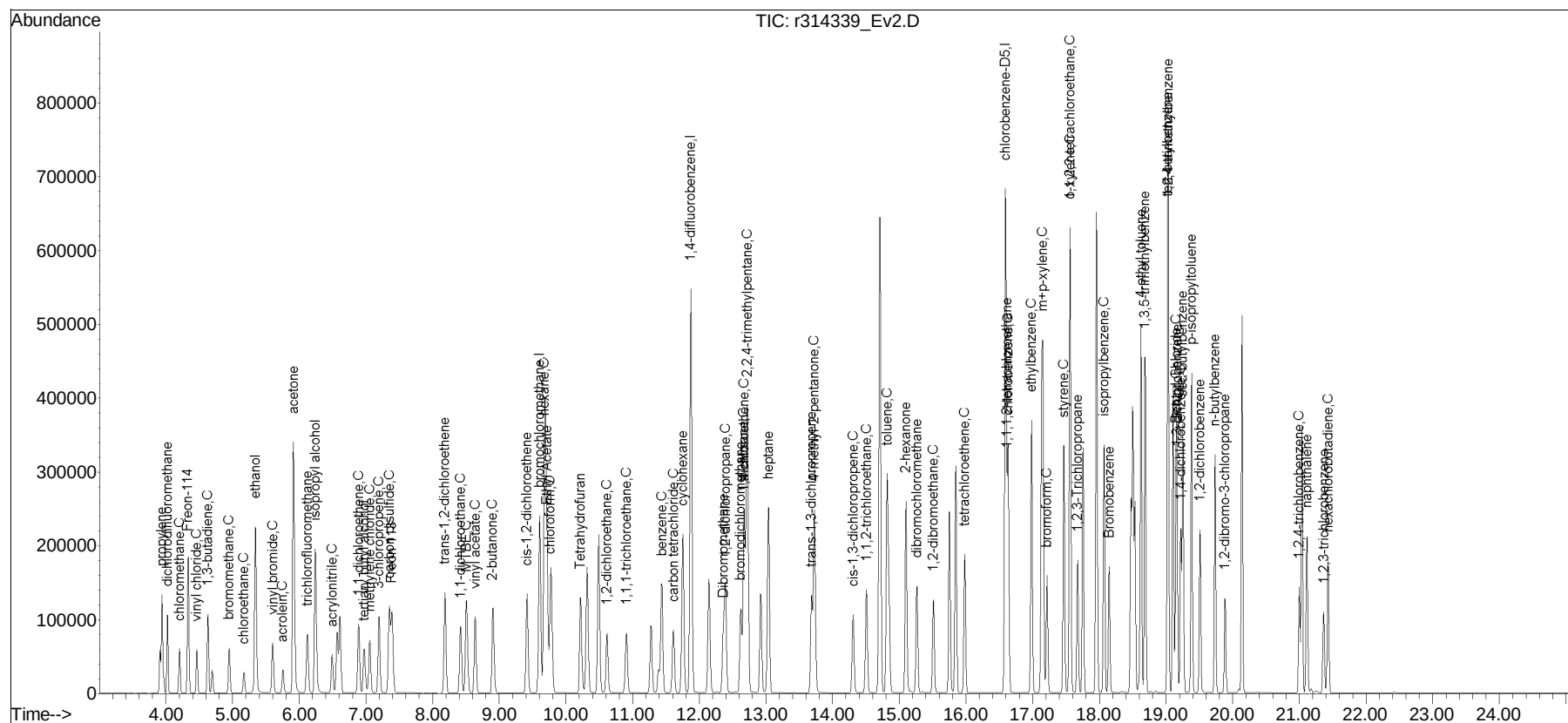
CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\r314339_Ev2.D
 Sub List : Default-LCS-AP2 - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
76)	1,4-dichlorobenzene	19.225	146	204084M3	5.035	ppbV		
77)	sec-butylbenzene	19.250	105	376653	3.743	ppbV		99
78)	p-isopropyltoluene	19.383	119	307494M3	3.826	ppbV		
79)	1,2-dichlorobenzene	19.508	146	199179	4.959	ppbV		98
80)	n-butylbenzene	19.733	91	325303M3	4.694	ppbV		
81)	1,2-dibromo-3-chloropr...	19.883	75	68805	4.125	ppbV	#	91
82)	1,2,4-trichlorobenzene	21.000	180	157629	6.657	ppbV		98
83)	naphthalene	21.117	128	329661	4.544	ppbV		98
84)	1,2,3-trichlorobenzene	21.367	180	130861	4.733	ppbV		97
85)	hexachlorobutadiene	21.433	225	162240	5.508	ppbV		99

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

```
Data Path   : O:\Forensics\Data\Airpiano3\2021\03\0305SIM\
Data File   : r314339_Ev2.D
Acq On      : 5 Mar 2021 1:16 PM
Operator    : AIRPIANO3:EW
Sample      : WG1471271-2,3,250,250
Misc        : WG1471271,ICAL17648
ALS Vial    : 0 Sample Multiplier: 1
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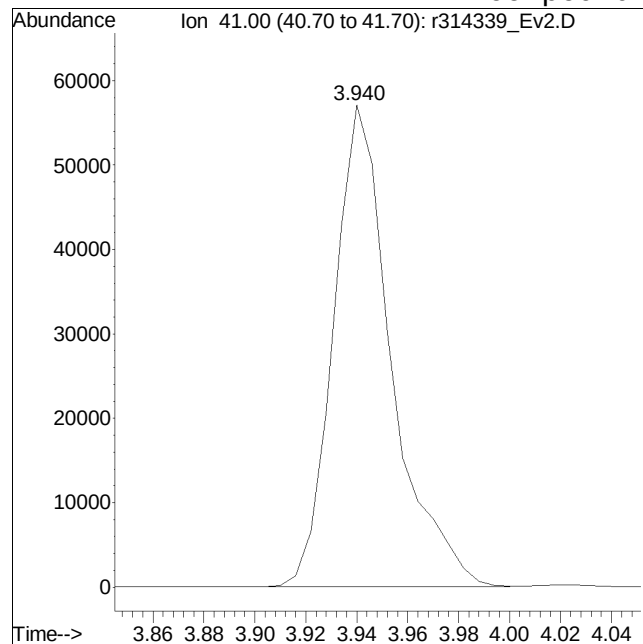
Quant Time: Mar 05 14:00:32 2021
Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\TSIM3_210219.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Sat Feb 20 13:38:17 2021
Response via : Initial Calibration



Manual Integration Report

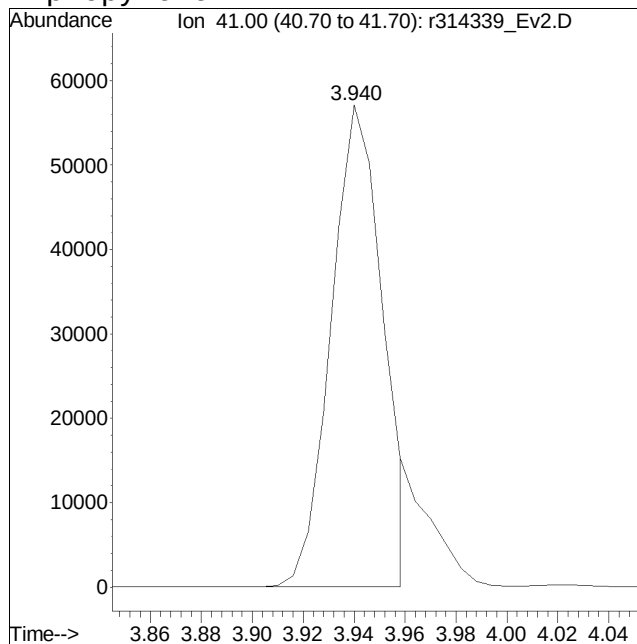
Data Path : 0:\Forensics\Data\AirpianoQMethod : TSIM3_210219.M
Data File : r314339_Ev2.D Operator : AIRPIAN03:EW
Date Inj'd : 3/5/2020 0:1: 6 Instrument :
Sample : WG1471271-2,3,250,250 Quant Date : 3/5/2021 1:59 pm

Compound #2: propylene



Original Peak Response = 90319

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

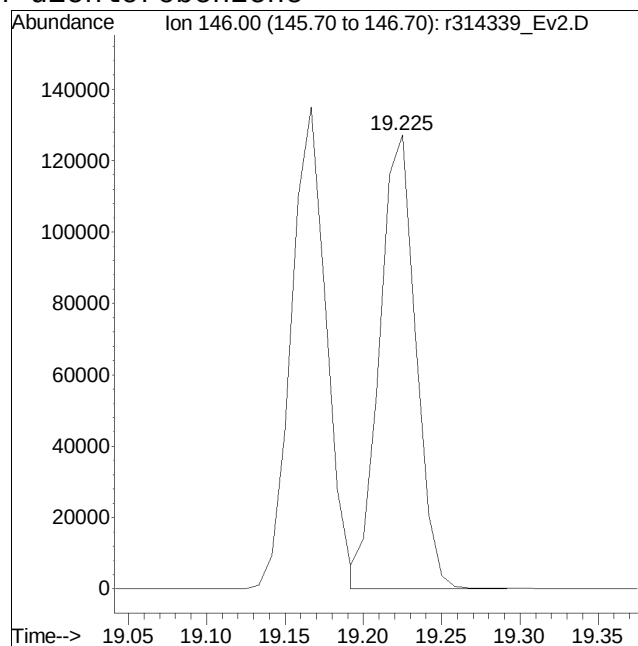
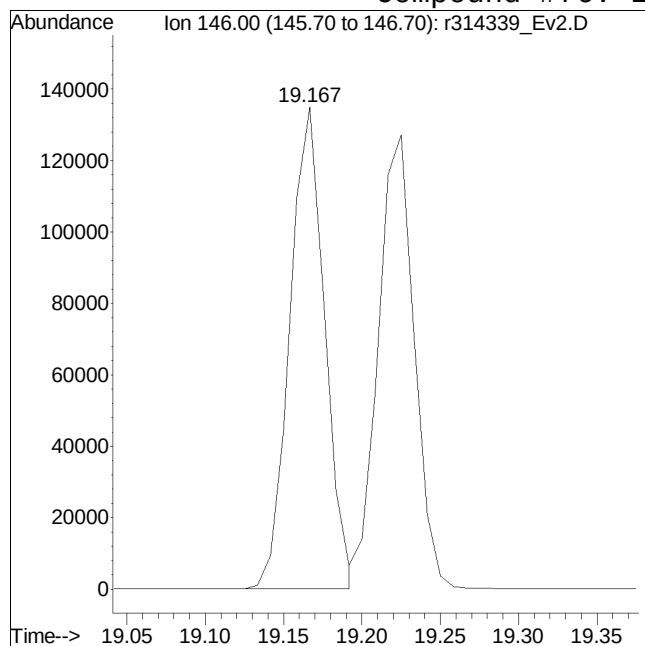


Manual Peak Response = 80781 M6

Manual Integration Report

Data Path : 0:\Forensics\Data\AirpianoQMethod : TSIM3_210219.M
Data File : r314339_Ev2.D Operator : AIRPIAN03:EW
Date Inj'd : 3/5/2020 0:1: 6 Instrument :
Sample : WG1471271-2,3,250,250 Quant Date : 3/5/2021 1:59 pm

Compound #76: 1,4-dichlorobenzene



Original Peak Response = 209170

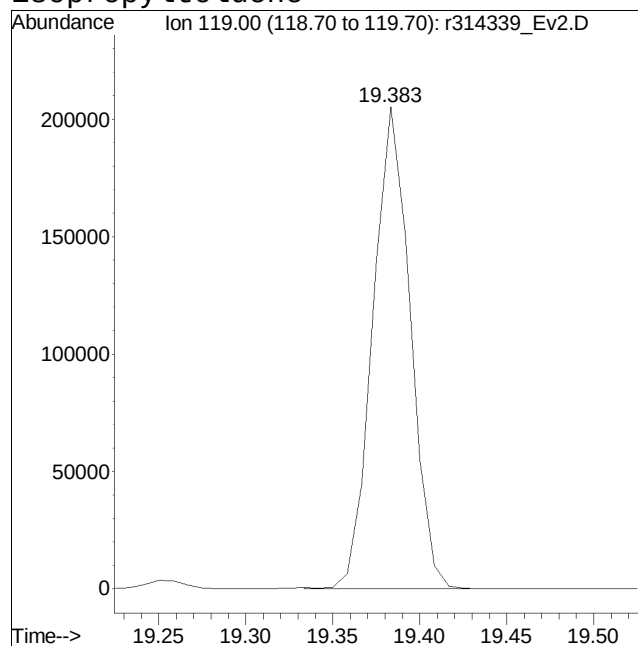
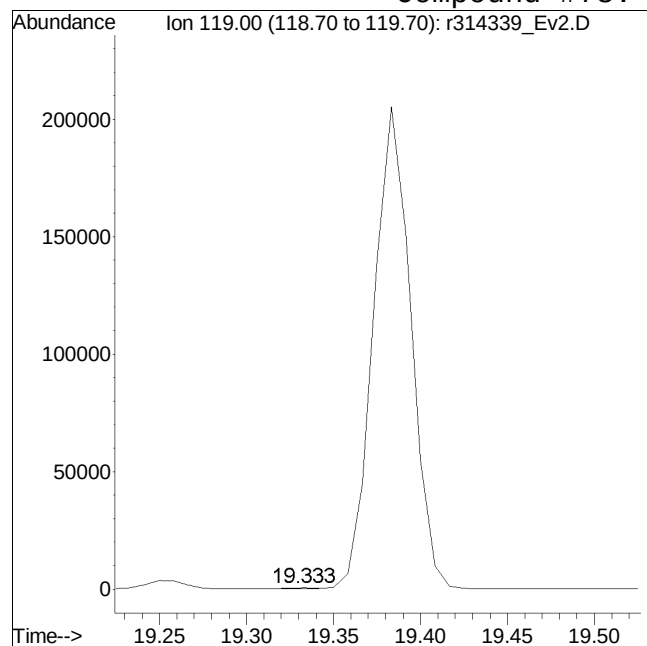
Manual Peak Response = 204084 M3

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

Manual Integration Report

Data Path : 0:\Forensics\Data\AirpianoQMethod : TSIM3_210219.M
Data File : r314339_Ev2.D Operator : AIRPIAN03:EW
Date Inj'd : 3/5/2020 0:1: 6 Instrument :
Sample : WG1471271-2,3,250,250 Quant Date : 3/5/2021 1:59 pm

Compound #78: p-isopropyltoluene



Original Peak Response = 722

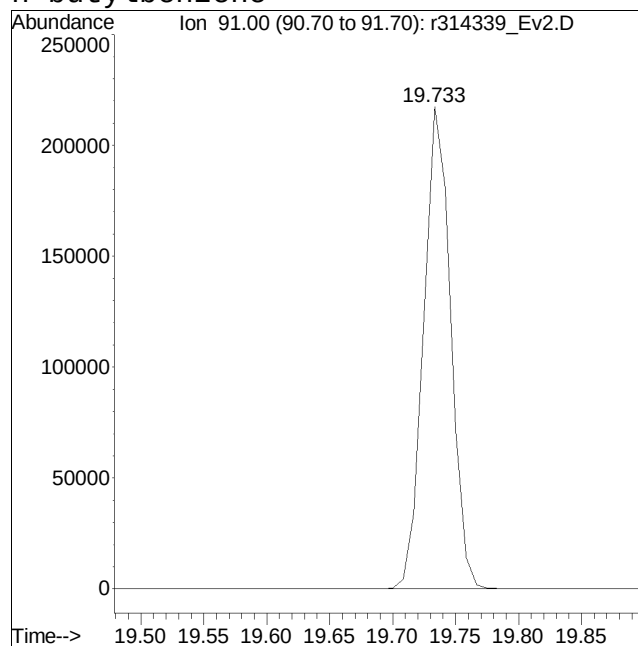
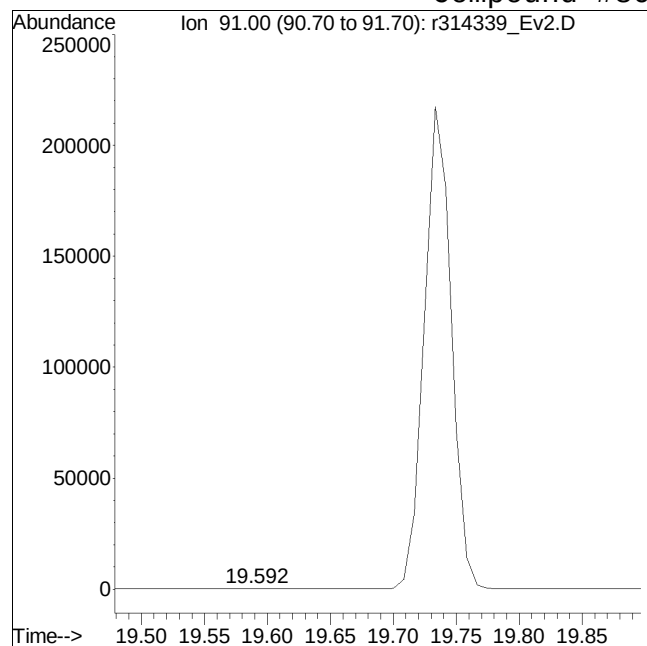
Manual Peak Response = 307494 M3

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

Manual Integration Report

Data Path : 0:\Forensics\Data\AirpianoQMethod : TSIM3_210219.M
Data File : r314339_Ev2.D Operator : AIRPIAN03:EW
Date Inj'd : 3/5/2020 0:1: 6 Instrument :
Sample : WG1471271-2,3,250,250 Quant Date : 3/5/2021 1:59 pm

Compound #80: n-butylbenzene



Original Peak Response = 131

Manual Peak Response = 325303 M3

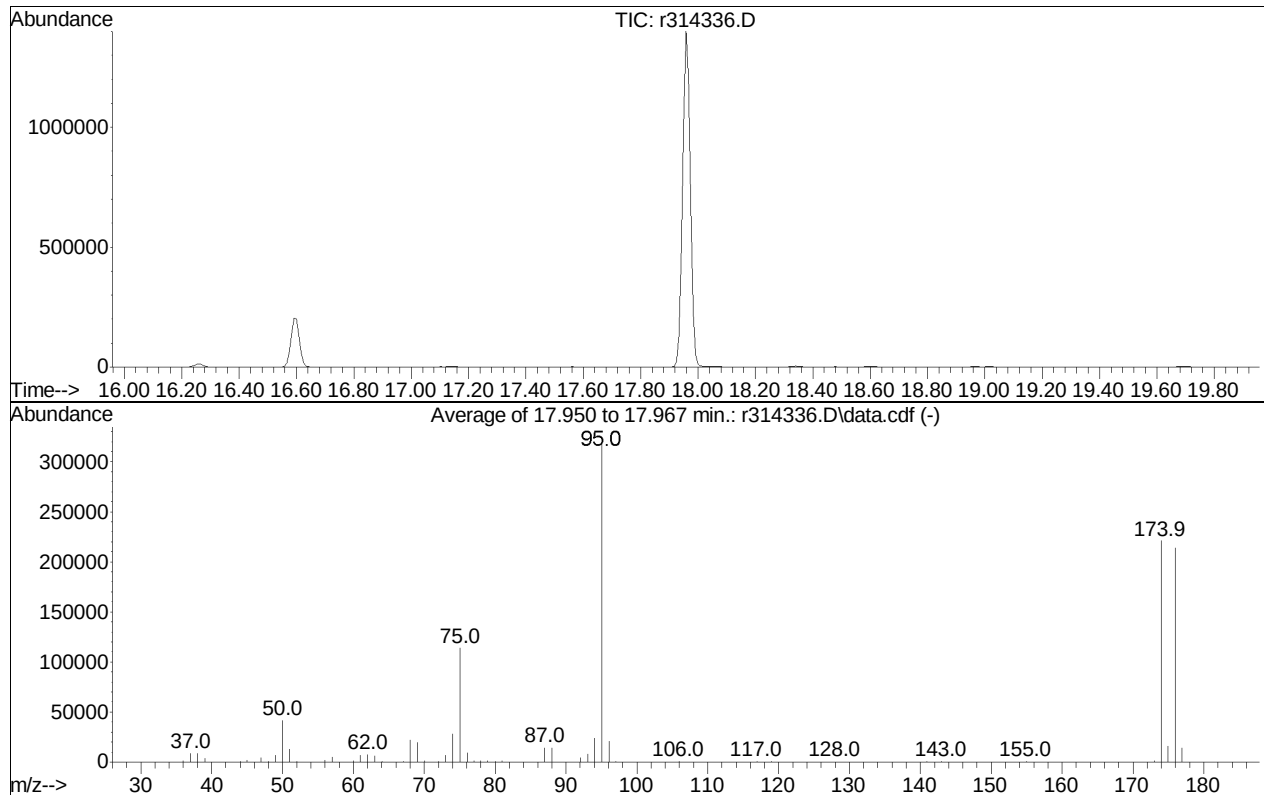
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

BFB

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\
 Data File : r314336.D
 Acq On : 5 Mar 2021 11:12 AM
 Operator : AIRPIAN03:EW
 Sample : WG1471271-1,3,250,250
 Misc : WG1471271,ICAL17648
 ALS Vial : 0 Sample Multiplier: 1

Integration File: rteint.p

Method : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\TSIM3_210219.M
 Title : T0-14A/T0-15 SIM/Full Scan Analysis
 Last Update : Sat Feb 20 13:38:17 2021



AutoFind: Scans 2255, 2256, 2257; Background Corrected with Scan 2249

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	13.2	42001	PASS
75	95	30	66	35.7	113999	PASS
95	95	100	100	100.0	319048	PASS
96	95	5	9	6.6	21013	PASS
173	174	0.00	2	0.6	1279	PASS
174	95	50	120	69.3	221218	PASS
175	174	4	9	7.2	15969	PASS
176	174	93	101	96.6	213783	PASS
177	176	5	9	6.7	14264	PASS

Volatiles Raw QC Data

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\
 Data File : r314341_Ev2.D
 Acq On : 5 Mar 2021 3:36 PM
 Operator : AIRPIAN03:EW
 Sample : WG1471271-4,3,250,250
 Misc : WG1471271,ICAL17648
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 06 10:35:42 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 13:38:17 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\r314339_Ev2.D
 Sub List : Default-LCS-AP2 - All compounds listed

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

Internal Standards						
1) bromochloromethane	9.608	49	245990	10.000	ppbV	0.04
Standard Area = 264380			Recovery =		93.04%	
33) 1,4-difluorobenzene	11.880	114	639332	10.000	ppbV	0.04
Standard Area = 686188			Recovery =		93.17%	
51) chlorobenzene-D5	16.558	54	99885	10.000	ppbV	0.00
Standard Area = 112949			Recovery =		88.43%	

System Monitoring Compounds

Target Compounds			Qvalue
6) vinyl chloride	0.000	0	N.D.
