

June 13, 2022

Mr. Brett Richter  
47<sup>th</sup> Street & 58<sup>th</sup> Road, LLC  
c/o Prologis  
Pier 1, Bay 1  
San Francisco, California 94111

**Re: Soil Vapor Intrusion Summary Letter  
57-00 and 57-05 47th Street  
Maspeth, Queens, New York  
Langan Project No. 100965503**

Dear Mr. Richter:

Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology D.P.C. (Langan) has prepared this letter to provide a summary of a recent soil vapor intrusion (SVI) investigation completed at the buildings located at 57-00 (Block 2601, Lot 6) and 57-05 (Block 2602, Lot 72) 47<sup>th</sup> Street, Queens (Maspeth), New York. The SVI investigation was completed to evaluate if a vapor intrusion concern exists in the on-site buildings. The SVI investigation was performed in general accordance with Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York (NYSDOH October 2006, revised May 2017) (NYSDOH Guidance). A summary of the SVI investigation procedures and the laboratory analytical results is provided below.

### **Site Location and Background**

The site is located within a high density commercial/industrial neighborhood of Maspeth (Queens), along Newtown Creek. The building located at 57-00 47<sup>th</sup> Street (Block 2601, Lot 6) was constructed in 1966. The building was formerly utilized as a vehicle parking area and maintenance garage, followed by a concrete materials recycling facility, and is currently vacant. The building located at 57-05 47<sup>th</sup> Street (Block 2602, Lot 72) was constructed in 1964. The building was formerly utilized as a vehicle parking garage, for building materials storage, and as a vehicle maintenance garage; the building is currently vacant.

A SVI investigation was completed to determine if a potential vapor intrusion condition exists in either building that warrants mitigation per NYSDOH guidance. Indoor air and sub-slab vapor (SSV) sample locations are depicted on **Figure 1**.

### **Pre-Sampling Site Walk and Survey**

Langan personnel completed a pre-sampling survey on May 12, 2022 to document building conditions and assess potential background sources of volatile organic compounds (VOCs) in indoor air. Screening of indoor air and chemical products was performed using a ppbRAE 3000+ photoionization detector (PID) equipped with a 10.6 electron volt (eV) bulb to measure total

organic vapors (TOV). The findings from this surveys are summarized below and provided on the Building Inventory Forms included in **Attachment 1**.

The 57-00 47<sup>th</sup> Street building contained household cleaners, general maintenance products, and vehicle maintenance fluids. When screened with a PID, two of the chemicals stored within this building yielded PID readings of 23 parts per million (PPM). These products were stored within a maintenance closet inside the office space of the building and away from areas where the indoor air samples were collected.

The 57-05 building contained general building maintenance products. When screened with a PID, two of the products within this building yielded PID readings ranging from 0.6 PPM to 40 PPM. Both of these products were stored within a separate storage area west of the SSV05/IA05.

### **Sub-Slab Soil Vapor, Indoor Air, and Ambient Air Sampling – May 2022**

On May 11, 2022, Langan installed five temporary SSV points labeled SSV01 through SSV05 within the on-site buildings. Three temporary SSV points were installed within the 57-00 47<sup>th</sup> Street building (SSV01 through SSV03) and two temporary sub-slab vapor points within the 57-05 47<sup>th</sup> Street building (SSV04 and SSV05). The SSV points are depicted on the Sample Location Plan included in **Figure 1**, SSV installation logs are included as **Attachment 2**.

Sub-slab points were installed via a hammer drill which cored an approximate 3/4-inch diameter borehole through the concrete slab floors to reach the soil beneath. Stainless steel soil vapor probes were installed beneath the floor slabs and connected to polyethylene tubing. Following installation of the temporary SSV points, an air-tight seal was created at the surface of each soil vapor point using an inert clay. The adequacy of each seal was tested via water dam and helium tracer test before sampling. All sample locations were determined to have an air tight seal as per the helium tracer and water dam tests.

On May 12, 2022, Langan returned to collected SSV samples (SSV01 through SSV05) and co-located indoor air samples (IA01 through IA05) and one ambient air sample (AA01) from the Site. The ambient air sample was collected approximately 230 feet north and upwind of the 57-00 47<sup>th</sup> Street building to evaluate potential background sources. The sub-slab vapor, indoor air, and outdoor ambient air samples were collected concurrently. Windows and exterior doors were closed during sample collection. The samples were collected utilizing a 6-liter SUMMA canisters fitted with flow controllers calibrated by the laboratory to allow for the collection of a sample over approximately 8-hours. Air canisters for indoor and ambient air sampling were placed within the breathing zone (3' to 5' above ground surface). Prior to sample collection, three volumes of air were evacuated from the SSV points. The evacuated air was screened with a calibrated PID to determine VOC field concentrations. VOC SSV concentrations below the 57-00 47<sup>th</sup> Street

building slab ranged from 0.7 PPM to 20 PPM. VOC SSV concentrations below the 57-05 47<sup>th</sup> Street building slab ranged from 0 PPM to 1.3 PPM.

The sub-slab soil vapor, indoor air and ambient air samples were analyzed by Alpha, an NYSDOH Environmental Laboratory Approval Program-certified laboratory. All samples were analyzed via EPA Method TO-15.

### **Analytical Results**

A total of five sub-slab vapor samples, five indoor air samples, and one ambient air sample were collected and analyzed for VOCs. Results are summarized in the following sections.

The SSV, IA and AA sample analytical results are summarized in **Tables 1** and **2** and on **Figure 1**. The laboratory data package is provided in **Attachment 3**.

### **NYSDOH Decision Matrices**

Sub-slab vapor and indoor sample analytical results were evaluated using the decision matrices contained in the NYSDOH Guidance. The NYSDOH decision matrices address the following eight chlorinate volatile organic compounds (CVOCs): 1,1,1-trichloroethane, 1,1-dichloroethene, cis-1,2-dichloroethylene, carbon tetrachloride, methylene chloride, tetrachloroethene (PCE), trichloroethene (TCE), and vinyl chloride.

#### 57-00 47<sup>th</sup> Street Building (Block 2601, Lot 6)

The following table presents the sub-slab soil vapor and indoor air concentration ranges of the eight CVOCs addressed by the decision matrices, presented in micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ).

<b>Compound</b>	<b>Sub-Slab Soil Vapor Range (<math>\mu\text{g}/\text{m}^3</math>)</b>	<b>Indoor Air Range (<math>\mu\text{g}/\text{m}^3</math>)</b>
1,1,1-Trichloroethane	ND to 3.2 (SSV01)	ND
1,1-Dichloroethene	ND to <61.9 (SSV03)	ND
cis-1,2-Dichloroethene	ND to <61.9 (SSV03)	ND
Carbon tetrachloride	ND	0.585 (IA01) to 0.61 (IA02)
Methylene chloride	ND	ND
Tetrachloroethene	ND to 485 (SSV02)	0.373 (IA01) to 0.454 (IA03)
Trichloroethene	ND to <83.8 (SSV03)	ND
*Vinyl chloride	ND to 501(SSV03)	ND

ND = Not Detected

\*Due to the high concentration of vinyl chloride, sample SSV03 required dilution which resulted in three other CVOC compounds (1,1-dichloroethene, cis-1,2-dichloroethene, and trichloroethene) in the same sample to have reporting limits (RLs) greater than the evaluation criteria presented in NYSDOH Decision Matrices. As a conservative measure, the RLs were applied to the decision matrix in lieu of the diluted and estimated concentrations. The values shown in the table above for these three compounds are the RLs.

Analytical results indicate that sub-slab vapor is impacted by CVOCs, including 1,1,1-trichloroethane, 1,1-dichloroethene, cis-1,2-dichloroethene, PCE, TCE, and vinyl chloride. Analytical results identified carbon tetrachloride and PCE in indoor air. Applying the detected

CVOC concentrations in SSV and indoor air to the NYSDOH Guidance Decision Matrices yields recommendations including:

- “No further action” (1,1,1-trichloroethane, methylene chloride, carbon tetrachloride, and PCE)
- “Mitigate” (vinyl chloride, 1,1-dichloroethene, cis 1,2-dichloroethene, and TCE)

Indoor air analytical results were also compared to the NYSDOH Air Guideline Values (AGVs) and NYSDOH Recommended Immediate Action Levels (RIALs). All indoor air VOC results were less than their respective AGV and RIALs.

57-05 47<sup>th</sup> Street Building (Block 2602, Lot 72)

The following table presents the sub-slab soil vapor and indoor air concentration ranges of the eight CVOCs addressed by the decision matrices, presented in  $\mu\text{g}/\text{m}^3$ .

Compound	Sub-Slab Soil Vapor Range ( $\mu\text{g}/\text{m}^3$ )	Indoor Air Range ( $\mu\text{g}/\text{m}^3$ )
1,1,1-Trichloroethane	ND	ND
1,1-Dichloroethene	ND	ND
cis-1,2-Dichloroethene	ND	ND
Carbon tetrachloride	ND	0.585 (IA04) to 0.579 (IA05)
Methylene chloride	ND	ND
Tetrachloroethene	30.8 (SSV05) to 49.5 (SSV05)	0.468 (IA05) to 0.475 (IA04)
Trichloroethene	ND	ND
Vinyl chloride	ND to 0.631 (SSV04)	ND

ND = Not Detected

Analytical results indicate that sub-slab vapor is impacted by PCE and vinyl chloride. Analytical results identified carbon tetrachloride and PCE in indoor air. Applying the detected CVOC concentrations in SSV and indoor air to the NYSDOH Guidance Decision Matrices yielded “No further action” for all CVOC compounds.

Indoor air analytical results were also compared to the NYSDOH AGVs and NYSDOH RIALs. All indoor air VOC results were less than their respective AGV and RIALs.

**Data Validation**

Lagan completed a data validation of the laboratory analytical results and the data validation report is provided in **Attachment 4**. On the basis of this evaluation, the laboratory appears to have followed the specified analytical methods with the exception of minor deficiencies as discussed in the data validation report.

The data is considered usable, as qualified. In addition, completeness, defined as the percentage of analytical results that are judged to be valid is 100%.

**Conclusions and Recommendations**

It is noted that carbon tetrachloride was detected in all five of the indoor air samples and in the ambient air sample collected during the May 2022 VI investigation. Carbon tetrachloride was not



detected in any of the SSV samples. Based on this information, carbon tetrachloride is considered to be a background contaminant and not associated with VI. No further action is required for this compound.

57-00 47<sup>th</sup> Street Building (Block 2601, Lot 6)

Chlorinated solvent and petroleum related VOCs were identified beneath the building slab. When evaluated using NYSDOH Decision Matrices, SSV and indoor air data from locations SSV01 and SSV02 yielded a recommendation for no further action. However, SSV and indoor air data from sample location SSV03 yielded a recommendation for mitigation for vinyl chloride. Due to the high concentration of vinyl chloride detected in SSV03, the sample required laboratory dilution which resulted in three other chlorinated solvent compounds to have RLs greater than their respective NYSDOH Decision Matrices threshold values (1,1-dichloroethene, cis 1,2-dichloroethene, and TCE). Applying the RLs for SSV to the decision matrices for these three compounds, yields a recommendation to mitigate.

Based on these data, SVI mitigation is recommended for the 57-00 47<sup>th</sup> Street Building to address the CVOOC concentrations in sub-slab gas detecting in sample SSV03. Mitigation measures may include the following: creating a positive pressure environment inside the building, increasing air exchange rates within the building, and installing a sub-slab depressurization system within the building. All three mitigation measures will be further evaluated for site-specific feasibility and effectiveness.

57-05 47<sup>th</sup> Street Building (Block 2602, Lot 72)

Chlorinated solvent and petroleum related VOCs were identified beneath the building slab. When evaluated using NYSDOH Decision Matrices, SSV and indoor air data from both sampling locations yielded a recommendation for no further action.

Should you have any questions regarding the information contain in this letter, please feel free to contact the undersigned at 973-560-4613.

Sincerely,

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



Alan Arico, LSRP  
Senior Project Manager



Mimi S. Raygorodetsky  
Principal/Vice President

Enclosures:

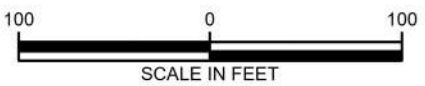
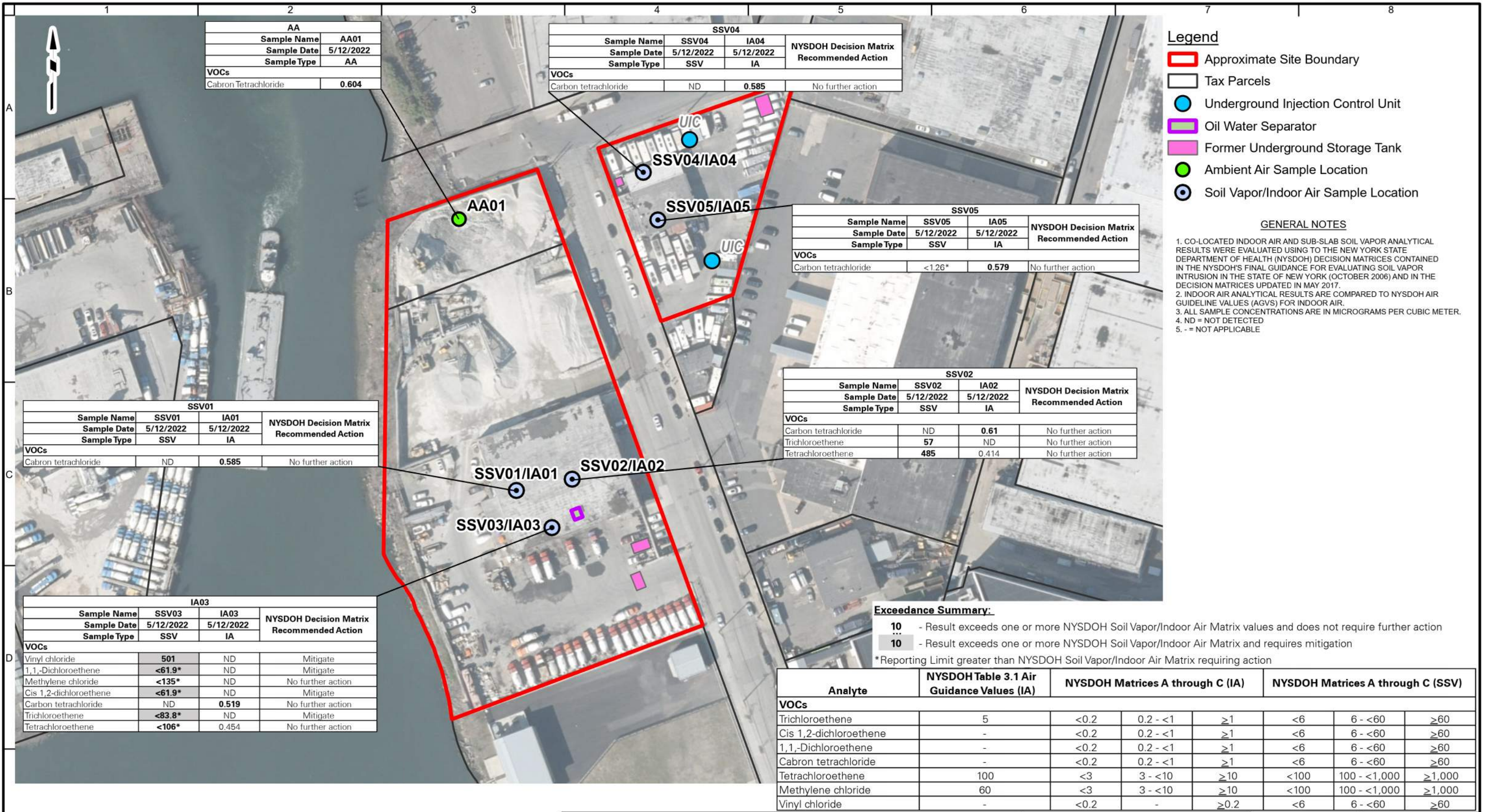
- Figure 1: Indoor Air, Ambient Air, and Sub-Slab Vapor Sample Locations
- Table 1: Laboratory Data Summary Table (Building 57-00)
- Table 2: Laboratory Data Summary Table (Building 57-05)
- Attachment 1: Indoor Air Building Surveys
- Attachment 2: Sub-Slab Vapor Point Installation Logs
- Attachment 3: Category B Laboratory Deliverables
- Attachment 4: Data Validation Summation Letter

\\langan.com\data\PAR\data5\100965501\Project Data\_Discipline\Environmental\Reports\SSG and IA Sampling\47th Street VI Report 06.13.2022.docx

**FIGURE 1**

**INDOOR AIR, AMBIENT AIR, AND SUB-SLAB VAPOR  
SAMPLE LOCATIONS**





**LANGAN**  
 Langan Engineering, Environmental, Surveying,  
 Landscape Architecture and Geology, D.P.C.  
 21 Penn Plaza, 360 West 31st Street, 8th Floor  
 New York, NY 10001  
 T: 212.479.5400 F: 212.479.5444 www.langan.com

Project  
**57-00, 57-05, and  
 58-20 47th Street**  
 BLOCK Nos. 2601, 2602, 2603,  
 LOT Nos. 1, 6, 72  
 QUEENS NEW YORK

Figure Title  
**VAPOR  
 SAMPLING  
 LOCATIONS**

Project No.	100965501	Figure No. <b>1</b>
Date	5/27/2022	
Scale	1"=100'	
Drawn By	ATR	



**TABLE 1**

**LABORATORY DATA SUMMARY TABLE  
(BUILDING 57-00)**

**Table 1**  
**Remedial Investigation Report**  
**Sub-Slab Vapor and Indoor Air Sample Analytical Results**

**47th Street Site**  
**57-00 (Block 2601, Lot 6)**  
**Maspeth, Queens, New York**  
**Langan Project No.: 100965501**

Analyte	CAS Number	NYSDOH AGVs	Location	SSV01_IA01			SSV02_IA02		SSV03_IA03		
			Sample Name	AA01	IA01_051222	SSV01_051222	IA02_051222	SSV02_051222	IA03_051222	SSV03_051222	
			Sample Date	AA01_051222	05/12/2022	05/12/2022	05/12/2022	05/12/2022	05/12/2022	05/12/2022	05/12/2022
			Sample Type	AA	IA	SSV	IA	SSV	IA	SSV	
			Block/Lot	57-00 (Block 2601, Lot 6)	57-00 (Block 2601, Lot 6)	57-00 (Block 2601, Lot 6)	57-00 (Block 2601, Lot 6)	57-00 (Block 2601, Lot 6)	57-00 (Block 2601, Lot 6)	57-00 (Block 2601, Lot 6)	
			Unit	Result	Result	Result	Result	Result	Result		
<b>Volatile Organic Compounds</b>											
1,1,1-Trichloroethane	71-55-6	NS	ug/m3	<0.109 U	<0.109 U	3.2	<0.109 UJ	<1.09 UJ	<0.109 U	<85.1 UJ	
1,1,2,2-Tetrachloroethane	79-34-5	NS	ug/m3	<1.37 U	<1.37 U	<1.37 U	<1.37 UJ	<1.37 UJ	<1.37 U	<107 UJ	
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	NS	ug/m3	<1.53 U	<1.53 U	<1.53 U	<1.53 UJ	<1.53 UJ	<1.53 U	<120 UJ	
1,1,2-Trichloroethane	79-00-5	NS	ug/m3	<1.09 U	<1.09 U	<1.09 U	<1.09 UJ	<1.09 UJ	<1.09 U	<85.1 UJ	
1,1-Dichloroethane	75-34-3	NS	ug/m3	<0.809 U	<0.809 U	<0.809 U	<0.809 UJ	<0.809 UJ	<0.809 U	<63.1 UJ	
1,1-Dichloroethene	75-35-4	NS	ug/m3	<0.079 U	<0.079 U	<0.793 U	<0.079 UJ	<0.793 UJ	<0.079 U	<61.9 UJ	
1,2,4-Trichlorobenzene	120-82-1	NS	ug/m3	<1.48 U	<1.48 U	<1.48 U	<1.48 UJ	<1.48 UJ	<1.48 U	<116 UJ	
1,2,4-Trimethylbenzene	95-63-6	NS	ug/m3	<0.983 U	1.76	5.85	6.19 J	1.97	<0.983 U	<76.7 UJ	
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	NS	ug/m3	<1.54 U	<1.54 U	<1.54 U	<1.54 UJ	<1.54 UJ	<1.54 U	<120 UJ	
1,2-Dichlorobenzene	95-50-1	NS	ug/m3	<1.2 U	<1.2 U	<1.2 U	<1.2 UJ	<1.2 UJ	<1.2 U	<93.8 UJ	
1,2-Dichloroethane	107-06-2	NS	ug/m3	<0.809 U	<0.809 U	<0.809 U	<0.809 UJ	<0.809 UJ	<0.809 U	<63.1 UJ	
1,2-Dichloropropane	78-87-5	NS	ug/m3	<0.924 U	<0.924 U	<0.924 U	<0.924 UJ	<0.924 UJ	<0.924 U	<72.1 UJ	
1,2-Dichlorotetrafluoroethane	76-14-2	NS	ug/m3	<1.4 U	<1.4 U	<1.4 U	<1.4 UJ	<1.4 UJ	<1.4 U	<109 UJ	
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	NS	ug/m3	<0.983 U	<0.983 U	1.59	<0.983 UJ	2.25 J	<0.983 U	<76.7 UJ	
1,3-Butadiene	106-99-0	NS	ug/m3	<0.442 U	<0.442 U	0.688	<0.442 UJ	<0.442 UJ	<0.442 U	<34.5 UJ	
1,3-Dichlorobenzene	541-73-1	NS	ug/m3	<1.2 U	<1.2 U	<1.2 U	<1.2 UJ	<1.2 UJ	<1.2 U	<93.8 UJ	
1,4-Dichlorobenzene	106-46-7	NS	ug/m3	<1.2 U	<1.2 U	<1.2 U	<1.2 UJ	<1.2 UJ	<1.2 U	<93.8 UJ	
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/m3	<0.721 U	<0.721 U	3.5	<0.721 UJ	<0.721 UJ	<0.721 U	<56.2 UJ	
2,2,4-Trimethylpentane	540-84-1	NS	ug/m3	<0.934 U	1.44	3.28	<0.934 UJ	1.18	<0.934 UJ	32,600 J	
2-Hexanone (MBK)	591-78-6	NS	ug/m3	<0.82 U	<0.82 U	10.9	<0.82 UJ	12.5 J	<0.82 U	<63.9 UJ	
4-Ethyltoluene	622-96-8	NS	ug/m3	<0.983 U	<0.983 U	1.33	<0.983 UJ	1.28 J	<0.983 U	<76.7 UJ	
Acetone	67-64-1	NS	ug/m3	10.4	9.69	858	13 J	333 J	10	508 J	
Allyl Chloride (3-Chloropropene)	107-05-1	NS	ug/m3	<0.626 U	<0.626 U	<0.626 U	<0.626 UJ	<0.626 UJ	<0.626 U	<48.8 UJ	
Benzene	71-43-2	NS	ug/m3	<0.639 U	0.674	19.2	<0.639 UJ	53 J	<0.639 U	530 J	
Benzyl Chloride	100-44-7	NS	ug/m3	<1.04 U	<1.04 U	<1.04 U	<1.04 UJ	<1.04 UJ	<1.04 U	<80.8 UJ	
Bromodichloromethane	75-27-4	NS	ug/m3	<1.34 U	<1.34 U	<1.34 U	<1.34 UJ	<1.34 UJ	<1.34 U	<105 UJ	
Bromoethene	593-60-2	NS	ug/m3	<0.874 U	<0.874 U	<0.874 U	<0.874 UJ	<0.874 UJ	<0.874 U	<68.2 UJ	
Bromoform	75-25-2	NS	ug/m3	<2.07 U	<2.07 U	<2.07 U	<2.07 UJ	<2.07 UJ	<2.07 U	<161 UJ	
Bromomethane	74-83-9	NS	ug/m3	<0.777 U	<0.777 U	<0.777 U	<0.777 UJ	<0.777 UJ	<0.777 U	<60.6 UJ	
Carbon Disulfide	75-15-0	NS	ug/m3	<0.623 U	<0.623 U	3.36	<0.623 UJ	3.24 J	<0.623 U	<48.6 UJ	
Carbon Tetrachloride	56-23-5	NS	ug/m3	0.604	0.585	<1.26 U	0.61 J	<1.26 UJ	0.591	<98.1 UJ	
Chlorobenzene	108-90-7	NS	ug/m3	<0.921 U	<0.921 U	<0.921 U	<0.921 UJ	<0.921 UJ	<0.921 U	<71.8 UJ	
Chloroethane	75-00-3	NS	ug/m3	<0.528 U	<0.528 U	<0.528 U	<0.528 UJ	<0.528 UJ	<0.528 U	<41.2 UJ	
Chloroform	67-66-3	NS	ug/m3	<0.977 U	<0.977 U	<0.977 U	<0.977 UJ	<0.977 UJ	<0.977 U	<76.2 UJ	
Chloromethane	74-87-3	NS	ug/m3	1.49	1.48	<0.413 U	1.4 J	<0.413 UJ	1.37	<32.2 UJ	
Cis-1,2-Dichloroethene	156-59-2	NS	ug/m3	<0.079 U	<0.079 U	<0.793 U	<0.079 UJ	<0.793 UJ	<0.079 U	<61.9 UJ	
Cis-1,3-Dichloropropene	10061-01-5	NS	ug/m3	<0.908 U	<0.908 U	<0.908 U	<0.908 UJ	<0.908 UJ	<0.908 U	<70.8 UJ	
Cyclohexane	110-82-7	NS	ug/m3	<0.688 U	<0.688 U	10.3	<0.688 UJ	14.8 J	<0.688 U	1,030 J	
Dibromochloromethane	124-48-1	NS	ug/m3	<1.7 U	<1.7 U	<1.7 U	<1.7 UJ	<1.7 UJ	<1.7 U	<133 UJ	
Dichlorodifluoromethane	75-71-8	NS	ug/m3	3.08	3	7.17	3.04 J	3.48 J	2.94	<77.1 UJ	
Ethanol	64-17-5	NS	ug/m3	10.8	12.1	213	12 J	307 J	12.1	1,920 J	
Ethyl Acetate	141-78-6	NS	ug/m3	<1.8 U	<1.8 U	<1.8 U	<1.8 UJ	<1.8 UJ	<1.8 U	<140 UJ	
Ethylbenzene	100-41-4	NS	ug/m3	<0.869 U	<0.869 U	3.76	<0.869 UJ	6.12 J	<0.869 U	<67.8 UJ	
Hexachlorobutadiene	87-68-3	NS	ug/m3	<2.13 U	<2.13 U	<2.13 U	<2.13 UJ	<2.13 UJ	<2.13 U	<166 UJ	
Isopropanol	67-63-0	NS	ug/m3	2.75	3.88	230	3.15 J	105 J	3.71	122 J	
M,P-Xylene	179601-23-	NS	ug/m3	<1.74 U	2.7	13.7	1.92 J	20.9 J	2.31	136 J	
Methyl Ethyl Ketone (2-Butanone)	78-93-3	NS	ug/m3	<1.47 U	<1.47 U	138	<1.47 UJ	60.5 J	<1.47 U	<115 UJ	
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/m3	<2.05 U	<2.05 U	11.3	<2.05 UJ	10.9 J	<2.05 U	<159 UJ	
Methylene Chloride	75-09-2	NS	ug/m3	<1.74 U	NA	<1.74 U	NA	<1.74 UJ	NA	<135 UJ	
Methylene Chloride	75-09-2	60	ug/m3	NA	<1.74 U	NA	<1.74 UJ	NA	<1.74 U	NA	
n-Heptane	142-82-5	NS	ug/m3	<0.82 U	0.955	6.88	<0.82 UJ	24.5 J	0.836	1,910 J	
n-Hexane	110-54-3	NS	ug/m3	<0.705 U	0.899	7.54	0.761 J	27.9 J	1.05	2,980 J	
o-Xylene (1,2-Dimethylbenzene)	95-47-6	NS	ug/m3	<0.869 U	1.11	5.13	0.882 J	7.77 J	0.956	138 J	
Styrene	100-42-5	NS	ug/m3	<0.852 U	<0.852 U	0.996	<0.852 UJ	<0.852 UJ	<0.852 U	<66.4 UJ	
Tert-Butyl Alcohol	75-65-0	NS	ug/m3	<1.52 U	75.5	61.5	102 J	34 J	91.6	<118 UJ	
Tert-Butyl Methyl Ether	1634-04-4	NS	ug/m3	<0.721 U	<0.721 U	<0.721 U	<0.721 UJ	<0.721 UJ	<0.721 U	<56.2 UJ	
Tetrachloroethene (PCE)	127-18-4	30	ug/m3	0.407	0.373	15.3	0.414 J	485 J	0.454	<106 UJ	
Tetrahydrofuran	109-99-9	NS	ug/m3	<1.47 U	<1.47 U	<1.47 U	<1.47 UJ	<1.47 UJ	<1.47 U	<115 UJ	
Toluene	108-88-3	NS	ug/m3	1.8	7.16	15.2	7.05 J	37.7 J	6.52	122 J	
Trans-1,2-Dichloroethene	156-60-5	NS	ug/m3	<0.793 U	<0.793 U	<0.793 U	<0.793 UJ	<0.793 UJ	<0.793 U	<61.9 UJ	
Trans-1,3-Dichloropropene	10061-02-6	NS	ug/m3	<0.908 U	<0.908 U	<0.908 U	<0.908 UJ	<0.908 UJ	<0.908 U	<70.8 UJ	
Trichloroethene (TCE)	79-01-6	2	ug/m3	<0.107 U	<0.107 U	<1.07 U	<0.107 UJ	57 J	<0.107 U	<83.8 UJ	
Trichlorofluoromethane	75-69-4	NS	ug/m3	1.79	1.75	1.96	1.8 J	2.64 J	1.82	<87.7 UJ	
Vinyl Chloride	75-01-4	NS	ug/m3	<0.051 U	<0.051 U	<0.511 U	<0.051 UJ	<0.511 UJ	<0.051 U	501 J	

**Table 1**  
**Remedial Investigation Report**  
**Sub-Slab Vapor and Indoor Air Sample Analytical Results**

**47th Street Site**  
**57-00 (Block 2601, Lot 6)**  
**Maspeth, Queens, New York**  
**Langan Project No.: 100965501**

**Notes:**

AA - Ambient Air

IA - Indoor Air

SSV - Sub-slab Soil Vapor

CAS - Chemical Abstract Service

NS - No standard

ug/m<sup>3</sup> - microgram per cubic meter

NA - Not analyzed

RL - Reporting limit

<RL - Not detected

Indoor air sample analytical results are compared to the New York State Department of Health (NYSDOH) Air Guideline Values (AGVs) as set forth in the NYSDOH October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York and subsequent updates (2013, 2015, 2017).

Ambient air sample analytical results are shown for reference only.

**Qualifiers:**

J - The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.

UJ - The analyte was not detected at a level greater than or equal to the RL; however, the reported RL is approximate and may be inaccurate or imprecise.

U - The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

**Exceedance Summary:**

**10** - Result exceeds NYSDOH AGVs

**TABLE 2**

**LABORATORY DATA SUMMARY TABLE  
(BUILDING 57-05)**



**Table 2**  
**Remedial Investigation Report**  
**Sub-Slab Vapor and Indoor Air Sample Analytical Results**

**47th Street Site**  
**57-05 (Block 2602, Lot 72)**  
**Maspeth, Queens, New York**  
**Langan Project No.: 100965501**

Analyte	CAS Number	NYSDOH AGVs	Location				
			SSV04_IA04		SSV05_IA05		
			Sample Name	IA04_051222	SSV04_051222	IA05_051222	SSV05_051222
			Sample Date	05/12/2022	05/12/2022	05/12/2022	05/12/2022
			Sample Type	IA	SSV	IA	SSV
Block/Lot	57-05 (Block 2602, Lot 72)	57-05 (Block 2602, Lot 72)	57-05 (Block 2602, Lot 72)	57-05 (Block 2602, Lot 72)			
Unit	Result	Result	Result	Result			
<b>Volatile Organic Compounds</b>							
1,1,1-Trichloroethane	71-55-6	NS	ug/m3	<0.109 U	<1.09 UJ	<0.109 U	<1.09 UJ
1,1,2,2-Tetrachloroethane	79-34-5	NS	ug/m3	<1.37 U	<1.37 UJ	<1.37 U	<1.37 UJ
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	NS	ug/m3	<1.53 U	<1.53 UJ	<1.53 U	<1.53 UJ
1,1,2-Trichloroethane	79-00-5	NS	ug/m3	<1.09 U	<1.09 UJ	<1.09 U	<1.09 UJ
1,1-Dichloroethane	75-34-3	NS	ug/m3	<0.809 U	<0.809 UJ	<0.809 U	<0.809 UJ
1,1-Dichloroethene	75-35-4	NS	ug/m3	<0.079 U	<0.793 UJ	<0.079 U	<0.793 UJ
1,2,4-Trichlorobenzene	120-82-1	NS	ug/m3	<1.48 U	<1.48 UJ	<1.48 U	<1.48 UJ
1,2,4-Trimethylbenzene	95-63-6	NS	ug/m3	<0.983 U	<b>22.3 J</b>	<0.983 U	<b>2.24 J</b>
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	NS	ug/m3	<1.54 U	<1.54 UJ	<1.54 U	<1.54 UJ
1,2-Dichlorobenzene	95-50-1	NS	ug/m3	<1.2 U	<1.2 UJ	<1.2 U	<1.2 UJ
1,2-Dichloroethane	107-06-2	NS	ug/m3	<0.809 U	<0.809 UJ	<0.809 U	<0.809 UJ
1,2-Dichloropropane	78-87-5	NS	ug/m3	<0.924 U	<0.924 UJ	<0.924 U	<0.924 UJ
1,2-Dichlorotetrafluoroethane	76-14-2	NS	ug/m3	<1.4 U	<1.4 UJ	<1.4 U	<1.4 UJ
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	NS	ug/m3	<0.983 U	<b>6.49 J</b>	<0.983 U	<0.983 UJ
1,3-Butadiene	106-99-0	NS	ug/m3	<0.442 U	<0.442 UJ	<0.442 U	<b>0.553 J</b>
1,3-Dichlorobenzene	541-73-1	NS	ug/m3	<1.2 U	<1.2 UJ	<1.2 U	<1.2 UJ
1,4-Dichlorobenzene	106-46-7	NS	ug/m3	<1.2 U	<1.2 UJ	<1.2 U	<1.2 UJ
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/m3	<0.721 U	<b>28.4 J</b>	<0.721 U	<b>2.83 J</b>
2,2,4-Trimethylpentane	540-84-1	NS	ug/m3	<0.934 U	<b>4.18 J</b>	<b>1.16</b>	<b>4.81 J</b>
2-Hexanone (MBK)	591-78-6	NS	ug/m3	<0.82 U	<b>12.4 J</b>	<0.82 U	<0.82 UJ
4-Ethyltoluene	622-96-8	NS	ug/m3	<0.983 U	<b>2.96 J</b>	<0.983 U	<0.983 UJ
Acetone	67-64-1	NS	ug/m3	<b>10.2</b>	<b>4,580 J</b>	<b>12.8</b>	<b>133 J</b>
Allyl Chloride (3-Chloropropene)	107-05-1	NS	ug/m3	<0.626 U	<0.626 UJ	<0.626 U	<0.626 UJ
Benzene	71-43-2	NS	ug/m3	<0.639 U	<b>1.63 J</b>	<b>0.751</b>	<b>2.43 J</b>
Benzyl Chloride	100-44-7	NS	ug/m3	<1.04 U	<1.04 UJ	<1.04 U	<1.04 UJ
Bromodichloromethane	75-27-4	NS	ug/m3	<1.34 U	<1.34 UJ	<1.34 U	<1.34 UJ
Bromoethene	593-60-2	NS	ug/m3	<0.874 U	<0.874 UJ	<0.874 U	<0.874 UJ
Bromoform	75-25-2	NS	ug/m3	<2.07 U	<2.07 UJ	<2.07 U	<2.07 UJ
Bromomethane	74-83-9	NS	ug/m3	<0.777 U	<0.777 UJ	<0.777 U	<0.777 UJ
Carbon Disulfide	75-15-0	NS	ug/m3	<0.623 U	<b>38 J</b>	<0.623 U	<b>0.891 J</b>
Carbon Tetrachloride	56-23-5	NS	ug/m3	<b>0.585</b>	<1.26 UJ	<b>0.579</b>	<1.26 UJ
Chlorobenzene	108-90-7	NS	ug/m3	<0.921 U	<0.921 UJ	<0.921 U	<0.921 UJ
Chloroethane	75-00-3	NS	ug/m3	<0.528 U	<0.528 UJ	<0.528 U	<0.528 UJ
Chloroform	67-66-3	NS	ug/m3	<0.977 U	<0.977 UJ	<0.977 U	<0.977 UJ
Chloromethane	74-87-3	NS	ug/m3	<b>1.47</b>	<0.413 UJ	<b>2.52</b>	<0.413 UJ
Cis-1,2-Dichloroethene	156-59-2	NS	ug/m3	<0.079 U	<0.793 UJ	<0.079 U	<0.793 UJ
Cis-1,3-Dichloropropene	10061-01-5	NS	ug/m3	<0.908 U	<0.908 UJ	<0.908 U	<0.908 UJ
Cyclohexane	110-82-7	NS	ug/m3	<0.688 U	<b>4.96 J</b>	<0.688 U	<b>2.48 J</b>
Dibromochloromethane	124-48-1	NS	ug/m3	<1.7 U	<1.7 UJ	<1.7 U	<1.7 UJ
Dichlorodifluoromethane	75-71-8	NS	ug/m3	<b>3.09</b>	<b>3.04 J</b>	<b>3</b>	<b>2.67 J</b>
Ethanol	64-17-5	NS	ug/m3	<b>13.8</b>	<b>987 J</b>	<b>14.8</b>	<b>192 J</b>
Ethyl Acetate	141-78-6	NS	ug/m3	<1.8 U	<1.8 UJ	<1.8 U	<1.8 UJ
Ethylbenzene	100-41-4	NS	ug/m3	<0.869 U	<b>4.26 J</b>	<0.869 U	<b>1.93 J</b>
Hexachlorobutadiene	87-68-3	NS	ug/m3	<2.13 U	<2.13 UJ	<2.13 U	<2.13 UJ
Isopropanol	67-63-0	NS	ug/m3	<b>3.1</b>	<b>258 J</b>	<b>7.94</b>	<b>88.7 J</b>
M,P-Xylene	179601-23-1	NS	ug/m3	<b>2.7</b>	<b>16.3 J</b>	<b>2.24</b>	<b>6.95 J</b>
Methyl Ethyl Ketone (2-Butanone)	78-93-3	NS	ug/m3	<1.47 U	<b>136 J</b>	<1.47 U	<b>6.19 J</b>
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/m3	<2.05 U	<b>35.1 J</b>	<2.05 U	<2.05 UJ
Methylene Chloride	75-09-2	NS	ug/m3	NA	<1.74 UJ	NA	<1.74 UJ
Methylene Chloride	75-09-2	60	ug/m3	<1.74 U	NA	<1.74 U	NA
n-Heptane	142-82-5	NS	ug/m3	<0.82 U	<b>8.77 J</b>	<b>0.84</b>	<b>5.41 J</b>
n-Hexane	110-54-3	NS	ug/m3	<0.705 U	<b>5.25 J</b>	<b>1.48</b>	<b>11.2 J</b>
o-Xylene (1,2-Dimethylbenzene)	95-47-6	NS	ug/m3	<b>1.08</b>	<b>7.21 J</b>	<b>0.908</b>	<b>2.35 J</b>
Styrene	100-42-5	NS	ug/m3	<0.852 U	<0.852 UJ	<0.852 U	<0.852 UJ
Tert-Butyl Alcohol	75-65-0	NS	ug/m3	<b>10.9</b>	<b>132 J</b>	<b>16.4</b>	<b>2.69 J</b>
Tert-Butyl Methyl Ether	1634-04-4	NS	ug/m3	<0.721 U	<0.721 UJ	<0.721 U	<0.721 UJ
Tetrachloroethene (PCE)	127-18-4	30	ug/m3	<b>0.475</b>	<b>49.5 J</b>	<b>0.468</b>	<b>30.8 J</b>
Tetrahydrofuran	109-99-9	NS	ug/m3	<1.47 U	<b>33.9 J</b>	<1.47 U	<1.47 UJ
Toluene	108-88-3	NS	ug/m3	<b>8.14</b>	<b>46 J</b>	<b>7.73</b>	<b>10.3 J</b>
Trans-1,2-Dichloroethene	156-60-5	NS	ug/m3	<0.793 U	<0.793 UJ	<0.793 U	<0.793 UJ
Trans-1,3-Dichloropropene	10061-02-6	NS	ug/m3	<0.908 U	<0.908 UJ	<0.908 U	<0.908 UJ
Trichloroethene (TCE)	79-01-6	2	ug/m3	<0.107 U	<1.07 UJ	<0.107 U	<1.07 UJ
Trichlorofluoromethane	75-69-4	NS	ug/m3	<b>1.72</b>	<b>2.45 J</b>	<b>1.73</b>	<b>3.33 J</b>
Vinyl Chloride	75-01-4	NS	ug/m3	<0.051 U	<b>0.631 J</b>	<0.051 U	<0.511 UJ

**Table 2**  
**Remedial Investigation Report**  
**Sub-Slab Vapor and Indoor Air Sample Analytical Results**

**47th Street Site**  
**57-05 (Block 2602, Lot 72)**  
**Maspeth, Queens, New York**  
**Langan Project No.: 100965501**

**Notes:**

IA - Indoor Air

SSV - Sub-slab Soil Vapor

CAS - Chemical Abstract Service

NS - No standard

ug/m<sup>3</sup> - microgram per cubic meter

NA - Not analyzed

RL - Reporting limit

<RL - Not detected

Indoor air sample analytical results are compared to the New York State Department of Health (NYSDOH) Air Guideline Values (AGVs) as set forth in the NYSDOH October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York and subsequent updates (2013, 2015, 2017).

Ambient air sample analytical results are shown for reference only.

**Qualifiers:**

J - The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.

UJ - The analyte was not detected at a level greater than or equal to the RL; however, the reported RL is approximate and may be inaccurate or imprecise.

U - The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

**Exceedance Summary:**

**10** - Result exceeds NYSDOH AGVs

**ATTACHMENT 1**

**INDOOR AIR BUILDING SURVEYS**

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

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

Preparer's Name Preston Lai Date/Time Prepared 5/12/2022 @ 8:00

Preparer's Affiliation Langan Phone No. 973.560.4785

Purpose of Investigation Determine if VI trigger(s) exist

1. OCCUPANT:

Interviewed: Y/N

Last Name: First Name:

Address:

County:

Home Phone: Office Phone:

Number of Occupants/persons at this location Age of Occupants

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

Interviewed: Y/N

Last Name: First Name:

Address:

County:

Home Phone: Office Phone:

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

- Residential Industrial School Church Commercial Multi-use Other:

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

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

If multiple units, how many? \_\_\_\_\_

If the property is commercial, type?

Business Type(s) Former concrete recycling/testing facility and maintenance garage

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

Other characteristics:

Number of floors West- 1, East- 2 Building age Approx. 52 Years

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

**4. AIRFLOW**

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

Current tubes/tracer smoke evaluation not performed, building is vacant.

Airflow between floors

---



---



---

Airflow near source

---



---



---

Outdoor air infiltration

---



---



---

Infiltration into air ducts

---



---



---

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

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

Basement/Lowest level depth below grade: 0 (feet)

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

Trench drains and oil/water separator

---



---

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

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

<u>Hot air circulation</u>	Heat pump	Hot water baseboard
Space Heaters	Stream radiation	Radiant floor
Electric baseboard	Wood stove	Outdoor wood boiler Other _____

The primary type of fuel used is:

<u>Natural Gas</u>	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: Natural gas, however not operable

Boiler/furnace located in: Basement Outdoors Main Floor Other \_\_\_\_\_

Air conditioning: Central Air Window units Open Windows None

Are there air distribution ducts present?  Y / N Eastern end of building

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

Building currently vacant and in disrepair due to roof failure. Duct joints assumed to be loose. Building is vacant, therefore HVAC system on eastern end of building not in service.

---



---



---

## 7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom Almost Never  Vacant

**Level** General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)

Basement	<u>N/A- Slab on grade</u>
1 <sup>st</sup> Floor	<u>Eastern end- Concrete lab and office space. Western end- Vehicle maintenance garage.</u>
2 <sup>nd</sup> Floor	<u>Eastern end- Office space. Western end- No second floor.</u>
3 <sup>rd</sup> Floor	<u></u>
4 <sup>th</sup> Floor	<u></u>

## 8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

- a. Is there an attached garage?  Y / N
- b. Does the garage have a separate heating unit?  Y / N / NA
- c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N /  NA  
Please specify Currently vacant
- d. Has the building ever had a fire? Y /  N When? \_\_\_\_\_
- e. Is a kerosene or unvented gas space heater present? Y /  N Where? \_\_\_\_\_
- f. Is there a workshop or hobby/craft area? Y /  N Where & Type? \_\_\_\_\_
- g. Is there smoking in the building? Y /  N How frequently? \_\_\_\_\_
- h. Have cleaning products been used recently? Y /  N When & Type? \_\_\_\_\_
- i. Have cosmetic products been used recently? Y /  N When & Type? \_\_\_\_\_

- j. Has painting/staining been done in the last 6 months? Y /  N Where & When? \_\_\_\_\_
- k. Is there new carpet, drapes or other textiles? Y /  N Where & When? \_\_\_\_\_
- l. Have air fresheners been used recently? Y /  N When & Type? \_\_\_\_\_
- m. Is there a kitchen exhaust fan? Y /  N If yes, where vented? \_\_\_\_\_
- n. Is there a bathroom exhaust fan? Y /  N If yes, where vented? \_\_\_\_\_
- o. Is there a clothes dryer? Y /  N If yes, is it vented outside? Y / N
- p. Has there been a pesticide application? Y /  N When & Type? \_\_\_\_\_

Are there odors in the building? Y /  N  
 If yes, please describe: \_\_\_\_\_

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

If yes, what types of solvents are used? \_\_\_\_\_

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

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

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

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

**9. WATER AND SEWAGE**

Water Supply:  Public Water Drilled Well Driven Well Dug Well Other: \_\_\_\_\_  
 Sewage Disposal:  Public Sewer Septic Tank Leach Field Dry Well Other: \_\_\_\_\_

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

- a. Provide reasons why relocation is recommended: \_\_\_\_\_
- b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel
- c. Responsibility for costs associated with reimbursement explained? Y / N
- d. Relocation package provided and explained to residents? Y / N



**11. FLOOR PLANS**

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

**Basement:**

Slab on grade, no basement

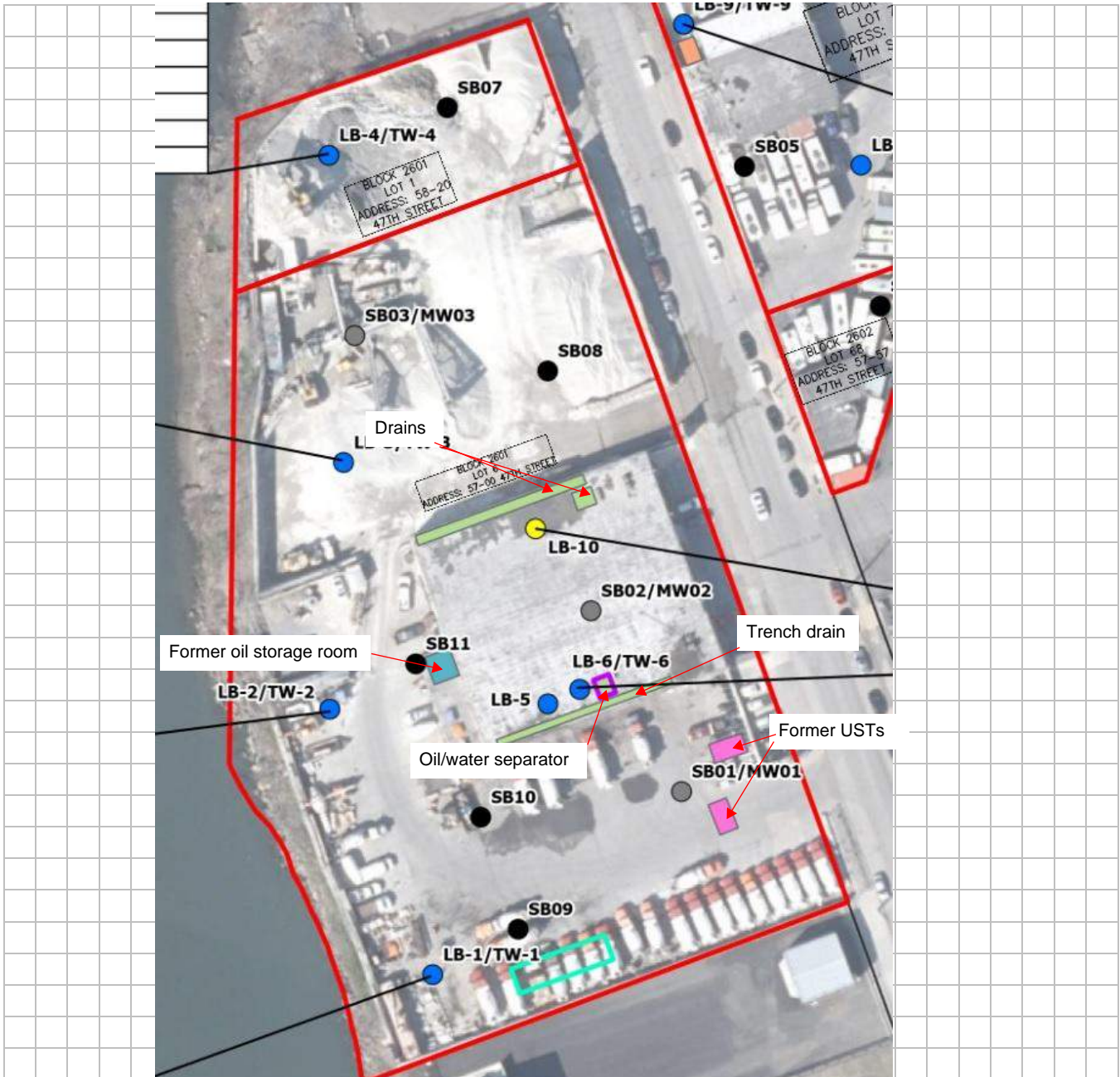
**First Floor:**

\*Sample locations are approximate

## 12. OUTDOOR PLOT

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

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



### 13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: MiniRAE 3000+

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

PID readings collected from open containers. All containers closed had 0 ppm readings.

Location	Product Description	Size (units)	Condition *	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
Bay Door	Lizzie Mae's Pigeon Feed	Empty	Empty	Grains	0.0 ppm	No
Bay Door	Flexlock Polymeric Sand	50 lb.	Ripped- open	Sand w/ polymers	0.0 ppm	No
Bay Door	Spec mix mortar	50 lb.	Ripped- open	Mortar	0.0 ppm	No
Bathroom	Fire extinguisher	10 lb.	Closed- good	Carbon dioxide	0.0 ppm	No
Sink	Prestone antifreeze	Empty	Closed- good	Ethylene glycol	0.0 ppm	No
Sink	Fram full synthetic motor oil	Empty	Open	Motor oil	0.0 ppm	No
Bathroom	Krystal Kleer washer fluid	Empty	Open	Ethylene glycol	0.0 ppm	No
Bathroom	Lysol Disinfectant spray	7 oz.	Closed- good	Alkyl, Dimethyl Benzyl Ammonium Chlorides	0.0 ppm	No
Bathroom	Febreze Air	8.8 oz.	Closed- good	Cyclodextrin, alcohol, and Hydrogenated Castor Oil	0.0 ppm	No
Bathroom	Pledge Multi-Surface	8.8 oz.	Closed- good	ALKYL DIMETHYL BENZYL AMMONIUM CHLORIDE, N-ALKYL, HEXOXYETHANOL	0.0 ppm	No
Entrance	Dwayne Reed 3% hydrogen peroxide	Empty	Closed- good	Hydrogen peroxide	0.0 ppm	No
Storage	Minote Chem 480 P&R	3 gal.	Closed- good	Butyl APC water soluble degreaser	23 ppm	No
Storage	Remove R&R Chemical	3 gal.	Closed- good	Degreaser and wax stripper	23 ppm	No
Entrance	Lock Ease	3 oz.	Closed- good	Aluminum stearate and petroleum oil lubricant, colloidal graphite, water-repellant and anti corrosion additives	0.0 ppm	No

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

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

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

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

Preparer's Name Preston Lai Date/Time Prepared 5/12/2022 @ 8:45

Preparer's Affiliation Langan Phone No. 973.560.4785

Purpose of Investigation Determine if VI trigger(s) exist

1. OCCUPANT:

Interviewed: Y/N

Last Name: First Name:

Address:

County:

Home Phone: Office Phone:

Number of Occupants/persons at this location Age of Occupants

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

Interviewed: Y/N

Last Name: First Name:

Address:

County:

Home Phone: Office Phone:

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

- Residential School Commercial Multi-use
Industrial Church Other:

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

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

If multiple units, how many? \_\_\_\_\_

If the property is commercial, type?

Business Type(s) Former vehicle maintenance garage/masonry material storage facility

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

Other characteristics:

Number of floors 1

Building age Approx. 52 Years

Is the building insulated? Y /  N

How air tight? Tight / Average /  Not Tight

**4. AIRFLOW**

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

Current tubes/tracer smoke evaluation not performed, building is vacant.

Airflow between floors

---



---



---

Airflow near source

---



---



---

Outdoor air infiltration

---



---



---

Infiltration into air ducts

---



---



---

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

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

Basement/Lowest level depth below grade: 0 (feet)

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

Trench drains

---



---

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

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

<u>Hot air circulation</u>	Heat pump	Hot water baseboard
Space Heaters	Stream radiation	Radiant floor
Electric baseboard	Wood stove	Outdoor wood boiler Other _____

The primary type of fuel used is:

<u>Natural Gas</u>	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: Natural gas, however not operable

Boiler/furnace located in: Basement Outdoors Main Floor Other \_\_\_\_\_

Air conditioning: Central Air Window units Open Windows None

Are there air distribution ducts present?  Y /  N Western end of building

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

Building currently vacant and in disrepair. Duct joints assumed to be loose.

Building is vacant, therefore HVAC system on western end of building not in service.

---



---



---

## 7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom Almost Never  Vacant

**Level** General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)

Basement	N/A- Slab on grade
1 <sup>st</sup> Floor	Eastern end- Former vehicle maintenance. Western end- Office space.
2 <sup>nd</sup> Floor	
3 <sup>rd</sup> Floor	
4 <sup>th</sup> Floor	

## 8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

- a. Is there an attached garage?  Y /  N
- b. Does the garage have a separate heating unit?  Y /  N /  NA
- c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y /  N /  NA  
Please specify Currently vacant
- d. Has the building ever had a fire? Y /  N When? \_\_\_\_\_
- e. Is a kerosene or unvented gas space heater present? Y /  N Where? \_\_\_\_\_
- f. Is there a workshop or hobby/craft area? Y /  N Where & Type? \_\_\_\_\_
- g. Is there smoking in the building? Y /  N How frequently? \_\_\_\_\_
- h. Have cleaning products been used recently? Y /  N When & Type? \_\_\_\_\_
- i. Have cosmetic products been used recently? Y /  N When & Type? \_\_\_\_\_



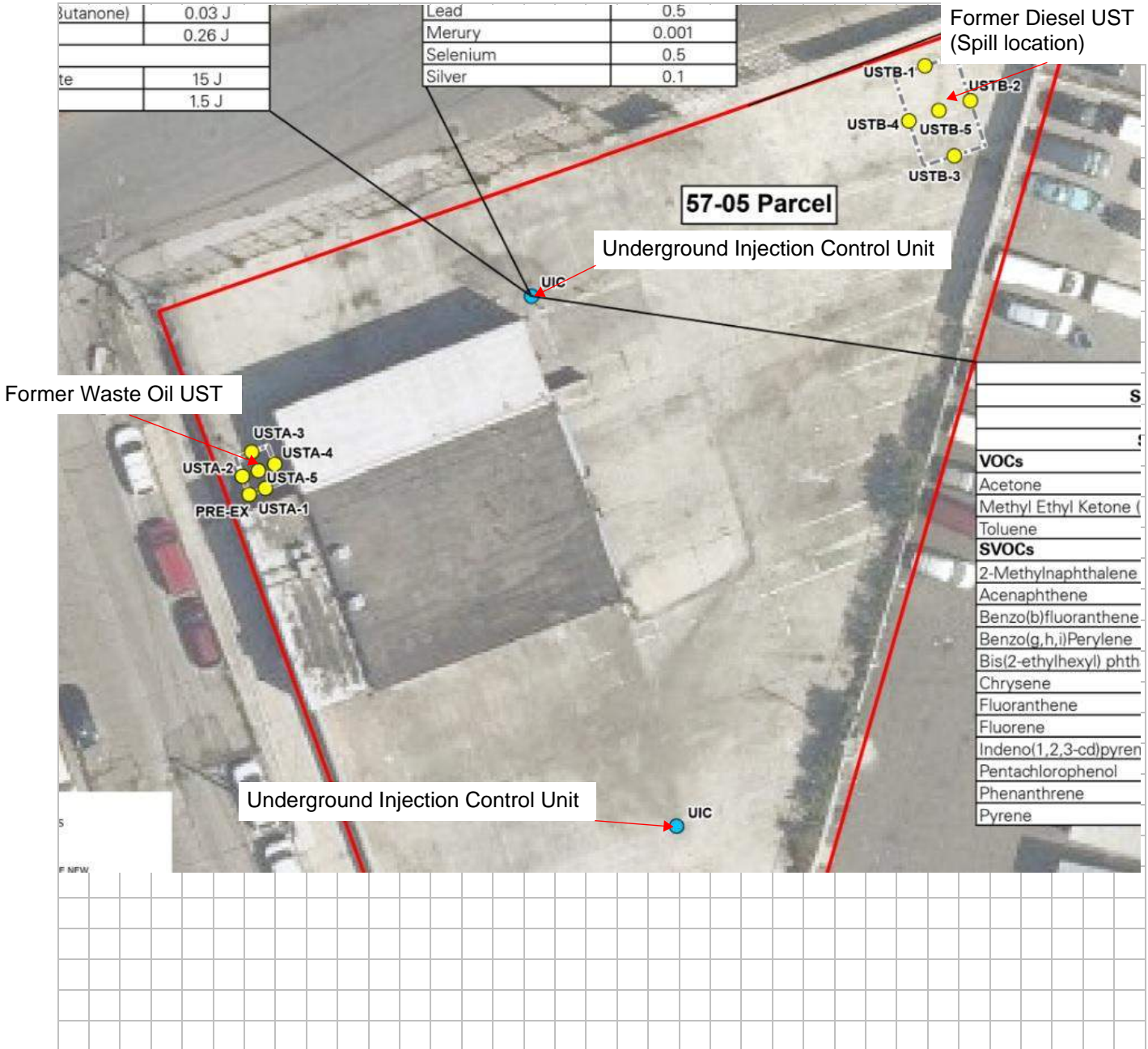




## 12. OUTDOOR PLOT

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

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



- j. Has painting/staining been done in the last 6 months? Y /  N Where & When? \_\_\_\_\_
- k. Is there new carpet, drapes or other textiles? Y /  N Where & When? \_\_\_\_\_
- l. Have air fresheners been used recently? Y /  N When & Type? \_\_\_\_\_
- m. Is there a kitchen exhaust fan? Y /  N If yes, where vented? \_\_\_\_\_
- n. Is there a bathroom exhaust fan? Y /  N If yes, where vented? \_\_\_\_\_
- o. Is there a clothes dryer? Y /  N If yes, is it vented outside? Y / N
- p. Has there been a pesticide application? Y /  N When & Type? \_\_\_\_\_

**Are there odors in the building?** Y /  N  
 If yes, please describe: \_\_\_\_\_

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

If yes, what types of solvents are used? \_\_\_\_\_

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

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

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

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

**9. WATER AND SEWAGE**

**Water Supply:**  Public Water Drilled Well Driven Well Dug Well Other: \_\_\_\_\_  
**Sewage Disposal:**  Public Sewer Septic Tank Leach Field Dry Well Other: \_\_\_\_\_

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

- a. Provide reasons why relocation is recommended: \_\_\_\_\_
- b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel
- c. Responsibility for costs associated with reimbursement explained? Y / N
- d. Relocation package provided and explained to residents? Y / N



## **ATTACHMENT 2**

### **SUB-SLAB VAPOR POINT INSTALLATION LOGS**

### SOIL VAPOR SAMPLING LOG SHEET

Sample Number: SSV01 \_\_\_\_\_

<b>PROJECT:</b> 57-00, 57-05, and 58-20 47th Street	<b>PROJECT NO.:</b> 100965501	
<b>LOCATION:</b> Queens, NY	<b>SURFACE ELEVATION AND DATUM:</b> n/a	
<b>DRILLING FIRM OR LANGAN INSTALLER:</b> Kale Novalis/ Preston Lai	<b>INSTALLATION DATE STARTED:</b> 5/11/2022	<b>DATE FINISHED:</b> 5/11/2022
<b>INSTALLATION FOREMAN:</b> n/a	<b>SAMPLE DATE STARTED:</b> 5/12/2022	<b>DATE FINISHED:</b> 5/12/2022
<b>INSTALLATION EQUIPMENT:</b> Hammer Drill	<b>TYPE OF SAMPLING DEVICE:</b> 6-Liter Summa Canister	
<b>INSPECTOR:</b> Kale Novalis/Preston Lai	<b>SAMPLER:</b> Preston Lai	
<b>POTENTIAL SAMPLE INTERFERENCES:</b>	<b>WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):</b> Temp: 70s Wind: 10S Precipitation: n/a Pressure: 30.3	

**METHOD OF INSTALLATION AND PURGING:**  
Sub-slab vapor sampling point was installed by Langan using a hammer drill by drilling a 5/8-inch diameter hole through the concrete slab to a depth about one inch into the underlying soil. The sampling point was then completed with a Vapor Pin™ assembly, consisting of steel barb fitting with a silicone sleeve sealing the 5/8-inch-diameter hole.

<b>TUBING TYPE/DIAMETER:</b> 3/16-inch ID, 1/4-inch OD Teflon-Lined Polyethylene Tubing	<b>TYPE OF MATERIAL ABOVE SEAL:</b> None
<b>IMPLANT SCREEN TYPE/LENGTH/DIAMETER:</b> 2-Inch Stainless Steel Probe	<b>SEAL MATERIAL (Bentonite, Beeswax, Modeling Clay, etc.):</b> Modeling Clay
<b>BOREHOLE DIAMETER:</b> 5/8 inch	<b>FILTER PACK MATERIAL (Sand or Glass Beads):</b> None

		IMPLANT/PROBE DETAILS (SEAL, FILTER, ETC.)	DEPTH (FEET FROM SURFACE)	NOTES
<b>PURGE VOLUME (L):</b>	1.00		0	
<b>PURGE FLOW RATE (ML/MIN):</b>	250			
<b>PID AFTER PURGE (PPM):</b>	20			
<b>HELIUM TESTS</b>				
	Pre-sampling    Post-sampling			
<b>HELIUM TEST IN BUCKET PPM:</b>	53.9                      -			
<b>HELIUM TEST IN TUBE (PPM):</b>	0                                -			
<b>SAMPLE START TIME:</b>	7:29			
<b>SAMPLE STOP TIME:</b>	17:43			
<b>TOTAL SAMPLE TIME (HOURS):</b>	8			
<b>REGULATOR FLOW RATE (mL/MIN):</b>	11.5			
<b>VOLUME OF SAMPLE (LITERS):</b>	6			
<b>PID AFTER SAMPLE (PPM):</b>	-			
<b>SAMPLE MOISTURE CONTENT:</b>	n/a			
<b>CAN SERIAL NUMBER:</b>	3256			
<b>REGULATOR SERIAL NUMBER:</b>	01498			
<b>CAN START VACUUM PRESS. (" HG):</b>	-30.51			
<b>CAN STOP VACUUM PRESS. (" HG):</b>	-4.85			
		Bottom of slab	7"	
		Probe Depth	13"	

**SAMPLE LOCATION SKETCH**

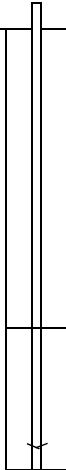

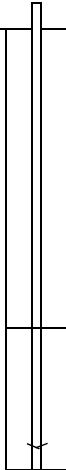

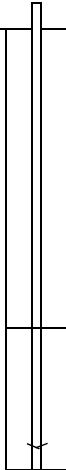

See Sample Location Plan

**NOTES**

Sample ID: SSV01  
Co-located Sample ID: IA01

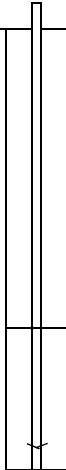
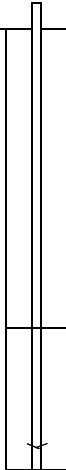
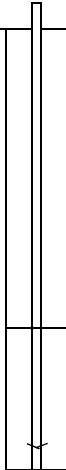
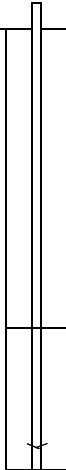
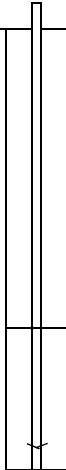
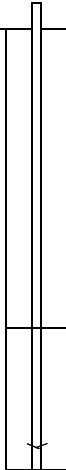
### SOIL VAPOR SAMPLING LOG SHEET

Sample Number: SSV02

<b>PROJECT:</b> 57-00, 57-05, and 58-20 47th Street		<b>PROJECT NO.:</b> 100965501																																																					
<b>LOCATION:</b> Queens, NY		<b>SURFACE ELEVATION AND DATUM:</b> n/a																																																					
<b>DRILLING FIRM OR LANGAN INSTALLER:</b> Kale Novalis/ Preston Lai		<b>INSTALLATION DATE STARTED:</b> 5/11/2022	<b>DATE FINISHED:</b> 5/11/2022																																																				
<b>INSTALLATION FOREMAN:</b> n/a		<b>SAMPLE DATE STARTED:</b> 5/12/2022	<b>DATE FINISHED:</b> 5/12/2022																																																				
<b>INSTALLATION EQUIPMENT:</b> Hammer Drill		<b>TYPE OF SAMPLING DEVICE:</b> 6-Liter Summa Canister																																																					
<b>INSPECTOR:</b> Kale Novalis/Preston Lai		<b>SAMPLER:</b> Preston Lai																																																					
<b>POTENTIAL SAMPLE INTERFERENCES:</b>		<b>WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):</b> Temp: 70s Wind: 10S Precipitation: n/a Pressure: 30.3																																																					
<b>METHOD OF INSTALLATION AND PURGING:</b> Sub-slab vapor sampling point was installed by Langan using a hammer drill by drilling a 5/8-inch diameter hole through the concrete slab to a depth about one inch into the underlying soil. The sampling point was then completed with a Vapor Pin™ assembly, consisting of steel barb fitting with a silicone sleeve sealing the 5/8-inch-diameter hole.																																																							
<b>TUBING TYPE/DIAMETER:</b> 3/16-inch ID, 1/4-inch OD Teflon-Lined Polyethylene Tubing		<b>TYPE OF MATERIAL ABOVE SEAL:</b> None																																																					
<b>IMPLANT SCREEN TYPE/LENGTH/DIAMETER:</b> 2-Inch Stainless Steel Probe		<b>SEAL MATERIAL (Bentonite, Beeswax, Modeling Clay, etc.):</b> Modeling Clay																																																					
<b>BOREHOLE DIAMETER:</b> 5/8 inch		<b>FILTER PACK MATERIAL (Sand or Glass Beads):</b> None																																																					
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td><b>PURGE VOLUME (L):</b></td> <td style="text-align: center;">1.00</td> </tr> <tr> <td><b>PURGE FLOW RATE (ML/MIN):</b></td> <td style="text-align: center;">250</td> </tr> <tr> <td><b>PID AFTER PURGE (PPM):</b></td> <td style="text-align: center;">0.7</td> </tr> <tr> <td colspan="2" style="text-align: center;"><b>HELIUM TESTS</b></td> </tr> <tr> <td></td> <td style="text-align: center;">Pre-sampling    Post-sampling</td> </tr> <tr> <td><b>HELIUM TEST IN BUCKET (PPM):</b></td> <td style="text-align: center;">58.2                      -</td> </tr> <tr> <td><b>HELIUM TEST IN TUBE (PPM):</b></td> <td style="text-align: center;">0                                -</td> </tr> <tr> <td><b>SAMPLE START TIME:</b></td> <td style="text-align: center;">7:33</td> </tr> <tr> <td><b>SAMPLE STOP TIME:</b></td> <td style="text-align: center;">17:16</td> </tr> <tr> <td><b>TOTAL SAMPLE TIME (HOURS):</b></td> <td style="text-align: center;">8</td> </tr> <tr> <td><b>REGULATOR FLOW RATE (mL/MIN):</b></td> <td style="text-align: center;">11.5</td> </tr> <tr> <td><b>VOLUME OF SAMPLE (LITERS):</b></td> <td style="text-align: center;">6</td> </tr> <tr> <td><b>PID AFTER SAMPLE (PPM):</b></td> <td style="text-align: center;">-</td> </tr> <tr> <td><b>SAMPLE MOISTURE CONTENT:</b></td> <td style="text-align: center;">n/a</td> </tr> <tr> <td><b>CAN SERIAL NUMBER:</b></td> <td style="text-align: center;">1699</td> </tr> <tr> <td><b>REGULATOR SERIAL NUMBER:</b></td> <td style="text-align: center;">01170</td> </tr> <tr> <td><b>CAN START VACUUM PRESS. (" HG):</b></td> <td style="text-align: center;">-30.57</td> </tr> <tr> <td><b>CAN STOP VACUUM PRESS. (" HG):</b></td> <td style="text-align: center;">-3.71</td> </tr> </table>		<b>PURGE VOLUME (L):</b>	1.00	<b>PURGE FLOW RATE (ML/MIN):</b>	250	<b>PID AFTER PURGE (PPM):</b>	0.7	<b>HELIUM TESTS</b>			Pre-sampling    Post-sampling	<b>HELIUM TEST IN BUCKET (PPM):</b>	58.2                      -	<b>HELIUM TEST IN TUBE (PPM):</b>	0                                -	<b>SAMPLE START TIME:</b>	7:33	<b>SAMPLE STOP TIME:</b>	17:16	<b>TOTAL SAMPLE TIME (HOURS):</b>	8	<b>REGULATOR FLOW RATE (mL/MIN):</b>	11.5	<b>VOLUME OF SAMPLE (LITERS):</b>	6	<b>PID AFTER SAMPLE (PPM):</b>	-	<b>SAMPLE MOISTURE CONTENT:</b>	n/a	<b>CAN SERIAL NUMBER:</b>	1699	<b>REGULATOR SERIAL NUMBER:</b>	01170	<b>CAN START VACUUM PRESS. (" HG):</b>	-30.57	<b>CAN STOP VACUUM PRESS. (" HG):</b>	-3.71	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center;">IMPLANT/PROBE DETAILS (SEAL, FILTER, ETC.)</th> <th style="text-align: center;">DEPTH (FEET FROM SURFACE)</th> <th style="text-align: center;">NOTES</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">SURFACE</td> <td style="text-align: center;">SURFACE</td> <td style="text-align: center;">0</td> <td style="text-align: center;">Top of slab</td> </tr> <tr> <td colspan="2" style="text-align: center;"></td> <td style="text-align: center;">7"</td> <td style="text-align: center;">Bottom of slab</td> </tr> <tr> <td colspan="2" style="text-align: center;"></td> <td style="text-align: center;">13"</td> <td style="text-align: center;">Probe Depth</td> </tr> </tbody> </table>		IMPLANT/PROBE DETAILS (SEAL, FILTER, ETC.)		DEPTH (FEET FROM SURFACE)	NOTES	SURFACE	SURFACE	0	Top of slab			7"	Bottom of slab			13"	Probe Depth
<b>PURGE VOLUME (L):</b>	1.00																																																						
<b>PURGE FLOW RATE (ML/MIN):</b>	250																																																						
<b>PID AFTER PURGE (PPM):</b>	0.7																																																						
<b>HELIUM TESTS</b>																																																							
	Pre-sampling    Post-sampling																																																						
<b>HELIUM TEST IN BUCKET (PPM):</b>	58.2                      -																																																						
<b>HELIUM TEST IN TUBE (PPM):</b>	0                                -																																																						
<b>SAMPLE START TIME:</b>	7:33																																																						
<b>SAMPLE STOP TIME:</b>	17:16																																																						
<b>TOTAL SAMPLE TIME (HOURS):</b>	8																																																						
<b>REGULATOR FLOW RATE (mL/MIN):</b>	11.5																																																						
<b>VOLUME OF SAMPLE (LITERS):</b>	6																																																						
<b>PID AFTER SAMPLE (PPM):</b>	-																																																						
<b>SAMPLE MOISTURE CONTENT:</b>	n/a																																																						
<b>CAN SERIAL NUMBER:</b>	1699																																																						
<b>REGULATOR SERIAL NUMBER:</b>	01170																																																						
<b>CAN START VACUUM PRESS. (" HG):</b>	-30.57																																																						
<b>CAN STOP VACUUM PRESS. (" HG):</b>	-3.71																																																						
IMPLANT/PROBE DETAILS (SEAL, FILTER, ETC.)		DEPTH (FEET FROM SURFACE)	NOTES																																																				
SURFACE	SURFACE	0	Top of slab																																																				
		7"	Bottom of slab																																																				
		13"	Probe Depth																																																				
<b>SAMPLE LOCATION SKETCH</b>		<b>NOTES</b>																																																					
See Sample Location Plan		Sample ID: SSV02 Co-located Sample ID: IA02																																																					
<b>Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology D.P.C.</b> 21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727																																																							

### SOIL VAPOR SAMPLING LOG SHEET

Sample Number: SSV03

<b>PROJECT:</b> 57-00, 57-05, and 58-20 47th Street		<b>PROJECT NO.:</b> 100965501																																																					
<b>LOCATION:</b> Queens, NY		<b>SURFACE ELEVATION AND DATUM:</b> n/a																																																					
<b>DRILLING FIRM OR LANGAN INSTALLER:</b> Kale Novalis/ Preston Lai		<b>INSTALLATION DATE STARTED:</b> 5/11/2022	<b>DATE FINISHED:</b> 5/11/2022																																																				
<b>INSTALLATION FOREMAN:</b> n/a		<b>SAMPLE DATE STARTED:</b> 5/12/2022	<b>DATE FINISHED:</b> 5/12/2022																																																				
<b>INSTALLATION EQUIPMENT:</b> Hammer Drill		<b>TYPE OF SAMPLING DEVICE:</b> 6-Liter Summa Canister																																																					
<b>INSPECTOR:</b> Kale Novalis/Preston Lai		<b>SAMPLER:</b> Preston Lai																																																					
<b>POTENTIAL SAMPLE INTERFERENCES:</b>		<b>WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):</b> Temp: 70s Wind: 10S Precipitation: n/a Pressure: 30.3																																																					
<b>METHOD OF INSTALLATION AND PURGING:</b> Sub-slab vapor sampling point was installed by Langan using a hammer drill by drilling a 5/8-inch diameter hole through the concrete slab to a depth about one inch into the underlying soil. The sampling point was then completed with a Vapor Pin™ assembly, consisting of steel barb fitting with a silicone sleeve sealing the 5/8-inch-diameter hole.																																																							
<b>TUBING TYPE/DIAMETER:</b> 3/16-inch ID, 1/4-inch OD Teflon-Lined Polyethylene Tubing		<b>TYPE OF MATERIAL ABOVE SEAL:</b> None																																																					
<b>IMPLANT SCREEN TYPE/LENGTH/DIAMETER:</b> 2-Inch Stainless Steel Probe		<b>SEAL MATERIAL (Bentonite, Beeswax, Modeling Clay, etc.):</b> Modeling Clay																																																					
<b>BOREHOLE DIAMETER:</b> 5/8 inch		<b>FILTER PACK MATERIAL (Sand or Glass Beads):</b> None																																																					
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td><b>PURGE VOLUME (L):</b></td> <td style="text-align: center;">1.00</td> </tr> <tr> <td><b>PURGE FLOW RATE (ML/MIN):</b></td> <td style="text-align: center;">250</td> </tr> <tr> <td><b>PID AFTER PURGE (PPM):</b></td> <td style="text-align: center;">11.5</td> </tr> <tr> <td colspan="2" style="text-align: center;"><b>HELIUM TESTS</b></td> </tr> <tr> <td></td> <td style="text-align: center;">Pre-sampling    Post-sampling</td> </tr> <tr> <td><b>HELIUM TEST IN BUCKET (PPM):</b></td> <td style="text-align: center;">54.4                  -</td> </tr> <tr> <td><b>HELIUM TEST IN TUBE (PPM):</b></td> <td style="text-align: center;">0                          -</td> </tr> <tr> <td><b>SAMPLE START TIME:</b></td> <td style="text-align: center;">7:31</td> </tr> <tr> <td><b>SAMPLE STOP TIME:</b></td> <td style="text-align: center;">17:18</td> </tr> <tr> <td><b>TOTAL SAMPLE TIME (HOURS):</b></td> <td style="text-align: center;">8</td> </tr> <tr> <td><b>REGULATOR FLOW RATE (mL/MIN):</b></td> <td style="text-align: center;">11.5</td> </tr> <tr> <td><b>VOLUME OF SAMPLE (LITERS):</b></td> <td style="text-align: center;">6</td> </tr> <tr> <td><b>PID AFTER SAMPLE (PPM):</b></td> <td style="text-align: center;">-</td> </tr> <tr> <td><b>SAMPLE MOISTURE CONTENT:</b></td> <td style="text-align: center;">n/a</td> </tr> <tr> <td><b>CAN SERIAL NUMBER:</b></td> <td style="text-align: center;">1603</td> </tr> <tr> <td><b>REGULATOR SERIAL NUMBER:</b></td> <td style="text-align: center;">0915</td> </tr> <tr> <td><b>CAN START VACUUM PRESS. (" HG):</b></td> <td style="text-align: center;">-30.66</td> </tr> <tr> <td><b>CAN STOP VACUUM PRESS. (" HG):</b></td> <td style="text-align: center;">-3.77</td> </tr> </table>		<b>PURGE VOLUME (L):</b>	1.00	<b>PURGE FLOW RATE (ML/MIN):</b>	250	<b>PID AFTER PURGE (PPM):</b>	11.5	<b>HELIUM TESTS</b>			Pre-sampling    Post-sampling	<b>HELIUM TEST IN BUCKET (PPM):</b>	54.4                  -	<b>HELIUM TEST IN TUBE (PPM):</b>	0                          -	<b>SAMPLE START TIME:</b>	7:31	<b>SAMPLE STOP TIME:</b>	17:18	<b>TOTAL SAMPLE TIME (HOURS):</b>	8	<b>REGULATOR FLOW RATE (mL/MIN):</b>	11.5	<b>VOLUME OF SAMPLE (LITERS):</b>	6	<b>PID AFTER SAMPLE (PPM):</b>	-	<b>SAMPLE MOISTURE CONTENT:</b>	n/a	<b>CAN SERIAL NUMBER:</b>	1603	<b>REGULATOR SERIAL NUMBER:</b>	0915	<b>CAN START VACUUM PRESS. (" HG):</b>	-30.66	<b>CAN STOP VACUUM PRESS. (" HG):</b>	-3.77	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center;">IMPLANT/PROBE DETAILS (SEAL, FILTER, ETC.)</th> <th style="text-align: center;">DEPTH (FEET FROM SURFACE)</th> <th style="text-align: center;">NOTES</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">SURFACE</td> <td style="text-align: center;">SURFACE</td> <td style="text-align: center;">Top of slab</td> <td style="text-align: center;">0</td> </tr> <tr> <td colspan="2" style="text-align: center;">  </td> <td style="text-align: center;">Bottom of slab</td> <td style="text-align: center;">7'</td> </tr> <tr> <td colspan="2" style="text-align: center;">  </td> <td style="text-align: center;">Probe Depth</td> <td style="text-align: center;">13'</td> </tr> </tbody> </table>		IMPLANT/PROBE DETAILS (SEAL, FILTER, ETC.)		DEPTH (FEET FROM SURFACE)	NOTES	SURFACE	SURFACE	Top of slab	0			Bottom of slab	7'			Probe Depth	13'
<b>PURGE VOLUME (L):</b>	1.00																																																						
<b>PURGE FLOW RATE (ML/MIN):</b>	250																																																						
<b>PID AFTER PURGE (PPM):</b>	11.5																																																						
<b>HELIUM TESTS</b>																																																							
	Pre-sampling    Post-sampling																																																						
<b>HELIUM TEST IN BUCKET (PPM):</b>	54.4                  -																																																						
<b>HELIUM TEST IN TUBE (PPM):</b>	0                          -																																																						
<b>SAMPLE START TIME:</b>	7:31																																																						
<b>SAMPLE STOP TIME:</b>	17:18																																																						
<b>TOTAL SAMPLE TIME (HOURS):</b>	8																																																						
<b>REGULATOR FLOW RATE (mL/MIN):</b>	11.5																																																						
<b>VOLUME OF SAMPLE (LITERS):</b>	6																																																						
<b>PID AFTER SAMPLE (PPM):</b>	-																																																						
<b>SAMPLE MOISTURE CONTENT:</b>	n/a																																																						
<b>CAN SERIAL NUMBER:</b>	1603																																																						
<b>REGULATOR SERIAL NUMBER:</b>	0915																																																						
<b>CAN START VACUUM PRESS. (" HG):</b>	-30.66																																																						
<b>CAN STOP VACUUM PRESS. (" HG):</b>	-3.77																																																						
IMPLANT/PROBE DETAILS (SEAL, FILTER, ETC.)		DEPTH (FEET FROM SURFACE)	NOTES																																																				
SURFACE	SURFACE	Top of slab	0																																																				
		Bottom of slab	7'																																																				
		Probe Depth	13'																																																				
<b>SAMPLE LOCATION SKETCH</b>		<b>NOTES</b>																																																					
See Sample Location Plan		Sample ID: SSV03 Co-located Sample ID: IA03																																																					
<b>Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology D.P.C.</b> 21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727																																																							