17) 1,1-dichloroethene	0.000	0	N.D.
28) cis-1,2-dichloroethene	0.000	0	N.D.
36) 1,1,1-trichloroethane	11.027	0	N.D.
38) carbon tetrachloride	11.593	0	N.D.
44) trichloroethene	12.480	0	N.D.
57) tetrachloroethene	15.967	0	N.D.

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

Sub List : Default-LCS-AP2 - All compounds listed05SIM\r314339_Ev2.D

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\

Data File : r314341_Ev2.D

Acq On : 5 Mar 2021 3:36 PM

Operator : AIRPIANO3:EW

Sample : WG1471271-4,3,250,250

Misc : WG1471271,ICAL17648

ALS Vial : 0 Sample Multiplier: 1

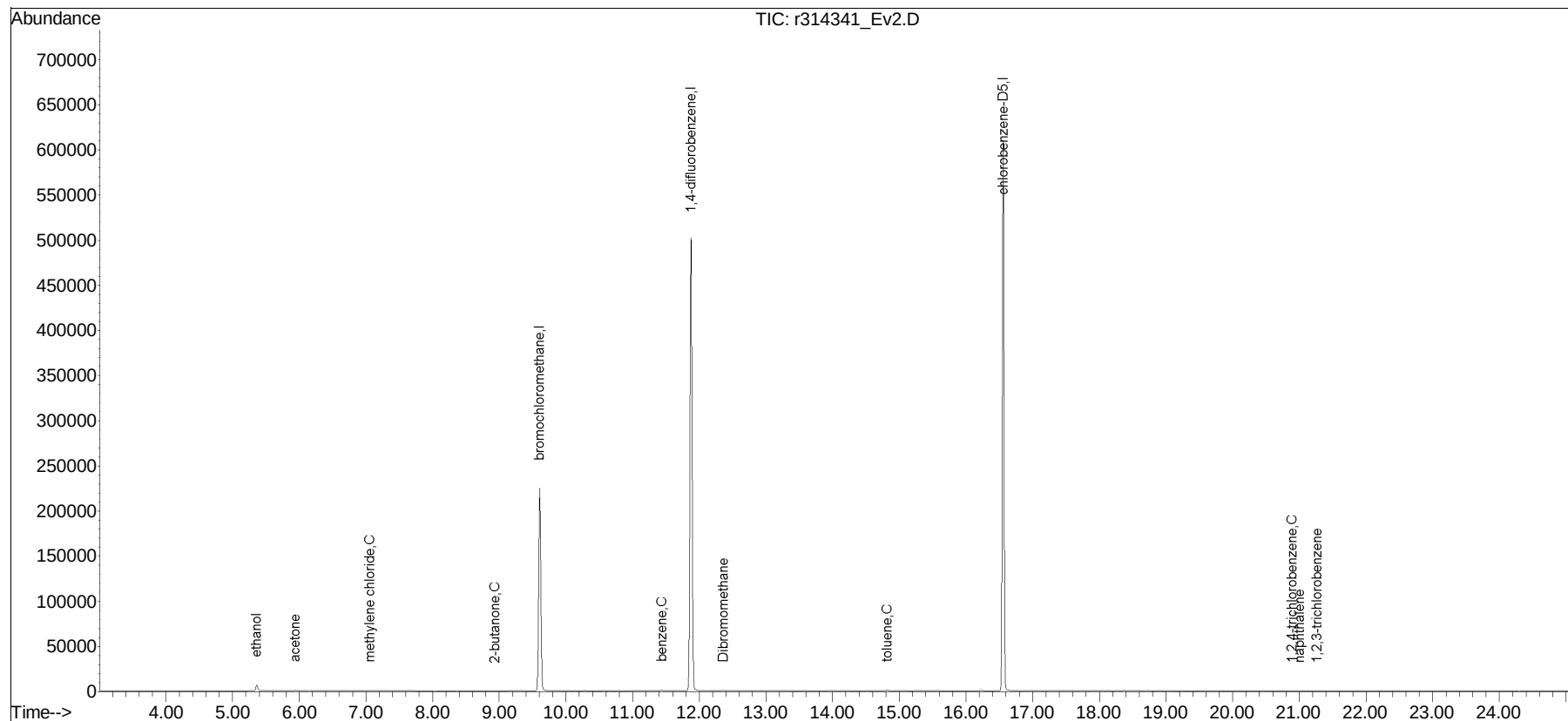
Quant Time: Mar 06 10:35:42 2021

Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\TSIM3_210219.M

Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis

QLast Update : Sat Feb 20 13:38:17 2021

Response via : Initial Calibration



TSIM3_210219.M Sun Mar 07 10:25:55 2021

Page: 4

Manual Integration Report

Data Path : 0:\Forensics\Data\AirpianoQMethod : TSIM3_210219.M
Data File : r314341_Ev2.D Operator : AIRPIAN03:EW
Date Inj'd : 3/5/2020 0:3: 6 Instrument :
Sample : WG1471271-4,3,250,250 Quant Date : 3/6/2021 10:35 am

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

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\
 Data File : r314339_Ev2.D
 Acq On : 5 Mar 2021 1:16 PM
 Operator : AIRPIAN03:EW
 Sample : WG1471271-3,3,250,250
 Misc : WG1471271,ICAL17648
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 05 14:00:32 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 13:38:17 2021
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	bromochloromethane	10.000	10.000	0.0	116	0.04
2	propylene	5.000	6.163	-23.3	144	0.02
3	dichlorodifluoromethane	5.000	4.675	6.5	108	0.02
4 C	chloromethane	5.000	5.629	-12.6	133	0.02
5	Freon-114	5.000	5.048	-1.0	118	0.02
6 C	vinyl chloride	5.000	5.397	-7.9	130	0.02
7 C	1,3-butadiene	5.000	5.481	-9.6	130	0.02
8 C	bromomethane	5.000	5.499	-10.0	135	0.03
9 C	chloroethane	5.000	6.027	-20.5	149	0.03
10	ethanol	25.000	19.226	23.1	94	0.03
11 C	vinyl bromide	5.000	5.646	-12.9	130	0.03
12 C	acrolein	5.000	3.776	24.5	100	0.03
13	acetone	25.000	22.686	9.3	106	0.04
14	trichlorofluoromethane	5.000	5.660	-13.2	130	0.04
15	isopropyl alcohol	12.500	12.717	-1.7	119	0.04
16 C	acrylonitrile	5.000	4.514	9.7	107	0.04
17 C	1,1-dichloroethene	5.000	5.354	-7.1	127	0.04
18	tertiary butyl alcohol	5.000	4.204	15.9	99	0.04
19 C	methylene chloride	5.000	5.864	-17.3	136	0.04
20 C	3-chloropropene	5.000	6.348	-27.0	147	0.04
21 C	carbon disulfide	5.000	5.298	-6.0	122	0.04
22	Freon 113	5.000	6.025	-20.5	141	0.04
23	trans-1,2-dichloroethene	5.000	5.296	-5.9	122	0.03
24 C	1,1-dichloroethane	5.000	5.488	-9.8	131	0.03
25 C	MTBE	5.000	4.640	7.2	109	0.04
26 C	vinyl acetate	5.000	5.528	-10.6	130	0.04
27 C	2-butanone	5.000	5.648	-13.0	134	0.03
28	cis-1,2-dichloroethene	5.000	5.292	-5.8	128	0.04
29	Ethyl Acetate	5.000	5.534	-10.7	133	0.04
30 C	chloroform	5.000	4.681	6.4	112	0.03
31	Tetrahydrofuran	5.000	5.635	-12.7	132	0.04
32 C	1,2-dichloroethane	5.000	4.971	0.6	120	0.04
33 I	1,4-difluorobenzene	10.000	10.000	0.0	107	0.03
34 C	hexane	5.000	5.369	-7.4	116	0.03
36 C	1,1,1-trichloroethane	5.000	5.620	-12.4	127	0.04
37 C	benzene	5.000	4.321	13.6	107	0.04
38 C	carbon tetrachloride	5.000	4.963	0.7	109	0.04
39	cyclohexane	5.000	5.244	-4.9	114	0.04

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\
 Data File : r314339_Ev2.D
 Acq On : 5 Mar 2021 1:16 PM
 Operator : AIRPIAN03:EW
 Sample : WG1471271-3,3,250,250
 Misc : WG1471271,ICAL17648
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 05 14:00:32 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 13:38:17 2021
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
40	Dibromomethane	5.000	4.179	16.4	101	0.04
41 C	1,2-dichloropropane	5.000	5.837	-16.7	132	0.04
42	bromodichloromethane	5.000	5.024	-0.5	110	0.03
43 C	1,4-dioxane	5.000	5.546	-10.9	122	0.04
44 C	trichloroethene	5.000	5.290	-5.8	118	0.04
45 C	2,2,4-trimethylpentane	5.000	5.528	-10.6	116	0.04
46	heptane	5.000	6.113	-22.3	132	0.04
47 C	cis-1,3-dichloropropene	5.000	4.266	14.7	95	0.04
48 C	4-methyl-2-pentanone	5.000	6.232	-24.6	133	0.04
49	trans-1,3-dichloropropene	5.000	5.088	-1.8	113	0.03
50 C	1,1,2-trichloroethane	5.000	5.480	-9.6	123	0.03
51 I	chlorobenzene-D5	10.000	10.000	0.0	115	0.03
52 C	toluene	5.000	4.757	4.9	123	0.03
54	2-hexanone	5.000	5.837	-16.7	131	0.03
55	dibromochloromethane	5.000	5.489	-9.8	125	0.03
56 C	1,2-dibromoethane	5.000	4.528	9.4	107	0.03
57 C	tetrachloroethene	5.000	4.888	2.2	115	0.03
58	1,1,1,2-tetrachloroethane	5.000	3.886	22.3	90	0.03
59 C	chlorobenzene	5.000	4.613	7.7	108	0.02
60 C	ethylbenzene	5.000	5.086	-1.7	120	0.03
61 C	m+p-xylene	10.000	10.279	-2.8	121	0.03
62 C	bromoform	5.000	5.464	-9.3	123	0.02
63 C	styrene	5.000	4.514	9.7	104	0.02
64 C	1,1,2,2-tetrachloroethane	5.000	5.344	-6.9	125	0.02
65 C	o-xylene	5.000	5.257	-5.1	123	0.02
66	1,2,3-Trichloropropane	5.000	3.718	25.6	87	0.03
68 C	isopropylbenzene	5.000	3.725	25.5	84	0.03
69	Bromobenzene	5.000	3.817	23.7	87	0.03
70	4-ethyl toluene	5.000	4.520	9.6	101	0.03
71	1,3,5-trimethylbenzene	5.000	5.027	-0.5	117	0.02
72	tert-butylbenzene	5.000	4.157	16.9	92	0.04
73	1,2,4-trimethylbenzene	5.000	4.781	4.4	108	0.05
74 C	Benzyl Chloride	5.000	5.569	-11.4	115	0.05
75	1,3-dichlorobenzene	5.000	4.966	0.7	111	0.05
76 C	1,4-dichlorobenzene	5.000	5.035	-0.7	111	0.06
77	sec-butylbenzene	5.000	3.743	25.1	83	0.05
78	p-isopropyltoluene	5.000	3.826	23.5	84	0.06
79	1,2-dichlorobenzene	5.000	4.959	0.8	111	0.07

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\
 Data File : r314339_Ev2.D
 Acq On : 5 Mar 2021 1:16 PM
 Operator : AIRPIAN03:EW
 Sample : WG1471271-3,3,250,250
 Misc : WG1471271,ICAL17648
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 05 14:00:32 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 13:38:17 2021
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
80	n-butylbenzene	5.000	4.694	6.1	103	0.07
81	1,2-dibromo-3-chloropropane	5.000	4.125	17.5	91	0.07
82 C	1,2,4-trichlorobenzene	5.000	6.657	-33.1#	132	0.08
83	naphthalene	5.000	4.544	9.1	97	0.08
84	1,2,3-trichlorobenzene	5.000	4.733	5.3	97	0.08
85 C	hexachlorobutadiene	5.000	5.508	-10.2	117	0.08

* Evaluation of CC level amount vs concentration.