### SOIL VAPOR SAMPLING LOG SHEET

Sample Number: SSV04

<b>PROJECT:</b> 57-00, 57-05, and 58-20 47th Street		<b>PROJECT NO.:</b> 100965501																	
<b>LOCATION:</b> Queens, NY		<b>SURFACE ELEVATION AND DATUM:</b> n/a																	
<b>DRILLING FIRM OR LANGAN INSTALLER:</b> Kale Novalis/ Preston Lai		<b>INSTALLATION DATE STARTED:</b> 5/11/2022	<b>DATE FINISHED:</b> 5/11/2022																
<b>INSTALLATION FOREMAN:</b> n/a		<b>SAMPLE DATE STARTED:</b> 5/12/2022	<b>DATE FINISHED:</b> 5/12/2022																
<b>INSTALLATION EQUIPMENT:</b> Hammer Drill		<b>TYPE OF SAMPLING DEVICE:</b> 6-Liter Summa Canister																	
<b>INSPECTOR:</b> Kale Novalis/Preston Lai		<b>SAMPLER:</b> Preston Lai																	
<b>POTENTIAL SAMPLE INTERFERENCES:</b>		<b>WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):</b> Temp: 70s Wind: 10S Precipitation: n/a Pressure: 30.3																	
<b>METHOD OF INSTALLATION AND PURGING:</b> Sub-slab vapor sampling point was installed by Langan using a hammer drill by drilling a 5/8-inch diameter hole through the concrete slab to a depth about one inch into the underlying soil. The sampling point was then completed with a Vapor Pin™ assembly, consisting of steel barb fitting with a silicone sleeve sealing the 5/8-inch-diameter hole.																			
<b>TUBING TYPE/DIAMETER:</b> 3/16-inch ID, 1/4-inch OD Teflon-Lined Polyethylene Tubing		<b>TYPE OF MATERIAL ABOVE SEAL:</b> None																	
<b>IMPLANT SCREEN TYPE/LENGTH/DIAMETER:</b> 2-Inch Stainless Steel Probe		<b>SEAL MATERIAL (Bentonite, Beeswax, Modeling Clay, etc.):</b> Modeling Clay																	
<b>BOREHOLE DIAMETER:</b> 5/8 inch		<b>FILTER PACK MATERIAL (Sand or Glass Beads):</b> None																	
<b>PURGE VOLUME (L):</b> 1.00		<b>IMPLANT/PROBE DETAILS</b>																	
<b>PURGE FLOW RATE (ML/MIN):</b> 250		<b>DEPTH</b>																	
<b>PID AFTER PURGE (PPM):</b> 1.3		<b>(FEET FROM SURFACE)</b>																	
<b>HELIUM TESTS</b>		<b>NOTES</b>																	
<b>HELIUM TEST IN BUCKET (PPM):</b> Pre-sampling: 58.1    Post-sampling: -		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; text-align: center;">(SEAL, FILTER, ETC.)</td> <td style="width: 20%; text-align: center;">SURFACE</td> <td style="width: 20%; text-align: center;">SURFACE</td> <td style="width: 20%;"></td> </tr> <tr> <td style="text-align: center;">0</td> <td style="text-align: center;">Top of slab</td> <td style="text-align: center;">0</td> <td></td> </tr> <tr> <td style="text-align: center;">7:54</td> <td style="text-align: center;">Bottom of slab</td> <td style="text-align: center;">12"</td> <td></td> </tr> <tr> <td style="text-align: center;">18:07</td> <td style="text-align: center;">Probe Depth</td> <td style="text-align: center;">16"</td> <td></td> </tr> </table>		(SEAL, FILTER, ETC.)	SURFACE	SURFACE		0	Top of slab	0		7:54	Bottom of slab	12"		18:07	Probe Depth	16"	
(SEAL, FILTER, ETC.)	SURFACE			SURFACE															
0	Top of slab			0															
7:54	Bottom of slab			12"															
18:07	Probe Depth			16"															
<b>HELIUM TEST IN TUBE (PPM):</b> -																			
<b>SAMPLE START TIME:</b> 7:54																			
<b>SAMPLE STOP TIME:</b> 18:07																			
<b>TOTAL SAMPLE TIME (HOURS):</b> 8																			
<b>REGULATOR FLOW RATE (mL/MIN):</b> 11.5																			
<b>VOLUME OF SAMPLE (LITERS):</b> 6																			
<b>PID AFTER SAMPLE (PPM):</b> -																			
<b>SAMPLE MOISTURE CONTENT:</b> n/a																			
<b>CAN SERIAL NUMBER:</b> 2998																			
<b>REGULATOR SERIAL NUMBER:</b> 01097																			
<b>CAN START VACUUM PRESS. (" HG):</b> -30.48																			
<b>CAN STOP VACUUM PRESS. (" HG):</b> -2.79																			
<b>SAMPLE LOCATION SKETCH</b>																			
See Sample Location Plan		<b>NOTES</b>																	
Sample ID: SSV04 Co-located Sample ID: IA04																			
<b>Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology D.P.C.</b> 21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727																			



### SOIL VAPOR SAMPLING LOG SHEET

Sample Number: SSV05

<b>PROJECT:</b> 57-00, 57-05, and 58-20 47th Street		<b>PROJECT NO.:</b> 100965501																																														
<b>LOCATION:</b> Queens, NY		<b>SURFACE ELEVATION AND DATUM:</b> n/a																																														
<b>DRILLING FIRM OR LANGAN INSTALLER:</b> Kale Novalis/ Preston Lai		<b>INSTALLATION DATE STARTED:</b> 5/11/2022	<b>DATE FINISHED:</b> 5/11/2022																																													
<b>INSTALLATION FOREMAN:</b> n/a		<b>SAMPLE DATE STARTED:</b> 5/12/2022	<b>DATE FINISHED:</b> 5/12/2022																																													
<b>INSTALLATION EQUIPMENT:</b> Hammer Drill		<b>TYPE OF SAMPLING DEVICE:</b> 6-Liter Summa Canister																																														
<b>INSPECTOR:</b> Kale Novalis/Preston Lai		<b>SAMPLER:</b> Preston Lai																																														
<b>POTENTIAL SAMPLE INTERFERENCES:</b>		<b>WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):</b> Temp: 70s Wind: 10S Precipitation: n/a Pressure: 30.3																																														
<b>METHOD OF INSTALLATION AND PURGING:</b> Sub-slab vapor sampling point was installed by Langan using a hammer drill by drilling a 5/8-inch diameter hole through the concrete slab to a depth about one inch into the underlying soil. The sampling point was then completed with a Vapor Pin™ assembly, consisting of steel barb fitting with a silicone sleeve sealing the 5/8-inch-diameter hole.																																																
<b>TUBING TYPE/DIAMETER:</b> 3/16-inch ID, 1/4-inch OD Teflon-Lined Polyethylene Tubing		<b>TYPE OF MATERIAL ABOVE SEAL:</b> None																																														
<b>IMPLANT SCREEN TYPE/LENGTH/DIAMETER:</b> 2-Inch Stainless Steel Probe		<b>SEAL MATERIAL (Bentonite, Beeswax, Modeling Clay, etc.):</b> Modeling Clay																																														
<b>BOREHOLE DIAMETER:</b> 5/8 inch		<b>FILTER PACK MATERIAL (Sand or Glass Beads):</b> None																																														
<b>PURGE VOLUME (L):</b> 1.00		<b>IMPLANT/PROBE DETAILS</b>																																														
<b>PURGE FLOW RATE (ML/MIN):</b> 250		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%;">(SEAL, FILTER, ETC.)</th> <th style="width: 20%;">DEPTH (FEET FROM SURFACE)</th> <th style="width: 60%;">NOTES</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">SURFACE</td> <td style="text-align: center;">SURFACE</td> <td style="text-align: center;"><b>Top of slab</b></td> </tr> <tr> <td style="text-align: center;">58.1</td> <td style="text-align: center;">-</td> <td></td> </tr> <tr> <td style="text-align: center;">0</td> <td style="text-align: center;">-</td> <td></td> </tr> <tr> <td style="text-align: center;">7:51</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">18:00</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">8</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">11.5</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">6</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">-</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">n/a</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">3610</td> <td style="text-align: center;">7'</td> <td style="text-align: center;"><b>Bottom of slab</b></td> </tr> <tr> <td style="text-align: center;">02056</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">-30.32</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">-3.21</td> <td style="text-align: center;">13'</td> <td style="text-align: center;"><b>Probe Depth</b></td> </tr> </tbody> </table>		(SEAL, FILTER, ETC.)	DEPTH (FEET FROM SURFACE)	NOTES	SURFACE	SURFACE	<b>Top of slab</b>	58.1	-		0	-		7:51			18:00			8			11.5			6			-			n/a			3610	7'	<b>Bottom of slab</b>	02056			-30.32			-3.21	13'	<b>Probe Depth</b>
(SEAL, FILTER, ETC.)	DEPTH (FEET FROM SURFACE)			NOTES																																												
SURFACE	SURFACE	<b>Top of slab</b>																																														
58.1	-																																															
0	-																																															
7:51																																																
18:00																																																
8																																																
11.5																																																
6																																																
-																																																
n/a																																																
3610	7'	<b>Bottom of slab</b>																																														
02056																																																
-30.32																																																
-3.21	13'	<b>Probe Depth</b>																																														
<b>PID AFTER PURGE (PPM):</b> 0																																																
<b>HELIUM TESTS</b>																																																
<b>HELIUM TEST IN BUCKET (PPM):</b> 58.1																																																
<b>HELIUM TEST IN TUBE (PPM):</b> 0																																																
<b>SAMPLE START TIME:</b> 7:51																																																
<b>SAMPLE STOP TIME:</b> 18:00																																																
<b>TOTAL SAMPLE TIME (HOURS):</b> 8																																																
<b>REGULATOR FLOW RATE (mL/MIN):</b> 11.5																																																
<b>VOLUME OF SAMPLE (LITERS):</b> 6																																																
<b>PID AFTER SAMPLE (PPM):</b> -																																																
<b>SAMPLE MOISTURE CONTENT:</b> n/a																																																
<b>CAN SERIAL NUMBER:</b> 3610																																																
<b>REGULATOR SERIAL NUMBER:</b> 02056																																																
<b>CAN START VACUUM PRESS. (" HG):</b> -30.32																																																
<b>CAN STOP VACUUM PRESS. (" HG):</b> -3.21																																																
<b>SAMPLE LOCATION SKETCH</b>																																																
See Sample Location Plan		<b>NOTES</b> Sample ID: SSV05 Co-located Sample ID: IA05																																														
<b>Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology D.P.C.</b> 21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727																																																

## AIR SAMPLING LOG SHEET

Sample Number: IA01

<b>PROJECT:</b> 57-00, 57-05, and 58-20 47th Street	<b>PROJECT NO.:</b> 100965501	
<b>LOCATION:</b> Queens, NY	<b>SURFACE ELEVATION AND DATUM:</b> N/A	
<b>SAMPLER:</b> Kale Novalis/ Preston Lai	<b>SAMPLE DATE STARTED:</b> 5/12/2022	<b>DATE FINISHED:</b> 5/12/2022
<b>INSPECTOR:</b> Kale Novalis/Preston Lai	<b>TYPE OF SAMPLING DEVICE:</b> 6-Liter Summa Canister	
<b>POTENTIAL SAMPLE INTERFERENCES:</b>  Presence of chemicals	<b>WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):</b>	
	Temp:	70s
	Wind:	10S
	Precipitation:	n/a
	Pressure:	30.3

**METHOD OF INSTALLATION AND SAMPLING:**

Langan field screened the sample location with a MultiRAE photoionization detector prior to sampling. Sample consisted of 6L Summa canister fitted with an 8-hour flow control valve. The sample and flow controller were checked each hour during sampling to ensure proper operation.

SAMPLE DETAILS	SAMPLE LOCATION SKETCH
HEIGHT ABOVE GROUND (FT): <span style="float: right;">3</span>	See Sample Location Plan
PID BEFORE SAMPLE (PPM): <span style="float: right;">0.0</span>	
SAMPLE START TIME: <span style="float: right;">7:29</span>	
SAMPLE STOP TIME: <span style="float: right;">17:21</span>	
TOTAL SAMPLE TIME (HOURS): <span style="float: right;">8</span>	
REGULATOR FLOW RATE (mL/MIN): <span style="float: right;">11.5</span>	
VOLUME OF SAMPLE (LITERS): <span style="float: right;">6</span>	
PID AFTER SAMPLE (PPM): <span style="float: right;">n/a</span>	
SAMPLE MOISTURE CONTENT: <span style="float: right;">n/a</span>	
CAN SERIAL NUMBER: <span style="float: right;">992</span>	
REGULATOR SERIAL NUMBER: <span style="float: right;">01710</span>	
CAN START VACUUM PRESS. (" HG): <span style="float: right;">-30.58</span>	
CAN STOP VACUUM PRESS. (" HG): <span style="float: right;">-3.81</span>	

**NOTES**

Sample ID: IA01  
Co-located Sample ID: SSV01

**Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology D.P.C.**  
21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727

## AIR SAMPLING LOG SHEET

Sample Number: IA02

<b>PROJECT:</b> 57-00, 57-05, and 58-20 47th Street		<b>PROJECT NO.:</b> 100965501	
<b>LOCATION:</b> Queens, NY		<b>SURFACE ELEVATION AND DATUM:</b> N/A	
<b>SAMPLER:</b> Kale Novalis/ Preston Lai		<b>SAMPLE DATE STARTED:</b> 5/12/2022	<b>DATE FINISHED:</b> 5/12/2022
<b>INSPECTOR:</b> Kale Novalis/Preston Lai		<b>TYPE OF SAMPLING DEVICE:</b> 6-Liter Summa Canister	
<b>POTENTIAL SAMPLE INTERFERENCES:</b>  Presence of chemicals		<b>WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):</b>	
		Temp:	70s
		Wind:	10S
		Precipitation:	n/a
		Pressure:	30.3
<b>METHOD OF INSTALLATION AND SAMPLING:</b> Langan field screened the sample location with a MultiRAE photoionization detector prior to sampling. Sample consisted of 6L Summa canister fitted with an 8-hour flow control valve. The sample and flow controller were checked each hour during sampling to ensure proper operation.			
<b>SAMPLE DETAILS</b>		<b>SAMPLE LOCATION SKETCH</b>	
HEIGHT ABOVE GROUND (FT):	3	See Sample Location Plan	
PID BEFORE SAMPLE (PPM):	0.0		
SAMPLE START TIME:	7:33		
SAMPLE STOP TIME:	17:01		
TOTAL SAMPLE TIME (HOURS):	8		
REGULATOR FLOW RATE (mL/MIN):	11.5		
VOLUME OF SAMPLE (LITERS):	6		
PID AFTER SAMPLE (PPM):	n/a		
SAMPLE MOISTURE CONTENT:	n/a		
CAN SERIAL NUMBER:	3058		
REGULATOR SERIAL NUMBER:	0385		
CAN START VACUUM PRESS. (" HG):	-30.46		
CAN STOP VACUUM PRESS. (" HG):	-2.56		
<b>NOTES</b>			
Sample ID: IA02 Co-located Sample ID: SSV02			
<b>Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology D.P.C.</b> 21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727			

## AIR SAMPLING LOG SHEET

Sample Number: IA03

<b>PROJECT:</b> 57-00, 57-05, and 58-20 47th Street		<b>PROJECT NO.:</b> 100965501	
<b>LOCATION:</b> Queens, NY		<b>SURFACE ELEVATION AND DATUM:</b> N/A	
<b>SAMPLER:</b> Kale Novalis/ Preston Lai		<b>SAMPLE DATE STARTED:</b> 5/12/2022	<b>DATE FINISHED:</b> 5/12/2022
<b>INSPECTOR:</b> Kale Novalis/Preston Lai		<b>TYPE OF SAMPLING DEVICE:</b> 6-Liter Summa Canister	
<b>POTENTIAL SAMPLE INTERFERENCES:</b>  Presence of chemicals		<b>WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):</b>	
		Temp:	70s
		Wind:	10S
		Precipitation:	n/a
		Pressure:	30.3
<b>METHOD OF INSTALLATION AND SAMPLING:</b> Langan field screened the sample location with a MultiRAE photoionization detector prior to sampling. Sample consisted of 6L Summa canister fitted with an 8-hour flow control valve. The sample and flow controller were checked each hour during sampling to ensure proper operation.			
<b>SAMPLE DETAILS</b>		<b>SAMPLE LOCATION SKETCH</b>	
HEIGHT ABOVE GROUND (FT):	3	See Sample Location Plan	
PID BEFORE SAMPLE (PPM):	0.0		
SAMPLE START TIME:	7:31		
SAMPLE STOP TIME:	17:20		
TOTAL SAMPLE TIME (HOURS):	8		
REGULATOR FLOW RATE (mL/MIN):	11.5		
VOLUME OF SAMPLE (LITERS):	6		
PID AFTER SAMPLE (PPM):	n/a		
SAMPLE MOISTURE CONTENT:	n/a		
CAN SERIAL NUMBER:	1898		
REGULATOR SERIAL NUMBER:	01449		
CAN START VACUUM PRESS. (" HG):	-30.52		
CAN STOP VACUUM PRESS. (" HG):	-3.62		
<b>NOTES</b>			
Sample ID: IA03 Co-located Sample ID: SSV03			
<b>Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology D.P.C</b> 21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727			

## AIR SAMPLING LOG SHEET

Sample Number: IA04

<b>PROJECT:</b> 57-00, 57-05, and 58-20 47th Street		<b>PROJECT NO.:</b> 100965501	
<b>LOCATION:</b> Queens, NY		<b>SURFACE ELEVATION AND DATUM:</b> N/A	
<b>SAMPLER:</b> Kale Novalis/ Preston Lai		<b>SAMPLE DATE STARTED:</b> 5/12/2022	<b>DATE FINISHED:</b> 5/12/2022
<b>INSPECTOR:</b> Kale Novalis/Preston Lai		<b>TYPE OF SAMPLING DEVICE:</b> 6-Liter Summa Canister	
<b>POTENTIAL SAMPLE INTERFERENCES:</b>  Presence of chemicals		<b>WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):</b>	
		Temp:	70s
		Wind:	10S
		Precipitation:	n/a
		Pressure:	30.3
<b>METHOD OF INSTALLATION AND SAMPLING:</b> Langan field screened the sample location with a MultiRAE photoionization detector prior to sampling. Sample consisted of 6L Summa canister fitted with an 8-hour flow control valve. The sample and flow controller were checked each hour during sampling to ensure proper operation.			
<b>SAMPLE DETAILS</b>		<b>SAMPLE LOCATION SKETCH</b>	
HEIGHT ABOVE GROUND (FT):	3	See Sample Location Plan	
PID BEFORE SAMPLE (PPM):	0.0		
SAMPLE START TIME:	7:54		
SAMPLE STOP TIME:	18:40		
TOTAL SAMPLE TIME (HOURS):	8		
REGULATOR FLOW RATE (mL/MIN):	11.5		
VOLUME OF SAMPLE (LITERS):	6		
PID AFTER SAMPLE (PPM):	n/a		
SAMPLE MOISTURE CONTENT:	n/a		
CAN SERIAL NUMBER:	3154		
REGULATOR SERIAL NUMBER:	01695		
CAN START VACUUM PRESS. (" HG):	-30.39		
CAN STOP VACUUM PRESS. (" HG):	-4.89		
<b>NOTES</b>			
Sample ID: IA04 Co-located Sample ID: SSV04			
<b>Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology D.P.C</b> 21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727			

## AIR SAMPLING LOG SHEET

Sample Number: IA05

<b>PROJECT:</b> 57-00, 57-05, and 58-20 47th Street		<b>PROJECT NO.:</b> 100965501	
<b>LOCATION:</b> Queens, NY		<b>SURFACE ELEVATION AND DATUM:</b> N/A	
<b>SAMPLER:</b> Kale Novalis/ Preston Lai		<b>SAMPLE DATE STARTED:</b> 5/12/2022	<b>DATE FINISHED:</b> 5/12/2022
<b>INSPECTOR:</b> Kale Novalis/Preston Lai		<b>TYPE OF SAMPLING DEVICE:</b> 6-Liter Summa Canister	
<b>POTENTIAL SAMPLE INTERFERENCES:</b>  Presence of chemicals		<b>WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):</b>	
		Temp:	70s
		Wind:	10S
		Precipitation:	n/a
		Pressure:	30.3
<b>METHOD OF INSTALLATION AND SAMPLING:</b> Langan field screened the sample location with a MultiRAE photoionization detector prior to sampling. Sample consisted of 6L Summa canister fitted with an 8-hour flow control valve. The sample and flow controller were checked each hour during sampling to ensure proper operation.			
<b>SAMPLE DETAILS</b>		<b>SAMPLE LOCATION SKETCH</b>	
HEIGHT ABOVE GROUND (FT):	3	See Sample Location Plan	
PID BEFORE SAMPLE (PPM):	0.0		
SAMPLE START TIME:	8:00		
SAMPLE STOP TIME:	17:58		
TOTAL SAMPLE TIME (HOURS):	8		
REGULATOR FLOW RATE (mL/MIN):	11.5		
VOLUME OF SAMPLE (LITERS):	6		
PID AFTER SAMPLE (PPM):	n/a		
SAMPLE MOISTURE CONTENT:	n/a		
CAN SERIAL NUMBER:	747		
REGULATOR SERIAL NUMBER:	0764		
CAN START VACUUM PRESS. (" HG):	-30.5		
CAN STOP VACUUM PRESS. (" HG):	-2.86		
<b>NOTES</b>			
Sample ID: IA05 Co-located Sample ID: SSV05			
<b>Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology D.P.C</b> 21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727			

## AIR SAMPLING LOG SHEET

Sample Number: AA01

<b>PROJECT:</b> 57-00, 57-05, and 58-20 47th Street		<b>PROJECT NO.:</b> 100965501	
<b>LOCATION:</b> Queens, NY		<b>SURFACE ELEVATION AND DATUM:</b> N/A	
<b>SAMPLER:</b> Kale Novalis/ Preston Lai		<b>SAMPLE DATE STARTED:</b> 5/12/2022	<b>DATE FINISHED:</b> 5/12/2022
<b>INSPECTOR:</b> Kale Novalis/ Preston Lai		<b>TYPE OF SAMPLING DEVICE:</b> 6-Liter Summa Canister	
<b>POTENTIAL SAMPLE INTERFERENCES:</b>  none		<b>WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):</b>	
		Temp:	70s
		Wind:	10S
		Precipitation:	n/a
		Pressure:	30.3
<b>METHOD OF INSTALLATION AND SAMPLING:</b> Langan field screened the sample location with a MultiRAE photoionization detector prior to sampling. Sample consisted of 6L Summa canister fitted with an 8-hour flow control valve. The sample and flow controller were checked each hour during sampling to ensure proper operation.			
<b>SAMPLE DETAILS</b>		<b>SAMPLE LOCATION SKETCH</b>	
HEIGHT ABOVE GROUND (FT):	3	See Sample Location Plan	
PID BEFORE SAMPLE (PPM):	0.0		
SAMPLE START TIME:	8:08		
SAMPLE STOP TIME:	17:30		
TOTAL SAMPLE TIME (MIN):	8 hr		
REGULATOR FLOW RATE (mL/MIN):	11.5		
VOLUME OF SAMPLE (LITERS):	6		
PID AFTER SAMPLE (PPM):	n/a		
SAMPLE MOISTURE CONTENT:	n/a		
CAN SERIAL NUMBER:	941		
REGULATOR SERIAL NUMBER:	01249		
CAN START VACUUM PRESS. (" HG):	-30.53		
CAN STOP VACUUM PRESS. (" HG):	-4.66		
<b>NOTES</b>			
Sample ID: AA01			
<b>Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology D.P.C</b> 21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727			

**ATTACHMENT 3**

**CATEGORY B LABORATORY DELIVERABLES**





[www.alphalab.com](http://www.alphalab.com)



**Alpha Analytical**

**Laboratory Code: 11148**

**SDG Number: L2225590**

*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.*

## Table of Contents

New York ASP Category B Data Deliverable Package.....	1
Table of Contents .....	2
Sample ID Cross Reference .....	5
SDG Narrative .....	6
Data Qualifier Definitions .....	8
Instrument Information .....	11
Sample Log-in Sheet .....	14
Lims COC (LN01) .....	15
External Chain of Custody .....	17
Supporting Documentation .....	19
Air Canister Report .....	20
Air Canister Certification Results .....	22
Organics Analysis .....	38
Volatile Organics in Air TO-15 Low Level .....	39
Volatiles QC Summary .....	40
Form 3 - Organics .....	41
Form 4 - Organics .....	54
Form 5 - Organics .....	56
Form 8 - Organics .....	59
MDL Study - Volatile Organics in Air: TO-15 .....	61
Volatiles Sample Data .....	64
Form 1 - Organics .....	65
AA01 (L2225590-11) Analyzed: 05/18/22 18:56 .....	112
IA05 (L2225590-10) Analyzed: 05/18/22 23:47 .....	135
IA04 (L2225590-09) Analyzed: 05/19/22 01:07 .....	165
IA03 (L2225590-08) Analyzed: 05/19/22 01:46 .....	193
IA02 (L2225590-07) Analyzed: 05/19/22 02:26 .....	225
IA01 (L2225590-06) Analyzed: 05/19/22 03:06 .....	258
SSV01 (L2225590-01) Analyzed: 05/19/22 18:57 .....	290
SSV02 (L2225590-02) Analyzed: 05/19/22 19:37 .....	333
SSV03 (L2225590-03) Analyzed: 05/19/22 20:14 .....	377
SSV04 (L2225590-04) Analyzed: 05/19/22 20:54 .....	401
SSV05 (L2225590-05) Analyzed: 05/19/22 22:13 .....	439
SSV04 (L2225590-04) Analyzed: 05/20/22 07:32 .....	480
Volatile Standards Data .....	484
Initial Calibration .....	485
Form 6 - Organics .....	486
ICAL for AIRPIANO3 on 05/17/22 ICAL19030 .....	490
Initial Calibration Summary - Cal Date: 05/17/22 00:00 .....	490
BFB TUNE Injected on: 05/16/22 20:39 .....	494
STD0.2 Injected on: 05/16/22 23:12 .....	495
STD0.5 Injected on: 05/16/22 23:53 .....	501
STD1.0 Injected on: 05/17/22 00:37 .....	509
STD5.0 Injected on: 05/17/22 01:18 .....	518
STD010 Injected on: 05/17/22 02:00 .....	526
STD020 Injected on: 05/17/22 02:39 .....	534
STD050 Injected on: 05/17/22 03:19 .....	542
STD100 Injected on: 05/17/22 04:02 .....	550
ICV SUMMARY Injected on: 05/17/22 11:14 .....	557
ICV QUANT Injected on: 05/17/22 11:14 .....	560

## Table of Contents

Continuing Calibration .....	567
Form 7 - Organics .....	568
CC Summary - AIRPIANO3 Run: 05/18/22 13:48 .....	574
CC Quant - AIRPIANO3 Run: 05/18/22 13:48 .....	577
bfb tune - Inst. AIRPIANO3 05/18/22 12:23 .....	582
CC Summary - AIRPIANO3 Run: 05/19/22 14:23 .....	583
CC Quant - AIRPIANO3 Run: 05/19/22 14:23 .....	586
bfb tune - Inst. AIRPIANO3 05/19/22 12:57 .....	592
Volatiles Raw QC Data .....	593
Laboratory Method BI (WG1640147-4) Analyzed: 05/18/22 16:03 .....	594
Laboratory Method BI (WG1640711-4) Analyzed: 05/19/22 16:38 .....	601
LCS Summary for WG1640147-3 .....	608
Laboratory Control S (WG1640147-3) Analyzed: 05/18/22 13:48 .....	611
LCS Summary for WG1640711-3 .....	678
Laboratory Control S (WG1640711-3) Analyzed: 05/19/22 14:23 .....	681
Duplicate Sample (WG1640147-5) Analyzed: 05/19/22 00:26 .....	749
Duplicate Sample (WG1640711-5) Analyzed: 05/19/22 21:34 .....	779
Duplicate Sample (WG1640711-5) Analyzed: 05/20/22 08:10 .....	818
Air Calculations .....	822
QC Batch WG1640147 .....	824
QC Batch WG1640711 .....	825
ICAL Sequence for AIRPIANO3 on 17-MAY-2022 00:00 ICAL19030 .....	826
Instrument AIRPIANO3 Run Date 05/18/22 Run ID R1566323 .....	828
Instrument AIRPIANO3 Run Date 05/19/22 Run ID R1566650 .....	830
Canister Dilution Calculation Worksheet .....	832
GCMS SIM Air Analysis .....	833
Volatiles QC Summary .....	834
Form 3 - Organics .....	835
Form 4 - Organics .....	837
Form 5 - Organics .....	838
Form 8 - Organics .....	840
MDL Study - Volatile Organics in Air: TO-15 SIM .....	841
Volatiles Sample Data .....	843
Form 1 - Organics .....	844
AA01 (L2225590-11) Analyzed: 05/18/22 18:56 .....	852
IA05 (L2225590-10) Analyzed: 05/18/22 23:47 .....	857
IA04 (L2225590-09) Analyzed: 05/19/22 01:07 .....	862
IA03 (L2225590-08) Analyzed: 05/19/22 01:46 .....	867
IA02 (L2225590-07) Analyzed: 05/19/22 02:26 .....	872
IA01 (L2225590-06) Analyzed: 05/19/22 03:06 .....	877
Volatile Standards Data .....	882
Initial Calibration .....	883
Form 6 - Organics .....	884
ICAL for AIRPIANO3 on 05/17/22 ICAL19031 .....	887
Initial Calibration Summary - Cal Date: 05/17/22 00:00 .....	887
BFB TUNE Injected on: 05/16/22 20:39 .....	890
STD0.02 Injected on: 05/16/22 21:15 .....	891
STD0.05 Injected on: 05/16/22 21:52 .....	907
STD0.1 Injected on: 05/16/22 22:32 .....	915
STD0.2 Injected on: 05/16/22 23:12 .....	921

## Table of Contents

STD0.5 Injected on: 05/16/22 23:53 .....	927
STD1.0 Injected on: 05/17/22 00:37 .....	932
STD5.0 Injected on: 05/17/22 01:18 .....	937
STD010 Injected on: 05/17/22 02:00 .....	943
STD020 Injected on: 05/17/22 02:39 .....	949
STD050 Injected on: 05/17/22 03:19 .....	954
ICV SUMMARY Injected on: 05/17/22 11:55 .....	961
ICV QUANT Injected on: 05/17/22 11:55 .....	964
Continuing Calibration .....	972
Form 7 - Organics .....	973
CC Summary - AIRPIANO3 Run: 05/18/22 14:29 .....	975
CC Quant - AIRPIANO3 Run: 05/18/22 14:29 .....	978
bfb tune - Inst. AIRPIANO3 05/18/22 12:23 .....	983
Volatiles Raw QC Data .....	984
Laboratory Method BI (WG1640149-4) Analyzed: 05/18/22 16:43 .....	985
LCS Summary for WG1640149-3 .....	988
Laboratory Control S (WG1640149-3) Analyzed: 05/18/22 14:29 .....	991
Duplicate Sample (WG1640149-5) Analyzed: 05/19/22 00:26 .....	1000
Air Calculations .....	1005
QC Batch WG1640149 .....	1007
ICAL Sequence for AIRPIANO3 on 17-MAY-2022 00:00 ICAL19031 .....	1008
Instrument AIRPIANO3 Run Date 05/18/22 Run ID R1566304 .....	1010

**Project Name:** 57-00, 57-05 47TH ST  
**Project Number:** 100965503

**Lab Number:** L2225590  
**Report Date:** 05/20/22

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L2225590-01	SSV01	SOIL_VAPOR	MASPETH, NY	05/12/22 17:43	05/13/22
L2225590-02	SSV02	SOIL_VAPOR	MASPETH, NY	05/12/22 17:16	05/13/22
L2225590-03	SSV03	SOIL_VAPOR	MASPETH, NY	05/12/22 17:18	05/13/22
L2225590-04	SSV04	SOIL_VAPOR	MASPETH, NY	05/12/22 18:07	05/13/22
L2225590-05	SSV05	SOIL_VAPOR	MASPETH, NY	05/12/22 18:00	05/13/22
L2225590-06	IA01	AIR	MASPETH, NY	05/12/22 17:21	05/13/22
L2225590-07	IA02	AIR	MASPETH, NY	05/12/22 17:01	05/13/22
L2225590-08	IA03	AIR	MASPETH, NY	05/12/22 17:20	05/13/22
L2225590-09	IA04	AIR	MASPETH, NY	05/12/22 18:40	05/13/22
L2225590-10	IA05	AIR	MASPETH, NY	05/12/22 17:58	05/13/22
L2225590-11	AA01	AIR	MASPETH, NY	05/12/22 17:30	05/13/22
L2225590-12	UNUSED CAN # 1849	AIR	MASPETH, NY	05/12/22 00:00	05/13/22
L2225590-13	UNUSED CAN # 1619	AIR	MASPETH, NY	05/12/22 00:00	05/13/22

**Project Name:** 57-00, 57-05 47TH ST  
**Project Number:** 100965503

**Lab Number:** L2225590  
**Report Date:** 05/20/22

### 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:** 57-00, 57-05 47TH ST  
**Project Number:** 100965503

**Lab Number:** L2225590  
**Report Date:** 05/20/22

### Case Narrative (continued)

#### Volatile Organics in Air

Canisters were released from the laboratory on May 10, 2022. The canister certification results are provided as an addendum.

The continuing calibration standard, associated with [L2225590], is outside the %D criteria for Isopropanol (31%), however, it is within overall acceptance criteria for the LCS. Target hits of Isopropanol may be biased high.

L2225590-03D and -04D: The samples have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the samples.

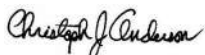
L2225590-04: The sample was re-analyzed on dilution in order to quantitate the results within the calibration range. The result(s) should be considered estimated, and are qualified with an E flag, for any compound(s) that exceeded the calibration range in the initial analysis. The re-analysis was performed only for the compound(s) that exceeded the calibration range.

The WG1640147-3 LCS recovery for bromoform (132%) and benzyl chloride (148%) is above the upper 130% acceptance limit. All samples associated with this LCS do not have reportable amounts of this analyte.

The WG1640711-3 LCS recoveries for dibromochloromethane (132%), bromoform (136%), benzyl chloride (150%), 1,2-dibromo-3-chloropropane (132%), naphthalene (133%) and 1,2,3-trichlorobenzene (132%) are above the upper 130% acceptance limit. All samples associated with this LCS do not have reportable amounts of these analytes.

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: 05/20/22

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.



**Project Name:** 57-00, 57-05 47TH ST  
**Project Number:** 100965503

**Lab Number:** L2225590  
**Report Date:** 05/20/22

#### 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 for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: 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:** 57-00, 57-05 47TH ST  
**Project Number:** 100965503

**Lab Number:** L2225590  
**Report Date:** 05/20/22

**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.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- 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 ul;2 uL LVI
Column Type: Restek RXI-5SILMS	df: 0.32 um
Column Length: 30 Meters	ID: 0.25 mm

### Polynuclear Aromatic Hydrocarbons by 8270 SIM:

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

### Pesticides/PCB/Herbicides:

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

### Petroleum/EPH:

Instrument: Agilent 6890 w/FID / HP 5890 w/ FID	Injection Volume: 1uL
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 : L2225590

Received : 13-MAY-2022

Reviewer : Andrew Kussmaul

Account Name : Langan Engineering & Environmental

Project Number : 100965503

Project Name : 57-00, 57-05 47TH ST

### Delivery Information

Samples Delivered By : Alpha Courier

Chain of Custody : Present

### Cooler Information

Cooler	Seal/Seal#	Preservation	Temperature(°C)	Additional Information
NA	Absent/			

### Condition Information

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

### Volatile Organics/VPH

- |  |           |
|--|-----------|
| 1) Reagent Water Vials Frozen by Client? | <b>NA</b> |
|--|-----------|

ALPHA ANALYTICAL LABORATORIES, INC.  
LOGIN CHAIN OF CUSTODY REPORT  
May 20 2022, 03:09 pm

Login Number: L2225590

Account: LANGAN-NJ Langan Engineering & Environmental Project: 100965503

Received: 13MAY22 Due Date: 20MAY22

Sample #	Client ID	Mat PR	Collected
L2225590-01	SSV01	11 2E	12MAY22 17:43
TO15 SIM for 7 NYS DMCs ASP-B Package Due Date: 05/20/22			
ASP-B,CAN-RENT,FLOW-RENT,TO15-LL			
L2225590-02	SSV02	11 2E	12MAY22 17:16
TO15 SIM for 7 NYS DMCs Package Due Date: 05/20/22			
CAN-RENT,FLOW-RENT,TO15-LL			
L2225590-03	SSV03	11 2E	12MAY22 17:18
TO15 SIM for 7 NYS DMCs Package Due Date: 05/20/22			
CAN-RENT,FLOW-RENT,TO15-LL			
L2225590-04	SSV04	11 2E	12MAY22 18:07
TO15 SIM for 7 NYS DMCs Package Due Date: 05/20/22			
CAN-RENT,FLOW-RENT,TO15-LL			
L2225590-05	SSV05	11 2E	12MAY22 18:00
TO15 SIM for 7 NYS DMCs Package Due Date: 05/20/22			
CAN-RENT,FLOW-RENT,TO15-LL			
L2225590-06	IA01	10 2E	12MAY22 17:21
TO15 SIM for 7 NYS DMCs Package Due Date: 05/20/22			
CAN-RENT,FLOW-RENT,TO15-LL,TO15-SIM			
L2225590-07	IA02	10 2E	12MAY22 17:01
TO15 SIM for 7 NYS DMCs Package Due Date: 05/20/22			

ALPHA ANALYTICAL LABORATORIES, INC.  
LOGIN CHAIN OF CUSTODY REPORT  
May 20 2022, 03:09 pm

Login Number: L2225590

Account: LANGAN-NJ Langan Engineering & Environmental Project: 100965503

Received: 13MAY22 Due Date: 20MAY22

Sample # Client ID Mat PR Collected

CAN-RENT, FLOW-RENT, TO15-LL, TO15-SIM

L2225590-08 IA03 10 2E 12MAY22 17:20

TO15 SIM for 7 NYS DMCs Package Due Date: 05/20/22

CAN-RENT, FLOW-RENT, TO15-LL, TO15-SIM

L2225590-09 IA04 10 2E 12MAY22 18:40

TO15 SIM for 7 NYS DMCs Package Due Date: 05/20/22

CAN-RENT, FLOW-RENT, TO15-LL, TO15-SIM

L2225590-10 IA05 10 2E 12MAY22 17:58

TO15 SIM for 7 NYS DMCs Package Due Date: 05/20/22

CAN-RENT, FLOW-RENT, TO15-LL, TO15-SIM

L2225590-11 AA01 10 2E 12MAY22 17:30

TO15 SIM for 7 NYS DMCs Package Due Date: 05/20/22

CAN-RENT, FLOW-RENT, TO15-LL, TO15-SIM

L2225590-12 UNUSED CAN # 1849 10 2E 12MAY22 00:00

TO15 SIM for 7 NYS DMCs Package Due Date: 05/20/22

CAN-RENT, CLEAN-FEE, FLOW-RENT

L2225590-13 UNUSED CAN # 1619 10 2E 12MAY22 00:00

TO15 SIM for 7 NYS DMCs Package Due Date: 05/20/22

CAN-RENT, CLEAN-FEE, FLOW-RENT





# CHAIN OF CUSTODY

# AIR ANALYSIS

PAGE 1 OF 2Date Rec'd in Lab: 5/14/22ALPHA Job #: 2225590320 Forbes Blvd, Mansfield, MA 02048  
TEL: 508-822-9300 FAX: 508-822-3288**Client Information**Client: Langan  
Address: 300 Kimball Dr, 4th Floor  
Parsippany NJ 07054  
Phone: 973 560 4613  
Fax: 973 560 4901  
Email: arico@langan.com  
rdiehl@langan.com These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: **Project Information**Project Name: S7-00, S7-05 47th St  
Project Location: Maspoth, NY  
Project #: 100965503  
Project Manager: Alan Arico  
ALPHA Quote #:**Turn-Around Time** Standard  RUSH (only confirmed if pre-approved)

Date Due: \_\_\_\_\_ Time: \_\_\_\_\_

**Report Information - Data Deliverables** FAX  
 ADEx  
Criteria Checker: \_\_\_\_\_  
(Default based on Regulatory Criteria Indicated)  
Other Formats: \_\_\_\_\_  
 EMAIL (standard pdf report)  
 Additional Deliverables: App B  
Report to: (if different than Project Manager)**Billing Information** Same as Client info PO #: \_\_\_\_\_**Regulatory Requirements/Report Limits**

State/Fed Program Res / Comm

**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 SIM	APH <small>Subtract Non-petroleum HCs</small>	Fixed Gases	Sulfides & Mercaptans by TO-15	Sample Comments (i.e. PID)
		End Date	Start Time	End Time	Initial Vacuum	Final Vacuum											
<u>25590-01</u>	<u>SSU01</u>	<u>5/12/22</u>	<u>0729</u>	<u>1743</u>	<u>-30.52</u>	<u>-4.85</u>	<u>SU</u>	<u>PL</u>	<u>6</u>	<u>3252</u>	<u>01498</u>	<u>X</u>					<u>(S7-00)</u>
<u>-02</u>	<u>SSU02</u>	<u>5/12/22</u>	<u>0733</u>	<u>1716</u>	<u>-30.57</u>	<u>-3.71</u>	<u>SU</u>	<u>PL</u>	<u>6</u>	<u>1629</u>	<u>01170</u>	<u>X</u>					<u>(S7-00)</u>
<u>-03</u>	<u>SSU03</u>	<u>5/12/22</u>	<u>0731</u>	<u>1718</u>	<u>-30.66</u>	<u>-3.77</u>	<u>SU</u>	<u>PL</u>	<u>6</u>	<u>1603</u>	<u>0915</u>	<u>X</u>					<u>(S7-00)</u>
<u>-04</u>	<u>SSU04</u>	<u>5/12/22</u>	<u>0754</u>	<u>1807</u>	<u>-30.48</u>	<u>-2.79</u>	<u>SU</u>	<u>PL</u>	<u>6</u>	<u>2924</u>	<u>01097</u>	<u>X</u>					<u>(S7-05)</u>
<u>-05</u>	<u>SSU05</u>	<u>5/12/22</u>	<u>0751</u>	<u>1800</u>	<u>-30.32</u>	<u>-3.21</u>	<u>SU</u>	<u>PL</u>	<u>6</u>	<u>3610</u>	<u>02056</u>	<u>X</u>					<u>(S7-05)</u>

**\*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:

[Signature]  
5/12/22  
0305[Signature]  
5/12/22  
1335[Signature]  
5/12/22  
1807[Signature]  
5/13/22  
2100[Signature]  
5/13/22  
1335





CHAIN OF CUSTODY

AIR ANALYSIS

PAGE 2 OF 2

Date Rec'd in Lab: 5/14/22

ALPHA Job #: L2225590

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

Client Information

Client: Langan  
Address: 380 Kimball Dr, 4th Floor  
Passippany NJ 07054  
Phone: 973 560 4613  
Fax: 973 560 4801  
Email: aarico@langan.com  
rdiehl@langan.com

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List:

Project Information

Project Name: 57-00, 57-05 47th St  
Project Location: Mangeth, NY  
Project #: 100965503  
Project Manager: Alan Arico  
ALPHA Quote #:

Turn-Around Time

Standard  RUSH (only confirmed if pre-approved)

Date Due: Time:

Report Information - Data Deliverables

FAX  
 ADEx  
Criteria Checker:  
(Default based on Regulatory Criteria Indicated)  
Other Formats:  
 EMAIL (standard pdf report)  
 Additional Deliverables:  
Asp 6  
Report to: (if different than Project Manager)

Billing Information

Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program Res / Comm

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 SIM APH Fixed Gases Sulfides & Mercaptans by TO-15	Sample Comments (i.e. PID)
		End Date	Start Time	End Time	Initial Vacuum	Final Vacuum								
-06	IA01	5/12/22	0729	1721	-30.58	-2.81	AA	PL	6	992	01710	X	(57-00)	
-07	IA02	5/12/22	0733	1701	-30.46	-2.56	AA	PL	6	3058	0385	X	(57-00)	
-08	IA03	5/12/22	0731	1720	-30.52	-3.62	AA	PL	6	1898	01449	X	(57-00)	
-09	IA04	5/12/22	0754	1840	-30.39	-4.84	AA	PL	6	3151	01645	X	(57-05)	
-10	IA05	5/12/22	0800	1758	-30.50	-2.86	AA	PL	6	747	0769	X	(57-05)	
-11	AA01	5/12/22	0808	1730	-30.53	-4.66	AA	PL	6	941	01249	X		

\*SAMPLE MATRIX CODES

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

Container Type

Relinquished By:

Date/Time

Received By:

Date/Time:

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

# **Supporting Documentation**

Project Name: 57-00, 57-05 47TH ST

Lab Number: L2225590

Project Number: 100965503

Report Date: 05/20/22

**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
L2225590-01	SSV01	01498	Flow 4	05/10/22	387842		-	-	-	Pass	10.0	7.0	35
L2225590-01	SSV01	3256	6.0L Can	05/10/22	387842	L2222714-06	Pass	-29.6	-2.9	-	-	-	-
L2225590-02	SSV02	01170	Flow 4	05/10/22	387842		-	-	-	Pass	10.0	7.0	35
L2225590-02	SSV02	1699	6.0L Can	05/10/22	387842	L2222895-08	Pass	-29.6	-1.9	-	-	-	-
L2225590-03	SSV03	0915	Flow 5	05/10/22	387842		-	-	-	Pass	10.0	7.0	35
L2225590-03	SSV03	1603	6.0L Can	05/10/22	387842	L2222895-08	Pass	-29.6	-1.9	-	-	-	-
L2225590-04	SSV04	01097	Flow 4	05/10/22	387842		-	-	-	Pass	10.0	8.0	22
L2225590-04	SSV04	2948	6.0L Can	05/10/22	387842	L2222895-08	Pass	-29.5	-1.0	-	-	-	-
L2225590-05	SSV05	02056	Flow 4	05/10/22	387842		-	-	-	Pass	10.0	7.0	35
L2225590-05	SSV05	3610	6.0L Can	05/10/22	387842	L2222895-08	Pass	-29.5	0.0	-	-	-	-
L2225590-06	IA01	01710	Flow 4	05/10/22	387842		-	-	-	Pass	10.0	7.0	35
L2225590-06	IA01	992	6.0L Can	05/10/22	387842	L2222895-08	Pass	-29.6	-2.0	-	-	-	-
L2225590-07	IA02	0385	Flow 4	05/10/22	387842		-	-	-	Pass	10.0	7.0	35
L2225590-07	IA02	3058	6.0L Can	05/10/22	387842	L2222714-06	Pass	-29.4	-1.6	-	-	-	-
L2225590-08	IA03	01449	Flow 4	05/10/22	387842		-	-	-	Pass	10.0	8.0	22



Project Name: 57-00, 57-05 47TH ST

Lab Number: L2225590

Project Number: 100965503

Report Date: 05/20/22

### 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
L2225590-08	IA03	1898	6.0L Can	05/10/22	387842	L2222895-08	Pass	-29.6	-3.0	-	-	-	-
L2225590-09	IA04	01695	Flow 4	05/10/22	387842		-	-	-	Pass	10.0	5.0	67
L2225590-09	IA04	3154	6.0L Can	05/10/22	387842	L2222895-08	Pass	-29.3	-4.0	-	-	-	-
L2225590-10	IA05	0764	Flow 5	05/10/22	387842		-	-	-	Pass	10.0	8.0	22
L2225590-10	IA05	747	6.0L Can	05/10/22	387842	L2222714-06	Pass	-29.6	-2.1	-	-	-	-
L2225590-11	AA01	01249	Flow 5	05/10/22	387842		-	-	-	Pass	10.0	7.0	35
L2225590-11	AA01	941	6.0L Can	05/10/22	387842	L2222714-06	Pass	-29.6	-4.0	-	-	-	-
L2225590-12	UNUSED CAN # 1849	0642	Flow 4	05/10/22	387842		-	-	-	Pass	10.0	8.0	22
L2225590-12	UNUSED CAN # 1849	1849	6.0L Can	05/10/22	387842	L2222714-06	Pass	-29.5	-29.9	-	-	-	-
L2225590-13	UNUSED CAN # 1619	01536	Flow 4	05/10/22	387842		-	-	-	Pass	10.0	7.0	35
L2225590-13	UNUSED CAN # 1619	1619	6.0L Can	05/10/22	387842	L2222895-08	Pass	-29.1	-1.9	-	-	-	-



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

**Lab Number:** L2222714  
**Report Date:** 05/20/22

### Air Canister Certification Results

Lab ID: L2222714-06  
 Client ID: CAN 3964 SHELF 56  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 05/03/22 00:29  
 Analyst: TS

Date Collected: 04/29/22 11:00  
 Date Received: 05/02/22  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air</b>								
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:** L2222714  
**Report Date:** 05/20/22

### Air Canister Certification Results

Lab ID: L2222714-06      Date Collected: 04/29/22 11:00  
 Client ID: CAN 3964 SHELF 56      Date Received: 05/02/22  
 Sample Location:      Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air</b>								
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:** L2222714  
**Report Date:** 05/20/22

### Air Canister Certification Results

Lab ID: L2222714-06      Date Collected: 04/29/22 11:00  
 Client ID: CAN 3964 SHELF 56      Date Received: 05/02/22  
 Sample Location:      Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air</b>								
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:** L2222714  
**Report Date:** 05/20/22

### Air Canister Certification Results

Lab ID: L2222714-06  
 Client ID: CAN 3964 SHELF 56  
 Sample Location:

Date Collected: 04/29/22 11:00  
 Date Received: 05/02/22  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air</b>								
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:** L2222714  
**Report Date:** 05/20/22

### Air Canister Certification Results

Lab ID: L2222714-06      Date Collected: 04/29/22 11:00  
 Client ID: CAN 3964 SHELF 56      Date Received: 05/02/22  
 Sample Location:      Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	88		60-140



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

**Lab Number:** L2222714  
**Report Date:** 05/20/22

### Air Canister Certification Results

Lab ID: L2222714-06  
 Client ID: CAN 3964 SHELF 56  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 05/03/22 00:29  
 Analyst: TS

Date Collected: 04/29/22 11:00  
 Date Received: 05/02/22  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatiles Organics in Air by SIM</b>								
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:** L2222714  
**Report Date:** 05/20/22

### Air Canister Certification Results

Lab ID: L2222714-06      Date Collected: 04/29/22 11:00  
 Client ID: CAN 3964 SHELF 56      Date Received: 05/02/22  
 Sample Location:      Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatiles Organics in Air by SIM</b>								
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	0.100	--	ND	0.377	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.100	--	ND	0.518	--		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:** L2222714  
**Report Date:** 05/20/22

### Air Canister Certification Results

Lab ID: L2222714-06      Date Collected: 04/29/22 11:00  
 Client ID: CAN 3964 SHELF 56      Date Received: 05/02/22  
 Sample Location:      Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air by SIM</b>								
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	93		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	89		60-140



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

**Lab Number:** L2222895  
**Report Date:** 05/20/22

### Air Canister Certification Results

Lab ID: L2222895-08  
 Client ID: CAN 3570 SHELF 57  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 05/03/22 23:57  
 Analyst: TS

Date Collected: 05/03/22 09:00  
 Date Received: 05/03/22  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air</b>								
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:** L2222895  
**Report Date:** 05/20/22

### Air Canister Certification Results

Lab ID: L2222895-08 Date Collected: 05/03/22 09:00  
 Client ID: CAN 3570 SHELF 57 Date Received: 05/03/22  
 Sample Location: Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air</b>								
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:** L2222895  
**Report Date:** 05/20/22

### Air Canister Certification Results

Lab ID: L2222895-08 Date Collected: 05/03/22 09:00  
 Client ID: CAN 3570 SHELF 57 Date Received: 05/03/22  
 Sample Location: Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air</b>								
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:** L2222895  
**Report Date:** 05/20/22

### Air Canister Certification Results

Lab ID: L2222895-08  
 Client ID: CAN 3570 SHELF 57  
 Sample Location:

Date Collected: 05/03/22 09:00  
 Date Received: 05/03/22  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air</b>								
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:** L2222895  
**Report Date:** 05/20/22

### Air Canister Certification Results

Lab ID: L2222895-08      Date Collected: 05/03/22 09:00  
 Client ID: CAN 3570 SHELF 57      Date Received: 05/03/22  
 Sample Location:      Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140
Bromochloromethane	95		60-140
chlorobenzene-d5	88		60-140



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

**Lab Number:** L2222895  
**Report Date:** 05/20/22

### Air Canister Certification Results

Lab ID: L2222895-08  
 Client ID: CAN 3570 SHELF 57  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 05/03/22 23:57  
 Analyst: TS

Date Collected: 05/03/22 09:00  
 Date Received: 05/03/22  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air by SIM</b>								
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:** L2222895  
**Report Date:** 05/20/22

### Air Canister Certification Results

Lab ID: L2222895-08  
 Client ID: CAN 3570 SHELF 57  
 Sample Location:

Date Collected: 05/03/22 09:00  
 Date Received: 05/03/22  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air by SIM</b>								
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	0.100	--	ND	0.377	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.100	--	ND	0.518	--		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:** L2222895  
**Report Date:** 05/20/22

### Air Canister Certification Results

Lab ID: L2222895-08      Date Collected: 05/03/22 09:00  
 Client ID: CAN 3570 SHELF 57      Date Received: 05/03/22  
 Sample Location:      Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air by SIM</b>								
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	92		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	87		60-140



# Organics

# **Volatile Organics in Air TO-15 Low Level**

# **Volatiles QC Summary**



# Lab Duplicate Sample Summary

## Form 3

### Air Volatiles

Client	: Langan Engineering & Environmental	Lab Number	: L2225590
Project Name	: 57-00, 57-05 47TH ST	Project Number	: 100965503
Client Sample ID	: IA05	Matrix	: AIR
Lab Sample ID	: L2225590-10	Analysis Date	: 05/18/22 23:47
Lab File ID	: R322206	DUP File ID	: r322207
Dup Sample ID	: WG1640147-5	DUP Analysis Date	: 05/19/22 00:26

Parameter	Sample Concentration (ppbV)	Duplicate Concentration (ppbV)	RPD	RPD Limit
Dichlorodifluoromethane	0.606	0.620	2	25
Chloromethane	1.22	1.24	2	25
Freon-114	ND	ND	NC	25
1,3-Butadiene	ND	ND	NC	25
Bromomethane	ND	ND	NC	25
Chloroethane	ND	ND	NC	25
Ethanol	7.88	7.59	4	25
Vinyl bromide	ND	ND	NC	25
Acetone	5.38	4.93	9	25
Trichlorofluoromethane	0.308	0.310	1	25
Isopropanol	3.23	3.31	2	25
Tertiary butyl Alcohol	5.42	5.59	3	25
Methylene chloride	ND	ND	NC	25
3-Chloropropene	ND	ND	NC	25
Carbon disulfide	ND	ND	NC	25
Freon-113	ND	ND	NC	25
trans-1,2-Dichloroethene	ND	ND	NC	25
1,1-Dichloroethane	ND	ND	NC	25
Methyl tert butyl ether	ND	ND	NC	25
2-Butanone	ND	ND	NC	25
Ethyl Acetate	ND	ND	NC	25
Chloroform	ND	ND	NC	25
Tetrahydrofuran	ND	ND	NC	25
1,2-Dichloroethane	ND	ND	NC	25
n-Hexane	0.419	0.426	2	25



# Lab Duplicate Sample Summary

## Form 3

### Air Volatiles

Client	: Langan Engineering & Environmental	Lab Number	: L2225590
Project Name	: 57-00, 57-05 47TH ST	Project Number	: 100965503
Client Sample ID	: IA05	Matrix	: AIR
Lab Sample ID	: L2225590-10	Analysis Date	: 05/18/22 23:47
Lab File ID	: R322206	DUP File ID	: r322207
Dup Sample ID	: WG1640147-5	DUP Analysis Date	: 05/19/22 00:26

Parameter	Sample Concentration (ppbV)	Duplicate Concentration (ppbV)	RPD	RPD Limit
Benzene	0.235	0.237	1	25
Cyclohexane	ND	ND	NC	25
1,2-Dichloropropane	ND	ND	NC	25
Bromodichloromethane	ND	ND	NC	25
1,4-Dioxane	ND	ND	NC	25
2,2,4-Trimethylpentane	0.248	0.256	3	25
Heptane	0.205	0.206	0	25
cis-1,3-Dichloropropene	ND	ND	NC	25
4-Methyl-2-pentanone	ND	ND	NC	25
trans-1,3-Dichloropropene	ND	ND	NC	25
1,1,2-Trichloroethane	ND	ND	NC	25
Toluene	2.05	2.10	2	25
2-Hexanone	ND	ND	NC	25
Dibromochloromethane	ND	ND	NC	25
1,2-Dibromoethane	ND	ND	NC	25
Chlorobenzene	ND	ND	NC	25
Ethylbenzene	ND	ND	NC	25
p/m-Xylene	0.516	0.531	3	25
Bromoform	ND	ND	NC	25
Styrene	ND	ND	NC	25
1,1,2,2-Tetrachloroethane	ND	ND	NC	25
o-Xylene	0.209	0.213	2	25
4-Ethyltoluene	ND	ND	NC	25
1,3,5-Trimethylbenzene	ND	ND	NC	25
1,2,4-Trimethylbenzene	ND	ND	NC	25



# Lab Duplicate Sample Summary

## Form 3

### Air Volatiles

Client	: Langan Engineering & Environmental	Lab Number	: L2225590
Project Name	: 57-00, 57-05 47TH ST	Project Number	: 100965503
Client Sample ID	: IA05	Matrix	: AIR
Lab Sample ID	: L2225590-10	Analysis Date	: 05/18/22 23:47
Lab File ID	: R322206	DUP File ID	: r322207
Dup Sample ID	: WG1640147-5	DUP Analysis Date	: 05/19/22 00:26

Parameter	Sample Concentration (ppbV)	Duplicate Concentration (ppbV)	RPD	RPD Limit
Benzyl chloride	ND	ND	NC	25
1,3-Dichlorobenzene	ND	ND	NC	25
1,4-Dichlorobenzene	ND	ND	NC	25
1,2-Dichlorobenzene	ND	ND	NC	25
1,2,4-Trichlorobenzene	ND	ND	NC	25
Hexachlorobutadiene	ND	ND	NC	25



# Lab Duplicate Sample Summary

## Form 3

### Air Volatiles

Client	: Langan Engineering & Environmental	Lab Number	: L2225590
Project Name	: 57-00, 57-05 47TH ST	Project Number	: 100965503
Client Sample ID	: SSV04	Matrix	: SOIL_VAPOR
Lab Sample ID	: L2225590-04	Analysis Date	: 05/20/22 07:32
Lab File ID	: R322248	DUP File ID	: r322249
Dup Sample ID	: WG1640711-5	DUP Analysis Date	: 05/20/22 08:10

Parameter	Sample Concentration (ppbV)	Duplicate Concentration (ppbV)	RPD	RPD Limit
Acetone	ND	1950	1	25



# Lab Duplicate Sample Summary

## Form 3

### Air Volatiles

Client	: Langan Engineering & Environmental	Lab Number	: L2225590
Project Name	: 57-00, 57-05 47TH ST	Project Number	: 100965503
Client Sample ID	: SSV04	Matrix	: SOIL_VAPOR
Lab Sample ID	: L2225590-04	Analysis Date	: 05/19/22 20:54
Lab File ID	: R322232	DUP File ID	: r322233
Dup Sample ID	: WG1640711-5	DUP Analysis Date	: 05/19/22 21:34

Parameter	Sample Concentration (ppbV)	Duplicate Concentration (ppbV)	RPD	RPD Limit
Dichlorodifluoromethane	0.614	0.578	6	25
Chloromethane	ND	ND	NC	25
Freon-114	ND	ND	NC	25
Vinyl chloride	0.247	0.242	2	25
1,3-Butadiene	ND	ND	NC	25
Bromomethane	ND	ND	NC	25
Chloroethane	ND	ND	NC	25
Ethanol	524E	514	2	25
Vinyl bromide	ND	ND	NC	25
Acetone	1020E	901	12	25
Trichlorofluoromethane	0.436	0.413	5	25
Isopropanol	105	103	2	25
1,1-Dichloroethene	ND	ND	NC	25
Tertiary butyl Alcohol	43.4	43.7	1	25
Methylene chloride	ND	ND	NC	25
3-Chloropropene	ND	ND	NC	25
Carbon disulfide	12.2	12.2	0	25
Freon-113	ND	ND	NC	25
trans-1,2-Dichloroethene	ND	ND	NC	25
1,1-Dichloroethane	ND	ND	NC	25
Methyl tert butyl ether	ND	ND	NC	25
2-Butanone	46.0	44.8	3	25
cis-1,2-Dichloroethene	ND	ND	NC	25
Ethyl Acetate	ND	ND	NC	25
Chloroform	ND	ND	NC	25



# Lab Duplicate Sample Summary

## Form 3

### Air Volatiles

Client	: Langan Engineering & Environmental	Lab Number	: L2225590
Project Name	: 57-00, 57-05 47TH ST	Project Number	: 100965503
Client Sample ID	: SSV04	Matrix	: SOIL_VAPOR
Lab Sample ID	: L2225590-04	Analysis Date	: 05/19/22 20:54
Lab File ID	: R322232	DUP File ID	: r322233
Dup Sample ID	: WG1640711-5	DUP Analysis Date	: 05/19/22 21:34

Parameter	Sample Concentration (ppbV)	Duplicate Concentration (ppbV)	RPD	RPD Limit
Tetrahydrofuran	11.5	11.7	2	25
1,2-Dichloroethane	ND	ND	NC	25
n-Hexane	1.49	1.54	3	25
1,1,1-Trichloroethane	ND	ND	NC	25
Benzene	0.510	0.499	2	25
Carbon tetrachloride	ND	ND	NC	25
Cyclohexane	1.44	1.48	3	25
1,2-Dichloropropane	ND	ND	NC	25
Bromodichloromethane	ND	ND	NC	25
1,4-Dioxane	7.88	8.05	2	25
Trichloroethene	ND	ND	NC	25
2,2,4-Trimethylpentane	0.894	0.906	1	25
Heptane	2.14	2.10	2	25
cis-1,3-Dichloropropene	ND	ND	NC	25
4-Methyl-2-pentanone	8.56	8.36	2	25
trans-1,3-Dichloropropene	ND	ND	NC	25
1,1,2-Trichloroethane	ND	ND	NC	25
Toluene	12.2	12.4	2	25
2-Hexanone	3.02	3.03	0	25
Dibromochloromethane	ND	ND	NC	25
1,2-Dibromoethane	ND	ND	NC	25
Tetrachloroethene	7.30	7.39	1	25
Chlorobenzene	ND	ND	NC	25
Ethylbenzene	0.980	1.00	2	25
p/m-Xylene	3.76	3.85	2	25



# Lab Duplicate Sample Summary

## Form 3

### Air Volatiles

Client	: Langan Engineering & Environmental	Lab Number	: L2225590
Project Name	: 57-00, 57-05 47TH ST	Project Number	: 100965503
Client Sample ID	: SSV04	Matrix	: SOIL_VAPOR
Lab Sample ID	: L2225590-04	Analysis Date	: 05/19/22 20:54
Lab File ID	: R322232	DUP File ID	: r322233
Dup Sample ID	: WG1640711-5	DUP Analysis Date	: 05/19/22 21:34

Parameter	Sample Concentration (ppbV)	Duplicate Concentration (ppbV)	RPD	RPD Limit
Bromoform	ND	ND	NC	25
Styrene	ND	ND	NC	25
1,1,2,2-Tetrachloroethane	ND	ND	NC	25
o-Xylene	1.66	1.69	2	25
4-Ethyltoluene	0.603	0.768	24	25
1,3,5-Trimethylbenzene	1.32	1.33	1	25
1,2,4-Trimethylbenzene	4.53	4.54	0	25
Benzyl chloride	ND	ND	NC	25
1,3-Dichlorobenzene	ND	ND	NC	25
1,4-Dichlorobenzene	ND	ND	NC	25
1,2-Dichlorobenzene	ND	ND	NC	25
1,2,4-Trichlorobenzene	ND	ND	NC	25
Hexachlorobutadiene	ND	ND	NC	25



# Laboratory Control Sample Summary

## Form 3

### Air Volatiles

**Client** : Langan Engineering & Environmental      **Lab Number** : L2225590  
**Project Name** : 57-00, 57-05 47TH ST      **Project Number** : 100965503  
**Matrix** : AIR  
**LCS Sample ID** : WG1640147-3      **Analysis Date** : 05/18/22 13:48      **File ID** : r322194  
**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	11.4	114				-	70-130	-
Chloromethane	10	11.0	110				-	70-130	-
Freon-114	10	11.8	118				-	70-130	-
Vinyl chloride	10	11.6	116				-	70-130	-
1,3-Butadiene	10	12.1	121				-	70-130	-
Bromomethane	10	11.6	116				-	70-130	-
Chloroethane	10	11.4	114				-	70-130	-
Ethanol	50	57.4	115				-	40-160	-
Vinyl bromide	10	11.4	114				-	70-130	-
Acetone	50	55.8	112				-	40-160	-
Trichlorofluoromethane	10	12.1	121				-	70-130	-
Isopropanol	25	32.2	129				-	40-160	-
1,1-Dichloroethene	10	11.7	117				-	70-130	-
Tertiary butyl Alcohol	10	12.0	120				-	70-130	-
Methylene chloride	10	9.71	97				-	70-130	-
3-Chloropropene	10	12.7	127				-	70-130	-
Carbon disulfide	10	11.0	110				-	70-130	-
Freon-113	10	11.8	118				-	70-130	-
trans-1,2-Dichloroethene	10	11.1	111				-	70-130	-
1,1-Dichloroethane	10	11.3	113				-	70-130	-
Methyl tert butyl ether	10	12.0	120				-	70-130	-
2-Butanone	10	10.8	108				-	70-130	-
cis-1,2-Dichloroethene	10	11.6	116				-	70-130	-
Ethyl Acetate	10	11.8	118				-	70-130	-
Chloroform	10	12.0	120				-	70-130	-
Tetrahydrofuran	10	11.2	112				-	70-130	-





# Laboratory Control Sample Summary

## Form 3

### Air Volatiles

**Client** : Langan Engineering & Environmental      **Lab Number** : L2225590  
**Project Name** : 57-00, 57-05 47TH ST      **Project Number** : 100965503  
**Matrix** : AIR  
**LCS Sample ID** : WG1640147-3      **Analysis Date** : 05/18/22 13:48      **File ID** : r322194  
**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	11.1	111				-	70-130	-
n-Hexane	10	11.1	111				-	70-130	-
1,1,1-Trichloroethane	10	11.7	117				-	70-130	-
Benzene	10	10.2	102				-	70-130	-
Carbon tetrachloride	10	12.3	123				-	70-130	-
Cyclohexane	10	11.3	113				-	70-130	-
1,2-Dichloropropane	10	11.3	113				-	70-130	-
Bromodichloromethane	10	11.9	119				-	70-130	-
1,4-Dioxane	10	11.8	118				-	70-130	-
Trichloroethene	10	11.7	117				-	70-130	-
2,2,4-Trimethylpentane	10	11.8	118				-	70-130	-
Heptane	10	11.6	116				-	70-130	-
cis-1,3-Dichloropropene	10	12.7	127				-	70-130	-
4-Methyl-2-pentanone	10	12.0	120				-	70-130	-
trans-1,3-Dichloropropene	10	11.3	113				-	70-130	-
1,1,2-Trichloroethane	10	11.8	118				-	70-130	-
Toluene	10	11.4	114				-	70-130	-
2-Hexanone	10	12.1	121				-	70-130	-
Dibromochloromethane	10	12.8	128				-	70-130	-
1,2-Dibromoethane	10	12.0	120				-	70-130	-
Tetrachloroethene	10	11.9	119				-	70-130	-
Chlorobenzene	10	11.8	118				-	70-130	-
Ethylbenzene	10	11.9	119				-	70-130	-
p/m-Xylene	20	24.0	120				-	70-130	-
Bromoform	10	13.2	132 Q				-	70-130	-
Styrene	10	12.2	122				-	70-130	-



# Laboratory Control Sample Summary

## Form 3

### Air Volatiles

**Client** : Langan Engineering & Environmental      **Lab Number** : L2225590  
**Project Name** : 57-00, 57-05 47TH ST      **Project Number** : 100965503  
**Matrix** : AIR  
**LCS Sample ID** : WG1640147-3      **Analysis Date** : 05/18/22 13:48      **File ID** : r322194  
**LCSD Sample ID** :      **Analysis Date** :      **File ID** :

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ppbV)	Found (ppbV)	%R	True (ppbV)	Found (ppbV)	%R			
1,1,2,2-Tetrachloroethane	10	12.4	124				-	70-130	-
o-Xylene	10	12.3	123				-	70-130	-
4-Ethyltoluene	10	12.1	121				-	70-130	-
1,3,5-Trimethylbenzene	10	11.4	114				-	70-130	-
1,2,4-Trimethylbenzene	10	12.9	129				-	70-130	-
Benzyl chloride	10	14.8	148 Q				-	70-130	-
1,3-Dichlorobenzene	10	12.5	125				-	70-130	-
1,4-Dichlorobenzene	10	12.5	125				-	70-130	-
1,2-Dichlorobenzene	10	12.4	124				-	70-130	-
1,2,4-Trichlorobenzene	10	13.0	130				-	70-130	-
Hexachlorobutadiene	10	12.9	129				-	70-130	-



# Laboratory Control Sample Summary

## Form 3

### Air Volatiles

**Client** : Langan Engineering & Environmental      **Lab Number** : L2225590  
**Project Name** : 57-00, 57-05 47TH ST      **Project Number** : 100965503  
**Matrix** : SOIL\_VAPOR  
**LCS Sample ID** : WG1640711-3      **Analysis Date** : 05/19/22 14:23      **File ID** : r322225  
**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	10.7	107				-	70-130	-
Chloromethane	10	10.2	102				-	70-130	-
Freon-114	10	11.0	110				-	70-130	-
Vinyl chloride	10	10.7	107				-	70-130	-
1,3-Butadiene	10	12.4	124				-	70-130	-
Bromomethane	10	10.7	107				-	70-130	-
Chloroethane	10	10.5	105				-	70-130	-
Ethanol	50	58.8	118				-	40-160	-
Vinyl bromide	10	11.7	117				-	70-130	-
Acetone	50	61.3	123				-	40-160	-
Trichlorofluoromethane	10	11.3	113				-	70-130	-
Isopropanol	25	32.9	132				-	40-160	-
1,1-Dichloroethene	10	10.9	109				-	70-130	-
Tertiary butyl Alcohol	10	12.3	123				-	70-130	-
Methylene chloride	10	9.16	92				-	70-130	-
3-Chloropropene	10	13.0	130				-	70-130	-
Carbon disulfide	10	11.3	113				-	70-130	-
Freon-113	10	11.1	111				-	70-130	-
trans-1,2-Dichloroethene	10	11.3	113				-	70-130	-
1,1-Dichloroethane	10	10.7	107				-	70-130	-
Methyl tert butyl ether	10	12.4	124				-	70-130	-
2-Butanone	10	11.3	113				-	70-130	-
cis-1,2-Dichloroethene	10	10.9	109				-	70-130	-
Ethyl Acetate	10	12.0	120				-	70-130	-
Chloroform	10	11.2	112				-	70-130	-
Tetrahydrofuran	10	11.6	116				-	70-130	-



# Laboratory Control Sample Summary

## Form 3

### Air Volatiles

**Client** : Langan Engineering & Environmental      **Lab Number** : L2225590  
**Project Name** : 57-00, 57-05 47TH ST      **Project Number** : 100965503  
**Matrix** : SOIL\_VAPOR  
**LCS Sample ID** : WG1640711-3      **Analysis Date** : 05/19/22 14:23      **File ID** : r322225  
**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	10.5	105				-	70-130	-
n-Hexane	10	11.4	114				-	70-130	-
1,1,1-Trichloroethane	10	11.1	111				-	70-130	-
Benzene	10	9.52	95				-	70-130	-
Carbon tetrachloride	10	11.7	117				-	70-130	-
Cyclohexane	10	11.6	116				-	70-130	-
1,2-Dichloropropane	10	10.6	106				-	70-130	-
Bromodichloromethane	10	12.2	122				-	70-130	-
1,4-Dioxane	10	11.8	118				-	70-130	-
Trichloroethene	10	10.9	109				-	70-130	-
2,2,4-Trimethylpentane	10	12.0	120				-	70-130	-
Heptane	10	12.1	121				-	70-130	-
cis-1,3-Dichloropropene	10	11.9	119				-	70-130	-
4-Methyl-2-pentanone	10	12.5	125				-	70-130	-
trans-1,3-Dichloropropene	10	10.6	106				-	70-130	-
1,1,2-Trichloroethane	10	11.1	111				-	70-130	-
Toluene	10	10.5	105				-	70-130	-
2-Hexanone	10	12.3	123				-	70-130	-
Dibromochloromethane	10	13.2	132 Q				-	70-130	-
1,2-Dibromoethane	10	11.2	112				-	70-130	-
Tetrachloroethene	10	10.9	109				-	70-130	-
Chlorobenzene	10	10.9	109				-	70-130	-
Ethylbenzene	10	11.0	110				-	70-130	-
p/m-Xylene	20	22.1	110				-	70-130	-
Bromoform	10	13.6	136 Q				-	70-130	-
Styrene	10	11.3	113				-	70-130	-



# Laboratory Control Sample Summary

## Form 3

### Air Volatiles

**Client** : Langan Engineering & Environmental      **Lab Number** : L2225590  
**Project Name** : 57-00, 57-05 47TH ST      **Project Number** : 100965503  
**Matrix** : SOIL\_VAPOR  
**LCS Sample ID** : WG1640711-3      **Analysis Date** : 05/19/22 14:23      **File ID** : r322225  
**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	11.4	114				-	70-130	-
o-Xylene	10	11.4	114				-	70-130	-
4-Ethyltoluene	10	12.3	123				-	70-130	-
1,3,5-Trimethylbenzene	10	10.6	106				-	70-130	-
1,2,4-Trimethylbenzene	10	11.9	119				-	70-130	-
Benzyl chloride	10	15.0	150 Q				-	70-130	-
1,3-Dichlorobenzene	10	11.7	117				-	70-130	-
1,4-Dichlorobenzene	10	11.5	115				-	70-130	-
1,2-Dichlorobenzene	10	11.5	115				-	70-130	-
1,2,4-Trichlorobenzene	10	12.4	124				-	70-130	-
Hexachlorobutadiene	10	11.7	117				-	70-130	-



**Method Blank Summary  
Form 4  
Air Volatiles**

<b>Client</b>	<b>: Langan Engineering &amp; Environmental</b>	<b>Lab Number</b>	<b>: L2225590</b>
<b>Project Name</b>	<b>: 57-00, 57-05 47TH ST</b>	<b>Project Number</b>	<b>: 100965503</b>
<b>Lab Sample ID</b>	<b>: WG1640147-4</b>	<b>Lab File ID</b>	<b>: r322196</b>
<b>Instrument ID</b>	<b>: AIRPIANO3</b>		
<b>Matrix</b>	<b>: AIR</b>	<b>Analysis Date</b>	<b>: 05/18/22 16:03</b>

<b>Client Sample No.</b>	<b>Lab Sample ID</b>	<b>Analysis Date</b>
WG1640147-3LCS	WG1640147-3	05/18/22 13:48
AA01	L2225590-11	05/18/22 18:56
IA05	L2225590-10	05/18/22 23:47
IA05DUP	WG1640147-5	05/19/22 00:26
IA04	L2225590-09	05/19/22 01:07
IA03	L2225590-08	05/19/22 01:46
IA02	L2225590-07	05/19/22 02:26
IA01	L2225590-06	05/19/22 03:06



**Method Blank Summary  
Form 4  
Air Volatiles**

<b>Client</b>	<b>: Langan Engineering &amp; Environmental</b>	<b>Lab Number</b>	<b>: L2225590</b>
<b>Project Name</b>	<b>: 57-00, 57-05 47TH ST</b>	<b>Project Number</b>	<b>: 100965503</b>
<b>Lab Sample ID</b>	<b>: WG1640711-4</b>	<b>Lab File ID</b>	<b>: r322227</b>
<b>Instrument ID</b>	<b>: AIRPIANO3</b>		
<b>Matrix</b>	<b>: SOIL_VAPOR</b>	<b>Analysis Date</b>	<b>: 05/19/22 16:38</b>

<b>Client Sample No.</b>	<b>Lab Sample ID</b>	<b>Analysis Date</b>
WG1640711-3LCS	WG1640711-3	05/19/22 14:23
SSV01	L2225590-01	05/19/22 18:57
SSV02	L2225590-02	05/19/22 19:37
SSV03	L2225590-03D	05/19/22 20:14
SSV04	L2225590-04	05/19/22 20:54
SSV04DUP	WG1640711-5	05/19/22 21:34
SSV05	L2225590-05	05/19/22 22:13
SSV04	L2225590-04D	05/20/22 07:32
SSV04DUP	WG1640711-5D	05/20/22 08:10



**Instrument Performance Check (Tune) Summary  
Form 5  
Air Volatiles  
Bromofluorobenzene (BFB)**

Client	: Langan Engineering & Environmental	Lab Number	: L2225590
Project Name	: 57-00, 57-05 47TH ST	Project Number	: 100965503
Instrument ID	: AIRPIANO3	Analysis Date	: 05/16/22 20:39
Tune Standard	: WG1639636-1	Tune File ID	: r322153_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	39.7
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.5 (.6 )1
174	50.0 - 120.0% of mass 95	74
175	4.0 - 9.0% of mass 174	5.2 (7.1 )1
176	93.0 - 101% of mass 174	71.8 (97 )1
177	5.0 - 9.0% of mass 176	4.6 (6.4 )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	R1565318-1	R322157	05/16/22 23:12
STD0.5	R1565318-2	R322158	05/16/22 23:53
STD1.0	R1565318-3	R322159	05/17/22 00:37
STD5.0	R1565318-4	R322160	05/17/22 01:18
STD010	R1565318-5	R322161	05/17/22 02:00
STD020	R1565318-7	R322162	05/17/22 02:39
STD050	R1565318-6	R322163	05/17/22 03:19
STD100	R1565318-8	R322164	05/17/22 04:02
ICV QUANT	R1565318-9	R322167	05/17/22 11:14
ICV SUMMARY	R1565318-9	R322167	05/17/22 11:14





**Instrument Performance Check (Tune) Summary  
Form 5  
Air Volatiles  
Bromofluorobenzene (BFB)**

Client	: Langan Engineering & Environmental	Lab Number	: L2225590
Project Name	: 57-00, 57-05 47TH ST	Project Number	: 100965503
Instrument ID	: AIRPIANO3	Analysis Date	: 05/18/22 12:23
Tune Standard	: WG1640147-1	Tune File ID	: r322192_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	8.0 - 40.0% of mass 95	14.1
75	30.0 - 66.0% of mass 95	38.8
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	0.5 (.6 )1
174	50.0 - 120.0% of mass 95	77.5
175	4.0 - 9.0% of mass 174	5.5 (7.1 )1
176	93.0 - 101% of mass 174	75.4 (97.2)1
177	5.0 - 9.0% of mass 176	5 (6.6 )2

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

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

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG1640147-2CCAL	WG1640147-2	R322194	05/18/22 13:48
WG1640147-3LCS	WG1640147-3	R322194	05/18/22 13:48
WG1640147-4BLANK	WG1640147-4	R322196	05/18/22 16:03
AA01	L2225590-11	R322199	05/18/22 18:56
IA05	L2225590-10	R322206	05/18/22 23:47
WG1640147-5DUP	WG1640147-5	R322207	05/19/22 00:26
IA04	L2225590-09	R322208	05/19/22 01:07
IA03	L2225590-08	R322209	05/19/22 01:46
IA02	L2225590-07	R322210	05/19/22 02:26
IA01	L2225590-06	R322211	05/19/22 03:06



**Instrument Performance Check (Tune) Summary**  
**Form 5**  
**Air Volatiles**  
**Bromofluorobenzene (BFB)**

Client	: Langan Engineering & Environmental	Lab Number	: L2225590
Project Name	: 57-00, 57-05 47TH ST	Project Number	: 100965503
Instrument ID	: AIRPIANO3	Analysis Date	: 05/19/22 12:57
Tune Standard	: WG1640711-1	Tune File ID	: r322223_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	8.0 - 40.0% of mass 95	14
75	30.0 - 66.0% of mass 95	38.8
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	0.5 (.6 )1
174	50.0 - 120.0% of mass 95	78.2
175	4.0 - 9.0% of mass 174	5.6 (7.2 )1
176	93.0 - 101% of mass 174	76.2 (97.4)1
177	5.0 - 9.0% of mass 176	5 (6.6 )2

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

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

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG1640711-2CCAL	WG1640711-2	R322225	05/19/22 14:23
WG1640711-3LCS	WG1640711-3	R322225	05/19/22 14:23
WG1640711-4BLANK	WG1640711-4	R322227	05/19/22 16:38
SSV01	L2225590-01	R322229	05/19/22 18:57
SSV02	L2225590-02	R322230	05/19/22 19:37
SSV03	L2225590-03D	R322231	05/19/22 20:14
SSV04	L2225590-04	R322232	05/19/22 20:54
WG1640711-5DUP	WG1640711-5	R322233	05/19/22 21:34
SSV05	L2225590-05	R322234	05/19/22 22:13
SSV04	L2225590-04D	R322248	05/20/22 07:32
WG1640711-5DUP	WG1640711-5D	R322249	05/20/22 08:10



# Internal Standard Area and RT Summary

## Form 8a

### Air Volatiles

Client : Langan Engineering & Environmental	Lab Number : L2225590
Project Name : 57-00, 57-05 47TH ST	Project Number : 100965503
Instrument ID : AIRPIANO3	Analysis Date : 05/18/22 13:48:00
Sample No : WG1640147-2	Lab File ID : R322194

	Bromochloromethane		1,4-Difluorobenzene		Chlorobenzene-d5	
	Area	RT	Area	RT	Area	RT
WG1640147-2	443368	9.53	1337389	11.81	206902	16.56
Upper Limit	620715	9.86	1872345	12.14	289663	16.89
Lower Limit	266021	9.20	802433	11.48	124141	16.23
<b>Sample ID</b>						
WG1640147-3 LCS	443368	9.53	1337389	11.81	206902	16.56
WG1640147-4 BLANK	424037	9.54	1254640	11.82	194102	16.57
AA01	405200	9.54	1211673	11.82	193031	16.57
IA05	427860	9.54	1286151	11.82	201502	16.57
IA05 DUP	427643	9.54	1281072	11.81	197831	16.56
IA04	428242	9.53	1283972	11.81	202285	16.56
IA03	439167	9.54	1320992	11.81	205701	16.56
IA02	430159	9.53	1297063	11.81	201715	16.56
IA01	426461	9.54	1283406	11.82	201732	16.57

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



**Internal Standard Area and RT Summary  
Form 8a  
Air Volatiles**

Client	: Langan Engineering & Environmental	Lab Number	: L2225590
Project Name	: 57-00, 57-05 47TH ST	Project Number	: 100965503
Instrument ID	: AIRPIANO3	Analysis Date	: 05/19/22 14:23:00
Sample No	: WG1640711-2	Lab File ID	: R322225

	Bromochloromethane		1,4-Difluorobenzene		Chlorobenzene-d5	
	Area	RT	Area	RT	Area	RT
WG1640711-2	440035	9.55	1334123	11.83	210666	16.58
Upper Limit	616049	9.88	1867772	12.16	294932	16.91
Lower Limit	264021	9.22	800474	11.50	126400	16.25
<b>Sample ID</b>						
WG1640711-3 LCS	440035	9.55	1334123	11.83	210666	16.58
WG1640711-4 BLANK	434797	9.55	1286028	11.83	193158	16.58
SSV01	433447	9.55	1312934	11.83	219560	16.58
SSV02	445150	9.55	1384317	11.83	225028	16.57
SSV03	452477	9.55	1393047	11.82	233738	16.57
SSV04	475079	9.55	1452364	11.83	235165	16.57
SSV04 DUP	497404	9.55	1522511	11.82	242032	16.57
SSV05	493171	9.54	1515840	11.82	239431	16.57
SSV04	417797	9.52	1257221	11.79	197957	16.55
SSV04 DUP	414948	9.52	1249343	11.79	197307	16.55

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

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

\* Values outside of QC limits





Date Created: 02/18/22  
 Created By: Jason Hebert  
 File: PM11916-1  
 Page: 1

Volatile Organics in Air: TO-15 (AIR)

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

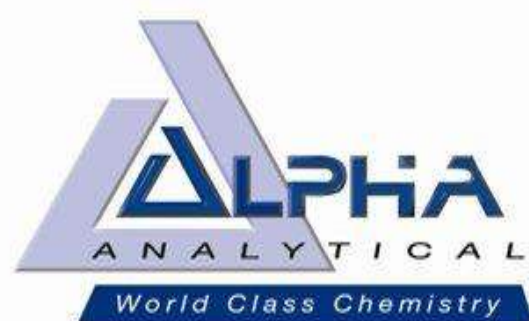
Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
1,1,1-Trichloroethane	71-55-6	0.2	0.0501	ppbV	70-130			25	25			
1,1,2,2-Tetrachloroethane	79-34-5	0.2	0.0614	ppbV	70-130			25	25			
1,1,2-Trichloroethane	79-00-5	0.2	0.067	ppbV	70-130			25	25			
1,1-Dichloroethane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

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)  
 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  
 Westborough, MA • Mansfield, MA • Bangor, ME • Portsmouth, NH • Mahwah, NJ • Albany, NY • Buffalo, NY • Holmes, PA





Date Created: 02/18/22  
 Created By: Jason Hebert  
 File: PM11916-1  
 Page: 2

Volatile Organics in Air: TO-15 (AIR)

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

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Dibromochloromethane	124-48-1	0.2	0.0614	ppbV	70-130			25	25			
Dichlorodifluoromethane	75-71-8	0.2	0.0583	ppbV	70-130			25	25			
Ethyl Alcohol	64-17-5	5	0.733	ppbV	40-160			25	25			
Ethyl Acetate	141-78-6	0.5	0.122	ppbV	70-130			25	25			
Ethylbenzene	100-41-4	0.2	0.0432	ppbV	70-130			25	25			
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	0.2	0.0656	ppbV	70-130			25	25			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	76-14-2	0.2	0.0591	ppbV	70-130			25	25			
Hexachlorobutadiene	87-68-3	0.2	0.0529	ppbV	70-130			25	25			
iso-Propyl Alcohol	67-63-0	0.5	0.478	ppbV	40-160			25	25			
Methylene chloride	75-09-2	0.5	0.134	ppbV	70-130			25	25			
4-Methyl-2-pentanone	108-10-1	0.5	0.0421	ppbV	70-130			25	25			
Methyl tert butyl ether	1634-04-4	0.2	0.0525	ppbV	70-130			25	25			
Methyl Methacrylate	80-62-6	0.5	0.0697	ppbV	40-160			25	25			
p/m-Xylene	179601-23-1	0.4	0.091	ppbV	70-130			25	25			
o-Xylene	95-47-6	0.2	0.0453	ppbV	70-130			25	25			
Xylene (Total)	1330-20-7	0.2	0.0453	ppbV				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			
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			

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.