 (#) = Out of Range SPCC's out = 0 CCC's out = 1

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\
 Data File : r314339_Ev2.D
 Acq On : 5 Mar 2021 1:16 PM
 Operator : AIRPIAN03:EW
 Sample : WG1471271-3,3,250,250
 Misc : WG1471271,ICAL17648
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 05 14:00:32 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\TSIM3_210219.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 13:38:17 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\r314339_Ev2.D
 Sub List : Default-LCS-AP2 - All compounds listed

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

Internal Standards						
1) bromochloromethane	9.608	49	264380	10.000	ppbV	0.04
Standard Area = 264380			Recovery = 100.00%			
33) 1,4-difluorobenzene	11.873	114	686188	10.000	ppbV	# 0.03
Standard Area = 686188			Recovery = 100.00%			
51) chlorobenzene-D5	16.592	54	112949	10.000	ppbV	0.03
Standard Area = 112949			Recovery = 100.00%			

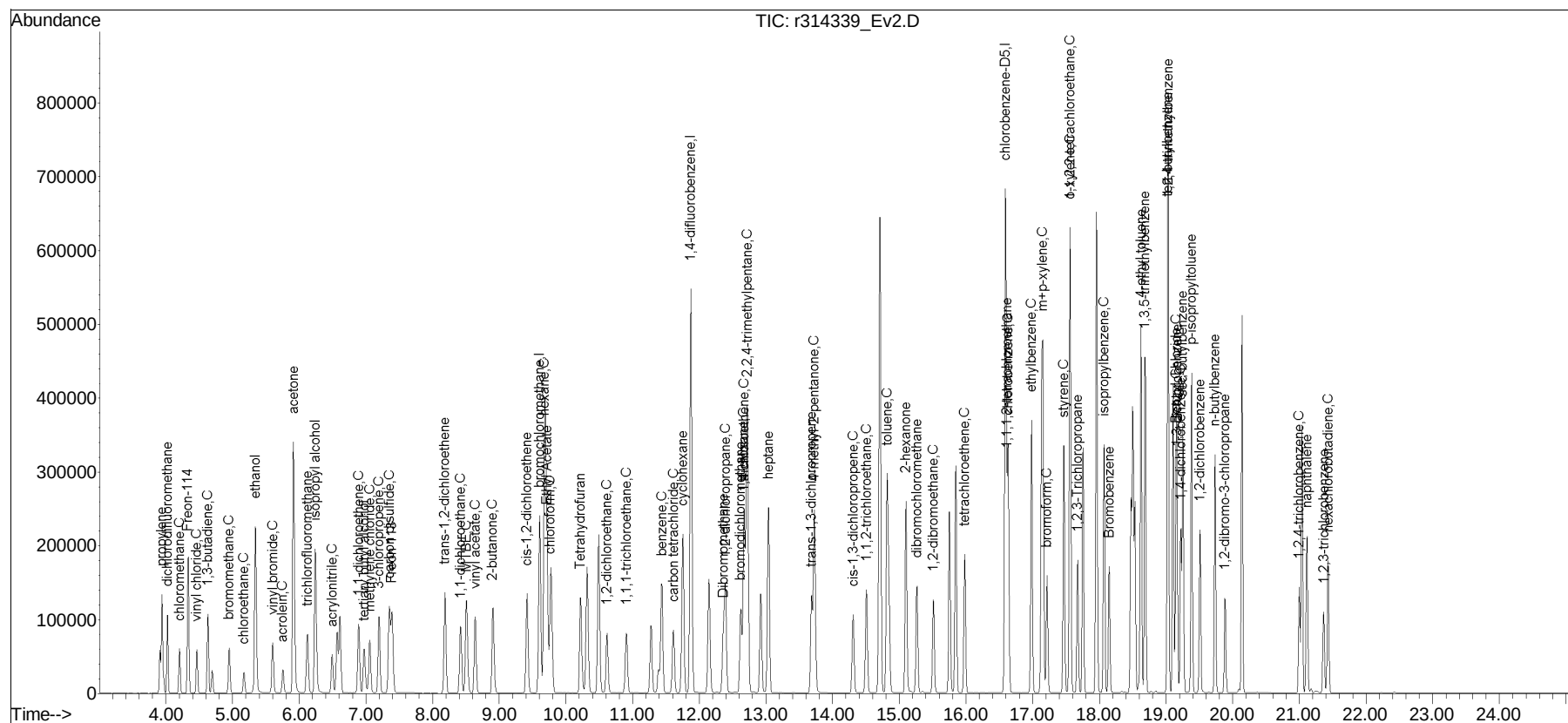
System Monitoring Compounds

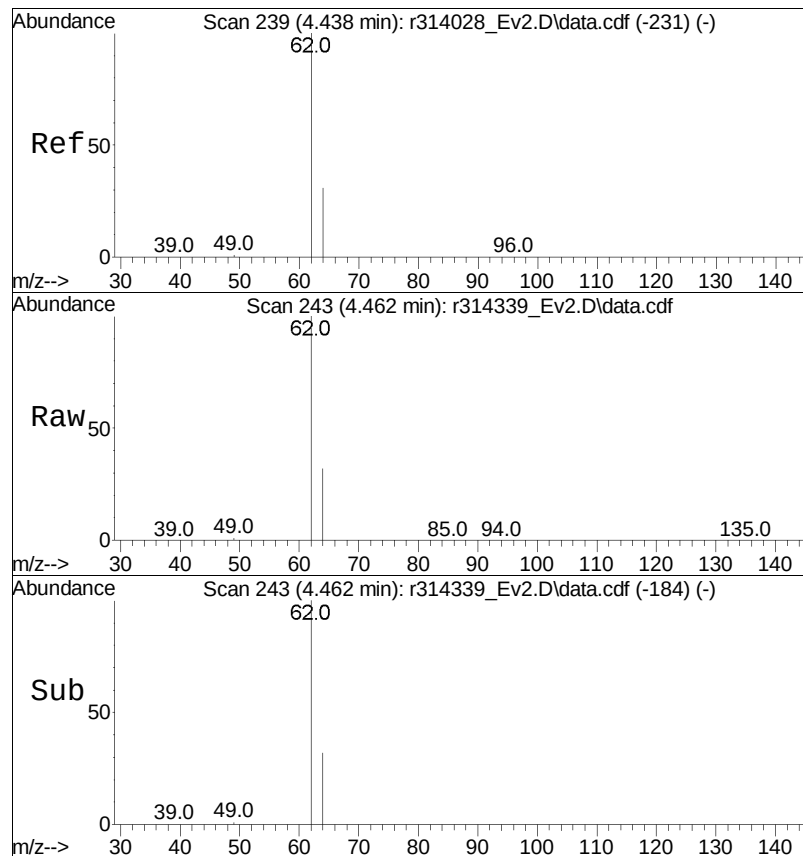
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
6) vinyl chloride	4.462	62	73211	5.397	ppbV	97
17) 1,1-dichloroethene	6.890	61	89449	5.354	ppbV	92
28) cis-1,2-dichloroethene	9.417	61	102955	5.292	ppbV	99
36) 1,1,1-trichloroethane	10.908	97	106481	5.620	ppbV	98
38) carbon tetrachloride	11.613	117	84633	4.963	ppbV	99
44) trichloroethene	12.673	130	101635	5.290	ppbV	96
57) tetrachloroethene	15.983	166	122704	4.888	ppbV	100

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

```
Data Path   : O:\Forensics\Data\Airpiano3\2021\03\0305SIM\
Data File  : r314339_Ev2.D
Acq On     :  5 Mar 2021   1:16 PM
Operator   : AIRPIANO3:EW
Sample     : WG1471271-3,3,250,250
Misc       : WG1471271,ICAL17648
ALS Vial   : 0    Sample Multiplier: 1
```

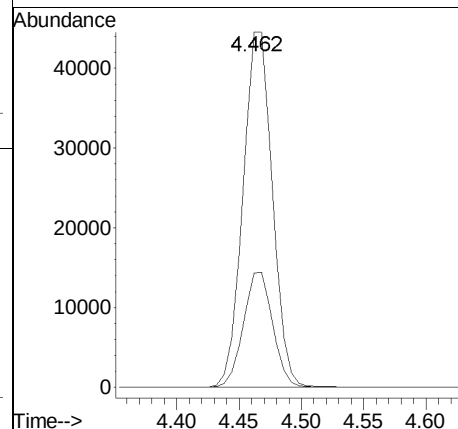
Quant Time: Mar 05 14:00:32 2021
Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\TSIM3_210219.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Sat Feb 20 13:38:17 2021
Response via : Initial Calibration

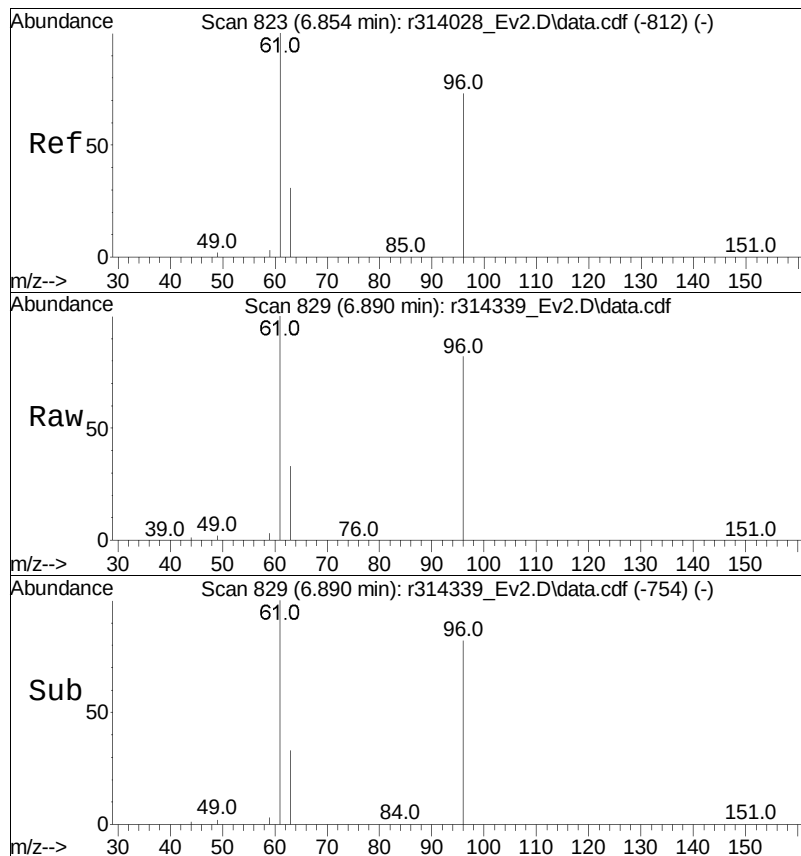




#6
 vinyl chloride
 Concen: 5.40 ppbV
 RT: 4.462 min Scan# 243
 Delta R.T. 0.024 min
 Lab File: r314339_Ev2.D
 Acq: 5 Mar 2021 1:16 PM

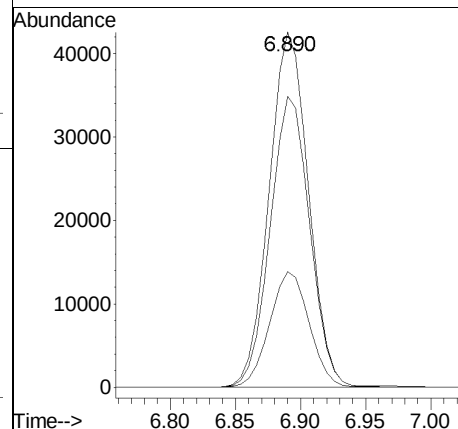
Tgt Ion	Ratio	Lower	Upper
62	100		
64	32.2	24.6	37.0

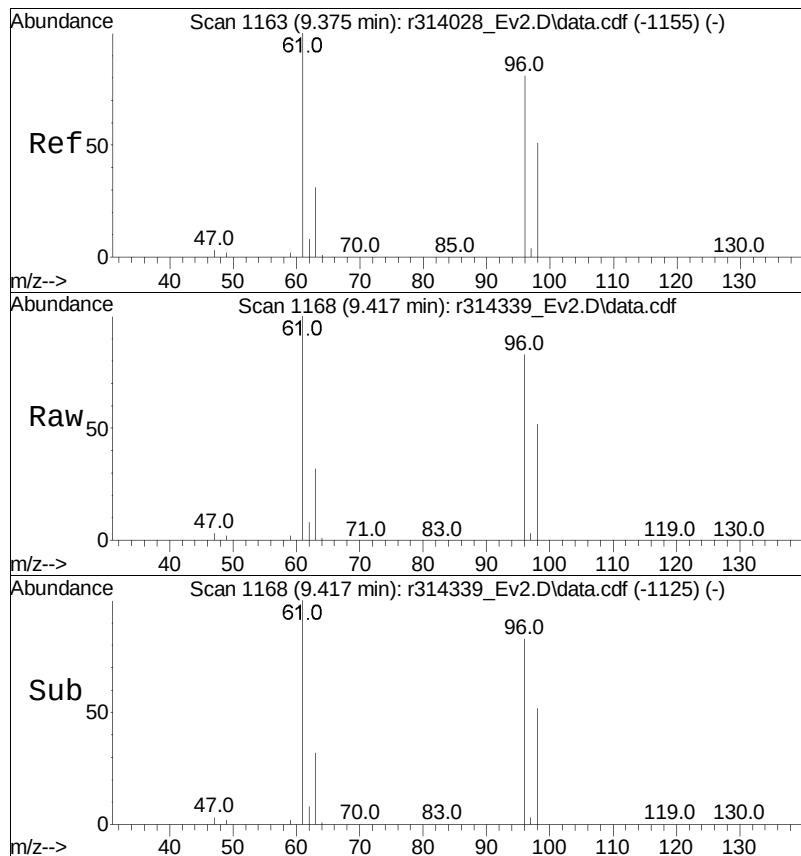




#17
 1,1-dichloroethene
 Concen: 5.35 ppbV
 RT: 6.890 min Scan# 829
 Delta R.T. 0.036 min
 Lab File: r314339_Ev2.D
 Acq: 5 Mar 2021 1:16 PM

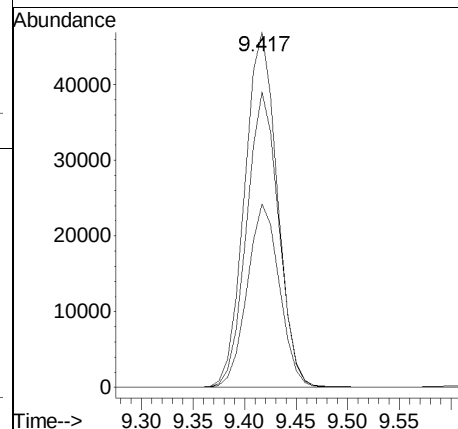
Tgt Ion:	61	Resp:	89449
Ion Ratio	Lower	Upper	
61	100		
96	81.9	58.6	87.8
63	32.6	24.9	37.3

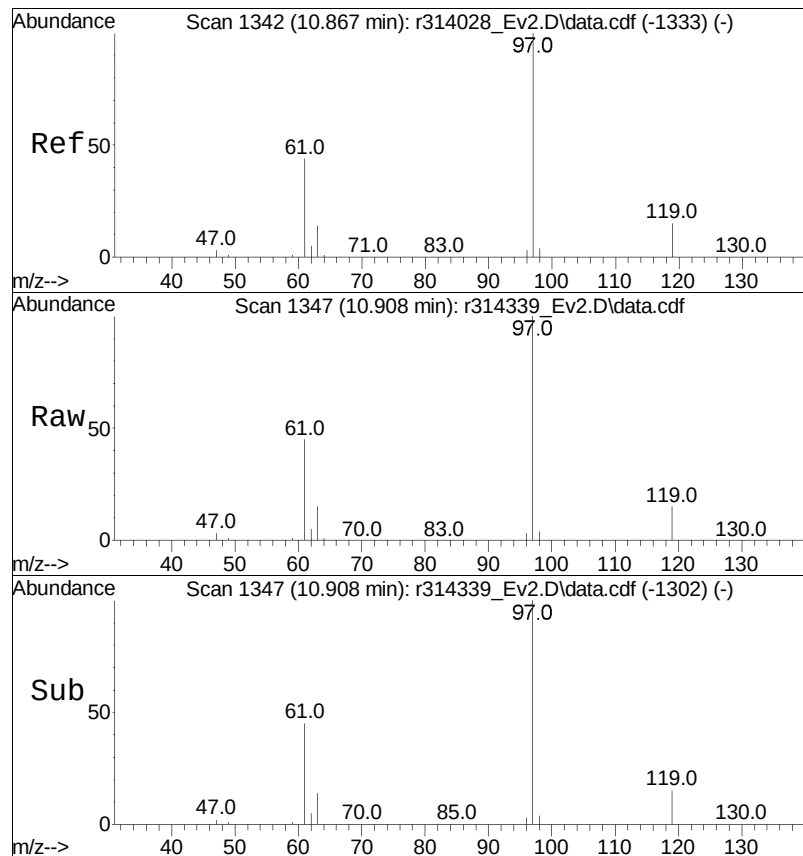




#28
 cis-1,2-dichloroethene
 Concen: 5.29 ppbV
 RT: 9.417 min Scan# 1168
 Delta R.T. 0.042 min
 Lab File: r314339_Ev2.D
 Acq: 5 Mar 2021 1:16 PM

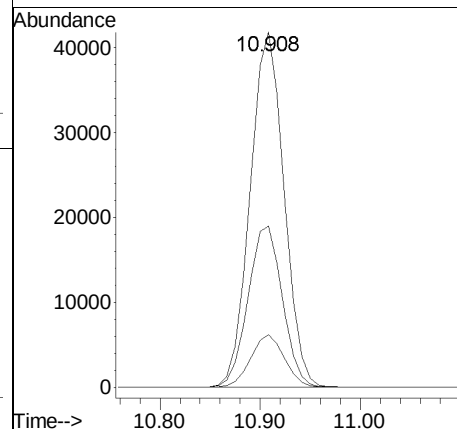
Tgt	Ion: 61	Resp:	102955
Ion	Ratio	Lower	Upper
61	100		
96	83.2	65.1	97.7
98	51.7	41.1	61.7

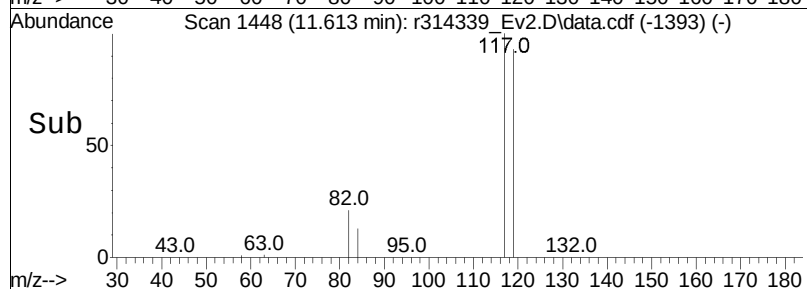
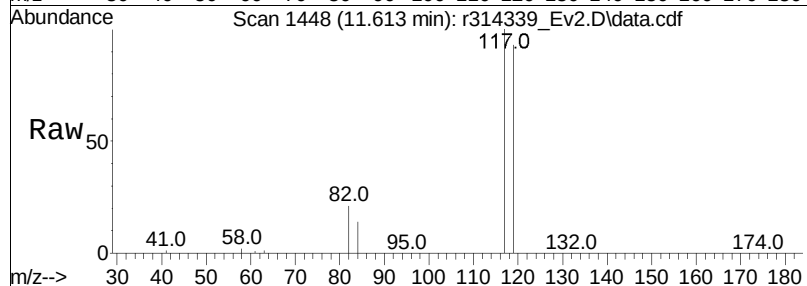
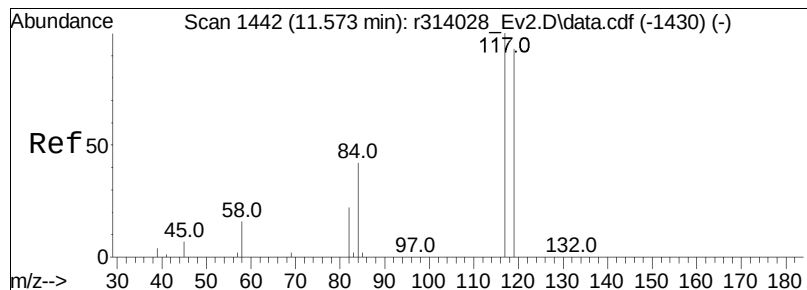




#36
 1,1,1-trichloroethane
 Concen: 5.62 ppbV
 RT: 10.908 min Scan# 1347
 Delta R.T. 0.042 min
 Lab File: r314339_Ev2.D
 Acq: 5 Mar 2021 1:16 PM

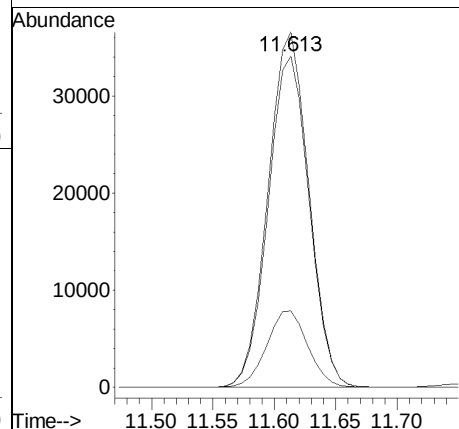
Tgt Ion	Ratio	Lower	Upper
97	100		
61	45.4	35.0	52.6
119	14.8	12.3	18.5

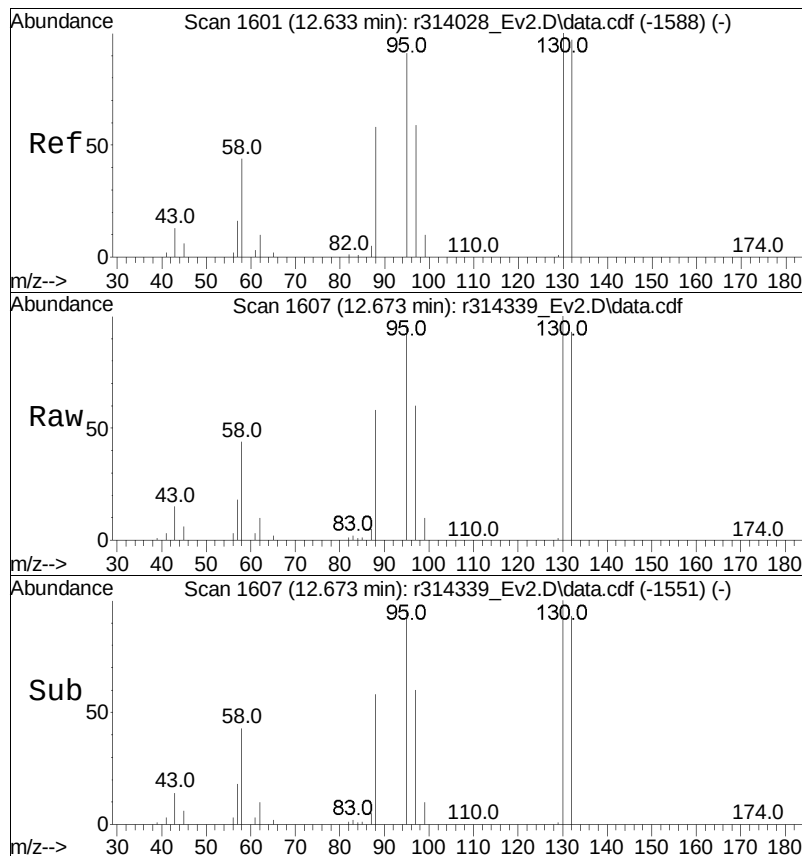




#38
 carbon tetrachloride
 Concen: 4.96 ppbV
 RT: 11.613 min Scan# 1448
 Delta R.T. 0.040 min
 Lab File: r314339_Ev2.D
 Acq: 5 Mar 2021 1:16 PM

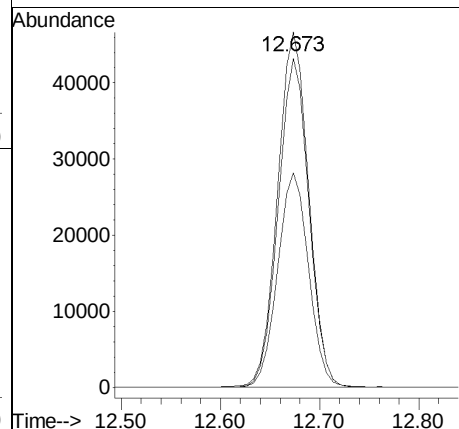
Tgt Ion	Ratio	Lower	Upper
117	100		
119	93.2	74.0	111.0
82	21.5	17.8	26.6

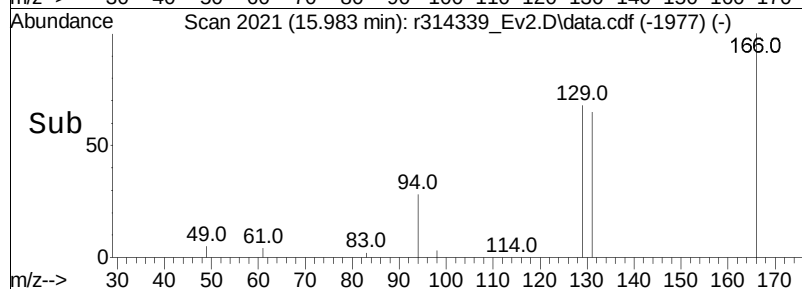
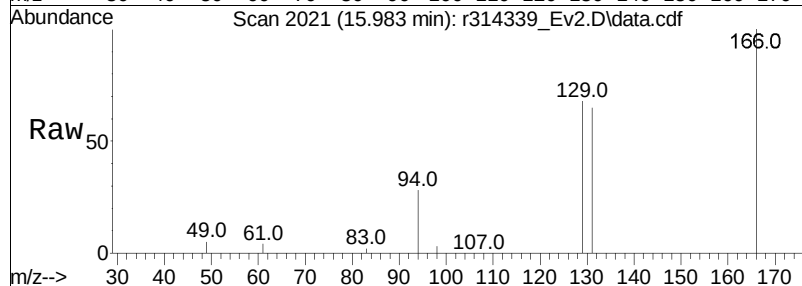
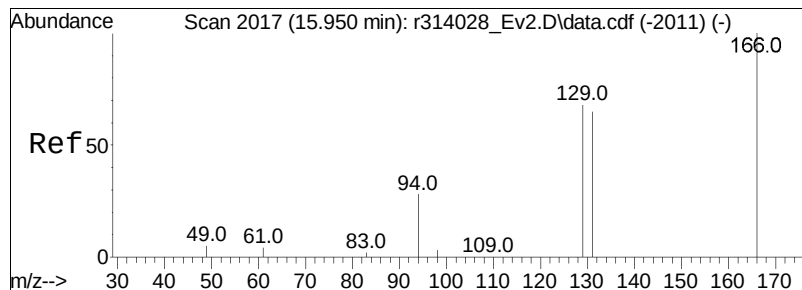




#44
 trichloroethene
 Concen: 5.29 ppbV
 RT: 12.673 min Scan# 1607
 Delta R.T. 0.040 min
 Lab File: r314339_Ev2.D
 Acq: 5 Mar 2021 1:16 PM

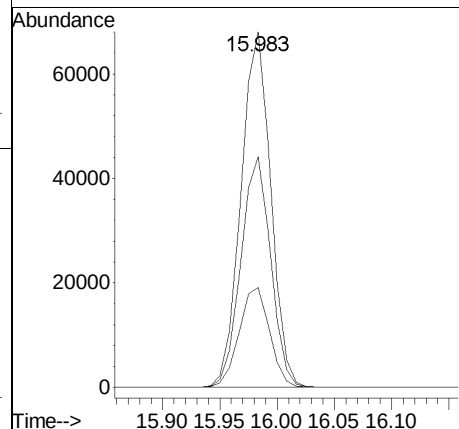
Tgt	Ion	Ratio	Resp	Lower	Upper
130	100		101635		
132	92.6	77.9	116.9		
97	60.4	47.1	70.7		





#57
 tetrachloroethene
 Concen: 4.89 ppbV
 RT: 15.983 min Scan# 2021
 Delta R.T. 0.033 min
 Lab File: r314339_Ev2.D
 Acq: 5 Mar 2021 1:16 PM

Tgt Ion:	166	Resp:	122704
Ion Ratio	Lower	Upper	
166	100		
131	64.9	52.2	78.4
94	28.1	22.6	33.8



Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\
 Data File : r314347_Ev2.D
 Acq On : 5 Mar 2021 8:05 PM
 Operator : AIRPIAN03:EW
 Sample : WG1471271-5,3,250,250
 Misc : WG1471271,ICAL17648
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Mar 06 10:37:11 2021
 Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\TSIM3_210219.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Feb 20 13:38:17 2021
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\r314339_Ev2.D
 Sub List : 7-NY-SIM - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.592	49	238384	10.000	ppbV	0.02
Standard Area = 264380			Recovery =		90.17%	
33) 1,4-difluorobenzene	11.867	114	624131	10.000	ppbV #	0.03
Standard Area = 686188			Recovery =		90.96%	
51) chlorobenzene-D5	16.583	54	102357	10.000	ppbV	0.02
Standard Area = 112949			Recovery =		90.62%	