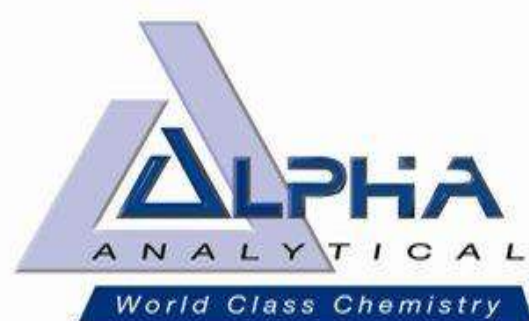


8 Walkup Drive, Westborough, Massachusetts 01581 • 508-898-9220 • www.alphalab.com

Westborough, MA • Mansfield, MA • Bangor, ME • Portsmouth, NH • Mahwah, NJ • Albany, NY • Buffalo, NY • Holmes, PA







Date Created: 02/18/22  
 Created By: Jason Hebert  
 File: PM11916-1  
 Page: 3

Volatile Organics in Air: TO-15 (AIR)

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

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

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

Westborough, MA • Mansfield, MA • Bangor, ME • Portsmouth, NH • Mahwah, NJ • Albany, NY • Buffalo, NY • Holmes, PA



# **Volatiles Sample Data**



# Results Summary

## Form 1

### Volatile Organics in Air

**Client** : Langan Engineering & Environmental  
**Project Name** : 57-00, 57-05 47TH ST  
**Lab ID** : L2225590-01  
**Client ID** : SSV01  
**Sample Location** : MASPETH, NY  
**Sample Matrix** : SOIL\_VAPOR  
**Analytical Method** : 48,TO-15  
**Lab File ID** : R322229  
**Sample Amount** : 250 ml

**Lab Number** : L2225590  
**Project Number** : 100965503  
**Date Collected** : 05/12/22 17:43  
**Date Received** : 05/13/22  
**Date Analyzed** : 05/19/22 18:57  
**Dilution Factor** : 1  
**Analyst** : TS  
**Instrument ID** : AIRPIANO3  
**GC Column** : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	1.45	0.200	--	7.17	0.989	--	
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	0.311	0.200	--	0.688	0.442	--	
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	113	5.00	--	213	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	361	1.00	--	858	2.38	--	
75-69-4	Trichlorofluoromethane	0.348	0.200	--	1.96	1.12	--	
67-63-0	Isopropanol	93.4	0.500	--	230	1.23	--	
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	20.3	0.500	--	61.5	1.52	--	
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	1.08	0.200	--	3.36	0.623	--	
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	46.7	0.500	--	138	1.47	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U



# Results Summary

## Form 1

### Volatile Organics in Air

**Client** : Langan Engineering & Environmental  
**Project Name** : 57-00, 57-05 47TH ST  
**Lab ID** : L2225590-01  
**Client ID** : SSV01  
**Sample Location** : MASPETH, NY  
**Sample Matrix** : SOIL\_VAPOR  
**Analytical Method** : 48,TO-15  
**Lab File ID** : R322229  
**Sample Amount** : 250 ml

**Lab Number** : L2225590  
**Project Number** : 100965503  
**Date Collected** : 05/12/22 17:43  
**Date Received** : 05/13/22  
**Date Analyzed** : 05/19/22 18:57  
**Dilution Factor** : 1  
**Analyst** : TS  
**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	2.14	0.200	--	7.54	0.705	--	
71-55-6	1,1,1-Trichloroethane	0.587	0.200	--	3.20	1.09	--	
71-43-2	Benzene	6.00	0.200	--	19.2	0.639	--	
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	3.00	0.200	--	10.3	0.688	--	
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	0.970	0.200	--	3.50	0.721	--	
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	0.702	0.200	--	3.28	0.934	--	
142-82-5	Heptane	1.68	0.200	--	6.88	0.820	--	
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	2.75	0.500	--	11.3	2.05	--	
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	4.04	0.200	--	15.2	0.754	--	
591-78-6	2-Hexanone	2.66	0.200	--	10.9	0.820	--	
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	2.26	0.200	--	15.3	1.36	--	
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	0.866	0.200	--	3.76	0.869	--	
179601-23-1	p/m-Xylene	3.16	0.400	--	13.7	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	0.234	0.200	--	0.996	0.852	--	



# Results Summary

## Form 1

### Volatile Organics in Air

**Client** : Langan Engineering & Environmental  
**Project Name** : 57-00, 57-05 47TH ST  
**Lab ID** : L2225590-01  
**Client ID** : SSV01  
**Sample Location** : MASPETH, NY  
**Sample Matrix** : SOIL\_VAPOR  
**Analytical Method** : 48,TO-15  
**Lab File ID** : R322229  
**Sample Amount** : 250 ml

**Lab Number** : L2225590  
**Project Number** : 100965503  
**Date Collected** : 05/12/22 17:43  
**Date Received** : 05/13/22  
**Date Analyzed** : 05/19/22 18:57  
**Dilution Factor** : 1  
**Analyst** : TS  
**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	1.18	0.200	--	5.13	0.869	--	
622-96-8	4-Ethyltoluene	0.270	0.200	--	1.33	0.983	--	
108-67-8	1,3,5-Trimethylbenzene	0.324	0.200	--	1.59	0.983	--	
95-63-6	1,2,4-Trimethylbenzene	1.19	0.200	--	5.85	0.983	--	
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U



# Results Summary

## Form 1

### Volatile Organics in Air

Client : Langan Engineering & Environmental  
 Project Name : 57-00, 57-05 47TH ST  
 Lab ID : L2225590-02  
 Client ID : SSV02  
 Sample Location : MASPETH, NY  
 Sample Matrix : SOIL\_VAPOR  
 Analytical Method : 48,TO-15  
 Lab File ID : R322230  
 Sample Amount : 250 ml

Lab Number : L2225590  
 Project Number : 100965503  
 Date Collected : 05/12/22 17:16  
 Date Received : 05/13/22  
 Date Analyzed : 05/19/22 19:37  
 Dilution Factor : 1  
 Analyst : TS  
 Instrument ID : AIRPIANO3  
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.703	0.200	--	3.48	0.989	--	
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	163	5.00	--	307	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	140	1.00	--	333	2.38	--	
75-69-4	Trichlorofluoromethane	0.470	0.200	--	2.64	1.12	--	
67-63-0	Isopropanol	42.9	0.500	--	105	1.23	--	
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	11.2	0.500	--	34.0	1.52	--	
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	1.04	0.200	--	3.24	0.623	--	
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	20.5	0.500	--	60.5	1.47	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U



# Results Summary

## Form 1

### Volatile Organics in Air

Client : Langan Engineering & Environmental  
 Project Name : 57-00, 57-05 47TH ST  
 Lab ID : L2225590-02  
 Client ID : SSV02  
 Sample Location : MASPETH, NY  
 Sample Matrix : SOIL\_VAPOR  
 Analytical Method : 48,TO-15  
 Lab File ID : R322230  
 Sample Amount : 250 ml

Lab Number : L2225590  
 Project Number : 100965503  
 Date Collected : 05/12/22 17:16  
 Date Received : 05/13/22  
 Date Analyzed : 05/19/22 19:37  
 Dilution Factor : 1  
 Analyst : TS  
 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	7.93	0.200	--	27.9	0.705	--	
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
71-43-2	Benzene	16.6	0.200	--	53.0	0.639	--	
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	4.31	0.200	--	14.8	0.688	--	
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	10.6	0.200	--	57.0	1.07	--	
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
142-82-5	Heptane	5.98	0.200	--	24.5	0.820	--	
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	2.66	0.500	--	10.9	2.05	--	
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	10.0	0.200	--	37.7	0.754	--	
591-78-6	2-Hexanone	3.04	0.200	--	12.5	0.820	--	
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	71.5	0.200	--	485	1.36	--	
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	1.41	0.200	--	6.12	0.869	--	
179601-23-1	p/m-Xylene	4.82	0.400	--	20.9	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U



# Results Summary

## Form 1

### Volatile Organics in Air

**Client** : Langan Engineering & Environmental  
**Project Name** : 57-00, 57-05 47TH ST  
**Lab ID** : L2225590-02  
**Client ID** : SSV02  
**Sample Location** : MASPETH, NY  
**Sample Matrix** : SOIL\_VAPOR  
**Analytical Method** : 48,TO-15  
**Lab File ID** : R322230  
**Sample Amount** : 250 ml

**Lab Number** : L2225590  
**Project Number** : 100965503  
**Date Collected** : 05/12/22 17:16  
**Date Received** : 05/13/22  
**Date Analyzed** : 05/19/22 19:37  
**Dilution Factor** : 1  
**Analyst** : TS  
**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	1.79	0.200	--	7.77	0.869	--	
622-96-8	4-Ethyltoluene	0.261	0.200	--	1.28	0.983	--	
108-67-8	1,3,5-Trimethylbenzene	0.458	0.200	--	2.25	0.983	--	
95-63-6	1,2,4-Trimethylbenzene	1.26	0.200	--	6.19	0.983	--	
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U



# Results Summary

## Form 1

### Volatile Organics in Air

Client : Langan Engineering & Environmental  
 Project Name : 57-00, 57-05 47TH ST  
 Lab ID : L2225590-03D  
 Client ID : SSV03  
 Sample Location : MASPETH, NY  
 Sample Matrix : SOIL\_VAPOR  
 Analytical Method : 48,TO-15  
 Lab File ID : R322231  
 Sample Amount : 3.21 ml

Lab Number : L2225590  
 Project Number : 100965503  
 Date Collected : 05/12/22 17:18  
 Date Received : 05/13/22  
 Date Analyzed : 05/19/22 20:14  
 Dilution Factor : 77.88  
 Analyst : TS  
 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	15.6	--	ND	77.1	--	U
74-87-3	Chloromethane	ND	15.6	--	ND	32.2	--	U
76-14-2	Freon-114	ND	15.6	--	ND	109.	--	U
75-01-4	Vinyl chloride	196	15.6	--	501	39.9	--	
106-99-0	1,3-Butadiene	ND	15.6	--	ND	34.5	--	U
74-83-9	Bromomethane	ND	15.6	--	ND	60.6	--	U
75-00-3	Chloroethane	ND	15.6	--	ND	41.2	--	U
64-17-5	Ethanol	1020	389	--	1920	733	--	
593-60-2	Vinyl bromide	ND	15.6	--	ND	68.2	--	U
67-64-1	Acetone	214	77.9	--	508	185	--	
75-69-4	Trichlorofluoromethane	ND	15.6	--	ND	87.7	--	U
67-63-0	Isopropanol	49.8	38.9	--	122	95.6	--	
75-35-4	1,1-Dichloroethene	ND	15.6	--	ND	61.9	--	U
75-65-0	Tertiary butyl Alcohol	ND	38.9	--	ND	118.	--	U
75-09-2	Methylene chloride	ND	38.9	--	ND	135	--	U
107-05-1	3-Chloropropene	ND	15.6	--	ND	48.8	--	U
75-15-0	Carbon disulfide	ND	15.6	--	ND	48.6	--	U
76-13-1	Freon-113	ND	15.6	--	ND	120.	--	U
156-60-5	trans-1,2-Dichloroethene	ND	15.6	--	ND	61.9	--	U
75-34-3	1,1-Dichloroethane	ND	15.6	--	ND	63.1	--	U
1634-04-4	Methyl tert butyl ether	ND	15.6	--	ND	56.2	--	U
78-93-3	2-Butanone	ND	38.9	--	ND	115.	--	U
156-59-2	cis-1,2-Dichloroethene	ND	15.6	--	ND	61.9	--	U
141-78-6	Ethyl Acetate	ND	38.9	--	ND	140.	--	U
67-66-3	Chloroform	ND	15.6	--	ND	76.2	--	U
109-99-9	Tetrahydrofuran	ND	38.9	--	ND	115.	--	U



# Results Summary

## Form 1

### Volatile Organics in Air

Client : Langan Engineering & Environmental	Lab Number : L2225590
Project Name : 57-00, 57-05 47TH ST	Project Number : 100965503
Lab ID : L2225590-03D	Date Collected : 05/12/22 17:18
Client ID : SSV03	Date Received : 05/13/22
Sample Location : MASPETH, NY	Date Analyzed : 05/19/22 20:14
Sample Matrix : SOIL_VAPOR	Dilution Factor : 77.88
Analytical Method : 48,TO-15	Analyst : TS
Lab File ID : R322231	Instrument ID : AIRPIANO3
Sample Amount : 3.21 ml	GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
107-06-2	1,2-Dichloroethane	ND	15.6	--	ND	63.1	--	U
110-54-3	n-Hexane	845	15.6	--	2980	55.0	--	
71-55-6	1,1,1-Trichloroethane	ND	15.6	--	ND	85.1	--	U
71-43-2	Benzene	166	15.6	--	530	49.8	--	
56-23-5	Carbon tetrachloride	ND	15.6	--	ND	98.1	--	U
110-82-7	Cyclohexane	299	15.6	--	1030	53.7	--	
78-87-5	1,2-Dichloropropane	ND	15.6	--	ND	72.1	--	U
75-27-4	Bromodichloromethane	ND	15.6	--	ND	105.	--	U
123-91-1	1,4-Dioxane	ND	15.6	--	ND	56.2	--	U
79-01-6	Trichloroethene	ND	15.6	--	ND	83.8	--	U
540-84-1	2,2,4-Trimethylpentane	6970	15.6	--	32600	72.9	--	
142-82-5	Heptane	465	15.6	--	1910	63.9	--	
10061-01-5	cis-1,3-Dichloropropene	ND	15.6	--	ND	70.8	--	U
108-10-1	4-Methyl-2-pentanone	ND	38.9	--	ND	159.	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	15.6	--	ND	70.8	--	U
79-00-5	1,1,2-Trichloroethane	ND	15.6	--	ND	85.1	--	U
108-88-3	Toluene	32.3	15.6	--	122	58.8	--	
591-78-6	2-Hexanone	ND	15.6	--	ND	63.9	--	U
124-48-1	Dibromochloromethane	ND	15.6	--	ND	133.	--	U
106-93-4	1,2-Dibromoethane	ND	15.6	--	ND	120.	--	U
127-18-4	Tetrachloroethene	ND	15.6	--	ND	106.	--	U
108-90-7	Chlorobenzene	ND	15.6	--	ND	71.8	--	U
100-41-4	Ethylbenzene	ND	15.6	--	ND	67.8	--	U
179601-23-1	p/m-Xylene	31.4	31.2	--	136	136	--	
75-25-2	Bromoform	ND	15.6	--	ND	161.	--	U
100-42-5	Styrene	ND	15.6	--	ND	66.4	--	U





# Results Summary

## Form 1

### Volatile Organics in Air

**Client** : Langan Engineering & Environmental  
**Project Name** : 57-00, 57-05 47TH ST  
**Lab ID** : L2225590-03D  
**Client ID** : SSV03  
**Sample Location** : MASPETH, NY  
**Sample Matrix** : SOIL\_VAPOR  
**Analytical Method** : 48,TO-15  
**Lab File ID** : R322231  
**Sample Amount** : 3.21 ml

**Lab Number** : L2225590  
**Project Number** : 100965503  
**Date Collected** : 05/12/22 17:18  
**Date Received** : 05/13/22  
**Date Analyzed** : 05/19/22 20:14  
**Dilution Factor** : 77.88  
**Analyst** : TS  
**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	15.6	--	ND	107.	--	U
95-47-6	o-Xylene	31.8	15.6	--	138	67.8	--	
622-96-8	4-Ethyltoluene	ND	15.6	--	ND	76.7	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	15.6	--	ND	76.7	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	15.6	--	ND	76.7	--	U
100-44-7	Benzyl chloride	ND	15.6	--	ND	80.8	--	U
541-73-1	1,3-Dichlorobenzene	ND	15.6	--	ND	93.8	--	U
106-46-7	1,4-Dichlorobenzene	ND	15.6	--	ND	93.8	--	U
95-50-1	1,2-Dichlorobenzene	ND	15.6	--	ND	93.8	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	15.6	--	ND	116.	--	U
87-68-3	Hexachlorobutadiene	ND	15.6	--	ND	166.	--	U



# Results Summary

## Form 1

### Volatile Organics in Air

Client : Langan Engineering & Environmental	Lab Number : L2225590
Project Name : 57-00, 57-05 47TH ST	Project Number : 100965503
Lab ID : L2225590-04	Date Collected : 05/12/22 18:07
Client ID : SSV04	Date Received : 05/13/22
Sample Location : MASPETH, NY	Date Analyzed : 05/19/22 20:54
Sample Matrix : SOIL_VAPOR	Dilution Factor : 1
Analytical Method : 48,TO-15	Analyst : TS
Lab File ID : R322232	Instrument ID : AIRPIANO3
Sample Amount : 250 ml	GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.614	0.200	--	3.04	0.989	--	
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
75-01-4	Vinyl chloride	0.247	0.200	--	0.631	0.511	--	
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	524	5.00	--	987	9.42	--	E
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	1020	1.00	--	2420	2.38	--	E
75-69-4	Trichlorofluoromethane	0.436	0.200	--	2.45	1.12	--	
67-63-0	Isopropanol	105	0.500	--	258	1.23	--	
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	43.4	0.500	--	132	1.52	--	
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	12.2	0.200	--	38.0	0.623	--	
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	46.0	0.500	--	136	1.47	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	11.5	0.500	--	33.9	1.47	--	



# Results Summary

## Form 1

### Volatile Organics in Air

Client : Langan Engineering & Environmental  
 Project Name : 57-00, 57-05 47TH ST  
 Lab ID : L2225590-04  
 Client ID : SSV04  
 Sample Location : MASPETH, NY  
 Sample Matrix : SOIL\_VAPOR  
 Analytical Method : 48,TO-15  
 Lab File ID : R322232  
 Sample Amount : 250 ml

Lab Number : L2225590  
 Project Number : 100965503  
 Date Collected : 05/12/22 18:07  
 Date Received : 05/13/22  
 Date Analyzed : 05/19/22 20:54  
 Dilution Factor : 1  
 Analyst : TS  
 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	1.49	0.200	--	5.25	0.705	--	
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
71-43-2	Benzene	0.510	0.200	--	1.63	0.639	--	
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	1.44	0.200	--	4.96	0.688	--	
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	7.88	0.200	--	28.4	0.721	--	
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	0.894	0.200	--	4.18	0.934	--	
142-82-5	Heptane	2.14	0.200	--	8.77	0.820	--	
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	8.56	0.500	--	35.1	2.05	--	
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	12.2	0.200	--	46.0	0.754	--	
591-78-6	2-Hexanone	3.02	0.200	--	12.4	0.820	--	
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	7.30	0.200	--	49.5	1.36	--	
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	0.980	0.200	--	4.26	0.869	--	
179601-23-1	p/m-Xylene	3.76	0.400	--	16.3	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U



# Results Summary

## Form 1

### Volatile Organics in Air

**Client** : Langan Engineering & Environmental  
**Project Name** : 57-00, 57-05 47TH ST  
**Lab ID** : L2225590-04  
**Client ID** : SSV04  
**Sample Location** : MASPETH, NY  
**Sample Matrix** : SOIL\_VAPOR  
**Analytical Method** : 48,TO-15  
**Lab File ID** : R322232  
**Sample Amount** : 250 ml

**Lab Number** : L2225590  
**Project Number** : 100965503  
**Date Collected** : 05/12/22 18:07  
**Date Received** : 05/13/22  
**Date Analyzed** : 05/19/22 20:54  
**Dilution Factor** : 1  
**Analyst** : TS  
**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	1.66	0.200	--	7.21	0.869	--	
622-96-8	4-Ethyltoluene	0.603	0.200	--	2.96	0.983	--	
108-67-8	1,3,5-Trimethylbenzene	1.32	0.200	--	6.49	0.983	--	
95-63-6	1,2,4-Trimethylbenzene	4.53	0.200	--	22.3	0.983	--	
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U



# Results Summary

## Form 1

### Volatile Organics in Air

Client : Langan Engineering & Environmental	Lab Number : L2225590
Project Name : 57-00, 57-05 47TH ST	Project Number : 100965503
Lab ID : L2225590-04D	Date Collected : 05/12/22 18:07
Client ID : SSV04	Date Received : 05/13/22
Sample Location : MASPETH, NY	Date Analyzed : 05/20/22 07:32
Sample Matrix : SOIL_VAPOR	Dilution Factor : 8.333
Analytical Method : 48,TO-15	Analyst : TS
Lab File ID : R322248	Instrument ID : AIRPIANO3
Sample Amount : 30.0 ml	GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
67-64-1	Acetone	1930	8.33	--	4580	19.8	--	



# Results Summary

## Form 1

### Volatile Organics in Air

Client : Langan Engineering & Environmental	Lab Number : L2225590
Project Name : 57-00, 57-05 47TH ST	Project Number : 100965503
Lab ID : L2225590-05	Date Collected : 05/12/22 18:00
Client ID : SSV05	Date Received : 05/13/22
Sample Location : MASPETH, NY	Date Analyzed : 05/19/22 22:13
Sample Matrix : SOIL_VAPOR	Dilution Factor : 1
Analytical Method : 48,TO-15	Analyst : TS
Lab File ID : R322234	Instrument ID : AIRPIANO3
Sample Amount : 250 ml	GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.540	0.200	--	2.67	0.989	--	
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	0.250	0.200	--	0.553	0.442	--	
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	102	5.00	--	192	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	56.0	1.00	--	133	2.38	--	
75-69-4	Trichlorofluoromethane	0.593	0.200	--	3.33	1.12	--	
67-63-0	Isopropanol	36.1	0.500	--	88.7	1.23	--	
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	0.889	0.500	--	2.69	1.52	--	
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	0.286	0.200	--	0.891	0.623	--	
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	2.10	0.500	--	6.19	1.47	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U



# Results Summary

## Form 1

### Volatile Organics in Air

Client : Langan Engineering & Environmental  
 Project Name : 57-00, 57-05 47TH ST  
 Lab ID : L2225590-05  
 Client ID : SSV05  
 Sample Location : MASPETH, NY  
 Sample Matrix : SOIL\_VAPOR  
 Analytical Method : 48,TO-15  
 Lab File ID : R322234  
 Sample Amount : 250 ml

Lab Number : L2225590  
 Project Number : 100965503  
 Date Collected : 05/12/22 18:00  
 Date Received : 05/13/22  
 Date Analyzed : 05/19/22 22:13  
 Dilution Factor : 1  
 Analyst : TS  
 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	3.19	0.200	--	11.2	0.705	--	
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
71-43-2	Benzene	0.762	0.200	--	2.43	0.639	--	
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	0.721	0.200	--	2.48	0.688	--	
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	0.786	0.200	--	2.83	0.721	--	
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	1.03	0.200	--	4.81	0.934	--	
142-82-5	Heptane	1.32	0.200	--	5.41	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	2.73	0.200	--	10.3	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	4.54	0.200	--	30.8	1.36	--	
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	0.444	0.200	--	1.93	0.869	--	
179601-23-1	p/m-Xylene	1.60	0.400	--	6.95	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U



# Results Summary

## Form 1

### Volatile Organics in Air

**Client** : Langan Engineering & Environmental  
**Project Name** : 57-00, 57-05 47TH ST  
**Lab ID** : L2225590-05  
**Client ID** : SSV05  
**Sample Location** : MASPETH, NY  
**Sample Matrix** : SOIL\_VAPOR  
**Analytical Method** : 48,TO-15  
**Lab File ID** : R322234  
**Sample Amount** : 250 ml

**Lab Number** : L2225590  
**Project Number** : 100965503  
**Date Collected** : 05/12/22 18:00  
**Date Received** : 05/13/22  
**Date Analyzed** : 05/19/22 22:13  
**Dilution Factor** : 1  
**Analyst** : TS  
**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	0.542	0.200	--	2.35	0.869	--	
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
95-63-6	1,2,4-Trimethylbenzene	0.456	0.200	--	2.24	0.983	--	
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U





# Results Summary

## Form 1

### Volatile Organics in Air

Client : Langan Engineering & Environmental  
 Project Name : 57-00, 57-05 47TH ST  
 Lab ID : L2225590-06  
 Client ID : IA01  
 Sample Location : MASPETH, NY  
 Sample Matrix : AIR  
 Analytical Method : 48,TO-15  
 Lab File ID : R322211  
 Sample Amount : 250 ml

Lab Number : L2225590  
 Project Number : 100965503  
 Date Collected : 05/12/22 17:21  
 Date Received : 05/13/22  
 Date Analyzed : 05/19/22 03:06  
 Dilution Factor : 1  
 Analyst : TS  
 Instrument ID : AIRPIANO3  
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.606	0.200	--	3.00	0.989	--	
74-87-3	Chloromethane	0.715	0.200	--	1.48	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	6.44	5.00	--	12.1	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	4.08	1.00	--	9.69	2.38	--	
75-69-4	Trichlorofluoromethane	0.312	0.200	--	1.75	1.12	--	
67-63-0	Isopropanol	1.58	0.500	--	3.88	1.23	--	
75-65-0	Tertiary butyl Alcohol	24.9	0.500	--	75.5	1.52	--	
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	ND	0.500	--	ND	1.47	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	0.255	0.200	--	0.899	0.705	--	
71-43-2	Benzene	0.211	0.200	--	0.674	0.639	--	



# Results Summary Form 1 Volatile Organics in Air

Client : Langan Engineering & Environmental	Lab Number : L2225590
Project Name : 57-00, 57-05 47TH ST	Project Number : 100965503
Lab ID : L2225590-06	Date Collected : 05/12/22 17:21
Client ID : IA01	Date Received : 05/13/22
Sample Location : MASPETH, NY	Date Analyzed : 05/19/22 03:06
Sample Matrix : AIR	Dilution Factor : 1
Analytical Method : 48,TO-15	Analyst : TS
Lab File ID : R322211	Instrument ID : AIRPIANO3
Sample Amount : 250 ml	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	0.309	0.200	--	1.44	0.934	--	
142-82-5	Heptane	0.233	0.200	--	0.955	0.820	--	
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	1.90	0.200	--	7.16	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	0.621	0.400	--	2.70	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	0.256	0.200	--	1.11	0.869	--	
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
95-63-6	1,2,4-Trimethylbenzene	0.357	0.200	--	1.76	0.983	--	
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U



# Results Summary

## Form 1

### Volatile Organics in Air

Client : Langan Engineering & Environmental	Lab Number : L2225590
Project Name : 57-00, 57-05 47TH ST	Project Number : 100965503
Lab ID : L2225590-06	Date Collected : 05/12/22 17:21
Client ID : IA01	Date Received : 05/13/22
Sample Location : MASPETH, NY	Date Analyzed : 05/19/22 03:06
Sample Matrix : AIR	Dilution Factor : 1
Analytical Method : 48,TO-15	Analyst : TS
Lab File ID : R322211	Instrument ID : AIRPIANO3
Sample Amount : 250 ml	GC Column : RTX-1

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



# Results Summary

## Form 1

### Volatile Organics in Air

Client : Langan Engineering & Environmental  
 Project Name : 57-00, 57-05 47TH ST  
 Lab ID : L2225590-07  
 Client ID : IA02  
 Sample Location : MASPETH, NY  
 Sample Matrix : AIR  
 Analytical Method : 48,TO-15  
 Lab File ID : R322210  
 Sample Amount : 250 ml

Lab Number : L2225590  
 Project Number : 100965503  
 Date Collected : 05/12/22 17:01  
 Date Received : 05/13/22  
 Date Analyzed : 05/19/22 02:26  
 Dilution Factor : 1  
 Analyst : TS  
 Instrument ID : AIRPIANO3  
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.615	0.200	--	3.04	0.989	--	
74-87-3	Chloromethane	0.678	0.200	--	1.40	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	6.36	5.00	--	12.0	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	5.48	1.00	--	13.0	2.38	--	
75-69-4	Trichlorofluoromethane	0.321	0.200	--	1.80	1.12	--	
67-63-0	Isopropanol	1.28	0.500	--	3.15	1.23	--	
75-65-0	Tertiary butyl Alcohol	33.8	0.500	--	102	1.52	--	
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	ND	0.500	--	ND	1.47	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	0.216	0.200	--	0.761	0.705	--	
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U



# Results Summary

## Form 1

### Volatile Organics in Air

Client : Langan Engineering & Environmental  
 Project Name : 57-00, 57-05 47TH ST  
 Lab ID : L2225590-07  
 Client ID : IA02  
 Sample Location : MASPETH, NY  
 Sample Matrix : AIR  
 Analytical Method : 48,TO-15  
 Lab File ID : R322210  
 Sample Amount : 250 ml

Lab Number : L2225590  
 Project Number : 100965503  
 Date Collected : 05/12/22 17:01  
 Date Received : 05/13/22  
 Date Analyzed : 05/19/22 02:26  
 Dilution Factor : 1  
 Analyst : TS  
 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	0.236	0.200	--	1.10	0.934	--	
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	1.87	0.200	--	7.05	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	0.442	0.400	--	1.92	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	0.203	0.200	--	0.882	0.869	--	
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
95-63-6	1,2,4-Trimethylbenzene	0.524	0.200	--	2.58	0.983	--	
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U



# Results Summary

## Form 1

### Volatile Organics in Air

Client : Langan Engineering & Environmental	Lab Number : L2225590
Project Name : 57-00, 57-05 47TH ST	Project Number : 100965503
Lab ID : L2225590-07	Date Collected : 05/12/22 17:01
Client ID : IA02	Date Received : 05/13/22
Sample Location : MASPETH, NY	Date Analyzed : 05/19/22 02:26
Sample Matrix : AIR	Dilution Factor : 1
Analytical Method : 48,TO-15	Analyst : TS
Lab File ID : R322210	Instrument ID : AIRPIANO3
Sample Amount : 250 ml	GC Column : RTX-1

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



# Results Summary

## Form 1

### Volatile Organics in Air

Client : Langan Engineering & Environmental	Lab Number : L2225590
Project Name : 57-00, 57-05 47TH ST	Project Number : 100965503
Lab ID : L2225590-08	Date Collected : 05/12/22 17:20
Client ID : IA03	Date Received : 05/13/22
Sample Location : MASPETH, NY	Date Analyzed : 05/19/22 01:46
Sample Matrix : AIR	Dilution Factor : 1
Analytical Method : 48,TO-15	Analyst : TS
Lab File ID : R322209	Instrument ID : AIRPIANO3
Sample Amount : 250 ml	GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.594	0.200	--	2.94	0.989	--	
74-87-3	Chloromethane	0.664	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	6.44	5.00	--	12.1	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	4.23	1.00	--	10.0	2.38	--	
75-69-4	Trichlorofluoromethane	0.323	0.200	--	1.82	1.12	--	
67-63-0	Isopropanol	1.51	0.500	--	3.71	1.23	--	
75-65-0	Tertiary butyl Alcohol	30.2	0.500	--	91.6	1.52	--	
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	ND	0.500	--	ND	1.47	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	0.297	0.200	--	1.05	0.705	--	
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U



# Results Summary

## Form 1

### Volatile Organics in Air

Client : Langan Engineering & Environmental  
 Project Name : 57-00, 57-05 47TH ST  
 Lab ID : L2225590-08  
 Client ID : IA03  
 Sample Location : MASPETH, NY  
 Sample Matrix : AIR  
 Analytical Method : 48,TO-15  
 Lab File ID : R322209  
 Sample Amount : 250 ml

Lab Number : L2225590  
 Project Number : 100965503  
 Date Collected : 05/12/22 17:20  
 Date Received : 05/13/22  
 Date Analyzed : 05/19/22 01:46  
 Dilution Factor : 1  
 Analyst : TS  
 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	0.252	0.200	--	1.18	0.934	--	
142-82-5	Heptane	0.204	0.200	--	0.836	0.820	--	
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	1.73	0.200	--	6.52	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	0.531	0.400	--	2.31	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	0.220	0.200	--	0.956	0.869	--	
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
95-63-6	1,2,4-Trimethylbenzene	0.401	0.200	--	1.97	0.983	--	
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U





# Results Summary

## Form 1

### Volatile Organics in Air

Client : Langan Engineering & Environmental	Lab Number : L2225590
Project Name : 57-00, 57-05 47TH ST	Project Number : 100965503
Lab ID : L2225590-08	Date Collected : 05/12/22 17:20
Client ID : IA03	Date Received : 05/13/22
Sample Location : MASPETH, NY	Date Analyzed : 05/19/22 01:46
Sample Matrix : AIR	Dilution Factor : 1
Analytical Method : 48,TO-15	Analyst : TS
Lab File ID : R322209	Instrument ID : AIRPIANO3
Sample Amount : 250 ml	GC Column : RTX-1

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



# Results Summary

## Form 1

### Volatile Organics in Air

Client : Langan Engineering & Environmental  
 Project Name : 57-00, 57-05 47TH ST  
 Lab ID : L2225590-09  
 Client ID : IA04  
 Sample Location : MASPETH, NY  
 Sample Matrix : AIR  
 Analytical Method : 48,TO-15  
 Lab File ID : R322208  
 Sample Amount : 250 ml

Lab Number : L2225590  
 Project Number : 100965503  
 Date Collected : 05/12/22 18:40  
 Date Received : 05/13/22  
 Date Analyzed : 05/19/22 01:07  
 Dilution Factor : 1  
 Analyst : TS  
 Instrument ID : AIRPIANO3  
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.624	0.200	--	3.09	0.989	--	
74-87-3	Chloromethane	0.711	0.200	--	1.47	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	7.35	5.00	--	13.8	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	4.29	1.00	--	10.2	2.38	--	
75-69-4	Trichlorofluoromethane	0.306	0.200	--	1.72	1.12	--	
67-63-0	Isopropanol	1.26	0.500	--	3.10	1.23	--	
75-65-0	Tertiary butyl Alcohol	3.58	0.500	--	10.9	1.52	--	
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	ND	0.200	--	ND	0.639	--	U



# Results Summary

## Form 1

### Volatile Organics in Air

**Client** : Langan Engineering & Environmental  
**Project Name** : 57-00, 57-05 47TH ST  
**Lab ID** : L2225590-09  
**Client ID** : IA04  
**Sample Location** : MASPETH, NY  
**Sample Matrix** : AIR  
**Analytical Method** : 48,TO-15  
**Lab File ID** : R322208  
**Sample Amount** : 250 ml

**Lab Number** : L2225590  
**Project Number** : 100965503  
**Date Collected** : 05/12/22 18:40  
**Date Received** : 05/13/22  
**Date Analyzed** : 05/19/22 01:07  
**Dilution Factor** : 1  
**Analyst** : TS  
**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	2.16	0.200	--	8.14	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
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	0.622	0.400	--	2.70	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	0.249	0.200	--	1.08	0.869	--	
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U



# Results Summary

## Form 1

### Volatile Organics in Air

**Client** : Langan Engineering & Environmental  
**Project Name** : 57-00, 57-05 47TH ST  
**Lab ID** : L2225590-09  
**Client ID** : IA04  
**Sample Location** : MASPETH, NY  
**Sample Matrix** : AIR  
**Analytical Method** : 48,TO-15  
**Lab File ID** : R322208  
**Sample Amount** : 250 ml

**Lab Number** : L2225590  
**Project Number** : 100965503  
**Date Collected** : 05/12/22 18:40  
**Date Received** : 05/13/22  
**Date Analyzed** : 05/19/22 01:07  
**Dilution Factor** : 1  
**Analyst** : TS  
**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 : Langan Engineering & Environmental  
 Project Name : 57-00, 57-05 47TH ST  
 Lab ID : L2225590-10  
 Client ID : IA05  
 Sample Location : MASPETH, NY  
 Sample Matrix : AIR  
 Analytical Method : 48,TO-15  
 Lab File ID : R322206  
 Sample Amount : 250 ml

Lab Number : L2225590  
 Project Number : 100965503  
 Date Collected : 05/12/22 17:58  
 Date Received : 05/13/22  
 Date Analyzed : 05/18/22 23:47  
 Dilution Factor : 1  
 Analyst : TS  
 Instrument ID : AIRPIANO3  
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.606	0.200	--	3.00	0.989	--	
74-87-3	Chloromethane	1.22	0.200	--	2.52	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	7.88	5.00	--	14.8	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	5.38	1.00	--	12.8	2.38	--	
75-69-4	Trichlorofluoromethane	0.308	0.200	--	1.73	1.12	--	
67-63-0	Isopropanol	3.23	0.500	--	7.94	1.23	--	
75-65-0	Tertiary butyl Alcohol	5.42	0.500	--	16.4	1.52	--	
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	ND	0.500	--	ND	1.47	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	0.419	0.200	--	1.48	0.705	--	
71-43-2	Benzene	0.235	0.200	--	0.751	0.639	--	



# Results Summary

## Form 1

### Volatile Organics in Air

Client : Langan Engineering & Environmental  
 Project Name : 57-00, 57-05 47TH ST  
 Lab ID : L2225590-10  
 Client ID : IA05  
 Sample Location : MASPETH, NY  
 Sample Matrix : AIR  
 Analytical Method : 48,TO-15  
 Lab File ID : R322206  
 Sample Amount : 250 ml

Lab Number : L2225590  
 Project Number : 100965503  
 Date Collected : 05/12/22 17:58  
 Date Received : 05/13/22  
 Date Analyzed : 05/18/22 23:47  
 Dilution Factor : 1  
 Analyst : TS  
 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	0.248	0.200	--	1.16	0.934	--	
142-82-5	Heptane	0.205	0.200	--	0.840	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	2.05	0.200	--	7.73	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	0.516	0.400	--	2.24	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	0.209	0.200	--	0.908	0.869	--	
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U



# Results Summary

## Form 1

### Volatile Organics in Air

Client : Langan Engineering & Environmental	Lab Number : L2225590
Project Name : 57-00, 57-05 47TH ST	Project Number : 100965503
Lab ID : L2225590-10	Date Collected : 05/12/22 17:58
Client ID : IA05	Date Received : 05/13/22
Sample Location : MASPETH, NY	Date Analyzed : 05/18/22 23:47
Sample Matrix : AIR	Dilution Factor : 1
Analytical Method : 48,TO-15	Analyst : TS
Lab File ID : R322206	Instrument ID : AIRPIANO3
Sample Amount : 250 ml	GC Column : RTX-1

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



# Results Summary

## Form 1

### Volatile Organics in Air

Client : Langan Engineering & Environmental  
 Project Name : 57-00, 57-05 47TH ST  
 Lab ID : L2225590-11  
 Client ID : AA01  
 Sample Location : MASPETH, NY  
 Sample Matrix : AIR  
 Analytical Method : 48,TO-15  
 Lab File ID : R322199  
 Sample Amount : 250 ml

Lab Number : L2225590  
 Project Number : 100965503  
 Date Collected : 05/12/22 17:30  
 Date Received : 05/13/22  
 Date Analyzed : 05/18/22 18:56  
 Dilution Factor : 1  
 Analyst : TS  
 Instrument ID : AIRPIANO3  
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.623	0.200	--	3.08	0.989	--	
74-87-3	Chloromethane	0.721	0.200	--	1.49	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	5.73	5.00	--	10.8	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	4.39	1.00	--	10.4	2.38	--	
75-69-4	Trichlorofluoromethane	0.319	0.200	--	1.79	1.12	--	
67-63-0	Isopropanol	1.12	0.500	--	2.75	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	ND	0.200	--	ND	0.639	--	U





# Results Summary

## Form 1

### Volatile Organics in Air

**Client** : Langan Engineering & Environmental  
**Project Name** : 57-00, 57-05 47TH ST  
**Lab ID** : L2225590-11  
**Client ID** : AA01  
**Sample Location** : MASPETH, NY  
**Sample Matrix** : AIR  
**Analytical Method** : 48,TO-15  
**Lab File ID** : R322199  
**Sample Amount** : 250 ml

**Lab Number** : L2225590  
**Project Number** : 100965503  
**Date Collected** : 05/12/22 17:30  
**Date Received** : 05/13/22  
**Date Analyzed** : 05/18/22 18:56  
**Dilution Factor** : 1  
**Analyst** : TS  
**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	0.478	0.200	--	1.80	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 : Langan Engineering & Environmental	Lab Number : L2225590
Project Name : 57-00, 57-05 47TH ST	Project Number : 100965503
Lab ID : L2225590-11	Date Collected : 05/12/22 17:30
Client ID : AA01	Date Received : 05/13/22
Sample Location : MASPETH, NY	Date Analyzed : 05/18/22 18:56
Sample Matrix : AIR	Dilution Factor : 1
Analytical Method : 48,TO-15	Analyst : TS
Lab File ID : R322199	Instrument ID : AIRPIANO3
Sample Amount : 250 ml	GC Column : RTX-1

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



# Results Summary

## Form 1

### Volatile Organics in Air

Client : Langan Engineering & Environmental	Lab Number : L2225590
Project Name : 57-00, 57-05 47TH ST	Project Number : 100965503
Lab ID : WG1640147-4	Date Collected : NA
Client ID : WG1640147-4BLANK	Date Received : NA
Sample Location :	Date Analyzed : 05/18/22 16:03
Sample Matrix : AIR	Dilution Factor : 1
Analytical Method : 48,TO-15	Analyst : TS
Lab File ID : R322196	Instrument ID : AIRPIANO3
Sample Amount : 250 ml	GC Column : RTX-1

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



# Results Summary

## Form 1

### Volatile Organics in Air

Client : Langan Engineering & Environmental	Lab Number : L2225590
Project Name : 57-00, 57-05 47TH ST	Project Number : 100965503
Lab ID : WG1640147-4	Date Collected : NA
Client ID : WG1640147-4BLANK	Date Received : NA
Sample Location :	Date Analyzed : 05/18/22 16:03
Sample Matrix : AIR	Dilution Factor : 1
Analytical Method : 48,TO-15	Analyst : TS
Lab File ID : R322196	Instrument ID : AIRPIANO3
Sample Amount : 250 ml	GC Column : RTX-1

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



# Results Summary

## Form 1

### Volatile Organics in Air

**Client** : Langan Engineering & Environmental  
**Project Name** : 57-00, 57-05 47TH ST  
**Lab ID** : WG1640147-4  
**Client ID** : WG1640147-4BLANK  
**Sample Location** :  
**Sample Matrix** : AIR  
**Analytical Method** : 48,TO-15  
**Lab File ID** : R322196  
**Sample Amount** : 250 ml

**Lab Number** : L2225590  
**Project Number** : 100965503  
**Date Collected** : NA  
**Date Received** : NA  
**Date Analyzed** : 05/18/22 16:03  
**Dilution Factor** : 1  
**Analyst** : TS  
**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



# Results Summary

## Form 1

### Volatile Organics in Air

Client : Langan Engineering & Environmental  
 Project Name : 57-00, 57-05 47TH ST  
 Lab ID : WG1640147-5  
 Client ID : IA05DUP  
 Sample Location :  
 Sample Matrix : AIR  
 Analytical Method : 48,TO-15  
 Lab File ID : R322207  
 Sample Amount : 250 ml

Lab Number : L2225590  
 Project Number : 100965503  
 Date Collected : 05/12/22 17:58  
 Date Received : 05/13/22  
 Date Analyzed : 05/19/22 00:26  
 Dilution Factor : 1  
 Analyst : TS  
 Instrument ID : AIRPIANO3  
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.620	0.200	--	3.07	0.989	--	
74-87-3	Chloromethane	1.24	0.200	--	2.56	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	7.59	5.00	--	14.3	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	4.93	1.00	--	11.7	2.38	--	
75-69-4	Trichlorofluoromethane	0.310	0.200	--	1.74	1.12	--	
67-63-0	Isopropanol	3.31	0.500	--	8.14	1.23	--	
75-65-0	Tertiary butyl Alcohol	5.59	0.500	--	16.9	1.52	--	
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	ND	0.500	--	ND	1.47	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	0.426	0.200	--	1.50	0.705	--	
71-43-2	Benzene	0.237	0.200	--	0.757	0.639	--	



# Results Summary

## Form 1

### Volatile Organics in Air

Client : Langan Engineering & Environmental	Lab Number : L2225590
Project Name : 57-00, 57-05 47TH ST	Project Number : 100965503
Lab ID : WG1640147-5	Date Collected : 05/12/22 17:58
Client ID : IA05DUP	Date Received : 05/13/22
Sample Location :	Date Analyzed : 05/19/22 00:26
Sample Matrix : AIR	Dilution Factor : 1
Analytical Method : 48,TO-15	Analyst : TS
Lab File ID : R322207	Instrument ID : AIRPIANO3
Sample Amount : 250 ml	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	0.256	0.200	--	1.20	0.934	--	
142-82-5	Heptane	0.206	0.200	--	0.844	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	2.10	0.200	--	7.91	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	0.531	0.400	--	2.31	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	0.213	0.200	--	0.925	0.869	--	
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U



# Results Summary

## Form 1

### Volatile Organics in Air

**Client** : Langan Engineering & Environmental  
**Project Name** : 57-00, 57-05 47TH ST  
**Lab ID** : WG1640147-5  
**Client ID** : IA05DUP  
**Sample Location** :  
**Sample Matrix** : AIR  
**Analytical Method** : 48,TO-15  
**Lab File ID** : R322207  
**Sample Amount** : 250 ml

**Lab Number** : L2225590  
**Project Number** : 100965503  
**Date Collected** : 05/12/22 17:58  
**Date Received** : 05/13/22  
**Date Analyzed** : 05/19/22 00:26  
**Dilution Factor** : 1  
**Analyst** : TS  
**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 : Langan Engineering & Environmental	Lab Number : L2225590
Project Name : 57-00, 57-05 47TH ST	Project Number : 100965503
Lab ID : WG1640711-4	Date Collected : NA
Client ID : WG1640711-4BLANK	Date Received : NA
Sample Location :	Date Analyzed : 05/19/22 16:38
Sample Matrix : SOIL_VAPOR	Dilution Factor : 1
Analytical Method : 48,TO-15	Analyst : TS
Lab File ID : R322227	Instrument ID : AIRPIANO3
Sample Amount : 250 ml	GC Column : RTX-1

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



# Results Summary

## Form 1

### Volatile Organics in Air

Client : Langan Engineering & Environmental	Lab Number : L2225590
Project Name : 57-00, 57-05 47TH ST	Project Number : 100965503
Lab ID : WG1640711-4	Date Collected : NA
Client ID : WG1640711-4BLANK	Date Received : NA
Sample Location :	Date Analyzed : 05/19/22 16:38
Sample Matrix : SOIL_VAPOR	Dilution Factor : 1
Analytical Method : 48,TO-15	Analyst : TS
Lab File ID : R322227	Instrument ID : AIRPIANO3
Sample Amount : 250 ml	GC Column : RTX-1

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



# Results Summary

## Form 1

### Volatile Organics in Air

Client : Langan Engineering & Environmental	Lab Number : L2225590
Project Name : 57-00, 57-05 47TH ST	Project Number : 100965503
Lab ID : WG1640711-4	Date Collected : NA
Client ID : WG1640711-4BLANK	Date Received : NA
Sample Location :	Date Analyzed : 05/19/22 16:38
Sample Matrix : SOIL_VAPOR	Dilution Factor : 1
Analytical Method : 48,TO-15	Analyst : TS
Lab File ID : R322227	Instrument ID : AIRPIANO3
Sample Amount : 250 ml	GC Column : RTX-1

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



# Results Summary

## Form 1

### Volatile Organics in Air

Client : Langan Engineering & Environmental  
 Project Name : 57-00, 57-05 47TH ST  
 Lab ID : WG1640711-5  
 Client ID : SSV04DUP  
 Sample Location :  
 Sample Matrix : SOIL\_VAPOR  
 Analytical Method : 48,TO-15  
 Lab File ID : R322233  
 Sample Amount : 250 ml

Lab Number : L2225590  
 Project Number : 100965503  
 Date Collected : 05/12/22 18:07  
 Date Received : 05/13/22  
 Date Analyzed : 05/19/22 21:34  
 Dilution Factor : 1  
 Analyst : TS  
 Instrument ID : AIRPIANO3  
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.578	0.200	--	2.86	0.989	--	
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
75-01-4	Vinyl chloride	0.242	0.200	--	0.619	0.511	--	
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	514	5.00	--	969E	9.42	--	E
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	901	1.00	--	2140E	2.38	--	E
75-69-4	Trichlorofluoromethane	0.413	0.200	--	2.32	1.12	--	
67-63-0	Isopropanol	103	0.500	--	253	1.23	--	
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	43.7	0.500	--	132	1.52	--	
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	12.2	0.200	--	38.0	0.623	--	
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	44.8	0.500	--	132	1.47	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	11.7	0.500	--	34.5	1.47	--	



# Results Summary

## Form 1

### Volatile Organics in Air

Client : Langan Engineering & Environmental  
 Project Name : 57-00, 57-05 47TH ST  
 Lab ID : WG1640711-5  
 Client ID : SSV04DUP  
 Sample Location :  
 Sample Matrix : SOIL\_VAPOR  
 Analytical Method : 48,TO-15  
 Lab File ID : R322233  
 Sample Amount : 250 ml

Lab Number : L2225590  
 Project Number : 100965503  
 Date Collected : 05/12/22 18:07  
 Date Received : 05/13/22  
 Date Analyzed : 05/19/22 21:34  
 Dilution Factor : 1  
 Analyst : TS  
 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	1.54	0.200	--	5.43	0.705	--	
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
71-43-2	Benzene	0.499	0.200	--	1.59	0.639	--	
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	1.48	0.200	--	5.09	0.688	--	
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	8.05	0.200	--	29.0	0.721	--	
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	0.906	0.200	--	4.23	0.934	--	
142-82-5	Heptane	2.10	0.200	--	8.61	0.820	--	
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	8.36	0.500	--	34.3	2.05	--	
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	12.4	0.200	--	46.7	0.754	--	
591-78-6	2-Hexanone	3.03	0.200	--	12.4	0.820	--	
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	7.39	0.200	--	50.1	1.36	--	
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	1.00	0.200	--	4.34	0.869	--	
179601-23-1	p/m-Xylene	3.85	0.400	--	16.7	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U



# Results Summary

## Form 1

### Volatile Organics in Air

Client : Langan Engineering & Environmental  
 Project Name : 57-00, 57-05 47TH ST  
 Lab ID : WG1640711-5  
 Client ID : SSV04DUP  
 Sample Location :  
 Sample Matrix : SOIL\_VAPOR  
 Analytical Method : 48,TO-15  
 Lab File ID : R322233  
 Sample Amount : 250 ml

Lab Number : L2225590  
 Project Number : 100965503  
 Date Collected : 05/12/22 18:07  
 Date Received : 05/13/22  
 Date Analyzed : 05/19/22 21:34  
 Dilution Factor : 1  
 Analyst : TS  
 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	1.69	0.200	--	7.34	0.869	--	
622-96-8	4-Ethyltoluene	0.768	0.200	--	3.78	0.983	--	
108-67-8	1,3,5-Trimethylbenzene	1.33	0.200	--	6.54	0.983	--	
95-63-6	1,2,4-Trimethylbenzene	4.54	0.200	--	22.3	0.983	--	
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U



# Results Summary

## Form 1

### Volatile Organics in Air

Client : Langan Engineering & Environmental	Lab Number : L2225590
Project Name : 57-00, 57-05 47TH ST	Project Number : 100965503
Lab ID : WG1640711-5D	Date Collected : 05/12/22 18:07
Client ID : SSV04DUP	Date Received : 05/13/22
Sample Location :	Date Analyzed : 05/20/22 08:10
Sample Matrix : SOIL_VAPOR	Dilution Factor : 8.333
Analytical Method : 48,TO-15	Analyst : TS
Lab File ID : R322249	Instrument ID : AIRPIANO3
Sample Amount : 30.0 ml	GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
67-64-1	Acetone	1950	8.33	--	4630	19.8	--	



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
 Data File : r322199.D  
 Acq On : 18 May 2022 6:56 PM  
 Operator : AIRPIANO3:TS  
 Sample : L2225590-11,3,250,250  
 Misc : WG1640147,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 17:51:56 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518T\r322194.D  
 Sub List : TO15-NY-7-SIM - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) bromochloromethane	9.542	49	405200	10.000	ppbV	-0.03
Standard Area =	443368		Recovery =	91.39%		
43) 1,4-difluorobenzene	11.820	114	1211673	10.000	ppbV	-0.02
Standard Area =	1337389		Recovery =	90.60%		
67) chlorobenzene-D5	16.567	54	193031	10.000	ppbV	-0.02
Standard Area =	206902		Recovery =	93.30%		

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) dichlorodifluoromethane	3.946	85	19852	0.623	ppbV	99
6) chloromethane	4.126	50	11046	0.721	ppbV	100
7) Freon-114	4.252		0	N.D.		
10) 1,3-butadiene	4.552		0	N.D.		
13) bromomethane	0.000		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	5.270	31	89133	5.726	ppbV	97
17) vinyl bromide	0.000		0	N.D.		
19) acetone	5.843	43	97489	4.392	ppbV #	94
21) trichlorofluoromethane	6.037	101	9242	0.319	ppbV	99
22) isopropyl alcohol	6.187	45	29961	1.122	ppbV	99
27) tertiary butyl alcohol	6.938		0	N.D.		
28) methylene chloride	6.980	49	4513	0.179	ppbV	96
29) 3-chloropropene	7.040		0	N.D.		
30) carbon disulfide	7.274		0	N.D.		
31) Freon 113	7.316	101	2645	0.082	ppbV	90
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	8.867	43	11137	0.276	ppbV	98
38) Ethyl Acetate	9.675	61	543	0.083	ppbV	84
39) chloroform	9.700		0	N.D.		
40) Tetrahydrofuran	10.208		0	N.D.		
42) 1,2-dichloroethane	0.000		0	N.D.		
44) hexane	9.617	57	5343	0.155	ppbV #	45
50) benzene	11.380	78	10593	0.149	ppbV	97
53) cyclohexane	11.693		0	N.D.		



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
 Data File : r322199.D  
 Acq On : 18 May 2022 6:56 PM  
 Operator : AIRPIANO3:TS  
 Sample : L2225590-11,3,250,250  
 Misc : WG1640147,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 17:51:56 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518T\r322194.D  
 Sub List : TO15-NY-7-SIM - .

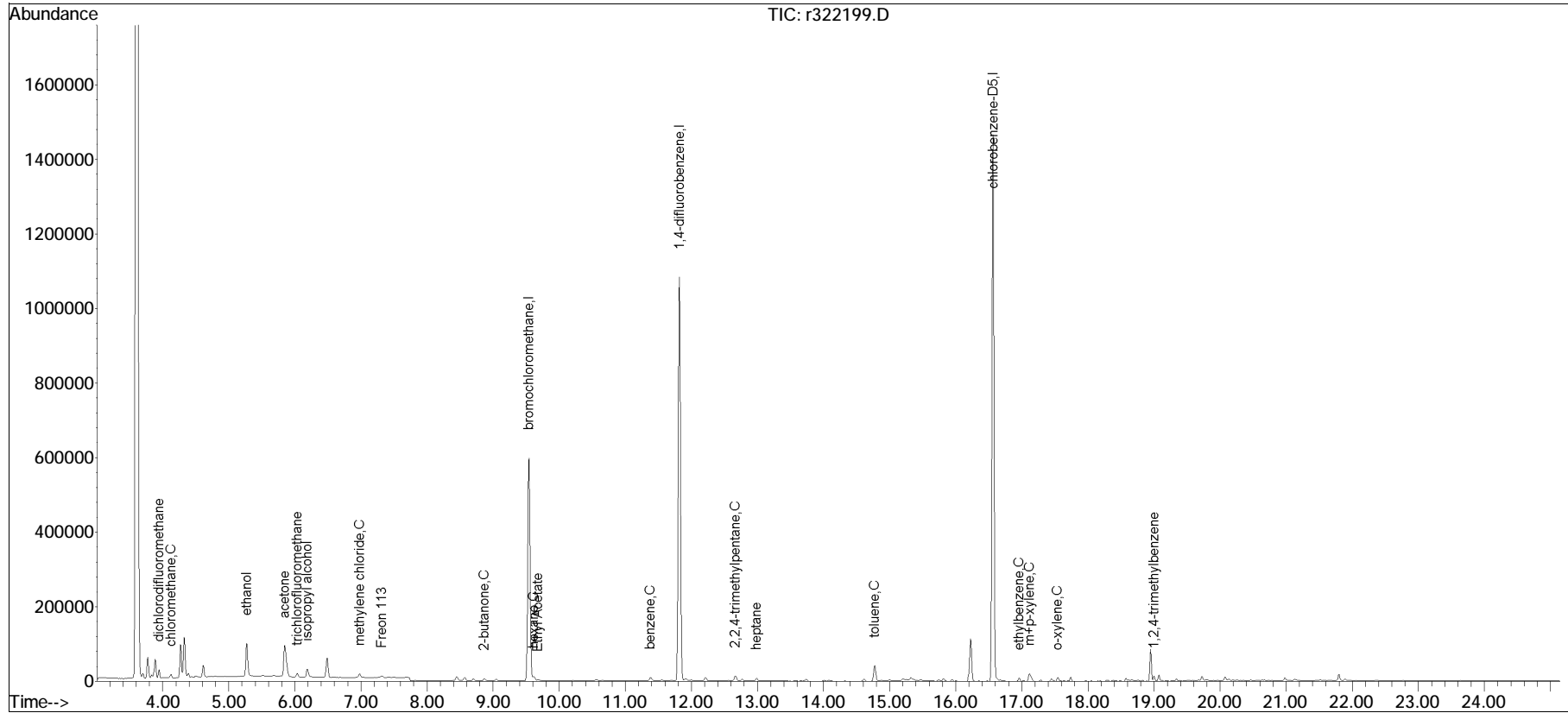
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
56) 1,2-dichloropropane	0.000		0		N.D.	
57) bromodichloromethane	0.000		0		N.D.	
58) 1,4-dioxane	0.000		0		N.D.	
60) 2,2,4-trimethylpentane	12.667	57	16692	0.156	ppbV #	92
62) heptane	12.987	43	4811	0.121	ppbV	94
63) cis-1,3-dichloropropene	0.000		0		N.D.	
64) 4-methyl-2-pentanone	13.717		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	14.775	91	34684	0.478	ppbV	99
72) 2-hexanone	15.108		0		N.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	16.958	91	7567	0.087	ppbV	98
83) m+p-xylene	17.117	91	18154	0.255	ppbV	99
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.	
87) o-xylene	17.542	91	7141	0.101	ppbV	92
96) 4-ethyl toluene	18.608		0		N.D.	
97) 1,3,5-trimethylbenzene	18.667		0		N.D.	
99) 1,2,4-trimethylbenzene	19.000	105	8371	0.097	ppbV #	54
101) Benzyl Chloride	19.000		0		N.D.	
102) 1,3-dichlorobenzene	19.183		0		N.D.	
103) 1,4-dichlorobenzene	19.183		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.	

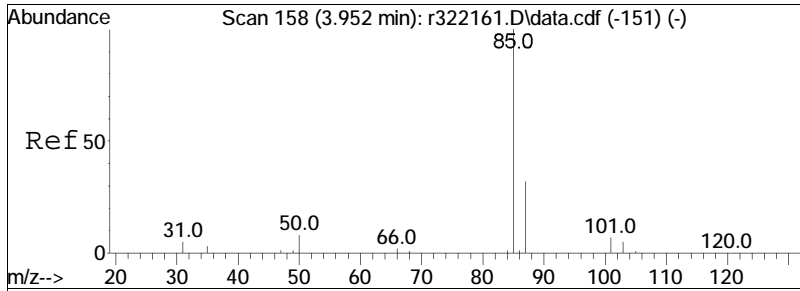
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : TO15-NY-7-SIM - .\Airpiano3\2022\05\0518T\r322194.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
Data File : r322199.D  
Acq On : 18 May 2022 6:56 PM  
Operator : AIRPIANO3:TS  
Sample : L2225590-11,3,250,250  
Misc : WG1640147,ICAL19030  
ALS Vial : 0 Sample Multiplier: 1

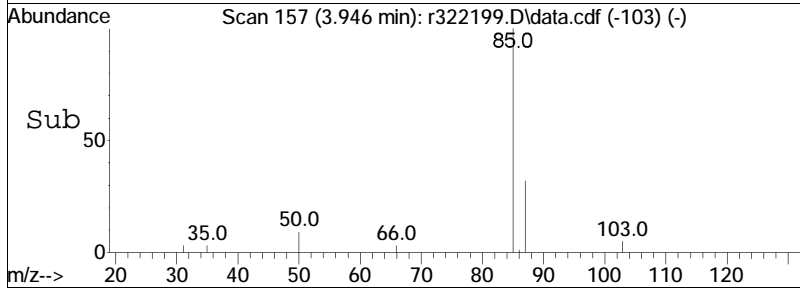
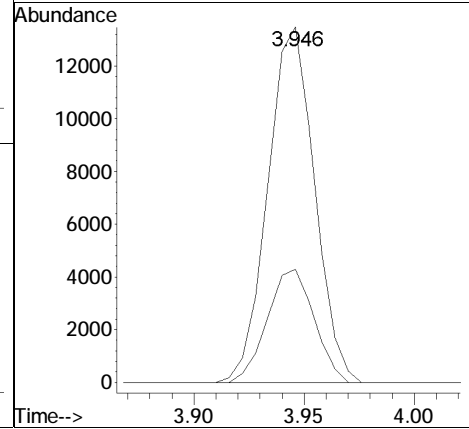
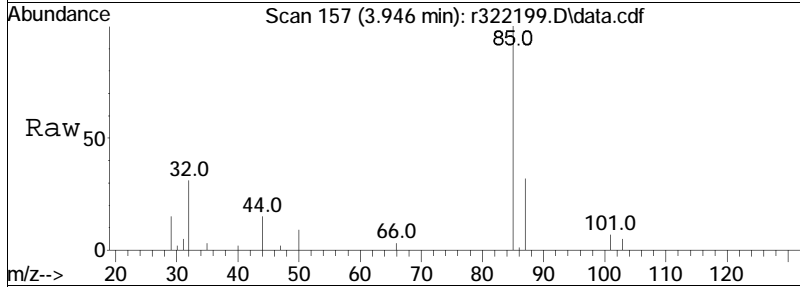
Quant Time: May 19 17:51:56 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 15:52:12 2022  
Response via : Initial Calibration

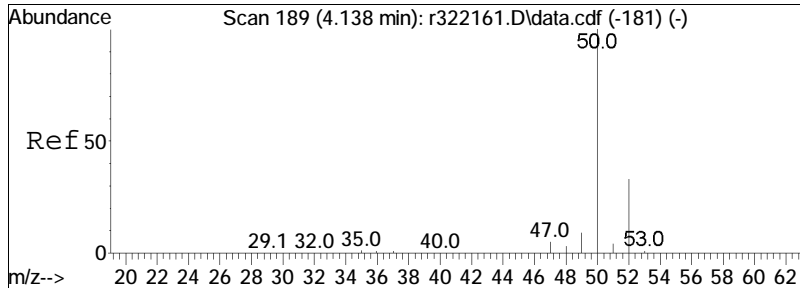




#5  
 dichlorodifluoromethane  
 Concen: 0.62 ppbV  
 RT: 3.946 min Scan# 157  
 Delta R.T. -0.006 min  
 Lab File: r322199.D  
 Acq: 18 May 2022 6:56 PM

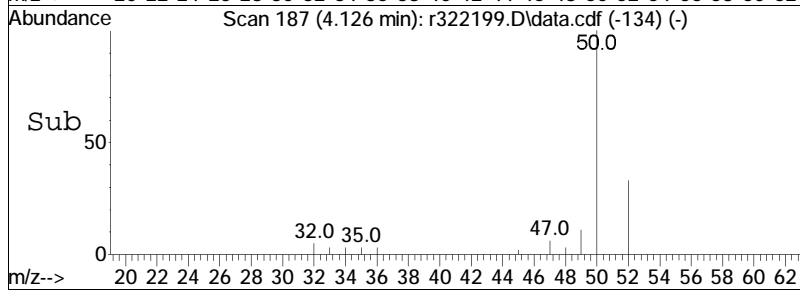
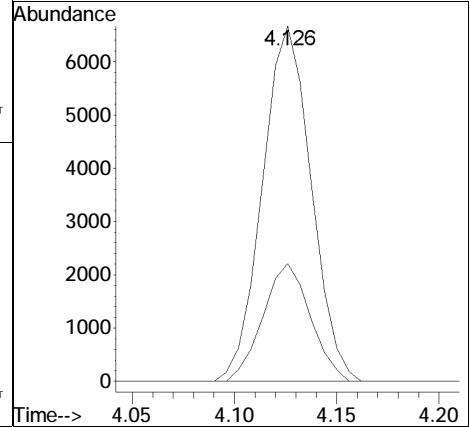
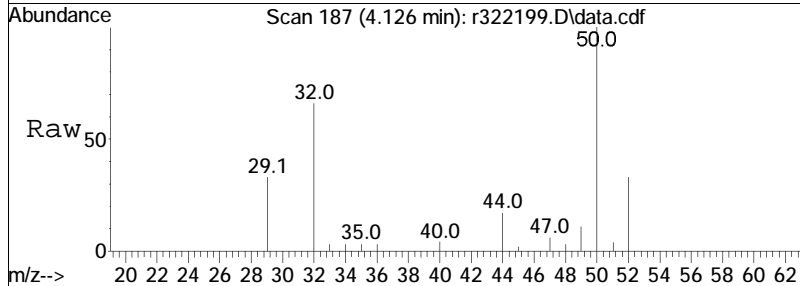
Tgt Ion: 85 Resp: 19852  
 Ion Ratio Lower Upper  
 85 100  
 87 31.9 25.8 38.6

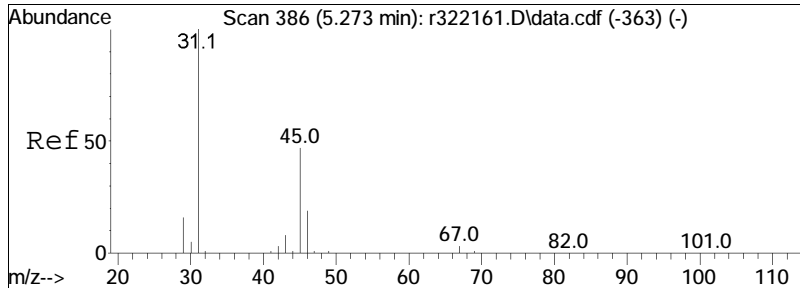




#6  
 chloromethane  
 Concen: 0.72 ppbV  
 RT: 4.126 min Scan# 187  
 Delta R.T. -0.012 min  
 Lab File: r322199.D  
 Acq: 18 May 2022 6:56 PM

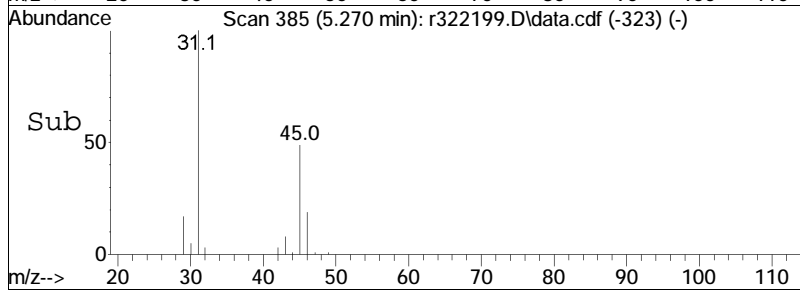
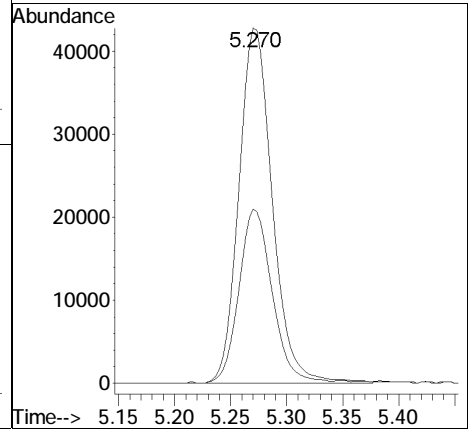
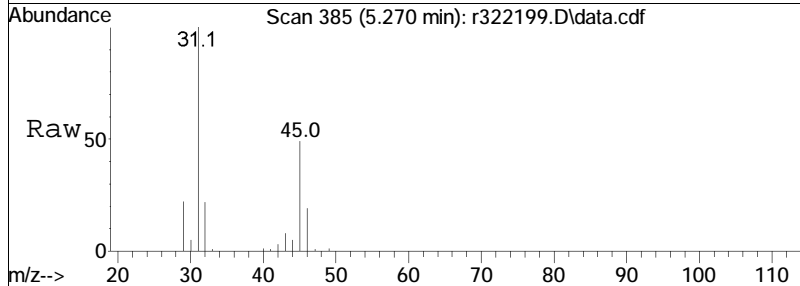
Tgt Ion	Resp	Lower	Upper
50	11046		
52	33.2	26.3	39.5

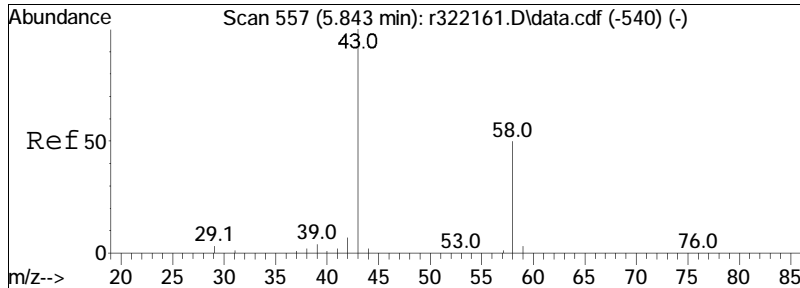




#15  
 ethanol  
 Concen: 5.73 ppbV  
 RT: 5.270 min Scan# 385  
 Delta R.T. -0.003 min  
 Lab File: r322199.D  
 Acq: 18 May 2022 6:56 PM

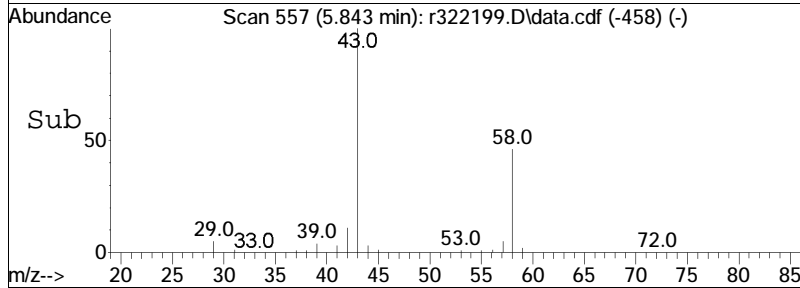
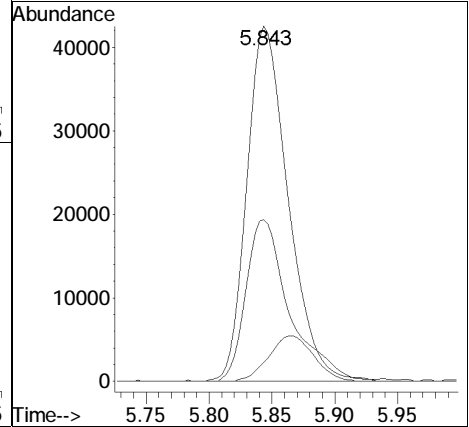
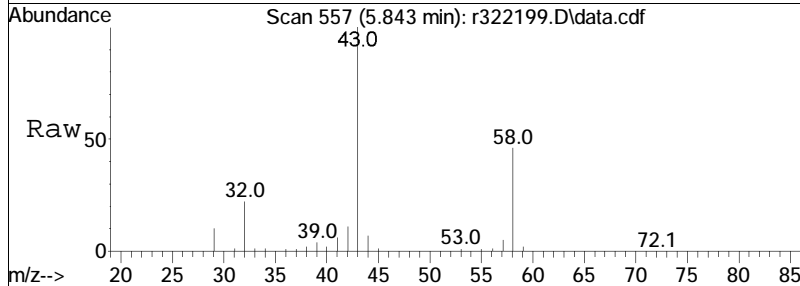
Tgt Ion:	31	Resp:	89133
Ion Ratio	Lower	Upper	
31	100		
45	49.1	37.6	56.4

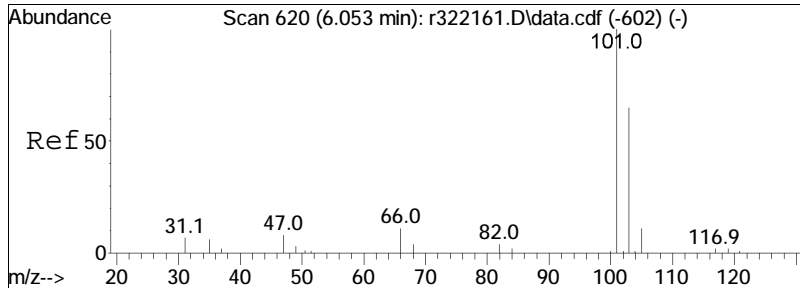




#19  
 acetone  
 Concen: 4.39 ppbV  
 RT: 5.843 min Scan# 557  
 Delta R.T. 0.000 min  
 Lab File: r322199.D  
 Acq: 18 May 2022 6:56 PM

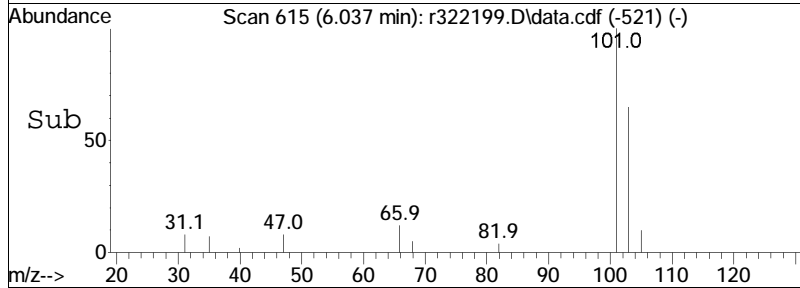
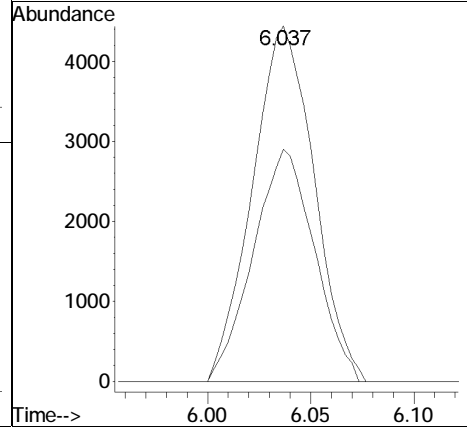
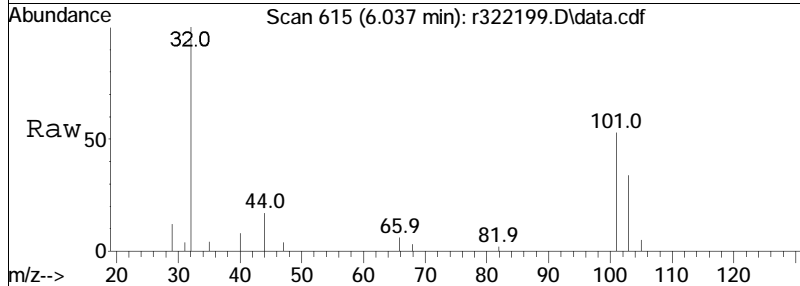
Tgt Ion	Resp	Lower	Upper
43	100		
58	45.6	39.8	59.8
57	5.3	1.0	1.6#

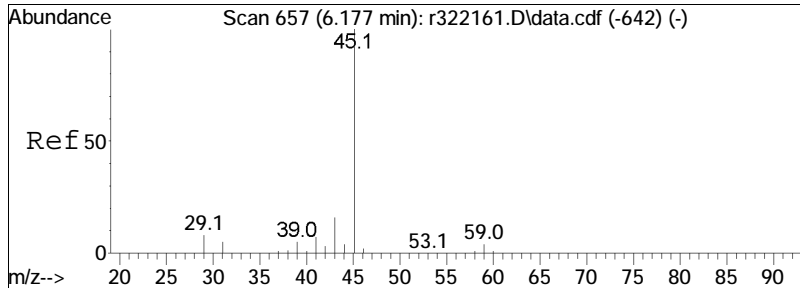




#21  
 trichlorofluoromethane  
 Concen: 0.32 ppbV  
 RT: 6.037 min Scan# 615  
 Delta R.T. -0.017 min  
 Lab File: r322199.D  
 Acq: 18 May 2022 6:56 PM

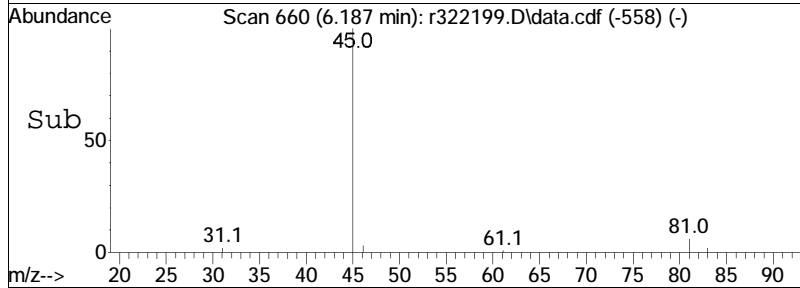
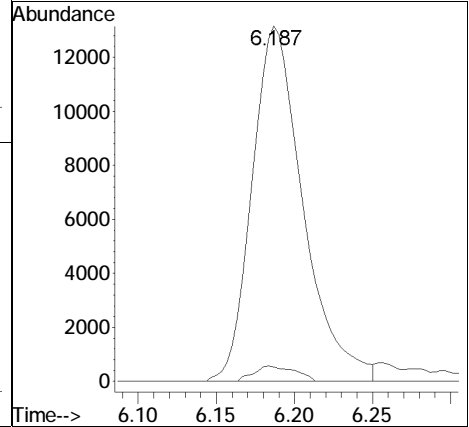
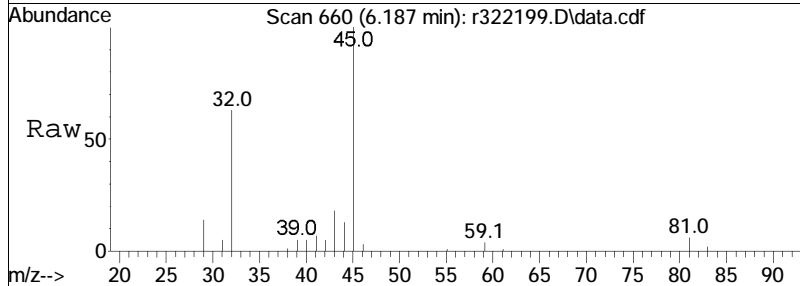
Tgt Ion	Resp	Lower	Upper
101	100		
103	65.3	51.8	77.6



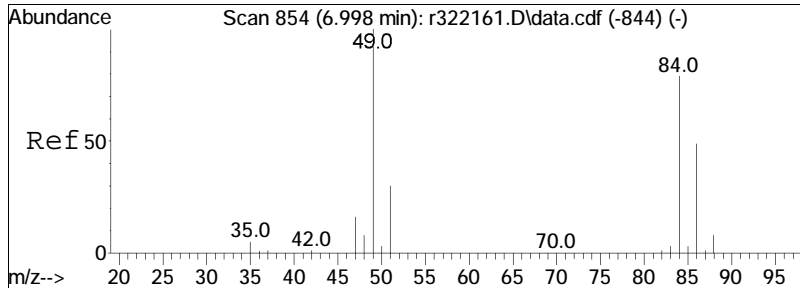


#22  
 isopropyl alcohol  
 Concen: 1.12 ppbV  
 RT: 6.187 min Scan# 660  
 Delta R.T. 0.010 min  
 Lab File: r322199.D  
 Acq: 18 May 2022 6:56 PM

Tgt Ion	Resp	Lower	Upper
45	100		
59	4.1	3.5	5.3

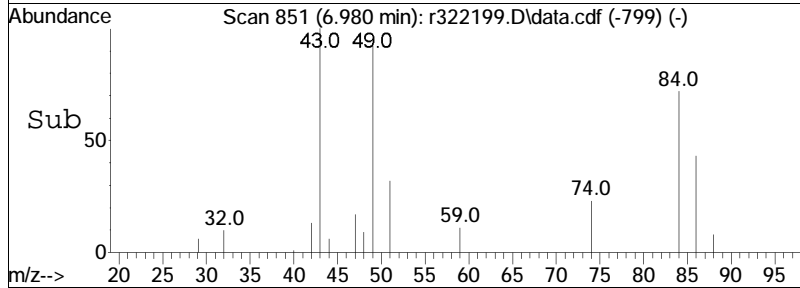
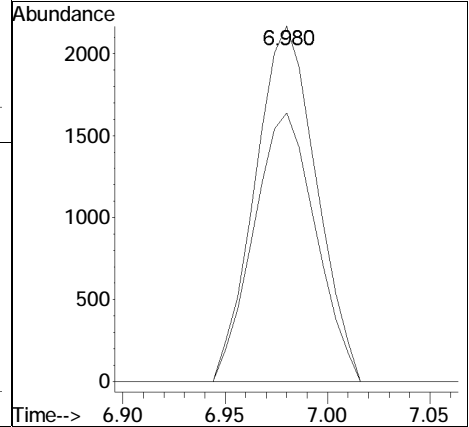
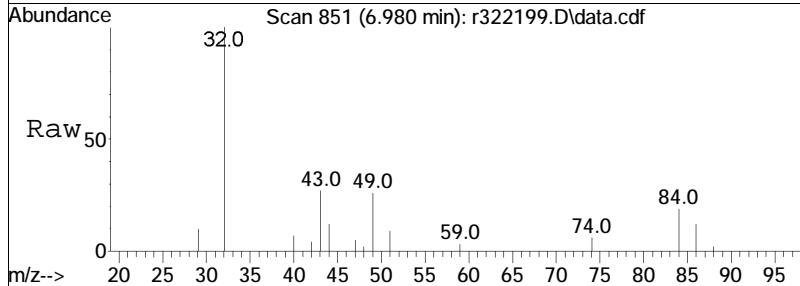