System Monitoring Compounds

Target Compounds					Qvalue	
6) vinyl chloride	4.462		0	N.D.		
17) 1,1-dichloroethene	0.000		0	N.D.		
28) cis-1,2-dichloroethene	9.400		0	N.D.		
36) 1,1,1-trichloroethane	0.000		0	N.D.		
38) carbon tetrachloride	11.600	117	1053	0.068	ppbV	97
44) trichloroethene	12.660	130	441	0.025	ppbV #	78
57) tetrachloroethene	15.975	166	358	0.016	ppbV #	93

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

Sub List : 7-NY-SIM - .\Data\Airpiano3\2021\03\0305SIM\r314339_Ev2.D

Data Path : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\

Data File : r314347_Ev2.D

Acq On : 5 Mar 2021 8:05 PM

Operator : AIRPIANO3:EW

Sample : WG1471271-5,3,250,250

Misc : WG1471271,ICAL17648

ALS Vial : 0 Sample Multiplier: 1

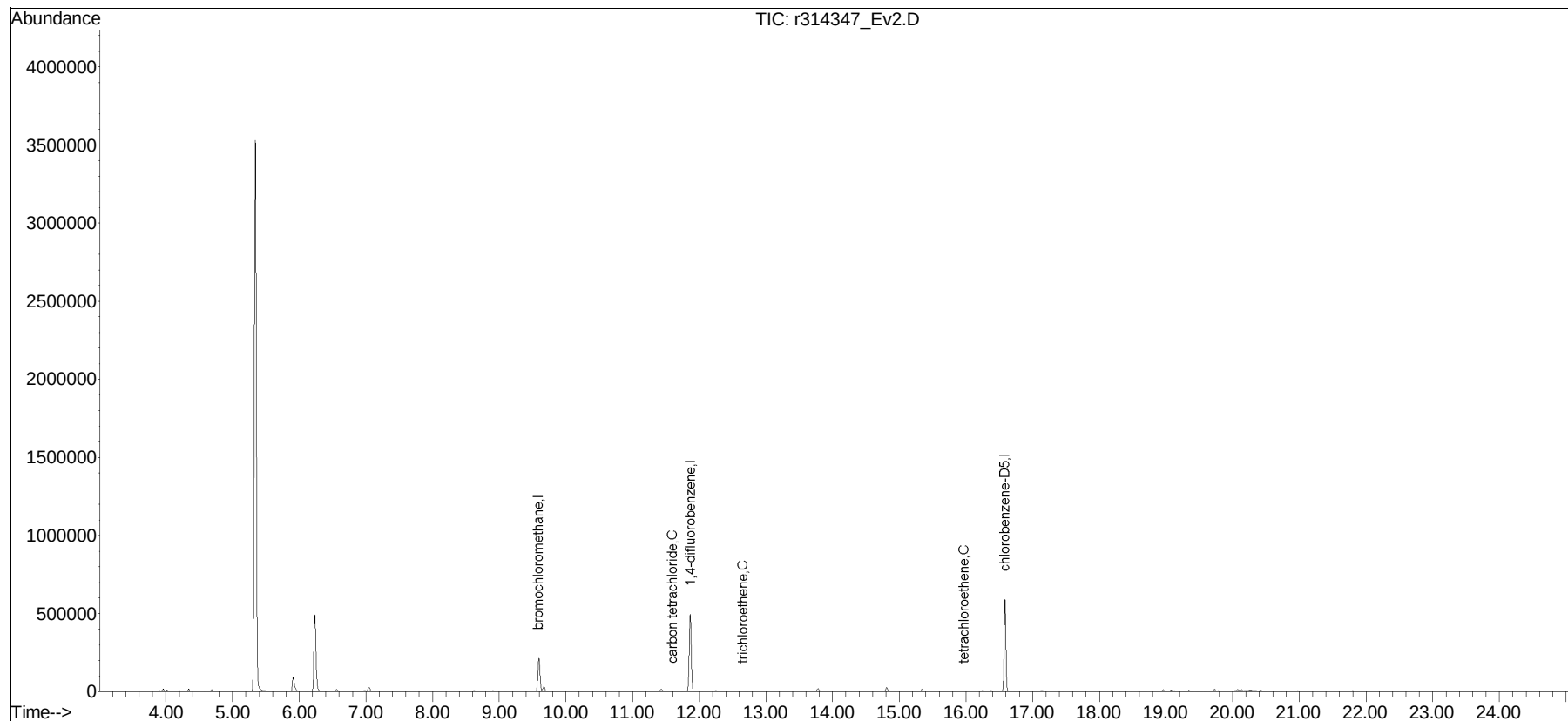
Quant Time: Mar 06 10:37:11 2021

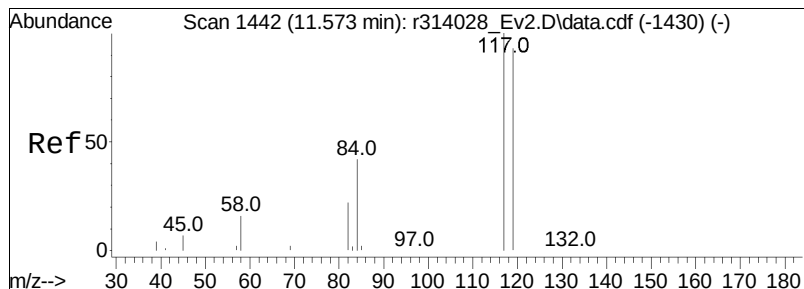
Quant Method : 0:\Forensics\Data\Airpiano3\2021\03\0305SIM\TSIM3_210219.M

Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis

QLast Update : Sat Feb 20 13:38:17 2021

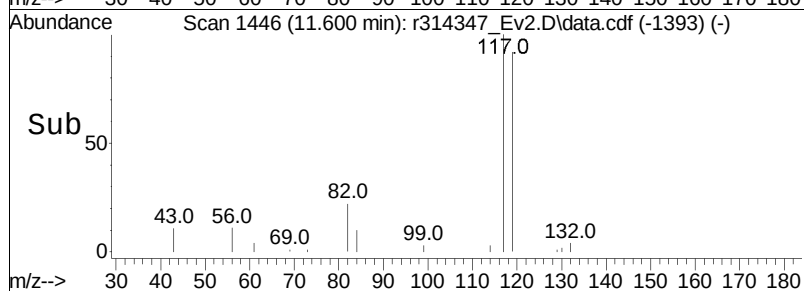
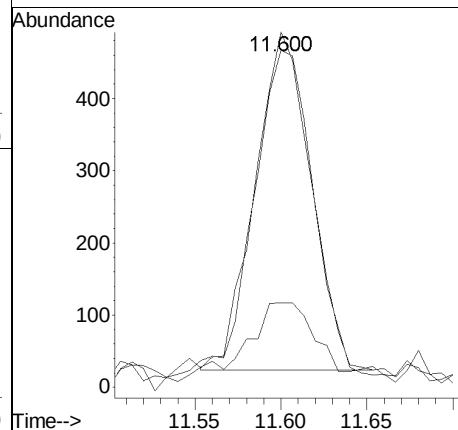
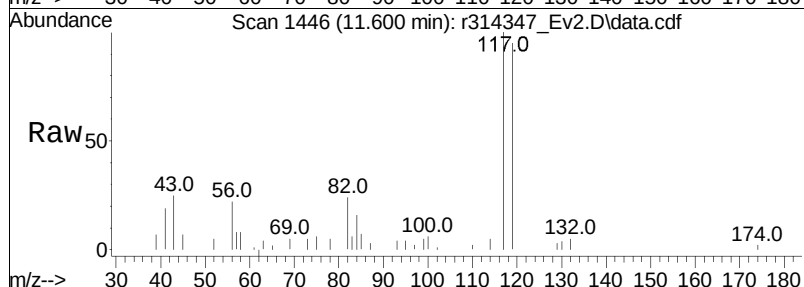
Response via : Initial Calibration

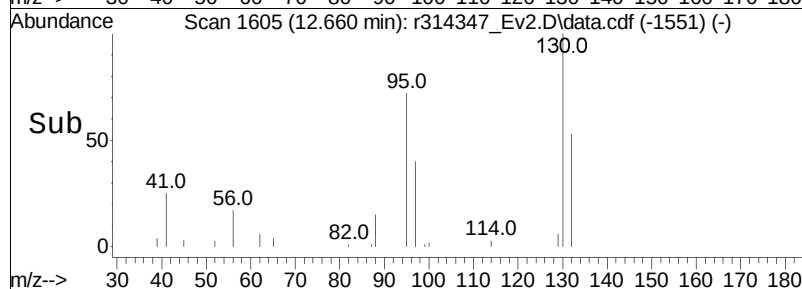
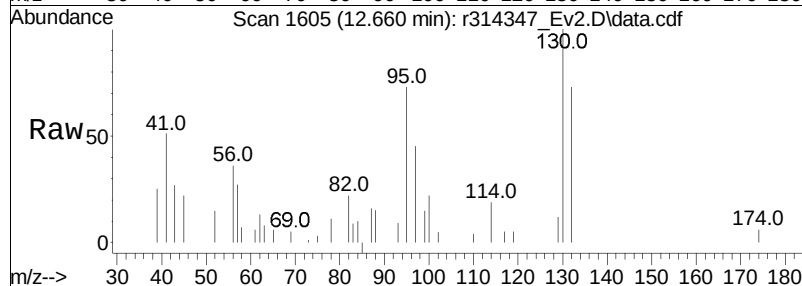
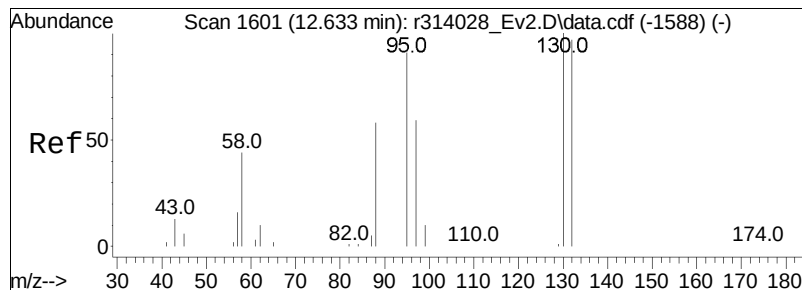




#38
 carbon tetrachloride
 Concen: 0.07 ppbV
 RT: 11.600 min Scan# 1446
 Delta R.T. 0.027 min
 Lab File: r314347_Ev2.D
 Acq: 5 Mar 2021 8:05 PM

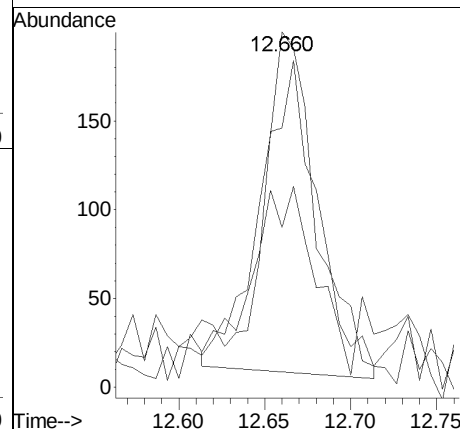
Tgt Ion	Ratio	Resp	Lower	Upper
117	100			
119	94.9	74.0	111.0	
82	23.8	17.8	26.6	

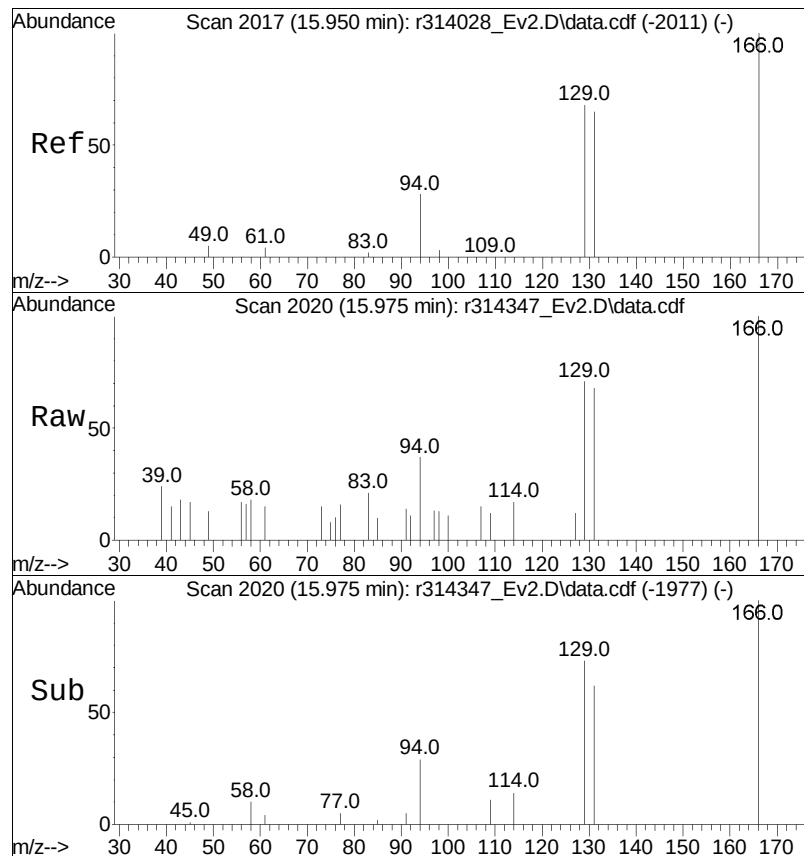




#44
trichloroethene
Concen: 0.03 ppbV
RT: 12.660 min Scan# 1605
Delta R.T. 0.027 min
Lab File: r314347_Ev2.D
Acq: 5 Mar 2021 8:05 PM

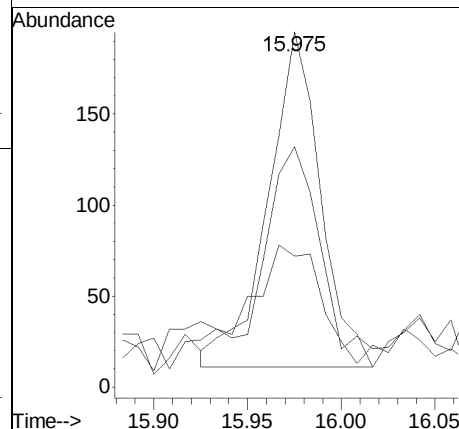
Tgt Ion	Ratio	Lower	Upper
130	100		
132	73.0	77.9	116.9#
97	45.0	47.1	70.7#





#57
 tetrachloroethene
 Concen: 0.02 ppbV
 RT: 15.975 min Scan# 2020
 Delta R.T. 0.025 min
 Lab File: r314347_Ev2.D
 Acq: 5 Mar 2021 8:05 PM

Tgt Ion:	166	Resp:	358
Ion Ratio	Lower	Upper	
166	100		
131	67.7	52.2	78.4
94	36.9	22.6	33.8#



Manual Integration Report

Data Path : 0:\Forensics\Data\AirpianoQMethod : TSIM3_210219.M
Data File : r314347_Ev2.D Operator : AIRPIAN03:EW
Date Inj'd : 3/5/2020 0:8: 5 Instrument :
Sample : WG1471271-5,3,250,250 Quant Date : 3/6/2021 10:37 am

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

Calculation of Volatile Organic Compounds in Air

The instrument will calculate the concentration (ppbv). If the sample is diluted (DF), the result is multiplied by the DF to generate the final result.

$$\text{Result, ppbv} = C_s \times \text{DF}$$

Where:

C_s = Concentration of sample (ppbv)

DF = Dilution Factor

Calculation of Instrument Dilution Factor

For dilutions, smaller sample volumes (< 250mL) are analyzed. The smallest volume that can be analyzed with accuracy is 10 mL.

Samples that arrive at the laboratory with pressures below -15 inches Hg must be pressurized with zero air to greater than -15 inches Hg. This pressurization results in a dilution factor.

Calculation of Dilution Factor

$$\text{DF} = V_{\text{cf}} / V_{\text{ci}}$$

Where:

V_{ci} = volume of air in canister prior to pressurization, L

P =

Conversion of ppbv to $\mu\text{g}/\text{m}^3$

$$\mu\text{g}/\text{m}^3 = (\text{ppbv}) \times \text{MW} / 24.47$$

Where:

24.47 = molar gas constant (g/g-mole)

MW = molecular weight of the compound of interest

Dilution Factor for Pressurization of Subatmospheric Samples: Three Steps

Step 1: Calculate the volume in the canister prior to pressurization (Assume a 2.7 liter canister is used).

Dilution Factor for Pressurization of Subatmospheric Samples: Three Steps

Step 1: Calculate the volume in the canister prior to pressurization (Assume a 2.7 liter canister is used).

$$V_{ci} = 2.7 * PI / 14.696$$

Step 2: Calculate the volume in the canister after pressurization.

$$V_{cf} = 2.7 * PF / 14.696$$

Step 3: Calculate the dilution factor.

$$DF = V_{cf} / V_{ci}$$

Where:

V_{ci} = volume of air in canister prior to pressurization, L

PI = pressure reading of canister prior to pressurization (psia)

V_{cf} = volume of air in canister after pressurization, L

PF = pressure reading of canister after pressurization (psia)

DF = dilution factor

14.696 = atmospheric pressure (psia)

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Mar 08 2021, 03:34 pm

Work Group: WG1471271 for Department: 3 GC/MS

Created: 05-MAR-21 Due: Operator: EW

Sample	Client ID	C Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L2109833-01	0A-1	S T015-SIM	AIR	DONE	U	0330	0308	S0	Can-2.7
L2109833-02	0A-2	S T015-SIM	AIR	DONE	U	0330	0308	S0	Can-2.7
L2109833-03	IA-1	S T015-SIM	AIR	DONE	U	0330	0308	S0	Can-2.7
L2109833-04	IA-2	S T015-SIM	AIR	DONE	U	0330	0308	S0	Can-2.7
L2109833-05	IA-3	S T015-SIM	AIR	DONE	U	0330	0308	S0	Can-2.7
L2109987-02	1897-IA	S T015-SIM	AIR	DONE	U	0328	0308	S0	Can-6
L2109987-03	0A1	S T015-SIM	AIR	DONE	U	0328	0308	S0	Can-6
L2110044-01	IA01_030121	S T015-SIM	AIR	DONE	U	0331	0308	S0	Can-6
L2110044-02	IA02_030121	S T015-SIM	AIR	DONE	U	0331	0308	S0	Can-6