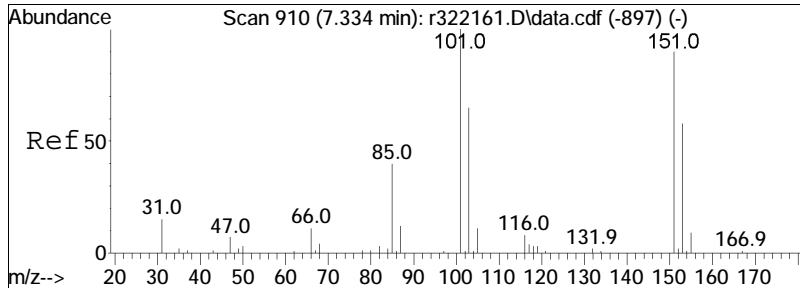




#28  
 methylene chloride  
 Concen: 0.18 ppbV  
 RT: 6.980 min Scan# 851  
 Delta R.T. -0.018 min  
 Lab File: r322199.D  
 Acq: 18 May 2022 6:56 PM

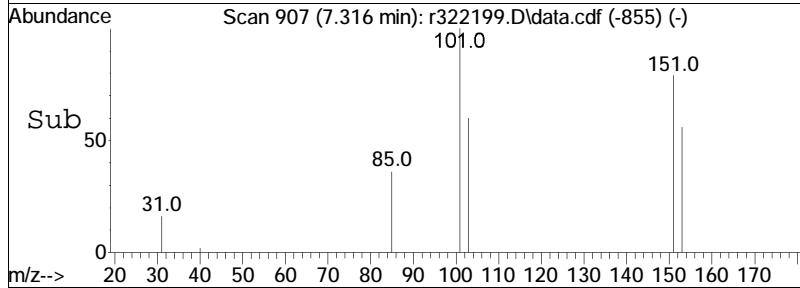
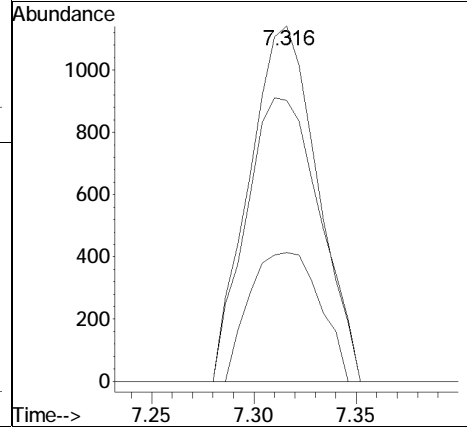
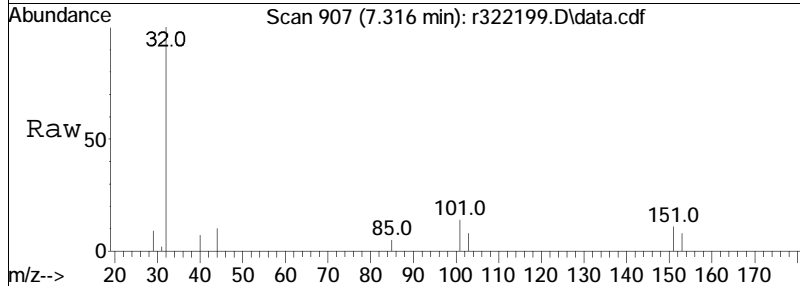
Tgt Ion:	Resp:	Lower	Upper
49	100		
84	75.6	63.0	94.6

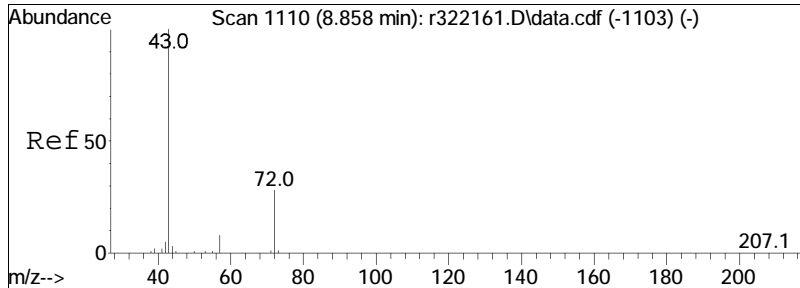




#31  
 Freon 113  
 Concen: 0.08 ppbV  
 RT: 7.316 min Scan# 907  
 Delta R.T. -0.018 min  
 Lab File: r322199.D  
 Acq: 18 May 2022 6:56 PM

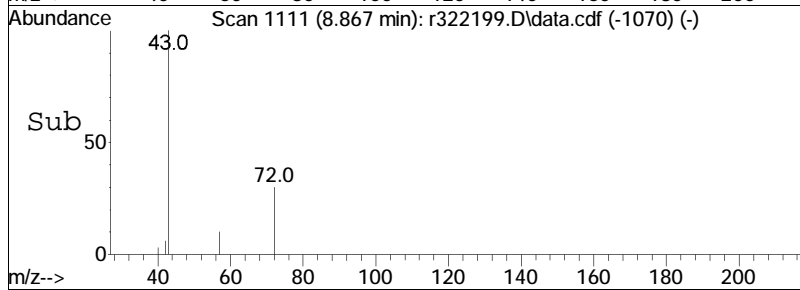
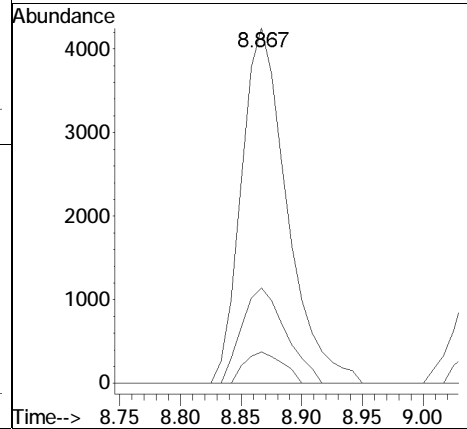
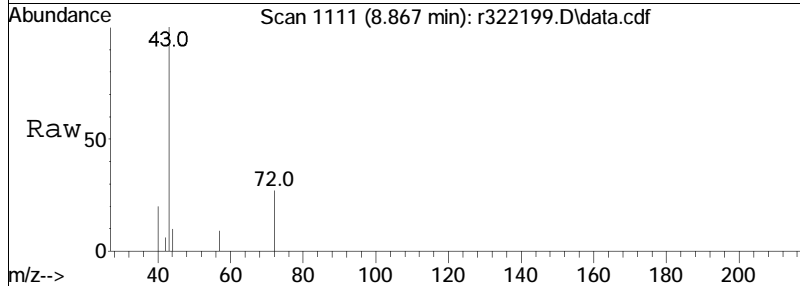
Tgt Ion	Ratio	Lower	Upper
101	100		
85	36.3	31.8	47.8
151	79.1	72.2	108.4

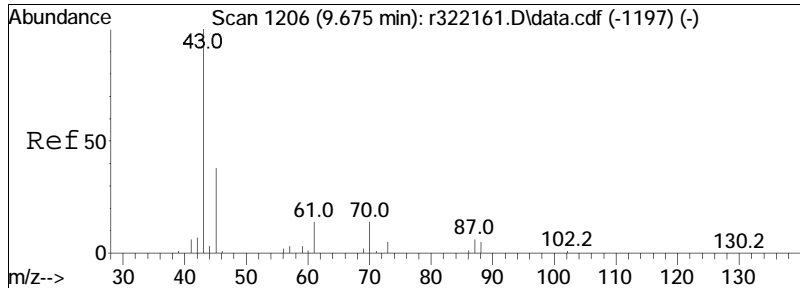




#36  
 2-butanone  
 Concen: 0.28 ppbV  
 RT: 8.867 min Scan# 1111  
 Delta R.T. 0.008 min  
 Lab File: r322199.D  
 Acq: 18 May 2022 6:56 PM

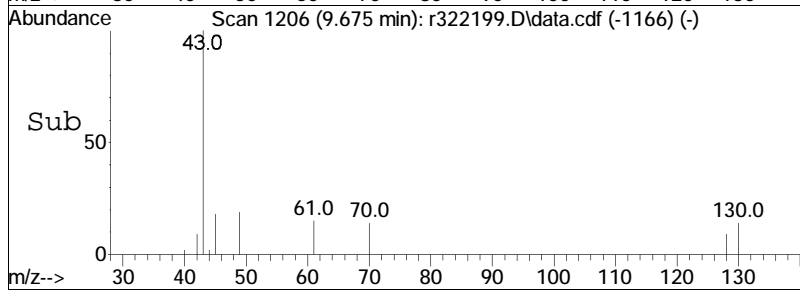
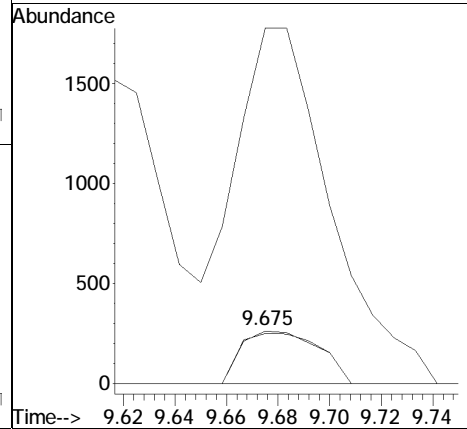
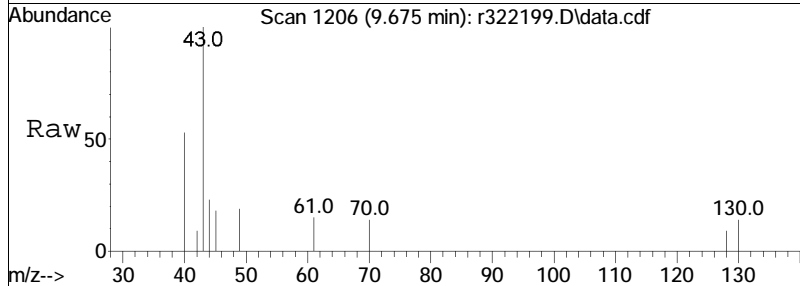
Tgt Ion:	43	72	57	Resp:	11137	Lower	Upper
Ion Ratio	100	26.8	8.9			22.6	33.8
						6.6	10.0

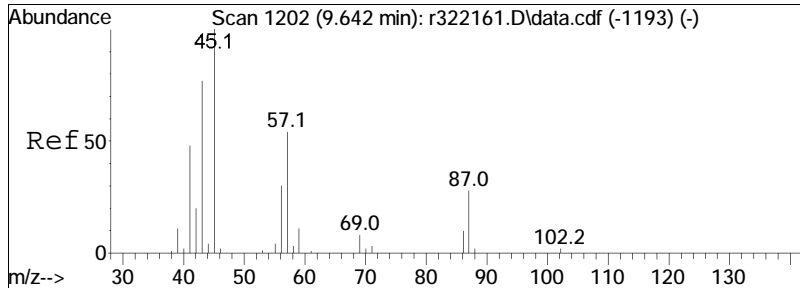




#38  
 Ethyl Acetate  
 Concen: 0.08 ppbV  
 RT: 9.675 min Scan# 1206  
 Delta R.T. 0.000 min  
 Lab File: r322199.D  
 Acq: 18 May 2022 6:56 PM

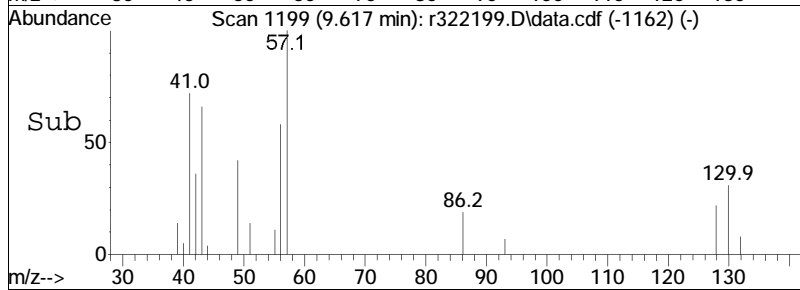
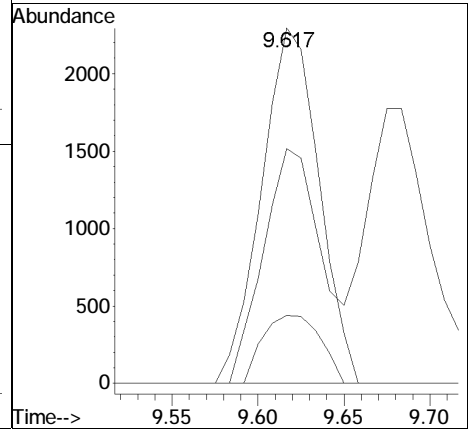
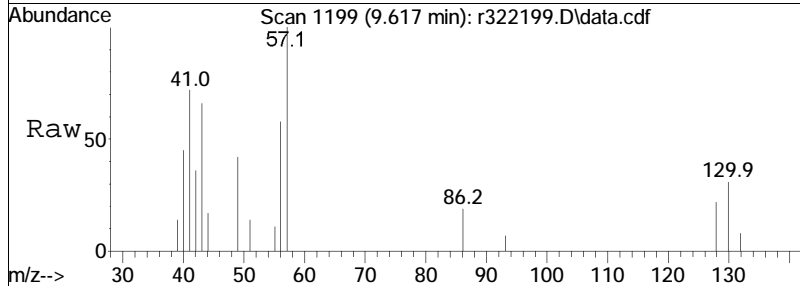
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
61	100		
70	95.4	78.8	118.2
43	678.2	593.4	890.0

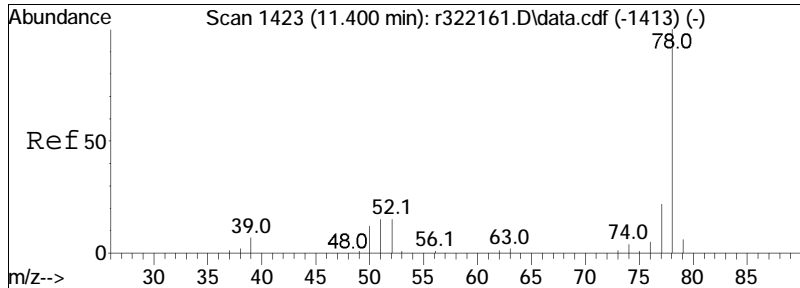




#44  
 hexane  
 Concen: 0.15 ppbV  
 RT: 9.617 min Scan# 1199  
 Delta R.T. -0.025 min  
 Lab File: r322199.D  
 Acq: 18 May 2022 6:56 PM

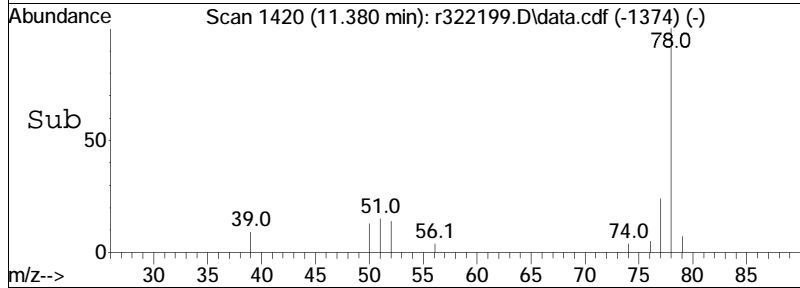
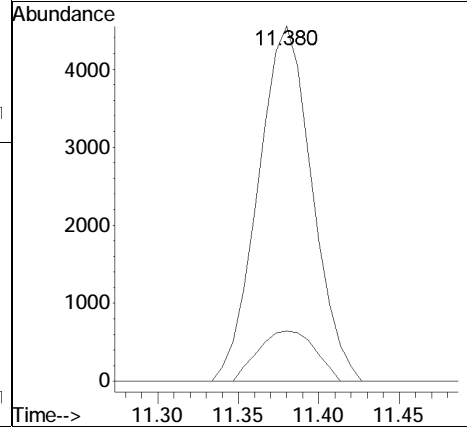
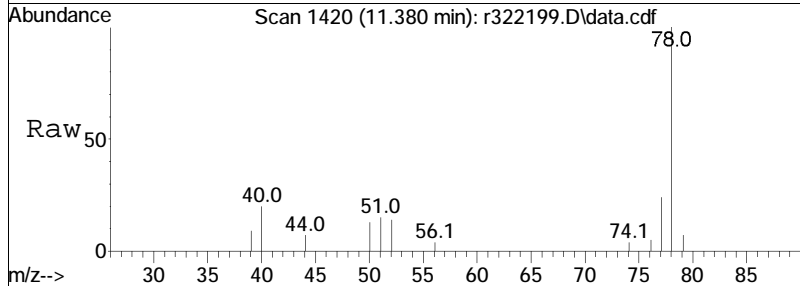
Tgt Ion:	Resp:		
Ion Ratio	Lower	Upper	
57	100		
43	66.1	115.0	172.6#
86	19.1	15.5	23.3

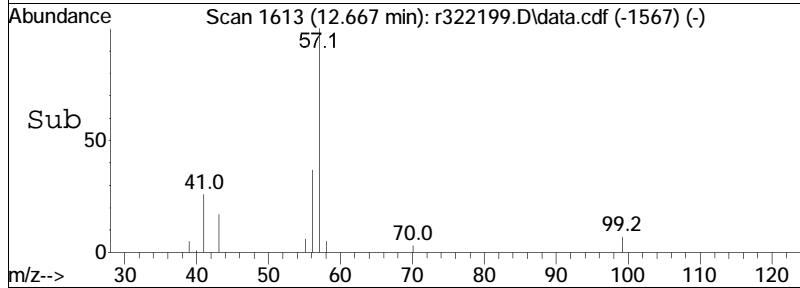
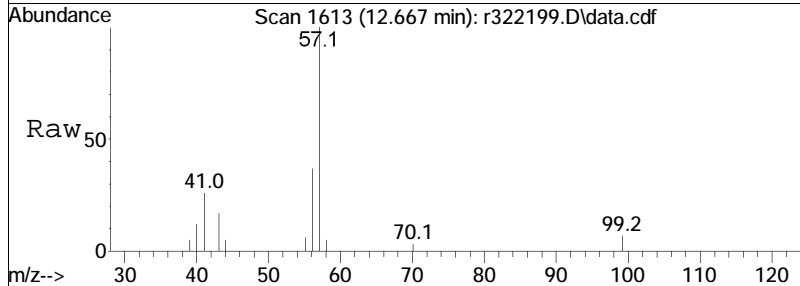
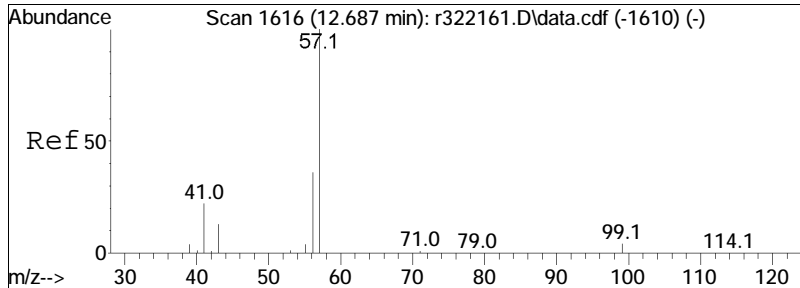




#50  
 benzene  
 Concen: 0.15 ppbV  
 RT: 11.380 min Scan# 1420  
 Delta R.T. -0.020 min  
 Lab File: r322199.D  
 Acq: 18 May 2022 6:56 PM

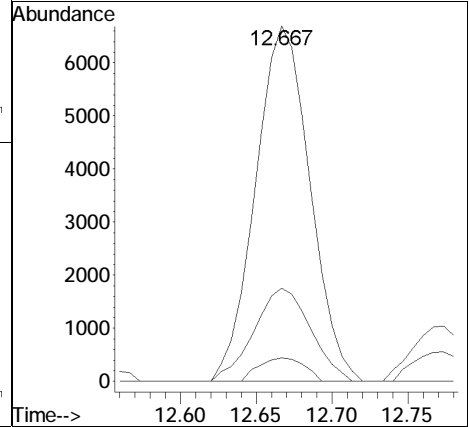
Tgt Ion: 78 Resp: 10593  
 Ion Ratio Lower Upper  
 78 100  
 52 14.1 12.2 18.2

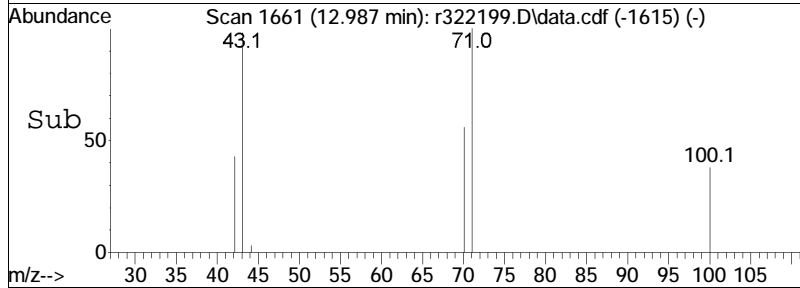
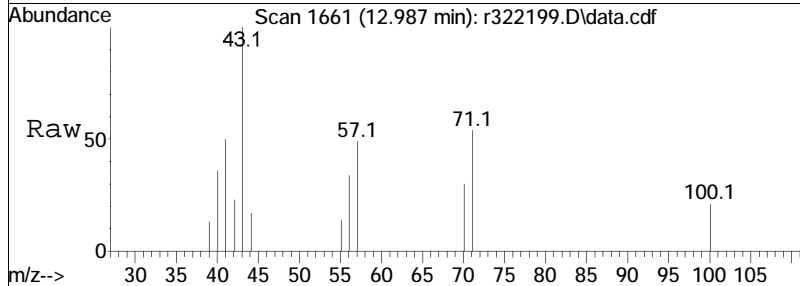
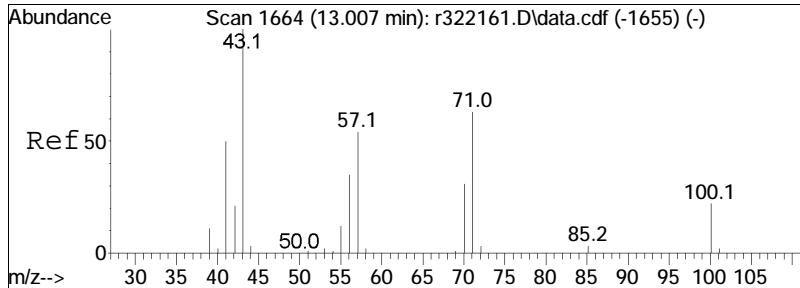




#60  
 2,2,4-trimethylpentane  
 Concen: 0.16 ppbV  
 RT: 12.667 min Scan# 1613  
 Delta R.T. -0.020 min  
 Lab File: r322199.D  
 Acq: 18 May 2022 6:56 PM

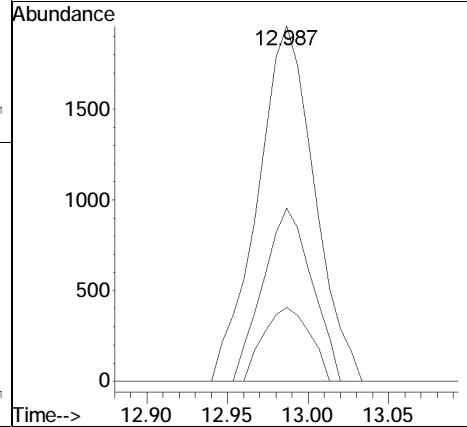
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
57	100		
99	6.6	5.0	7.4
41	26.2	17.4	26.2#



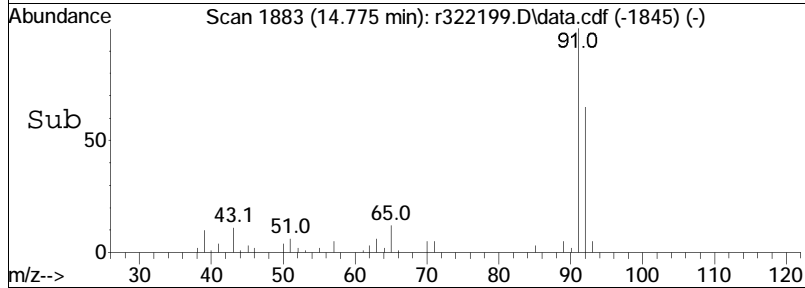
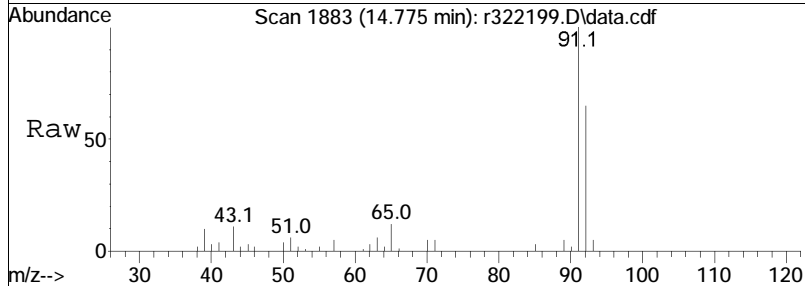
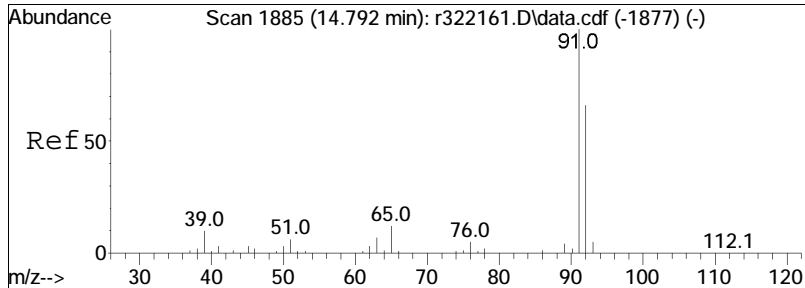


#62  
 heptane  
 Concen: 0.12 ppbV  
 RT: 12.987 min Scan# 1661  
 Delta R.T. -0.020 min  
 Lab File: r322199.D  
 Acq: 18 May 2022 6:56 PM

Tgt Ion:	43	57	100	Resp:	4811	Lower	Upper
Ion Ratio	100	48.7	20.8			43.0	64.4
						17.6	26.4

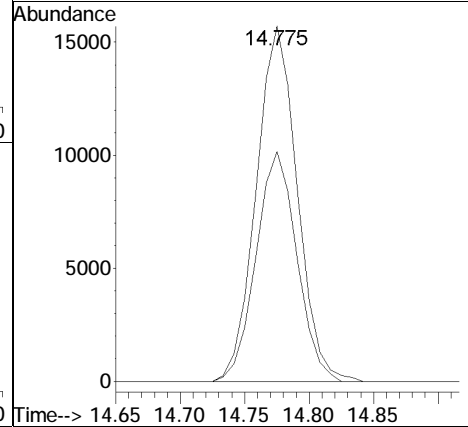


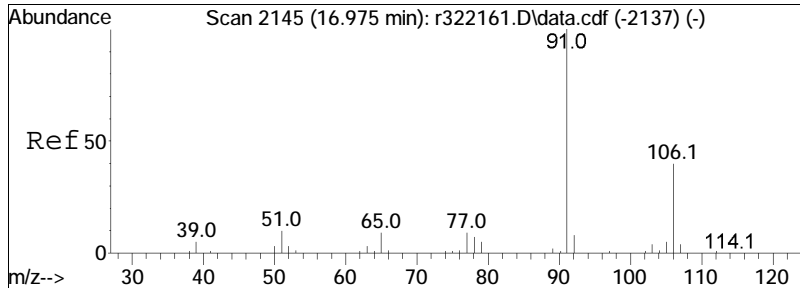




#68  
 toluene  
 Concen: 0.48 ppbV  
 RT: 14.775 min Scan# 1883  
 Delta R.T. -0.017 min  
 Lab File: r322199.D  
 Acq: 18 May 2022 6:56 PM

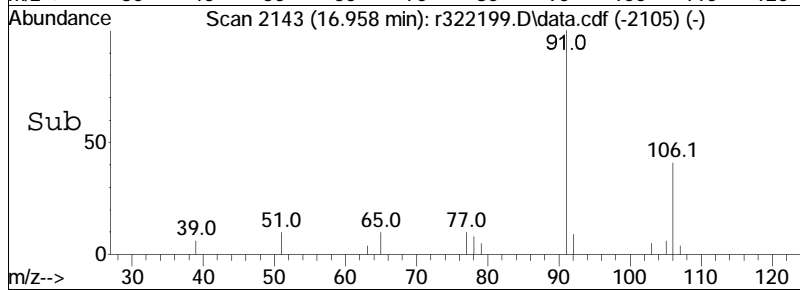
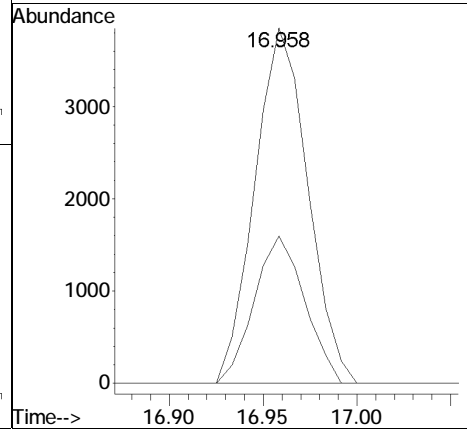
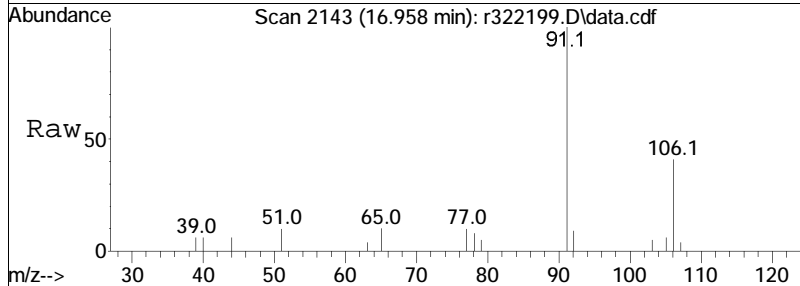
Tgt Ion:	91	92	Resp:	34684
Ion Ratio	100	64.7	Lower	Upper
			52.7	79.1

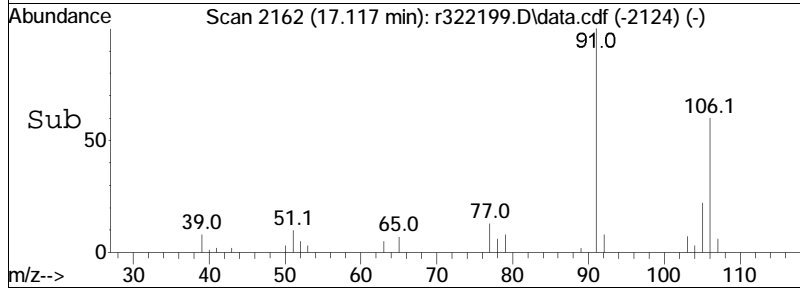
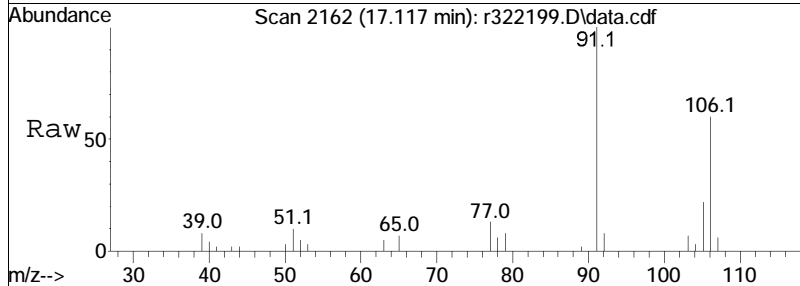
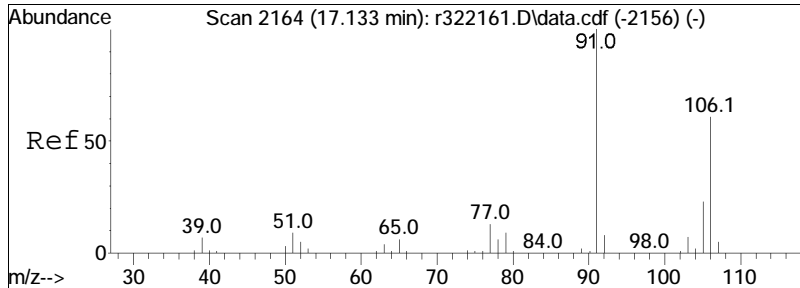




#81  
 ethylbenzene  
 Concen: 0.09 ppbV  
 RT: 16.958 min Scan# 2143  
 Delta R.T. -0.017 min  
 Lab File: r322199.D  
 Acq: 18 May 2022 6:56 PM

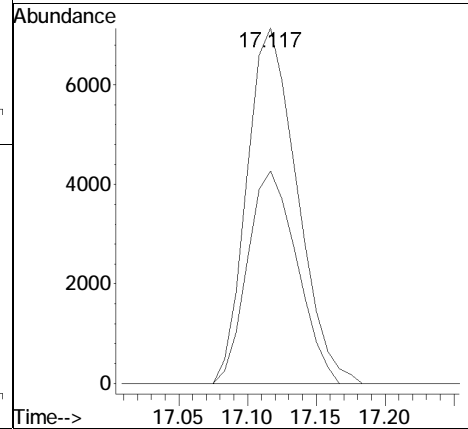
Tgt Ion:	91	Resp:	7567
Ion Ratio	100	Lower	Upper
91	100		
106	41.5	32.4	48.6

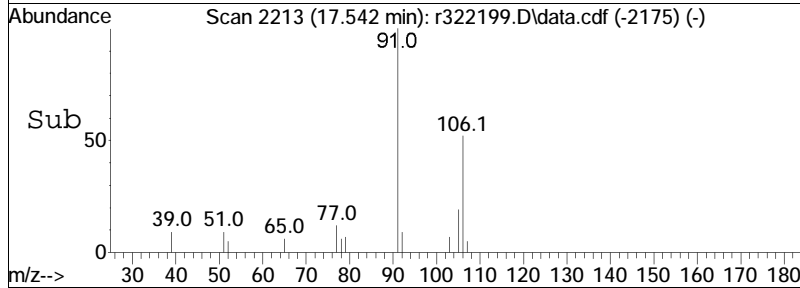
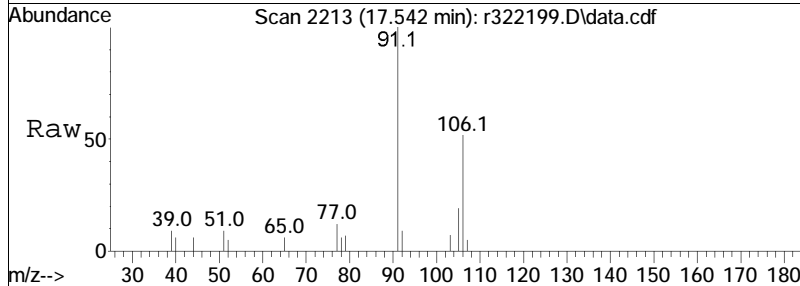
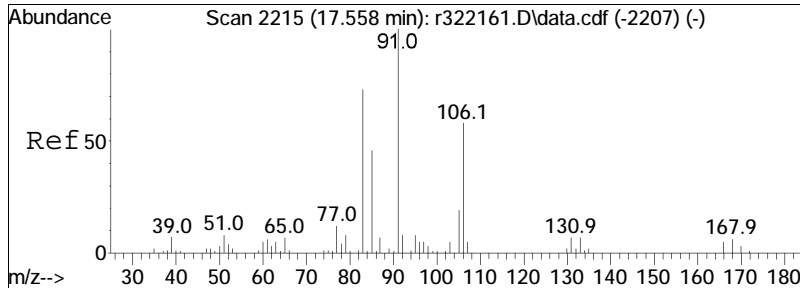




#83  
 m+p-xylene  
 Concen: 0.26 ppbV  
 RT: 17.117 min Scan# 2162  
 Delta R.T. -0.017 min  
 Lab File: r322199.D  
 Acq: 18 May 2022 6:56 PM

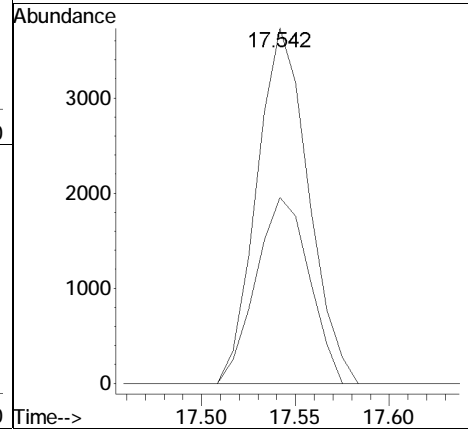
Tgt Ion: 91 Resp: 18154  
 Ion Ratio Lower Upper  
 91 100  
 106 59.8 48.4 72.6

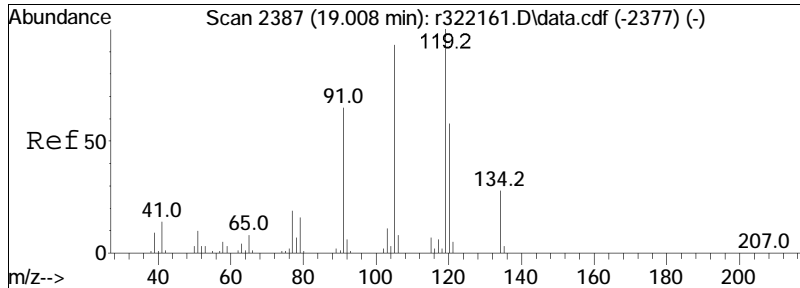




#87  
 o-xylene  
 Concen: 0.10 ppbV  
 RT: 17.542 min Scan# 2213  
 Delta R.T. -0.017 min  
 Lab File: r322199.D  
 Acq: 18 May 2022 6:56 PM

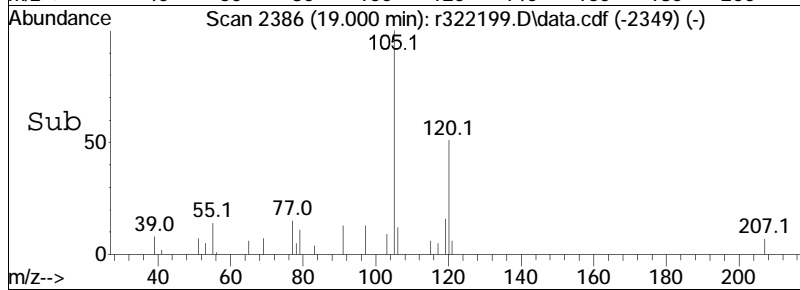
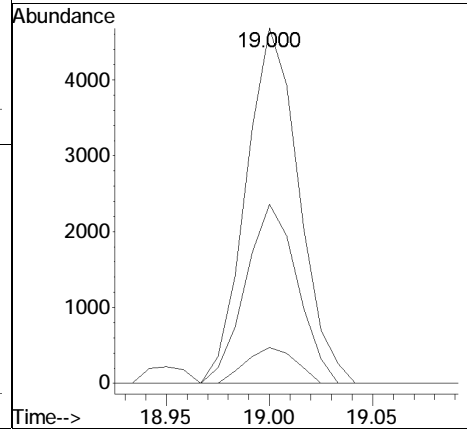
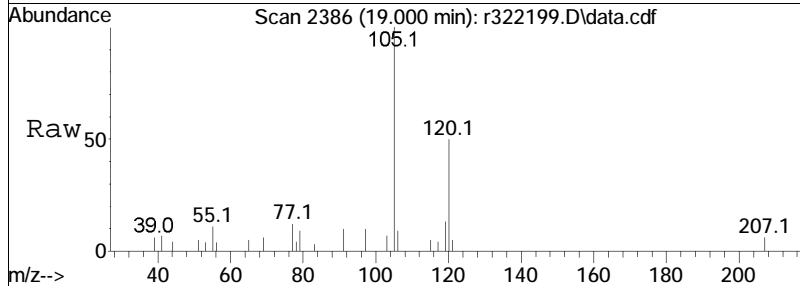
Tgt Ion: 91 Resp: 7141  
 Ion Ratio Lower Upper  
 91 100  
 106 52.3 46.4 69.6





#99  
 1,2,4-trimethylbenzene  
 Concen: 0.10 ppbV  
 RT: 19.000 min Scan# 2386  
 Delta R.T. -0.008 min  
 Lab File: r322199.D  
 Acq: 18 May 2022 6:56 PM

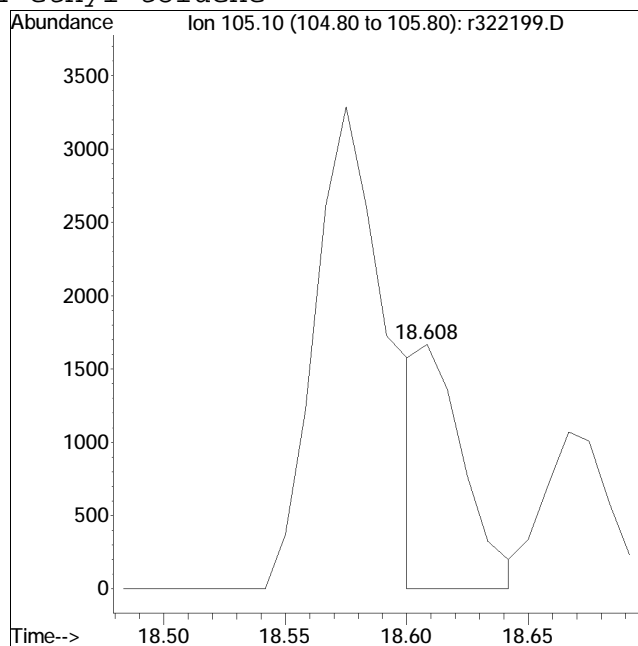
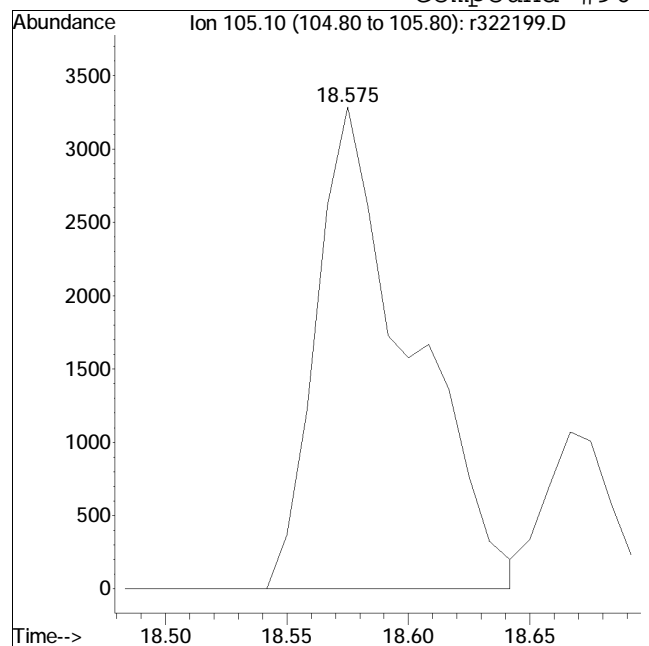
Tgt Ion	Ratio	Lower	Upper
105	100		
120	50.4	49.4	74.2
91	10.1	55.8	83.8#



# Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322199.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/18/2020 0:6: 6 Instrument :  
Sample : L2225590-11,3,250,250 Quant Date : 5/18/2022 10:26 pm

## Compound #96: 4-ethyl toluene



Original Peak Response = 8868

Manual Peak Response = 2162 M6

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
 Data File : r322206.D  
 Acq On : 18 May 2022 11:47 PM  
 Operator : AIRPIANO3:TS  
 Sample : L2225590-10,3,250,250  
 Misc : WG1640147,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 18:01:39 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518T\r322194.D  
 Sub List : TO15-NY-7-SIM - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.542	49	427860	10.000	ppbV	-0.03
Standard Area =	443368		Recovery =	96.50%		
43) 1,4-difluorobenzene	11.820	114	1286151	10.000	ppbV	-0.02
Standard Area =	1337389		Recovery =	96.17%		
67) chlorobenzene-D5	16.567	54	201502	10.000	ppbV	-0.02
Standard Area =	206902		Recovery =	97.39%		

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) dichlorodifluoromethane	3.946	85	20379	0.606	ppbV	98
6) chloromethane	4.126	50	19822	1.225	ppbV	100
7) Freon-114	4.252		0	N.D.		
10) 1,3-butadiene	4.552		0	N.D.		
13) bromomethane	4.864		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	5.263	31	129580	7.883	ppbV	99
17) vinyl bromide	0.000		0	N.D.		
19) acetone	5.840	43	126205M6	5.384	ppbV	
21) trichlorofluoromethane	6.033	101	9421	0.308	ppbV	99
22) isopropyl alcohol	6.170	45	91168	3.232	ppbV	99
27) tertiary butyl alcohol	6.896	59	190185	5.419	ppbV	99
28) methylene chloride	6.980	49	4633	0.174	ppbV	99
29) 3-chloropropene	0.000		0	N.D.	d	
30) carbon disulfide	7.274	76	6232	0.102	ppbV #	4
31) Freon 113	7.310	101	2870	0.084	ppbV	93
32) trans-1,2-dichloroethene	0.000		0	N.D.		
33) 1,1-dichloroethane	0.000		0	N.D.		
34) MTBE	8.442		0	N.D.		
36) 2-butanone	8.858	43	15529	0.364	ppbV	97
38) Ethyl Acetate	9.675	61	507	0.073	ppbV	67
39) chloroform	9.700		0	N.D.		
40) Tetrahydrofuran	10.192	42	1685	0.068	ppbV	97
42) 1,2-dichloroethane	10.558		0	N.D.		
44) hexane	9.617	57	15378	0.419	ppbV #	40
50) benzene	11.380	78	17659	0.235	ppbV	99
53) cyclohexane	11.700	56	4731	0.124	ppbV	94

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
 Data File : r322206.D  
 Acq On : 18 May 2022 11:47 PM  
 Operator : AIRPIANO3:TS  
 Sample : L2225590-10,3,250,250  
 Misc : WG1640147,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 18:01:39 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518T\r322194.D  
 Sub List : TO15-NY-7-SIM - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
56) 1,2-dichloropropane	0.000		0		N.D.	
57) bromodichloromethane	12.560		0		N.D.	
58) 1,4-dioxane	12.653		0		N.D.	
60) 2,2,4-trimethylpentane	12.667	57	28144	0.248	ppbV	94
62) heptane	12.987	43	8648	0.205	ppbV	92
63) cis-1,3-dichloropropene	0.000		0		N.D.	
64) 4-methyl-2-pentanone	13.708	43	3270	0.068	ppbV	96
65) trans-1,3-dichloropropene	0.000		0		N.D.	
66) 1,1,2-trichloroethane	0.000		0		N.D.	
68) toluene	14.775	91	155091	2.049	ppbV	99
72) 2-hexanone	15.100		0		N.D.	
74) dibromochloromethane	0.000		0		N.D.	
75) 1,2-dibromoethane	0.000		0		N.D.	
80) chlorobenzene	16.617		0		N.D.	
81) ethylbenzene	16.958	91	13111	0.144	ppbV	99
83) m+p-xylene	17.117	91	38263	0.516	ppbV	100
84) bromoform	0.000		0		N.D.	
85) styrene	17.450		0		N.D.	
86) 1,1,2,2-tetrachloroethane	17.592		0		N.D.	
87) o-xylene	17.542	91	15426	0.209	ppbV	98
96) 4-ethyl toluene	18.608		0		N.D.	
97) 1,3,5-trimethylbenzene	18.667		0		N.D.	
99) 1,2,4-trimethylbenzene	19.000	105	14481M6	0.160	ppbV	
101) Benzyl Chloride	19.175		0		N.D.	
102) 1,3-dichlorobenzene	19.183		0		N.D.	
103) 1,4-dichlorobenzene	19.183		0		N.D.	
107) 1,2-dichlorobenzene	0.000		0		N.D.	
115) 1,2,4-trichlorobenzene	20.933		0		N.D.	
119) hexachlorobutadiene	0.000		0		N.D.	