L2110044-05	AA01_030121	S T015-SIM	AIR	DONE	U	0331	0308	S0	Can-6
WG1471271-1	MS BFB Tune Standard	S T015-SIM	AIR	DONE	U				
WG1471271-2	Continuing Calibrati	S T015-SIM	AIR	DONE	U				
WG1471271-3	Laboratory Control S	S T015-SIM	AIR	DONE	U				
WG1471271-4	Laboratory Method Bl	S T015-SIM	AIR	DONE	U				
WG1471271-5	Duplicate Sample	S T015-SIM	AIR	DONE	U				
Comments:									
WG1471271-5	L2109833-03								

Alpha Analytical Air Lab Instrument Run Log

Instrument ID: Airpiano3 Internal Standard/Surrogate IDs: SS20-009 / SS20-025

Date: 02/19/21 Internal Standard/Surrogate Volume: 100 ml

Analyst Initials: AR Sequence File Name: 210219.S

SIM ICAL# 17648		Full Scan ICAL# 17647		APH ICAL# 17650		PIANO ICAL#	
AS Position #	Sample ID	Acquisition Method	Data File ID	Standard ID or Batch ID #, ICAL Ref #	Comment (s)	Product/sublist	Check Pass? Y/N
1	BA3021901	TO15_SFS.qgm	R314018.qgd	250 mL			NA
1	BA3021902	TO15_SFS.qgm	R314019.qgd	250 mL			NA
1	BA3021903	TO15_SFS.qgm	R314020.qgd	250 mL			NA
1	TA3021901	TO15_SFS.qgm	R314021.qgd	250 mL	TUNE		NA
5	ITO15-SIMSTD0.02	TO15_SFS.qgm	R314022.qgd	50 mL SS21-002D	SIM ONLY	default	NA
5	ITO15-SIMSTD0.05	TO15_SFS.qgm	R314023.qgd	125 mL SS21-002D	SIM ONLY	default	NA
5	ITO15-SIMSTD0.1	TO15_SFS.qgm	R314024.qgd	250 mL SS21-002D	SIM ONLY	default	NA
6	ITO15-SIMSTD0.2	TO15_SFS.qgm	R314025.qgd	50 mL SS21-002C		default	NA
6	ITO15-SIMSTD0.5	TO15_SFS.qgm	R314026.qgd	125 mL SS21-002C		default	NA
6	ITO15-SIMSTD1.0	TO15_SFS.qgm	R314027.qgd	250 mL SS21-002C		default	NA
7	ITO15-SIMSTD5.0	TO15_SFS.qgm	R314028.qgd	125 mL SS21-002B		default	NA
7	ITO15-SIMSTD010	TO15_SFS.qgm	R314029.qgd	250 mL SS21-002B		default	NA
8	ITO15-SIMSTD020	TO15_SFS.qgm	R314030.qgd	50 mL SS21-002A		default	NA
8	ITO15-SIMSTD050	TO15_SFS.qgm	R314031.qgd	125 mL SS21-002A		default	NA
8	ITO15-LLSTD100	TO15_SFS.qgm	R314032.qgd	250 mL SS21-002A	LL ONLY	default	NA
1	BA3021901	TO15_SFS.qgm	R314033.qgd	250 mL		default	NA
1	BA3021902	TO15_SFS.qgm	R314034.qgd	250 mL		default	NA
2	CTO15-LLSTD010	TO15_SFS.qgm	R314035.qgd	250 mL SS20-043E	LL ICV	default	NA
2	CTO15-SIMSTD5.0	TO15_SFS.qgm	R314036.qgd	250 mL SS20-043E	SIM ICV	default	NA

Alpha Analytical Air Lab Instrument Run Log

Date(s) of Initial Calibration: Refer to Initial Calibration Summary Form 6

Date Acquired: see Instrument Performance Check Summary and/or quantitation report.

Sample ID information: L1301234-01,3,250,250 { Lab sample ID, dept #, actual volume analyzed (mL), nominal volume analyzed (mL) }

Dilution Factor: See Form 1 report, or divide nominal volume by actual volume analyzed

Alpha Analytical Air Lab Instrument Run Log

t ID: <u>Airpiano3</u>	Internal Standard/Surrogate IDs: <u>SS20-009 / SS20-025</u>
Date: <u>03/05/21</u>	Internal Standard/Surrogate Volume: <u>100 ml</u>
Initials: <u>EW / AW</u>	Sequence File Name: <u>210305.S</u>
SIM ICAL# <u>17648</u>	Full Scan ICAL# <u>17647</u> APH ICAL# <u> </u> PIANO ICAL# <u> </u>

Position	Sample ID	Method	Data File	Standard ID or	Comment	sublist	Che
1	TA3030501	TO15_SFS.qgm	R314336.qgd	250 mL	TUNE		NA
2	CA3030501	TO15_SFS.qgm	R314337.qgd	250 mL SS20-002G	NJ CC FAILED		NA
3	CTO15-LLSTD10.0	TO15_SFS.qgm	R314338.qgd	250 mL SS20-043E	LL LCS		NA
3	CTO15-SIMSTD5.0	TO15_SFS.qgm	R314339.qgd	125 mL SS20-043E	SIM LCS		NA
1	BA3030501	TO15_SFS.qgm	R314340.qgd	250 mL	FAILS IS		NA
1	BA3030502	TO15_SFS.qgm	R314341.qgd	250 mL	BLANK		NA
1	L2110044-05,3,250,250	TO15_SFS.qgm	R314342.qgd	WG1471270,ICAL17647		NY / 7-SIM	Y
2	L2109987-03,3,250,250	TO15_SFS.qgm	R314343.qgd	WG1471270,ICAL17647		NY / 7-SIM	Y
3	L2109833-01,3,250,250	TO15_SFS.qgm	R314344.qgd	WG1471270,ICAL17647		NY / 7-SIM	Y
4	L2109833-02,3,250,250	TO15_SFS.qgm	R314345.qgd	WG1471270,ICAL17647		NY / 7-SIM	Y
5	L2109833-03,3,250,250	TO15_SFS.qgm	R314346.qgd	WG1471270,ICAL17647		NY / 7-SIM	Y
5	L2109833-03DUP,3,250,250	TO15_SFS.qgm	R314347.qgd	WG1471270,ICAL17647	LL / SIM DUP	NY / 7-SIM	Y
6	L2109833-04,3,250,250	TO15_SFS.qgm	R314348.qgd	WG1471270,ICAL17647		NY / 7-SIM	Y
7	L2109833-05,3,250,250	TO15_SFS.qgm	R314349.qgd	WG1471270,ICAL17647	ETOH OVERCAL	NY / 7-SIM	Y
8	L2109987-02,3,250,250	TO15_SFS.qgm	R314350.qgd	WG1471270,ICAL17647		NY / 7-SIM	Y
9	L2110044-01,3,250,250	TO15_SFS.qgm	R314351.qgd	WG1471270,ICAL17647		NY / 7-SIM	Y
10	L2110044-02,3,250,250	TO15_SFS.qgm	R314352.qgd	WG1471270,ICAL17647		NY / 7-SIM	Y
11	L2110044-03,3,250,250	TO15_SFS.qgm	R314353.qgd	WG1471270,ICAL17647		NY	Y
12	L2110044-04D,3,120,250	TO15_SFS.qgm	R314354.qgd	WG1471270,ICAL17647		NY	Y
13	L2109987-01,3,250,250	TO15_SFS.qgm	R314355.qgd	WG1471270,ICAL17647		NY	Y
14	L2109929-01,3,250,250	TO15_SFS.qgm	R314356.qgd	WG1471270,ICAL17647		NY	Y
15	L2109929-02,3,250,250	TO15_SFS.qgm	R314357.qgd	WG1471270,ICAL17647		NY	Y
16	L2109929-03,3,250,250	TO15_SFS.qgm	R314358.qgd	WG1471270,ICAL17647		NY	Y
1	L2109929-04,3,250,250	TO15_SFS.qgm	R314359.qgd	WG1471270,ICAL17647		NY	Y
7	L2109833-05D,3,25,250	TO15_SFS.qgm	R314360.qgd	WG1471270,ICAL17647	ETOH ONLY	NY / 7-SIM	Y

Alpha Analytical Air Lab Instrument Run Log

Date(s) of Initial Calibration: Refer to Initial Calibration Summary Form 6

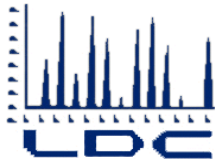
Date Acquired: see Instrument Performance Check Summary and/or quantitation report.

Sample ID information: L1301234-01,3,250,250 { Lab sample ID, dept #, actual volume analyzed (mL), nominal volume analyzed (mL) }

Dilution Factor: See Form 1 report, or divide nominal volume by actual volume analyzed



APPENDIX E



LABORATORY DATA CONSULTANTS, INC.

2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Castleton Environmental
54 George St.
Babylon, New York 11702
ATTN: Ms. Jessica Ferngren
jessicaf@castletonenv.com

March 29, 2021

SUBJECT: Villa Cleaners, Data Usability Summary Report

Dear Ms. Ferngren,

Enclosed is the final validation report for the fraction listed below. This SDG was received on March 10, 2021. Attachment 1 is a summary of the samples that were reviewed for analysis.

LDC Project #50614:

<u>SDG #</u>	<u>Fraction</u>
L2109987	Volatiles

The data validation was performed under Category B guidelines. The analyses were validated using the following documents, as applicable to each method:

- USEPA Region 2 Analysis of Volatile Organic Compounds in Air Contained Canisters, SOP HW-31, Revision 6; September 2016
- USEPA National Functional Guidelines for Superfund Organic Methods Data Review, EPA 540-R-2017-002; January 2017

Please feel free to contact us if you have any questions.

Sincerely,

Christina Rink

Christina Rink
crink@lab-data.com
Project Manager/Senior Chemist

Shaded cells indicate Category B validation (all other cells are Category A validation). These sample counts do not include MS, MSD, or DUP's.

Site: Villa Cleaners
Laboratory: Alpha Analytical, Inc.
Report No.: L2109987
Reviewer: Josephine Go and Christina Rink/Laboratory Data Consultants for
Castleton Environmental - Babylon, NY
Date: March 25, 2021

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
1897-SS	L2109987-01	VOC
1897-IA	L2109987-02	VOC
OA-1	L2109987-03	VOC

Associated QC Samples(s):

Field/Trip Blanks: None Associated
Field Duplicate pair: None Associated

The above-listed air samples were collected on February 25 through February 26, 2021 and were analyzed for volatile organic compounds (VOCs) by methods TO-15 and TO-15 in selected ion monitoring (SIM) mode. The data validation was performed in accordance with the USEPA Region 2 *Analysis of Volatile Organic Compounds in Air Contained Canisters*, SOP HW-31, Revision 6 (September 2016) and the USEPA *Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*, EPA 540-R-2017-002 (January 2017), modified as necessary to accommodate the non-CLP methodologies used.

The organic data were evaluated based on the following parameters:

- Data Completeness
- Holding Times and Sample Preservation
- Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
- Initial and Continuing Calibrations
- Blanks
- Laboratory Duplicate Results
- Laboratory Control Sample (LCS) Results
- Internal Standards
- Field Duplicate Results
- Quantitation Limits and Data Assessment
- Sample Quantitation and Compound Identification

Overall Evaluation of Data and Potential Usability Issues

All results are usable as reported or usable with minor qualification due to laboratory quality control outliers.

The validation findings were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP category B laboratory deliverables.

Holding Times and Sample Preservation

All criteria were met.

GC/MS Tunes

All criteria were met.

Initial and Continuing Calibrations

VOC

Initial calibration:

All criteria were met.

Continuing calibration:

Compounds that did not meet criteria are summarized in the following table.

Date	Instrument ID	Compound	CC %D	Associated Samples		Validation Action
03/05/21	R314338	1,2,4-Trichlorobenzene	33.8	1897-SS 1897-IA OA-1	XX	UJ nondetects

X = Initial calibration (IC) relative standard deviation (%RSD) > 30; estimate (J/UJ) positive and nondetect results.

XX = Continuing calibration (CC) percent difference (%D) > 30; estimate (J/UJ) positive and nondetect results.

SS = Second source verification percent difference (%D) > 30; estimate (J/UJ) positive and nondetect results.

+= Response factor (RRF) < validation criteria; estimate (J/UJ) positive and nondetect results.

The 1,2,4-trichlorobenzene result were estimated due to continuing calibration exceedance. The bias cannot be determined. The results can be used for project objectives as nondetects with estimated quantitation limits (UJ) which may have a minor impact on the data usability.

VOC-SIM

All criteria were met.

Blanks

Contamination was not detected in the method blanks.

A field blank was not associated with this sample set. Validation action was not required on this basis.

Laboratory Duplicate Results

Laboratory duplicates were not associated with this sample set. Validation action was not required on this basis.

LCS Results

VOC

The following table lists the LCS percent recoveries (%R) outside of control limits in the VOC analysis and the resulting validation actions.

LCS ID	Compound	LCS %R (Limits)	Affected Sample	Validation Action
WG1471270-3LCS	1,2,4-Trichlorobenzene	134 (70-130)	1897-SS 1897-IA OA-1	None

Validation action was not required for 1,2,4-trichlorobenzene due to high LCS percent recovery as positive results only are affected and this compound was not detected in the associated samples.

VOC-SIM

All criteria were met.

Internal Standards

All criteria were met.

Field Duplicate Results

A field duplicate pair was not associated with this sample set. Validation action was not required on this basis.

Quantitation Limits and Data Assessment

No results were reported below the reporting limit (RL) and above the method detection limit (MDL) in the VOC and VOC-SIM analyses.

Dilutions were not required for VOC and VOC-SIM analyses.

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted.

DATA VALIDATION QUALIFIERS

- U - The analyte was analyzed for, but due to blank contamination was flagged as nondetect (U). The result is usable as a nondetect.
- J - Data are flagged (J) when a QC analysis fails outside the primary acceptance limits. The qualified “J” data are not excluded from further review or consideration. However, only one flag (J) is applied to a sample result, even though several associated QC analyses may fail. The ‘J’ data may be biased high or low or the direction of the bias may be indeterminable.
- UJ - The analyte was not detected above the reported sample quantitation limit. Data are flagged (UJ) when a QC analysis fails outside the primary acceptance limits. The qualified “UJ” data are not excluded from further review or consideration. However, only one flag is applied to a sample result, even though several associated QC analyses may fail. The ‘UJ’ data may be biased low.
- JN - The analysis indicates the presence of a compound that has been “tentatively identified” (N) and the associated numerical value represents its approximate (J) concentration.
- R - Data rejected (R) on the basis of an unacceptable QC analysis should be excluded from further review or consideration. Data are rejected when associated QC analysis results exceed the expanded control limits of the QC criteria. The rejected data are known to contain significant errors based on documented information. The data user must not use the rejected data to make environmental decisions. The presence or absence of the analyte cannot be verified.

LDC #: 50614A48a **VALIDATION COMPLETENESS WORKSHEET**
SDG #: L2109987 Category B
Laboratory: Alpha Analytical, Inc.

Date: 03/25/21
Page: 1 of 1
Reviewer: JVL
2nd Reviewer: [Signature]

METHOD: GC/MS Volatiles (EPA Method TO-15)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	GC/MS Instrument performance check	A	
III.	Initial calibration/ICV	A/A	ICAL $\leq 30\%$ ICV $\leq 30\%$
IV.	Continuing calibration	SW	CV $\leq 30\%$
V.	Laboratory Blanks /canisters	A/A	(by batch)
VI.	Field blanks	N	
VII.	Surrogate spikes	N	(Not req'd.)
VIII.	Matrix spike/Matrix spike duplicates	N	
IX.	Laboratory control samples	SW	LCS
X.	Field duplicates	N	
XI.	Internal standards	A	
XII.	Compound quantitation RL/LOQ/LODs	A	no result $< RL$ (ND at RL)
XIII.	Target compound identification	A	
XIV.	System performance	A	
XV.	Leak Check Compounds	N	
XVI.	Overall assessment of data	A	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet

ND = No compounds detected
R = Rinsate
FB = Field blank

D = Duplicate
TB = Trip blank
EB = Equipment blank

SB=Source blank
OTHER:

	Client ID	Lab ID	Matrix	Date
1	1897-SS	L2109987-01	Air	02/25/21
2	1897-IA	L2109987-02	Air	02/26/21
3	OA-1	L2109987-03	Air	02/26/21
4				
5				
6				
7				
8				

Notes:

-	WG1471270-f BLANK				

Method: Volatiles (EPA Method TO-15)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
Were all technical holding times met?	/			
Was canister pressure criteria met?	/			
II. GC/MS Instrument performance check				
Were the BFB performance results reviewed and found to be within the specified criteria?	/			
Were all samples analyzed within the 24 hour clock criteria?	/			
IIIa. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	/			
Were all percent relative standard deviations (%RSD) $\leq$ 30%?	/			
IIIb. Initial calibration verification				
Was an initial calibration verification standard analyzed after every ICAL for each instrument?	/			
Were all percent differences (%D) $\leq$ 30%?	/			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 24 hours for each instrument?	/			
Were all percent differences (%D) $\leq$ 30%?		/		
V. Laboratory Blanks/Canister Blanks				
Was a laboratory blank associated with every sample in this SDG?	/			
Was a laboratory blank analyzed at least once every 24 hours for each matrix and concentration?	/			
Was there contamination in the laboratory blanks?		/		
Was a canister blank analyzed for every canister?	/			
Was there contamination in the canister blanks?		/		
VI. Field Blanks				
Were field blanks identified in this SDG?		/		
Were target compounds detected in the field blanks?			/	
VII. Surrogate spikes (Optional)				
Were all surrogate percent recoveries (%R) within QC limits?		/		
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			/	
VIII. Laboratory Duplicate				
Was a laboratory duplicate analyzed for this SDG?	/	/		
Were the relative percent differences (RPD) within the QC limits?			/	

Validation Area	Yes	No	NA	Findings/Comments
IX. Laboratory control samples				
Was an LCS analyzed per analytical batch for this SDG?	/			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?		/		
X. Field duplicates				
Were field duplicate pairs identified in this SDG?		/		
Were target compounds detected in the field duplicates?			/	
XI. Internal standards				
Were internal standard area counts within $\pm 40\%$ from the associated calibration standard?	/			
Were retention times within ± 20.0 seconds from the associated calibration standard?	/			
XII. Compound quantitation				
Did the laboratory LOQs/RLs meet the QAPP LOQs/RLs?	/			
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	/			
Were compound quantitation and RLs adjusted to reflect all sample dilutions applicable to level IV validation?	/			
XIII. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	/			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	/			
Were chromatogram peaks verified and accounted for?	/			
XIV. System performance				
System performance was found to be acceptable.	/			
XV. Leak check compounds				
Was a leak check compound used to evaluate sample integrity and included in the laboratory analyte list?	/			
Was the leak check compound detected in the samples? If yes, please see leak check validation findings worksheet.	/			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	/			

TARGET COMPOUND WORKSHEET

METHOD: VOA

A. Chloromethane	AA. Tetrachloroethene	AAA. 1,3,5-Trimethylbenzene	AAAA. Ethyl tert-butyl ether	A1. 1,3-Butadiene	A2.
B. Bromomethane	BB. 1,1,2,2-Tetrachloroethane	BBB. 4-Chlorotoluene	BBBB. tert-Amyl methyl ether	B1. Hexane	B2.
C. Vinyl chloride	CC. Toluene	CCC. tert-Butylbenzene	CCCC. 1-Chlorohexane	C1. Heptane	C2.
D. Chloroethane	DD. Chlorobenzene	DDD. 1,2,4-Trimethylbenzene	DDDD. Isopropyl alcohol	D1. Propylene	D2.
E. Methylene chloride	EE. Ethylbenzene	EEE. sec-Butylbenzene	EEEE. Acetonitrile	E1. Freon 11	E2.
F. Acetone	FF. Styrene	FFF. 1,3-Dichlorobenzene	FFFF. Acrolein	F1. Freon 12	F2.
G. Carbon disulfide	GG. Xylenes, total	GGG. p-Isopropyltoluene	GGGG. Acrylonitrile	G1. Freon 113	G2.
H. 1,1-Dichloroethene	HH. Vinyl acetate	HHH. 1,4-Dichlorobenzene	HHHH. 1,4-Dioxane	H1. Freon 114	H2.
I. 1,1-Dichloroethane	II. 2-Chloroethylvinyl ether	III. n-Butylbenzene	IIII. Isobutyl alcohol	I1. 2-Nitropropane	I2.
J. 1,2-Dichloroethene, total	JJ. Dichlorodifluoromethane	JJJ. 1,2-Dichlorobenzene	JJJJ. Methacrylonitrile	J1. Dimethyl disulfide	J2.
K. Chloroform	KK. Trichlorofluoromethane	KKK. 1,2,4-Trichlorobenzene	KKKK. Propionitrile	K1. 2,3-Dimethyl pentane	K2.
L. 1,2-Dichloroethane	LL. Methyl-tert-butyl ether	LLL. Hexachlorobutadiene	LLLL. Ethyl ether	L1. 2,4-Dimethyl pentane	L2.
M. 2-Butanone	MM. 1,2-Dibromo-3-chloropropane	MMM. Naphthalene	MMMM. Benzyl chloride	M1. 3,3-Dimethyl pentane	M2.
N. 1,1,1-Trichloroethane	NN. Methyl ethyl ketone	NNN. 1,2,3-Trichlorobenzene	NNNN. Iodomethane	N1. 2-Methylpentane	N2.
O. Carbon tetrachloride	OO. 2,2-Dichloropropane	OOO. 1,3,5-Trichlorobenzene	OOOO. 1,1-Difluoroethane	O1. 3-Methylpentane	O2.
P. Bromodichloromethane	PP. Bromochloromethane	PPP. trans-1,2-Dichloroethene	PPPP. Tetrahydrofuran	P1. 3-Ethylpentane	P2.
Q. 1,2-Dichloropropane	QQ. 1,1-Dichloropropene	QQQ. cis-1,2-Dichloroethene	QQQQ. Methyl acetate	Q1. 2,2-Dimethylpentane	Q2.
R. cis-1,3-Dichloropropene	RR. Dibromomethane	RRR. m,p-Xylenes	RRRR. Ethyl acetate	R1. 2,2,3-Trimethylbutane	R2.
S. Trichloroethene	SS. 1,3-Dichloropropane	SSS. o-Xylene	SSSS. Cyclohexane	S1. 2,2,4-Trimethylpentane	S2.
T. Dibromochloromethane	TT. 1,2-Dibromoethane	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	TTTT. Methylcyclohexane	T1. 2-Methylhexane	T2.
U. 1,1,2-Trichloroethane	UU. 1,1,1,2-Tetrachloroethane	UUU. 1,2-Dichlorotetrafluoroethane	UUUU. Allyl chloride	U1. Nonanal	U2.
V. Benzene	VV. Isopropylbenzene	VVV. 4-Ethyltoluene	VVVV. Methyl methacrylate	V1. 2-Methylnaphthalene	V2.
W. trans-1,3-Dichloropropene	WW. Bromobenzene	WWW. Ethanol	WWWW. Ethyl methacrylate	W1. Methanol	W2.
X. Bromoform	XX. 1,2,3-Trichloropropane	XXX. Di-isopropyl ether	XXXX. cis-1,4-Dichloro-2-butene	X1. 1,2,3-Trimethylbenzene	X2.
Y. 4-Methyl-2-pentanone	YY. n-Propylbenzene	YYY. tert-Butanol	YYYY. trans-1,4-Dichloro-2-butene	Y1. 2-Propanol	Y2.
Z. 2-Hexanone	ZZ. 2-Chlorotoluene	ZZZ. tert-Butyl alcohol	ZZZZ. Pentachloroethane	Z1.	Z2.

LDC #: 50614 A489

VALIDATION FINDINGS WORKSHEET

Continuing Calibration

Page: 1 of 1
Reviewer: JVG

METHOD: GC/MS VOA (EPA TO-15)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y/N N/A Was a continuing calibration standard analyzed at least once every 24 hours for each instrument?

Y (N) N/A Were all percent differences (%D) $\leq 30\%$

[illegible]

LDC #: 50614A f8a

VALIDATION FINDINGS WORKSHEET

Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: JVG

METHOD: GC/MS VOA (EPA Method TO-15)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a LCS required?

Y	N	N/A	Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

[illegible]

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

METHOD: GC/MS VOA (EPA Method TO15)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

$$\% \text{ Difference} = 100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$$
$$\text{RRF} = (\text{Ax})(\text{Cis}) / (\text{Ais})(\text{Cx})$$

Where:

ave. RRF = initial calibration average RRF

RRF = continuing calibration RRF

Ax = Area of compound,

Cx = Concentration of compound,

Ais = Area of associated internal standard

Cis = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (IS)	Average RRF (Initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported % D	Recalculated %D
1	R314338 FULL	03/05/21	cis-1,2-DCE (BCM)	0.686	0.769	0.769	12.1	12.1
			Trichloroethene (DFB)	0.259	0.296	0.296	14.3	14.3
			1,2,4-TMB (CBZ)	5.615	6.093	6.093	8.5	8.5

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

METHOD: GC/MS VOA (EPA Method TO15)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$$RRF = (A_x)(C_{is}) / (A_{is})(C_x)$$

average RRF = sum of the RRFs/number of standards

$$\%RSD = 100 * (S/X)$$

 A_x = Area of Compound C_x = Concentration of compound,

S= Standard deviation of the RRFs,

 A_{is} = Area of associated internal standard C_{is} = Concentration of internal standard

X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (IS)	Reported RRF (STD 10)	Recalculated RRF (STD 10)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL AIRPIANO3 FULL	02/19/21	cis-1,2-DCE (BCM)	0.6810	0.6806	0.6861	0.6861	13.48	13.49
			Trichloroethene (DFB)	0.2570	0.2566	0.2589	0.2589	13.86	13.84
			1,2,4-TMB (CBZ)	5.9530	5.9526	5.6148	5.6148	25.17	25.17

LDC #: 5D614 A48a

VALIDATION FINDINGS WORKSHEET **Laboratory Control Sample Results Verification**

Page: 1 of 1
 Reviewer: JVG

METHOD: GC/MS VOA (EPA Method TO-15)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery = $100 * SSC/SA$

Where: SSC = Spiked sample concentration
 SA = Spike added

RPD = $|LCSC - LCSDC| * 2 / (LCSC + LCSDC)$

LCSC = Laboratory control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS ID: W61471270-3

Compound	Spike Added (ppbv)		Spiked Sample Concentration (ppbv)		LCS		LCSD		LCS/LCSD	
					Percent Recovery		Percent Recovery		RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
1,1-Dichloroethene	10.0	NA	11.1	NA	111	111				
Trichloroethene	1	1	11.4	1	114	114				
Benzene	1	1	9.72	1	97	97				
Toluene	1	1	10.9	1	109	109				
Chlorobenzene	1	1	10.1	1	101	101				

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 50614A48a**VALIDATION FINDINGS WORKSHEET**
Sample Calculation VerificationPage: 1 of 1
Reviewer: JVG**METHOD:** GC/MS VOA (EPA Method TO-15)

The concentration of the sample was calculated for the compound identified below using the following calculation:

$$\text{Concentration} = \frac{(A_x)(I_s)(DF)}{(A_{is})(RRF)(V_o)(\%S)}$$

- A_x = Area of the characteristic ion (EICP) for the compound to be measured
- A_{is} = Area of the characteristic ion (EICP) for the specific internal standard
- I_s = Amount of internal standard added in nanograms (ng)
- RRF = Relative response factor of the calibration standard.
- V_o = Volume or weight of sample pruged in milliliters (ml) or grams (g).
- Df = Dilution factor.
- %S = Percent solids, applicable to soils and solid matrices only.

Example:

Sample I.D. 1, 1,2,4-TMB

$$\begin{aligned} \text{Conc.} &= \frac{(194870)(10)(120.19)}{(169613)(5.6148)(24.95)} \\ &= 10.059 \mu\text{g}/\text{m}^3 \end{aligned}$$

#	Sample ID	Compound	Reported Concentration ($\mu\text{g}/\text{m}^3$)	Calculated Concentration ($\mu\text{g}/\text{m}^3$)	Qualification
	1	1,2,4-TMB	10.1	10.1	—

METHOD: GC/MS Volatiles (EPA Method TO-15-SIM)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	GC/MS Instrument performance check	A	
III.	Initial calibration/ICV	A/A	ICAL = 30% ICV = 30%
IV.	Continuing calibration	A	CV = 30%
V.	Laboratory Blanks /canisters	A/A	(by batch)
VI.	Field blanks	N	
VII.	Surrogate spikes	N	(Not req'd.)
VIII.	Matrix spike/Matrix spike duplicates	N	
IX.	Laboratory control samples	A	LCS
X.	Field duplicates	N	
XI.	Internal standards	A	
XII.	Compound quantitation RL/LOQ/LODs	A	
XIII.	Target compound identification	A	
XIV.	System performance	A	
XV.	Leak Check Compounds	N	
XVI.	Overall assessment of data	A	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet

ND = No compounds detected
R = Rinsate
FB = Field blank

D = Duplicate
TB = Trip blank
EB = Equipment blank

SB=Source blank
OTHER:

	Client ID	Lab ID	Matrix	Date
1	1897-1A	L2109987-02	Air	02/26/21
2	OA-1	L2109987-03	Air	02/26/21
3				
4				
5				
6				
7				
8				

Notes:

-	WG1471271-4 BLANK				

(C, H, QQQ, N, O, S, AA only)

Method: Volatiles (EPA Method TO-15)-SIM

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
Were all technical holding times met?	/			
Was canister pressure criteria met?	/			
II. GC/MS Instrument performance check				
Were the BFB performance results reviewed and found to be within the specified criteria?	/			
Were all samples analyzed within the 24 hour clock criteria?	/			
IIIa. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	/			
Were all percent relative standard deviations (%RSD) < 30%?	/			
IIIb. Initial calibration verification				
Was an initial calibration verification standard analyzed after every ICAL for each instrument?	/			
Were all percent differences (%D) < 30%?	/			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 24 hours for each instrument?	/			
Were all percent differences (%D) < 30%?	/			
V. Laboratory Blanks/Canister Blanks				
Was a laboratory blank associated with every sample in this SDG?	/			
Was a laboratory blank analyzed at least once every 24 hours for each matrix and concentration?	/			
Was there contamination in the laboratory blanks?		/		
Was a canister blank analyzed for every canister?	/			
Was there contamination in the canister blanks?		/		
VI. Field Blanks				
Were field blanks identified in this SDG?		/		
Were target compounds detected in the field blanks?			/	
VII. Surrogate spikes (Optional)				
Were all surrogate percent recoveries (%R) within QC limits?			/	
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			/	
VIII. Laboratory Duplicate				
Was a laboratory duplicate analyzed for this SDG?		/		
Were the relative percent differences (RPD) within the QC limits?			/	

Validation Area	Yes	No	NA	Findings/Comments
IX. Laboratory control samples				
Was an LCS analyzed per analytical batch for this SDG?	/			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	/			
X. Field duplicates				
Were field duplicate pairs identified in this SDG?		/		
Were target compounds detected in the field duplicates?			/	
XI. Internal standards				
Were internal standard area counts within $\pm 40\%$ from the associated calibration standard?	/			
Were retention times within ± 20.0 seconds from the associated calibration standard?	/			
XII. Compound quantitation				
Did the laboratory LOQs/RLs meet the QAPP LOQs/RLs?	/			
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	/			
Were compound quantitation and RLs adjusted to reflect all sample dilutions applicable to level IV validation?	/			
XIII. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	/			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	/			
Were chromatogram peaks verified and accounted for?	/			
XIV. System performance				
System performance was found to be acceptable.	/			
XV. Leak check compounds				
Was a leak check compound used to evaluate sample integrity and included in the laboratory analyte list?	/			
Was the leak check compound detected in the samples? If yes, please see leak check validation findings worksheet.	/			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	/			

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

METHOD: GC/MS VOA (EPA Method TO15)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$$RRF = (A_x)(C_{is}) / (A_{is})(C_x)$$

average RRF = sum of the RRFs/number of standards

$$\%RSD = 100 * (S/X)$$

 A_x = Area of Compound C_x = Concentration of compound, S = Standard deviation of the RRFs, A_{is} = Area of associated internal standard C_{is} = Concentration of internal standard X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (IS)	Reported RRF (STD 10)	Recalculated RRF (STD 10)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL AIRPIANO3 SIM	02/19/21	cis-1,2-DCE (BCM)	0.6920	0.6918	0.7358	0.7358	9.16	9.15
			Trichloroethene (DFB)	0.2600	0.2602	0.2800	0.2800	9.88	9.90
			Tetrachloroethene (CBZ)	2.0660	2.0662	2.2225	2.2225	9.26	9.26

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

METHOD: GC/MS VOA (EPA Method TO15)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

$$\% \text{ Difference} = 100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$$
$$\text{RRF} = (\text{Ax})(\text{Cis}) / (\text{Ais})(\text{Cx})$$

Where:

ave. RRF = initial calibration average RRF

RRF = continuing calibration RRF

Ax = Area of compound,

Cx = Concentration of compound,

Ais = Area of associated internal standard

Cis = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (IS)	Average RRF (Initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported % D	Recalculated %D
1	R314339_Ev2 SIM	03/05/21	cis-1,2-DCE (BCM)	0.736	0.779	0.779	5.8	5.8
			Trichloroethene (DFB)	0.280	0.296	0.296	5.7	5.7
			Tetrachloroethene (CBZ)	2.223	2.173	2.173	2.2	2.2

LDC #: S0614 A486

VALIDATION FINDINGS WORKSHEET **Laboratory Control Sample Results Verification**

 Page: 1 of 1
 Reviewer: JVG
METHOD: GC/MS VOA (EPA Method TO-15)-SM

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery = $100 * SSC/SA$
 Where: SSC = Spiked sample concentration
 SA = Spike added
RPD = $|LCSC - LCSDC| * 2 / (LCSC + LCSDC)$

LCSC = Laboratory control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS ID: _____

Compound	Spike Added (ppbv)		Spiked Sample Concentration (ppbv)		LCS		LCSD		LCS/LCSD	
					Percent Recovery		Percent Recovery		RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
1,1-Dichloroethene	5.0	NA	5.40	NA	108	108				
Trichloroethene	↓	↓	5.29	↓	106	106				
Benzene										
Toluene										
Chlorobenzene										

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 50614 A486

VALIDATION FINDINGS WORKSHEET **Sample Calculation Verification**

Page: 1 of 1
 Reviewer: JVG

METHOD: GC/MS VOA (EPA Method TO-15)-SIM)

The concentration of the sample was calculated for the compound identified below using the following calculation:

$$\text{Concentration} = \frac{(A_x)(I_s)(DF)}{(A_{is})(RRF)(V_o)(\%S)}$$

- A_x = Area of the characteristic ion (EICP) for the compound to be measured
- A_{is} = Area of the characteristic ion (EICP) for the specific internal standard
- I_s = Amount of internal standard added in nanograms (ng)
- RRF = Relative response factor of the calibration standard.
- V_o = Volume or weight of sample pruged in milliliters (ml) or grams (g).
- Df = Dilution factor.
- %S = Percent solids, applicable to soils and solid matrices only.

Example:

Sample I.D. 1, PCE:

$$\begin{aligned} \text{Conc.} &= \frac{(3221)(10)(165.82)}{(100542)(2.223)(24.45)} \\ &= 0.977 \mu\text{g}/\text{m}^3 \end{aligned}$$

#	Sample ID	Compound	Reported Concentration ($\mu\text{g}/\text{m}^3$)	Calculated Concentration ($\mu\text{g}/\text{m}^3$)	Qualification
	1	PCE	0.976	0.977	—

Villa Cleaners - LDC# 50614

SDG: L2109987

Analytical Method		TO15										
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Validated	Detect	Lab Qual	Val Qual	Final qual	RL	MDL	Units
1897-SS	L2109987-01	BROMOFORM	3/6/2021		Y	N	U		U	2.07	0.663	ug/m3
1897-SS	L2109987-01	3-CHLOROPROPENE	3/6/2021		Y	N	U		U	0.626	0.183	ug/m3
1897-SS	L2109987-01	4-ETHYLTOLUENE	3/6/2021	1.13	Y	Y				0.983	0.182	ug/m3
1897-SS	L2109987-01	4-METHYL-2-PENTANONE	3/6/2021		Y	N	U		U	2.05	0.173	ug/m3
1897-SS	L2109987-01	ACETONE	3/6/2021	8.43	Y	Y				2.38	1.64	ug/m3
1897-SS	L2109987-01	BENZENE	3/6/2021	0.837	Y	Y				0.639	0.156	ug/m3
1897-SS	L2109987-01	CHLOROMETHANE	3/6/2021	1.09	Y	Y				0.413	0.142	ug/m3
1897-SS	L2109987-01	BROMODICHLOROMETHANE	3/6/2021		Y	N	U		U	1.34	0.338	ug/m3
1897-SS	L2109987-01	2,2,4-TRIMETHYLPENTANE	3/6/2021		Y	N	U		U	0.934	0.169	ug/m3
1897-SS	L2109987-01	BROMOMETHANE	3/6/2021		Y	N	U		U	0.777	0.300	ug/m3
1897-SS	L2109987-01	CARBON DISULFIDE	3/6/2021		Y	N	U		U	0.623	0.174	ug/m3
1897-SS	L2109987-01	CARBON TETRACHLORIDE	3/6/2021		Y	N	U		U	1.26	0.314	ug/m3
1897-SS	L2109987-01	CHLOROBENZENE	3/6/2021		Y	N	U		U	0.921	0.287	ug/m3
1897-SS	L2109987-01	CHLOROETHANE	3/6/2021		Y	N	U		U	0.528	0.212	ug/m3
1897-SS	L2109987-01	CHLOROFORM	3/6/2021		Y	N	U		U	0.977	0.309	ug/m3
1897-SS	L2109987-01	BENZYL CHLORIDE	3/6/2021		Y	N	U		U	1.04	0.250	ug/m3
1897-SS	L2109987-01	1,2-DICHLOROPROPANE	3/6/2021		Y	N	U		U	0.924	0.282	ug/m3
1897-SS	L2109987-01	1,1,1-TRICHLOROETHANE	3/6/2021		Y	N	U		U	1.09	0.273	ug/m3
1897-SS	L2109987-01	1,1,2,2-TETRACHLOROETHANE	3/6/2021		Y	N	U		U	1.37	0.422	ug/m3
1897-SS	L2109987-01	1,1,2-TRICHLOROETHANE	3/6/2021		Y	N	U		U	1.09	0.366	ug/m3
1897-SS	L2109987-01	1,1-DICHLOROETHENE	3/6/2021		Y	N	U		U	0.793	0.255	ug/m3
1897-SS	L2109987-01	1,2,4-TRIMETHYLBENZENE	3/6/2021	10.1	Y	Y				0.983	0.181	ug/m3
1897-SS	L2109987-01	1,2-DIBROMOETHANE	3/6/2021		Y	N	U		U	1.54	0.431	ug/m3

SDG: L2109987

Analytical Method		TO15										
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Validated	Detect	Lab Qual	Val Qual	Final qual	RL	MDL	Units
1897-SS	L2109987-01	2-HEXANONE	3/6/2021		Y	N	U		U	0.820	0.266	ug/m3
1897-SS	L2109987-01	1,2-DICHLOROETHANE	3/6/2021		Y	N	U		U	0.809	0.244	ug/m3
1897-SS	L2109987-01	2-BUTANONE	3/6/2021		Y	N	U		U	1.47	0.142	ug/m3
1897-SS	L2109987-01	1,3,5-TRIMETHYLBENZENE	3/6/2021	2.92	Y	Y				0.983	0.332	ug/m3
1897-SS	L2109987-01	1,3-BUTADIENE	3/6/2021		Y	N	U		U	0.442	0.148	ug/m3
1897-SS	L2109987-01	1,3-DICHLOROBENZENE	3/6/2021		Y	N	U		U	1.20	0.377	ug/m3
1897-SS	L2109987-01	1,4-DICHLOROBENZENE	3/6/2021		Y	N	U		U	1.20	0.382	ug/m3
1897-SS	L2109987-01	1,4-DIOXANE	3/6/2021		Y	N	U		U	0.721	0.290	ug/m3
1897-SS	L2109987-01	1,2,4-TRICHLOROBENZENE	3/6/2021		Y	N	U	UJ	UJ	1.48	0.500	ug/m3
1897-SS	L2109987-01	1,2-DICHLOROBENZENE	3/6/2021		Y	N	U		U	1.20	0.378	ug/m3
1897-SS	L2109987-01	VINYL BROMIDE	3/6/2021		Y	N	U		U	0.874	0.313	ug/m3
1897-SS	L2109987-01	CYCLOHEXANE	3/6/2021		Y	N	U		U	0.688	0.127	ug/m3
1897-SS	L2109987-01	1,1-DICHLOROETHANE	3/6/2021		Y	N	U		U	0.809	0.254	ug/m3
1897-SS	L2109987-01	TRANS-1,2-DICHLOROETHENE	3/6/2021		Y	N	U		U	0.793	0.255	ug/m3
1897-SS	L2109987-01	P/M-XYLENE	3/6/2021	3.71	Y	Y				1.74	0.395	ug/m3
1897-SS	L2109987-01	O-XYLENE	3/6/2021	1.13	Y	Y				0.869	0.197	ug/m3
1897-SS	L2109987-01	N-HEXANE	3/6/2021		Y	N	U		U	0.705	0.128	ug/m3
1897-SS	L2109987-01	CIS-1,3-DICHLOROPROPENE	3/6/2021		Y	N	U		U	0.908	0.186	ug/m3
1897-SS	L2109987-01	VINYL CHLORIDE	3/6/2021		Y	N	U		U	0.511	0.160	ug/m3
1897-SS	L2109987-01	TRANS-1,3-DICHLOROPROPENE	3/6/2021		Y	N	U		U	0.908	0.198	ug/m3
1897-SS	L2109987-01	TRICHLOROFLUOROMETHANE	3/6/2021	1.33	Y	Y				1.12	0.386	ug/m3
1897-SS	L2109987-01	TRICHLOROETHENE	3/6/2021		Y	N	U		U	1.07	0.271	ug/m3
1897-SS	L2109987-01	TOLUENE	3/6/2021	3.14	Y	Y				0.754	0.196	ug/m3
1897-SS	L2109987-01	TETRAHYDROFURAN	3/6/2021		Y	N	U		U	1.47	0.168	ug/m3
1897-SS	L2109987-01	TETRACHLOROETHENE	3/6/2021		Y	N	U		U	1.36	0.444	ug/m3

SDG: L2109987

Analytical Method TO15

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Validated	Detect	Lab Qual	Val Qual	Final qual	RL	MDL	Units
1897-SS	L2109987-01	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	3/6/2021		Y	N	U		U	1.53	0.503	ug/m3
1897-SS	L2109987-01	DICHLORODIFLUOROMETHANE	3/6/2021	2.43	Y	Y				0.989	0.288	ug/m3
1897-SS	L2109987-01	CIS-1,2-DICHLOROETHENE	3/6/2021		Y	N	U		U	0.793	0.464	ug/m3
1897-SS	L2109987-01	DIBROMOCHLOROMETHANE	3/6/2021		Y	N	U		U	1.70	0.523	ug/m3
1897-SS	L2109987-01	TERT-BUTYL ALCOHOL	3/6/2021		Y	N	U		U	1.52	0.141	ug/m3
1897-SS	L2109987-01	ETHYL ALCOHOL	3/6/2021	27.7	Y	Y				9.42	1.38	ug/m3
1897-SS	L2109987-01	ETHYLBENZENE	3/6/2021		Y	N	U		U	0.869	0.188	ug/m3
1897-SS	L2109987-01	1,2-DICHLORO-1,1,2,2-TETRAFLUOROETHANE	3/6/2021		Y	N	U		U	1.40	0.413	ug/m3
1897-SS	L2109987-01	HEPTANE	3/6/2021		Y	N	U		U	0.820	0.193	ug/m3
1897-SS	L2109987-01	HEXACHLOROBUTADIENE	3/6/2021		Y	N	U		U	2.13	0.564	ug/m3
1897-SS	L2109987-01	ISO-PROPYL ALCOHOL	3/6/2021	11.3	Y	Y				1.23	1.17	ug/m3
1897-SS	L2109987-01	METHYL TERT BUTYL ETHER	3/6/2021		Y	N	U		U	0.721	0.189	ug/m3
1897-SS	L2109987-01	METHYLENE CHLORIDE	3/6/2021		Y	N	U		U	1.74	0.466	ug/m3
1897-SS	L2109987-01	STYRENE	3/6/2021		Y	N	U		U	0.852	0.185	ug/m3
1897-SS	L2109987-01	ETHYL ACETATE	3/6/2021		Y	N	U		U	1.80	0.440	ug/m3
1897-IA	L2109987-02	HEXACHLOROBUTADIENE	3/5/2021		Y	N	U		U	2.13	0.564	ug/m3
1897-IA	L2109987-02	1,2,4-TRICHLOROBENZENE	3/5/2021		Y	N	U	UJ	UJ	1.48	0.500	ug/m3
1897-IA	L2109987-02	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	3/5/2021		Y	N	U		U	1.53	0.503	ug/m3
1897-IA	L2109987-02	HEPTANE	3/5/2021	1.08	Y	Y				0.820	0.193	ug/m3
1897-IA	L2109987-02	1,2-DICHLORO-1,1,2,2-TETRAFLUOROETHANE	3/5/2021		Y	N	U		U	1.40	0.413	ug/m3
1897-IA	L2109987-02	ETHYLBENZENE	3/5/2021		Y	N	U		U	0.869	0.188	ug/m3
1897-IA	L2109987-02	ETHYL ACETATE	3/5/2021	2.32	Y	Y				1.80	0.440	ug/m3
1897-IA	L2109987-02	ETHYL ALCOHOL	3/5/2021	339	Y	Y				9.42	1.38	ug/m3
1897-IA	L2109987-02	DICHLORODIFLUOROMETHANE	3/5/2021	2.47	Y	Y				0.989	0.288	ug/m3
1897-IA	L2109987-02	DIBROMOCHLOROMETHANE	3/5/2021		Y	N	U		U	1.70	0.523	ug/m3

SDG: L2109987

Analytical Method TO15

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Validated	Detect	Lab Qual	Val Qual	Final qual	RL	MDL	Units
1897-IA	L2109987-02	CYCLOHEXANE	3/5/2021		Y	N	U		U	0.688	0.127	ug/m3
1897-IA	L2109987-02	ISO-PROPYL ALCOHOL	3/5/2021	149	Y	Y				1.23	1.17	ug/m3
1897-IA	L2109987-02	1,2,4-TRIMETHYLBENZENE	3/5/2021		Y	N	U		U	0.983	0.181	ug/m3
1897-IA	L2109987-02	VINYL BROMIDE	3/5/2021		Y	N	U		U	0.874	0.313	ug/m3
1897-IA	L2109987-02	2-HEXANONE	3/5/2021		Y	N	U		U	0.820	0.266	ug/m3
1897-IA	L2109987-02	TRANS-1,3-DICHLOROPROPENE	3/5/2021		Y	N	U		U	0.908	0.198	ug/m3
1897-IA	L2109987-02	CHLOROMETHANE	3/5/2021	1.41	Y	Y				0.413	0.142	ug/m3
1897-IA	L2109987-02	P/M-XYLENE	3/5/2021		Y	N	U		U	1.74	0.395	ug/m3
1897-IA	L2109987-02	O-XYLENE	3/5/2021		Y	N	U		U	0.869	0.197	ug/m3
1897-IA	L2109987-02	TRANS-1,2-DICHLOROETHENE	3/5/2021		Y	N	U		U	0.793	0.255	ug/m3
1897-IA	L2109987-02	CIS-1,3-DICHLOROPROPENE	3/5/2021		Y	N	U		U	0.908	0.186	ug/m3
1897-IA	L2109987-02	METHYL TERT BUTYL ETHER	3/5/2021		Y	N	U		U	0.721	0.189	ug/m3
1897-IA	L2109987-02	TRICHLOROFLUOROMETHANE	3/5/2021	1.49	Y	Y				1.12	0.386	ug/m3
1897-IA	L2109987-02	TOLUENE	3/5/2021	1.91	Y	Y				0.754	0.196	ug/m3
1897-IA	L2109987-02	TETRAHYDROFURAN	3/5/2021		Y	N	U		U	1.47	0.168	ug/m3
1897-IA	L2109987-02	TERT-BUTYL ALCOHOL	3/5/2021		Y	N	U		U	1.52	0.141	ug/m3
1897-IA	L2109987-02	STYRENE	3/5/2021		Y	N	U		U	0.852	0.185	ug/m3
1897-IA	L2109987-02	METHYLENE CHLORIDE	3/5/2021		Y	N	U		U	1.74	0.466	ug/m3
1897-IA	L2109987-02	N-HEXANE	3/5/2021	0.856	Y	Y				0.705	0.128	ug/m3
1897-IA	L2109987-02	1,4-DICHLOROBENZENE	3/5/2021		Y	N	U		U	1.20	0.382	ug/m3
1897-IA	L2109987-02	1,1,2,2-TETRACHLOROETHANE	3/5/2021		Y	N	U		U	1.37	0.422	ug/m3
1897-IA	L2109987-02	1,1,2-TRICHLOROETHANE	3/5/2021		Y	N	U		U	1.09	0.366	ug/m3
1897-IA	L2109987-02	1,1-DICHLOROETHANE	3/5/2021		Y	N	U		U	0.809	0.254	ug/m3
1897-IA	L2109987-02	1,2-DIBROMOETHANE	3/5/2021		Y	N	U		U	1.54	0.431	ug/m3
1897-IA	L2109987-02	1,2-DICHLOROBENZENE	3/5/2021		Y	N	U		U	1.20	0.378	ug/m3

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Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Validated	Detect	Lab Qual	Val Qual	Final qual	RL	MDL	Units
1897-IA	L2109987-02	1,2-DICHLOROETHANE	3/5/2021		Y	N	U		U	0.809	0.244	ug/m3
1897-IA	L2109987-02	1,2-DICHLOROPROPANE	3/5/2021		Y	N	U		U	0.924	0.282	ug/m3
1897-IA	L2109987-02	1,3,5-TRIMETHYLBENZENE	3/5/2021		Y	N	U		U	0.983	0.332	ug/m3
1897-IA	L2109987-02	4-ETHYLTOLUENE	3/5/2021		Y	N	U		U	0.983	0.182	ug/m3
1897-IA	L2109987-02	1,3-DICHLOROBENZENE	3/5/2021		Y	N	U		U	1.20	0.377	ug/m3
1897-IA	L2109987-02	CHLOROFORM	3/5/2021	1.22	Y	Y				0.977	0.309	ug/m3
1897-IA	L2109987-02	1,4-DIOXANE	3/5/2021		Y	N	U		U	0.721	0.290	ug/m3
1897-IA	L2109987-02	BROMOMETHANE	3/5/2021		Y	N	U		U	0.777	0.300	ug/m3
1897-IA	L2109987-02	CHLOROETHANE	3/5/2021		Y	N	U		U	0.528	0.212	ug/m3
1897-IA	L2109987-02	1,3-BUTADIENE	3/5/2021		Y	N	U		U	0.442	0.148	ug/m3
1897-IA	L2109987-02	CARBON DISULFIDE	3/5/2021		Y	N	U		U	0.623	0.174	ug/m3
1897-IA	L2109987-02	2,2,4-TRIMETHYLPENTANE	3/5/2021		Y	N	U		U	0.934	0.169	ug/m3
1897-IA	L2109987-02	BROMOFORM	3/5/2021		Y	N	U		U	2.07	0.663	ug/m3
1897-IA	L2109987-02	BROMODICHLOROMETHANE	3/5/2021		Y	N	U		U	1.34	0.338	ug/m3
1897-IA	L2109987-02	BENZYL CHLORIDE	3/5/2021		Y	N	U		U	1.04	0.250	ug/m3
1897-IA	L2109987-02	BENZENE	3/5/2021	1.20	Y	Y				0.639	0.156	ug/m3
1897-IA	L2109987-02	ACETONE	3/5/2021	13.6	Y	Y				2.38	1.64	ug/m3
1897-IA	L2109987-02	4-METHYL-2-PENTANONE	3/5/2021		Y	N	U		U	2.05	0.173	ug/m3
1897-IA	L2109987-02	3-CHLOROPROPENE	3/5/2021		Y	N	U		U	0.626	0.183	ug/m3
1897-IA	L2109987-02	2-BUTANONE	3/5/2021	1.49	Y	Y				1.47	0.142	ug/m3
1897-IA	L2109987-02	CHLOROBENZENE	3/5/2021		Y	N	U		U	0.921	0.287	ug/m3
OA1	L2109987-03	1,2,4-TRIMETHYLBENZENE	3/5/2021		Y	N	U		U	0.983	0.181	ug/m3
OA1	L2109987-03	ETHYLBENZENE	3/5/2021		Y	N	U		U	0.869	0.188	ug/m3
OA1	L2109987-03	1,1,2,2-TETRACHLOROETHANE	3/5/2021		Y	N	U		U	1.37	0.422	ug/m3
OA1	L2109987-03	1,1,2-TRICHLOROETHANE	3/5/2021		Y	N	U		U	1.09	0.366	ug/m3

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Analytical Method		TO15										
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Validated	Detect	Lab Qual	Val Qual	Final qual	RL	MDL	Units
OA1	L2109987-03	1,1-DICHLOROETHANE	3/5/2021		Y	N	U		U	0.809	0.254	ug/m3
OA1	L2109987-03	1,2,4-TRICHLOROBENZENE	3/5/2021		Y	N	U	UJ	UJ	1.48	0.500	ug/m3
OA1	L2109987-03	METHYLENE CHLORIDE	3/5/2021		Y	N	U		U	1.74	0.466	ug/m3
OA1	L2109987-03	CHLOROETHANE	3/5/2021		Y	N	U		U	0.528	0.212	ug/m3
OA1	L2109987-03	1,2-DIBROMOETHANE	3/5/2021		Y	N	U		U	1.54	0.431	ug/m3
OA1	L2109987-03	CHLOROMETHANE	3/5/2021	1.37	Y	Y				0.413	0.142	ug/m3
OA1	L2109987-03	ETHYL ALCOHOL	3/5/2021	24.3	Y	Y				9.42	1.38	ug/m3
OA1	L2109987-03	DIBROMOCHLOROMETHANE	3/5/2021		Y	N	U		U	1.70	0.523	ug/m3
OA1	L2109987-03	DICHLORODIFLUOROMETHANE	3/5/2021	2.47	Y	Y				0.989	0.288	ug/m3
OA1	L2109987-03	ETHYL ACETATE	3/5/2021		Y	N	U		U	1.80	0.440	ug/m3
OA1	L2109987-03	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	3/5/2021		Y	N	U		U	1.53	0.503	ug/m3
OA1	L2109987-03	1,2-DICHLORO-1,1,2,2-TETRAFLUOROETHANE	3/5/2021		Y	N	U		U	1.40	0.413	ug/m3
OA1	L2109987-03	HEPTANE	3/5/2021		Y	N	U		U	0.820	0.193	ug/m3
OA1	L2109987-03	HEXACHLOROBUTADIENE	3/5/2021		Y	N	U		U	2.13	0.564	ug/m3
OA1	L2109987-03	CHLOROBENZENE	3/5/2021		Y	N	U		U	0.921	0.287	ug/m3
OA1	L2109987-03	METHYL TERT BUTYL ETHER	3/5/2021		Y	N	U		U	0.721	0.189	ug/m3
OA1	L2109987-03	CHLOROFORM	3/5/2021		Y	N	U		U	0.977	0.309	ug/m3
OA1	L2109987-03	STYRENE	3/5/2021		Y	N	U		U	0.852	0.185	ug/m3
OA1	L2109987-03	TERT-BUTYL ALCOHOL	3/5/2021		Y	N	U		U	1.52	0.141	ug/m3
OA1	L2109987-03	TETRAHYDROFURAN	3/5/2021		Y	N	U		U	1.47	0.168	ug/m3
OA1	L2109987-03	TOLUENE	3/5/2021	1.56	Y	Y				0.754	0.196	ug/m3
OA1	L2109987-03	TRICHLOROFLUOROMETHANE	3/5/2021	1.44	Y	Y				1.12	0.386	ug/m3
OA1	L2109987-03	VINYL BROMIDE	3/5/2021		Y	N	U		U	0.874	0.313	ug/m3
OA1	L2109987-03	CIS-1,3-DICHLOROPROPENE	3/5/2021		Y	N	U		U	0.908	0.186	ug/m3
OA1	L2109987-03	N-HEXANE	3/5/2021		Y	N	U		U	0.705	0.128	ug/m3

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Analytical Method		TO15										
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Validated	Detect	Lab Qual	Val Qual	Final qual	RL	MDL	Units
OA1	L2109987-03	O-XYLENE	3/5/2021		Y	N	U		U	0.869	0.197	ug/m3
OA1	L2109987-03	P/M-XYLENE	3/5/2021		Y	N	U		U	1.74	0.395	ug/m3
OA1	L2109987-03	TRANS-1,2-DICHLOROETHENE	3/5/2021		Y	N	U		U	0.793	0.255	ug/m3
OA1	L2109987-03	TRANS-1,3-DICHLOROPROPENE	3/5/2021		Y	N	U		U	0.908	0.198	ug/m3
OA1	L2109987-03	ISO-PROPYL ALCOHOL	3/5/2021	11.9	Y	Y				1.23	1.17	ug/m3
OA1	L2109987-03	2-HEXANONE	3/5/2021		Y	N	U		U	0.820	0.266	ug/m3
OA1	L2109987-03	1,2-DICHLOROPROPANE	3/5/2021		Y	N	U		U	0.924	0.282	ug/m3
OA1	L2109987-03	1,2-DICHLOROETHANE	3/5/2021		Y	N	U		U	0.809	0.244	ug/m3
OA1	L2109987-03	CYCLOHEXANE	3/5/2021		Y	N	U		U	0.688	0.127	ug/m3
OA1	L2109987-03	1,2-DICHLOROBENZENE	3/5/2021		Y	N	U		U	1.20	0.378	ug/m3
OA1	L2109987-03	CARBON DISULFIDE	3/5/2021		Y	N	U		U	0.623	0.174	ug/m3
OA1	L2109987-03	1,3-BUTADIENE	3/5/2021		Y	N	U		U	0.442	0.148	ug/m3
OA1	L2109987-03	1,3-DICHLOROBENZENE	3/5/2021		Y	N	U		U	1.20	0.377	ug/m3
OA1	L2109987-03	1,4-DICHLOROBENZENE	3/5/2021		Y	N	U		U	1.20	0.382	ug/m3
OA1	L2109987-03	1,4-DIOXANE	3/5/2021		Y	N	U		U	0.721	0.290	ug/m3
OA1	L2109987-03	1,3,5-TRIMETHYLBENZENE	3/5/2021		Y	N	U		U	0.983	0.332	ug/m3
OA1	L2109987-03	2-BUTANONE	3/5/2021		Y	N	U		U	1.47	0.142	ug/m3
OA1	L2109987-03	3-CHLOROPROPENE	3/5/2021		Y	N	U		U	0.626	0.183	ug/m3
OA1	L2109987-03	4-ETHYLTOLUENE	3/5/2021		Y	N	U		U	0.983	0.182	ug/m3
OA1	L2109987-03	4-METHYL-2-PENTANONE	3/5/2021		Y	N	U		U	2.05	0.173	ug/m3
OA1	L2109987-03	ACETONE	3/5/2021	8.01	Y	Y				2.38	1.64	ug/m3
OA1	L2109987-03	BENZENE	3/5/2021	0.847	Y	Y				0.639	0.156	ug/m3
OA1	L2109987-03	BENZYL CHLORIDE	3/5/2021		Y	N	U		U	1.04	0.250	ug/m3
OA1	L2109987-03	BROMODICHLOROMETHANE	3/5/2021		Y	N	U		U	1.34	0.338	ug/m3
OA1	L2109987-03	BROMOFORM	3/5/2021		Y	N	U		U	2.07	0.663	ug/m3

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Analytical Method		TO15										
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Validated	Detect	Lab Qual	Val Qual	Final qual	RL	MDL	Units
OA1	L2109987-03	BROMOMETHANE	3/5/2021		Y	N	U		U	0.777	0.300	ug/m3
OA1	L2109987-03	2,2,4-TRIMETHYLPENTANE	3/5/2021		Y	N	U		U	0.934	0.169	ug/m3

Analytical Method		TO15 SIM										
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Validated	Detect	Lab Qual	Val Qual	Final qual	RL	MDL	Units
1897-IA	L2109987-02	1,1,1-TRICHLOROETHANE	3/5/2021		Y	N	U		U	0.109	0.045	ug/m3
1897-IA	L2109987-02	CIS-1,2-DICHLOROETHENE	3/5/2021	0.170	Y	Y				0.079	0.038	ug/m3
1897-IA	L2109987-02	VINYL CHLORIDE	3/5/2021		Y	N	U		U	0.051	0.018	ug/m3
1897-IA	L2109987-02	TRICHLOROETHENE	3/5/2021		Y	N	U		U	0.107	0.033	ug/m3
1897-IA	L2109987-02	TETRACHLOROETHENE	3/5/2021	0.976	Y	Y				0.136	0.053	ug/m3
1897-IA	L2109987-02	1,1-DICHLOROETHENE	3/5/2021		Y	N	U		U	0.079	0.033	ug/m3
1897-IA	L2109987-02	CARBON TETRACHLORIDE	3/5/2021	0.440	Y	Y				0.126	0.063	ug/m3
OA1	L2109987-03	1,1,1-TRICHLOROETHANE	3/5/2021		Y	N	U		U	0.109	0.045	ug/m3
OA1	L2109987-03	1,1-DICHLOROETHENE	3/5/2021		Y	N	U		U	0.079	0.033	ug/m3
OA1	L2109987-03	CARBON TETRACHLORIDE	3/5/2021	0.465	Y	Y				0.126	0.063	ug/m3
OA1	L2109987-03	TETRACHLOROETHENE	3/5/2021		Y	N	U		U	0.136	0.053	ug/m3
OA1	L2109987-03	TRICHLOROETHENE	3/5/2021		Y	N	U		U	0.107	0.033	ug/m3
OA1	L2109987-03	VINYL CHLORIDE	3/5/2021		Y	N	U		U	0.051	0.018	ug/m3
OA1	L2109987-03	CIS-1,2-DICHLOROETHENE	3/5/2021		Y	N	U		U	0.079	0.038	ug/m3



APPENDIX F