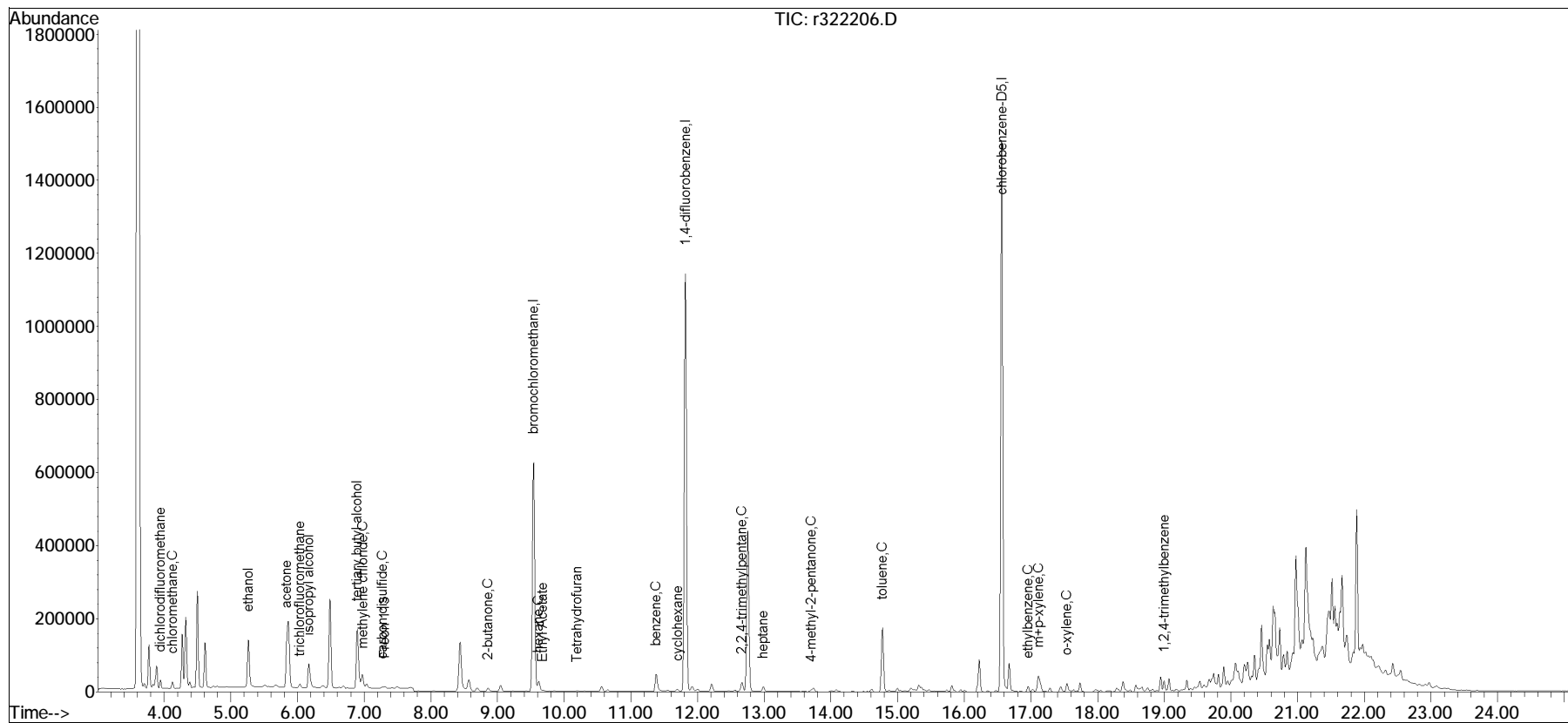
(#) = qualifier out of range (m) = manual integration (+) = signals summed

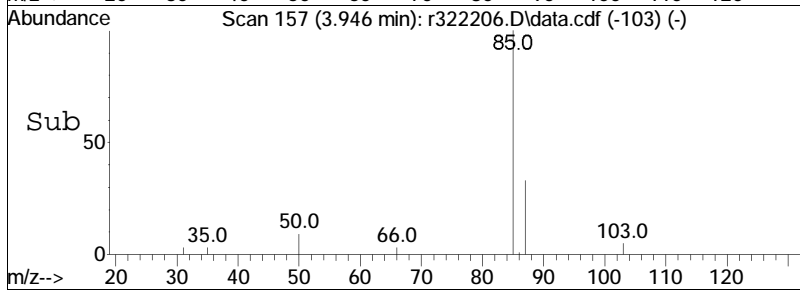
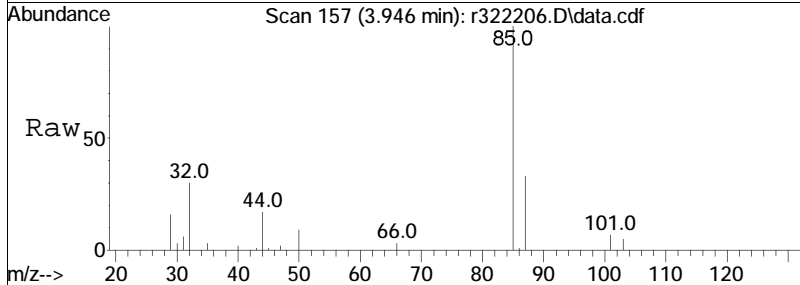
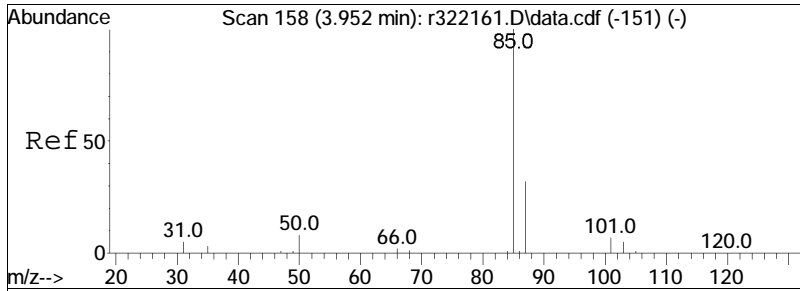


Sub List : TO15-NY-7-SIM - .\Airpiano3\2022\05\0518T\r322194.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
Data File : r322206.D  
Acq On : 18 May 2022 11:47 PM  
Operator : AIRPIANO3:TS  
Sample : L2225590-10,3,250,250  
Misc : WG1640147,ICAL19030  
ALS Vial : 0 Sample Multiplier: 1

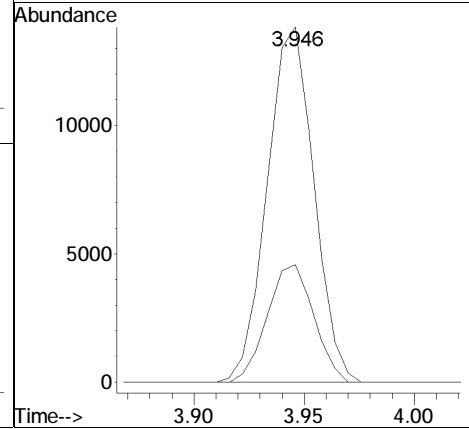
Quant Time: May 19 18:01:39 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 15:52:12 2022  
Response via : Initial Calibration

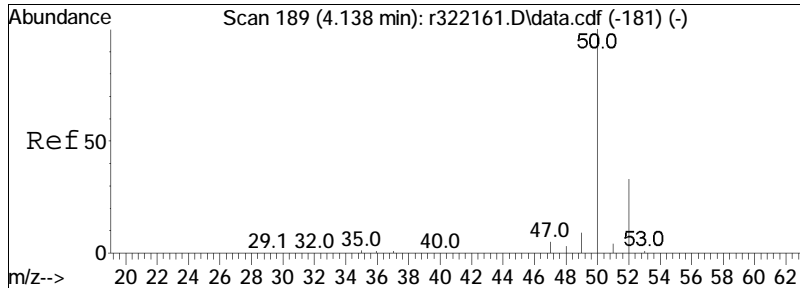




#5  
dichlorodifluoromethane  
Concen: 0.61 ppbV  
RT: 3.946 min Scan# 157  
Delta R.T. -0.006 min  
Lab File: r322206.D  
Acq: 18 May 2022 11:47 PM

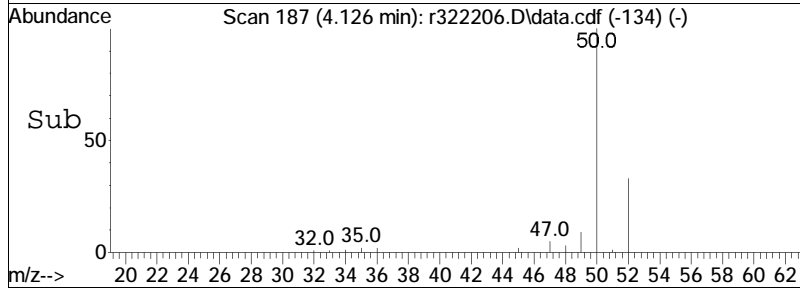
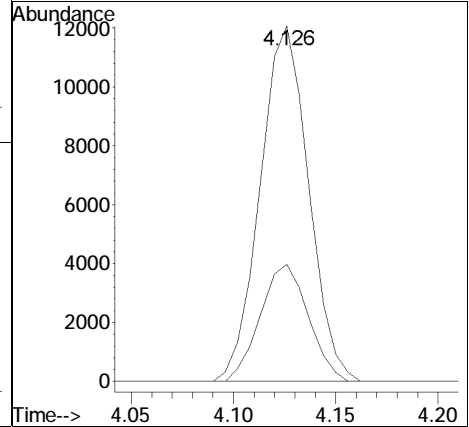
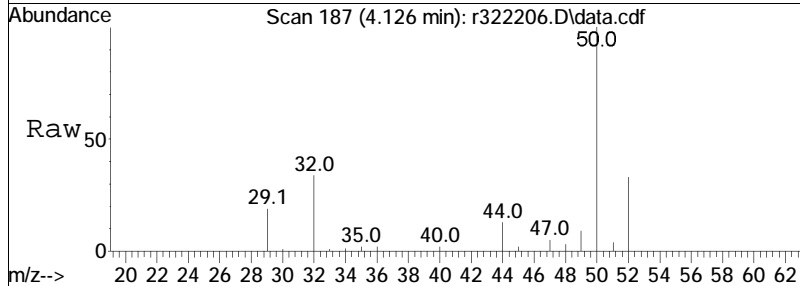
Tgt Ion: 85 Resp: 20379  
Ion Ratio Lower Upper  
85 100  
87 33.1 25.8 38.6

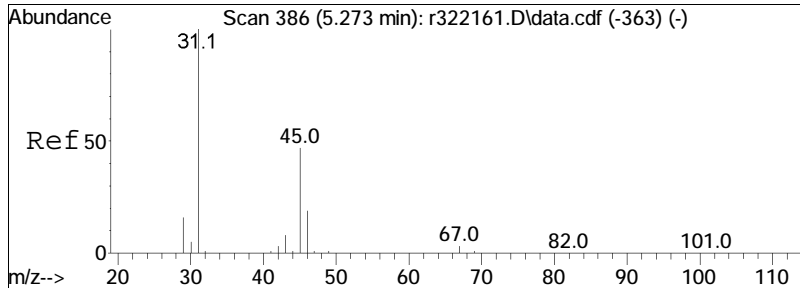




#6  
 chloromethane  
 Concen: 1.23 ppbV  
 RT: 4.126 min Scan# 187  
 Delta R.T. -0.012 min  
 Lab File: r322206.D  
 Acq: 18 May 2022 11:47 PM

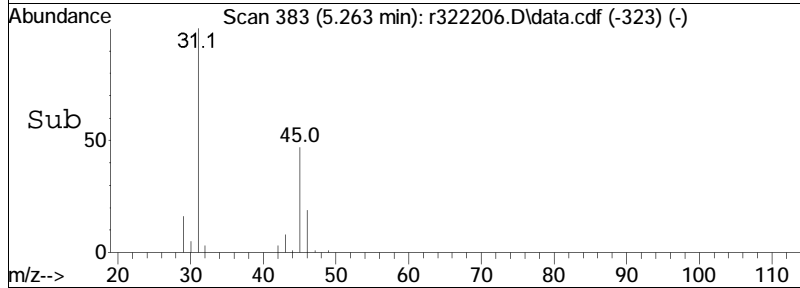
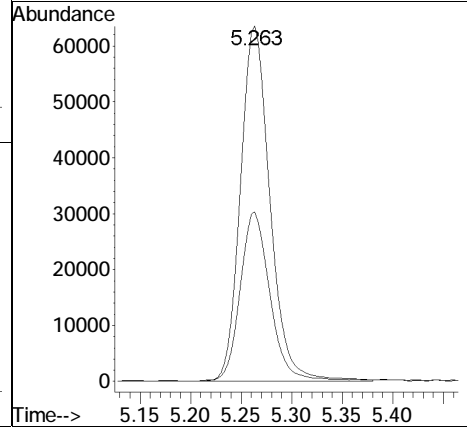
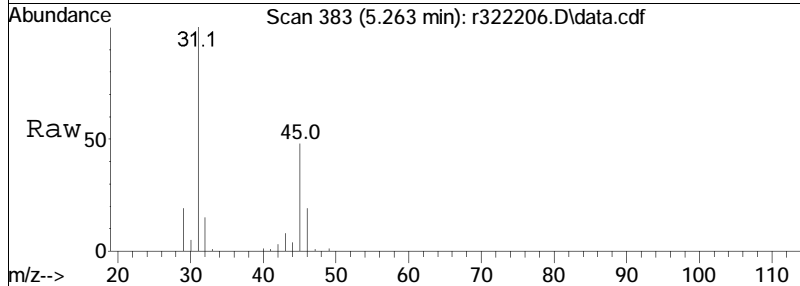
Tgt Ion	Resp	Lower	Upper
50	100		
52	33.0	26.3	39.5

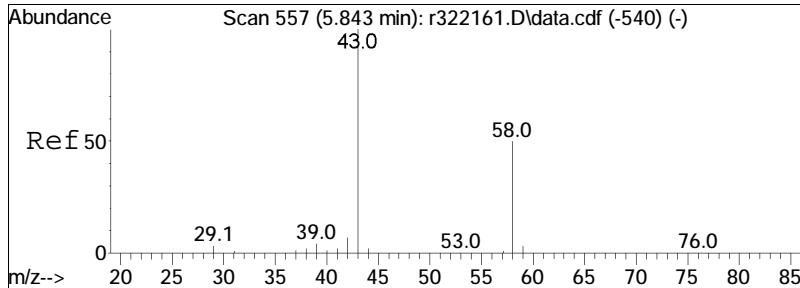




#15  
 ethanol  
 Concen: 7.88 ppbV  
 RT: 5.263 min Scan# 383  
 Delta R.T. -0.010 min  
 Lab File: r322206.D  
 Acq: 18 May 2022 11:47 PM

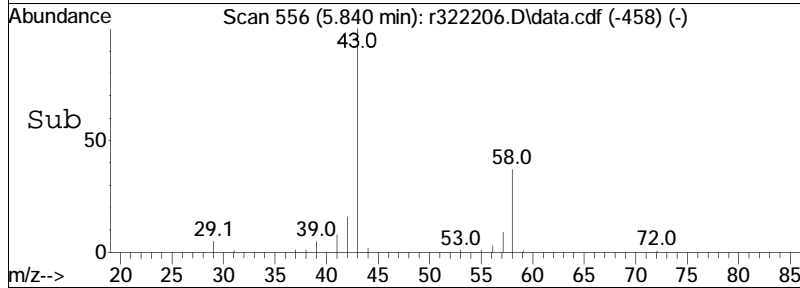
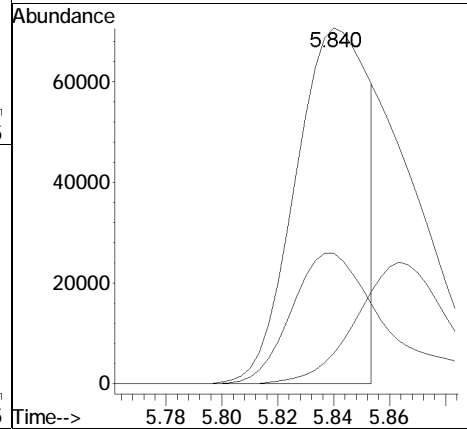
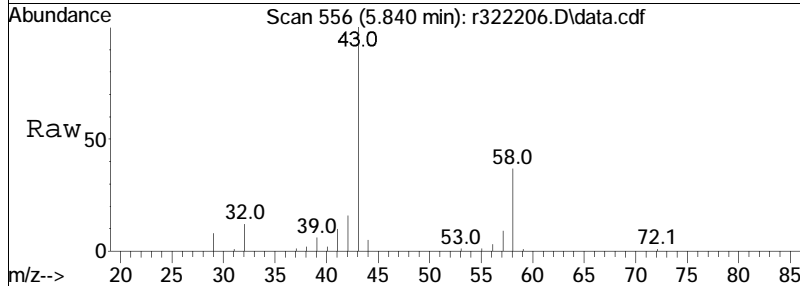
Tgt Ion:	31	45	Resp:	129580
Ion Ratio	100	47.7	Lower	Upper
			37.6	56.4

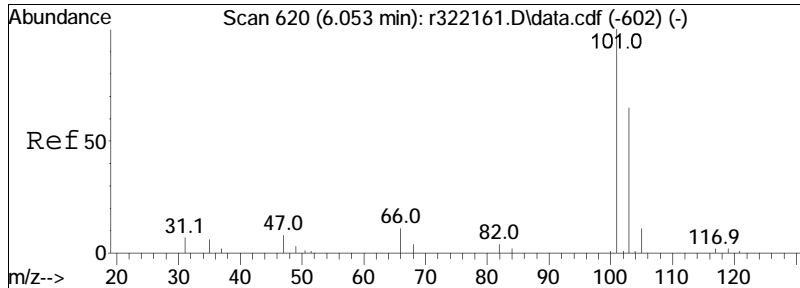




#19  
 acetone  
 Concen: 5.38 ppbV m  
 RT: 5.840 min Scan# 556  
 Delta R.T. -0.003 min  
 Lab File: r322206.D  
 Acq: 18 May 2022 11:47 PM

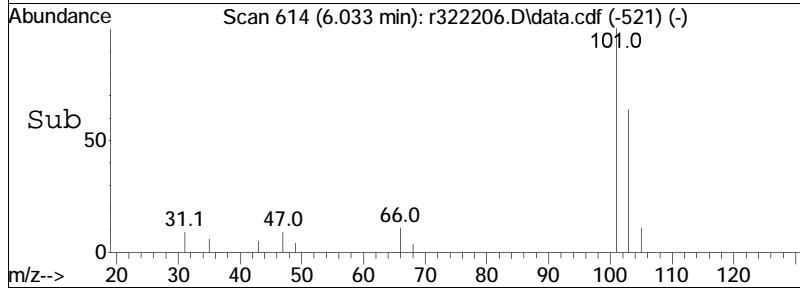
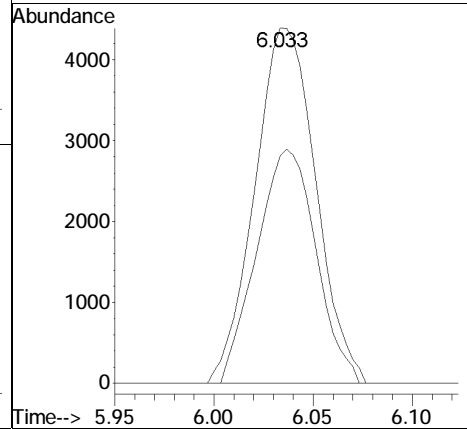
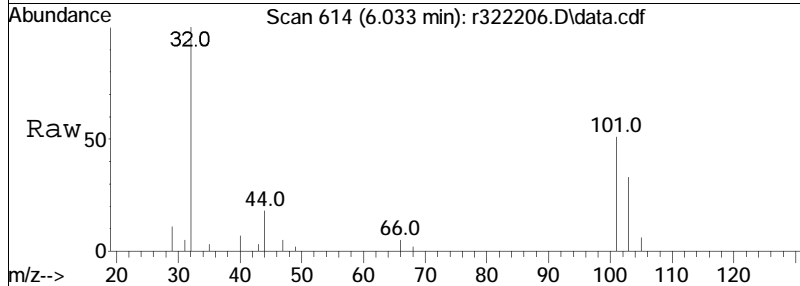
Tgt Ion	Ratio	Lower	Upper
43	100		
58	36.6	39.8	59.8#
57	8.5	1.0	1.6#

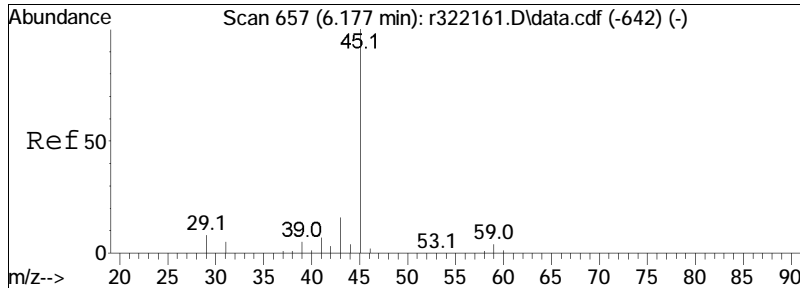




#21  
 trichlorofluoromethane  
 Concen: 0.31 ppbV  
 RT: 6.033 min Scan# 614  
 Delta R.T. -0.020 min  
 Lab File: r322206.D  
 Acq: 18 May 2022 11:47 PM

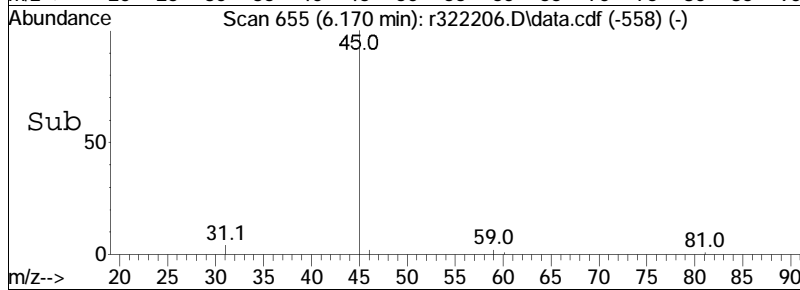
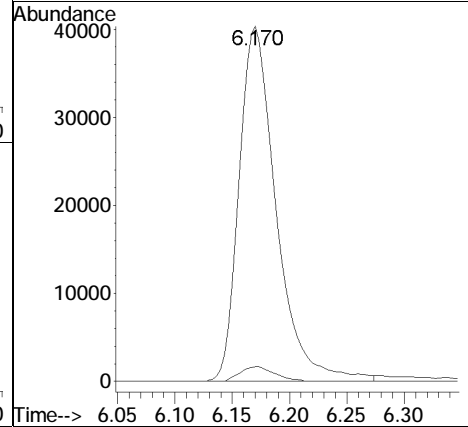
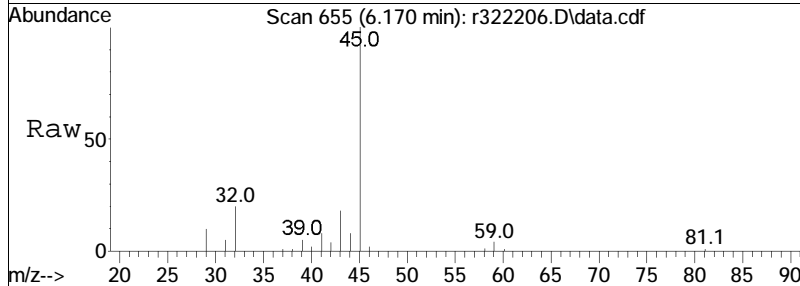
Tgt Ion	Resp	Lower	Upper
101	100		
103	64.0	51.8	77.6

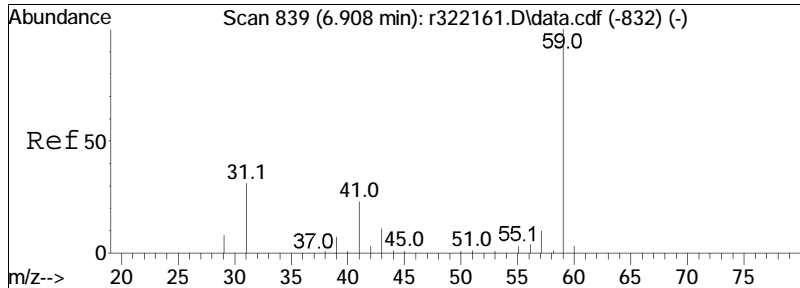




#22  
 isopropyl alcohol  
 Concen: 3.23 ppbV  
 RT: 6.170 min Scan# 655  
 Delta R.T. -0.007 min  
 Lab File: r322206.D  
 Acq: 18 May 2022 11:47 PM

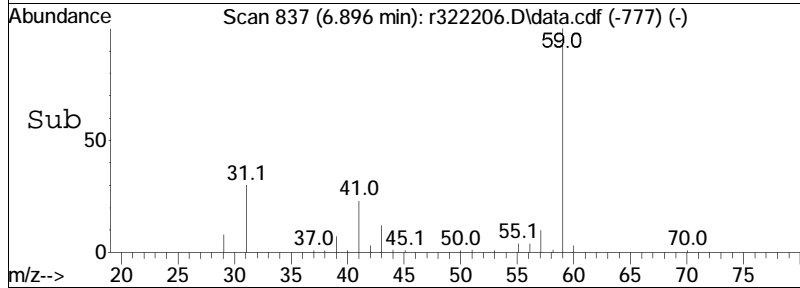
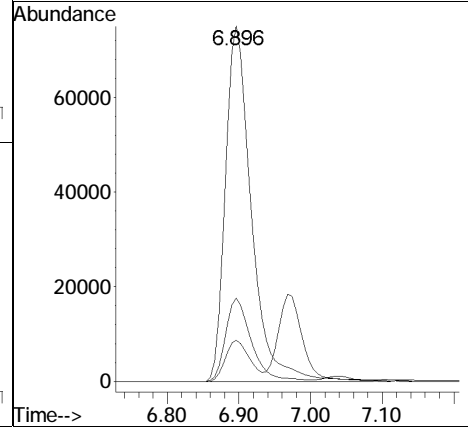
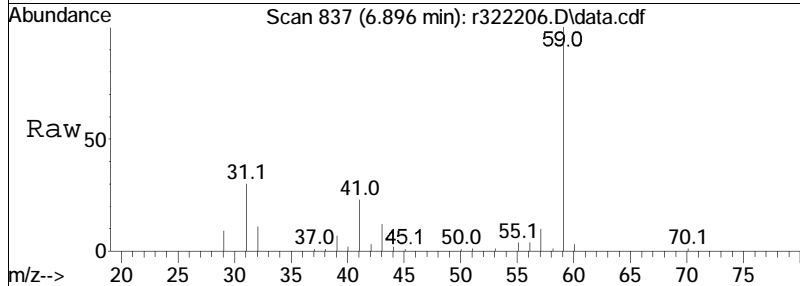
Tgt Ion	Resp	Lower	Upper
45	100		
59	4.1	3.5	5.3



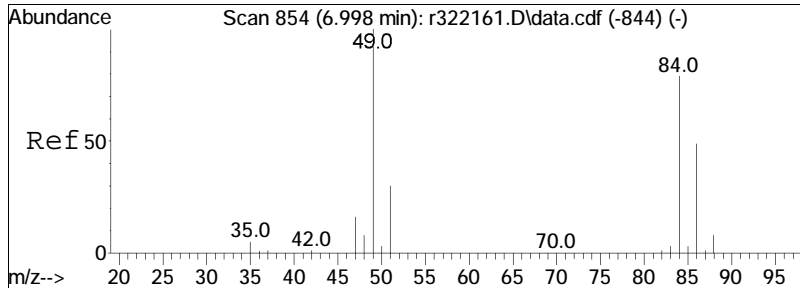


#27  
 tertiary butyl alcohol  
 Concen: 5.42 ppbV  
 RT: 6.896 min Scan# 837  
 Delta R.T. -0.012 min  
 Lab File: r322206.D  
 Acq: 18 May 2022 11:47 PM

Tgt Ion	Resp	Lower	Upper
59	100		
41	23.4	18.2	27.2
43	11.6	8.9	13.3

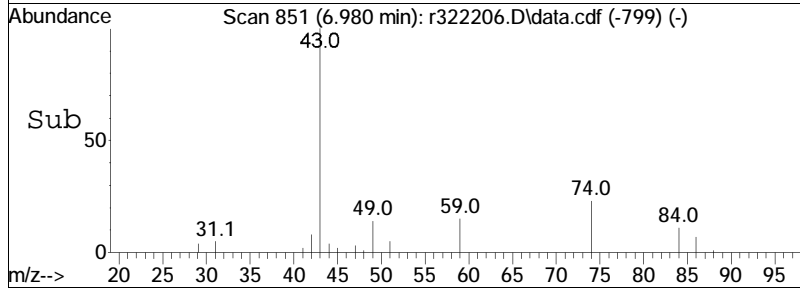
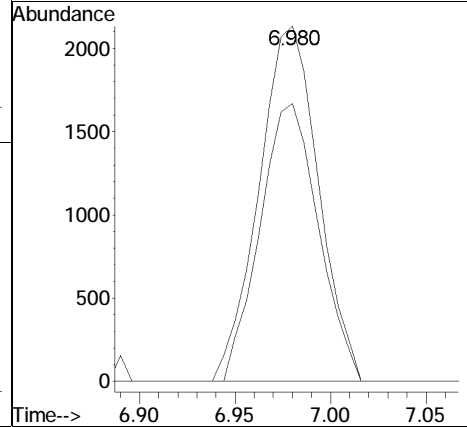
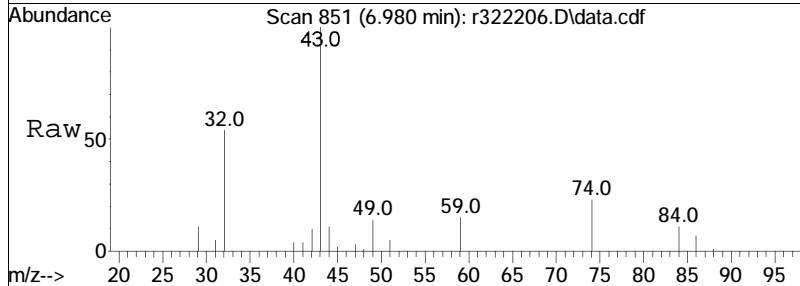


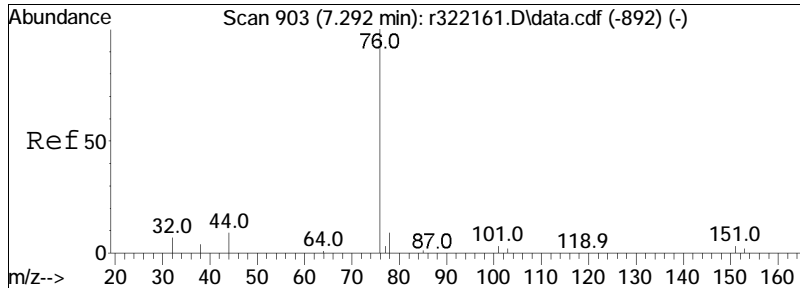




#28  
 methylene chloride  
 Concen: 0.17 ppbV  
 RT: 6.980 min Scan# 851  
 Delta R.T. -0.018 min  
 Lab File: r322206.D  
 Acq: 18 May 2022 11:47 PM

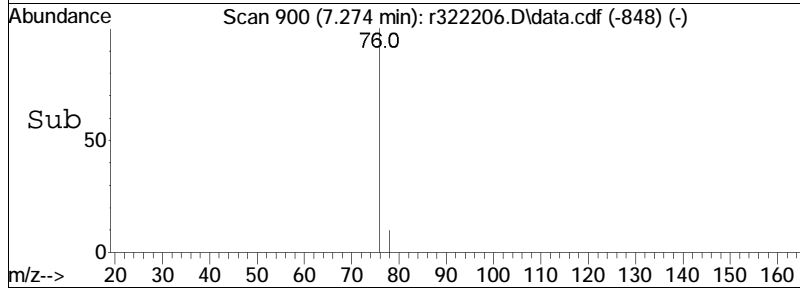
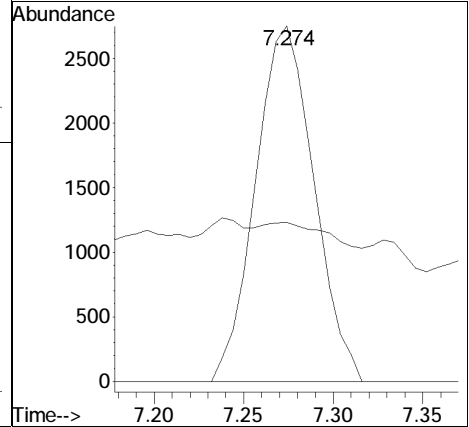
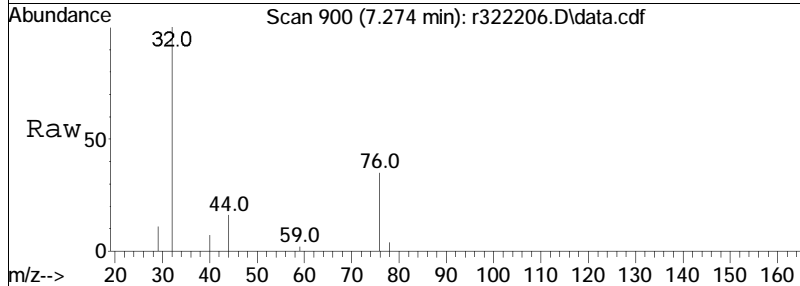
Tgt Ion:	Resp:	Lower	Upper
49	100		
84	78.2	63.0	94.6

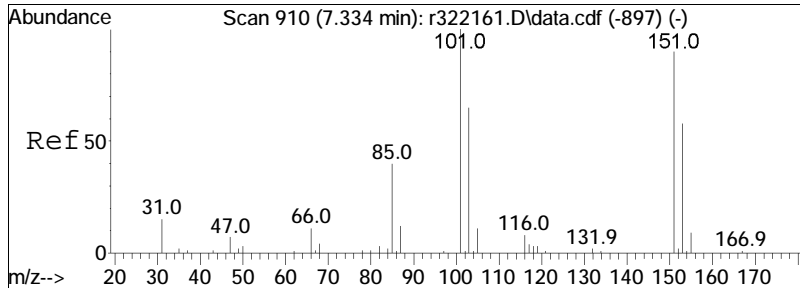




#30  
 carbon disulfide  
 Concen: 0.10 ppbV  
 RT: 7.274 min Scan# 900  
 Delta R.T. -0.018 min  
 Lab File: r322206.D  
 Acq: 18 May 2022 11:47 PM

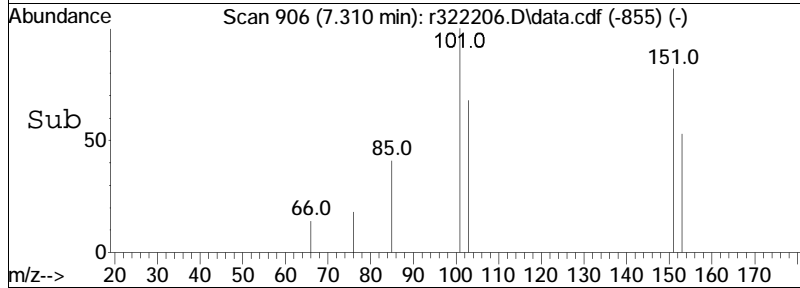
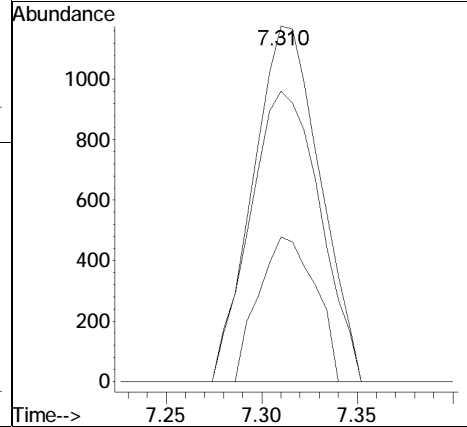
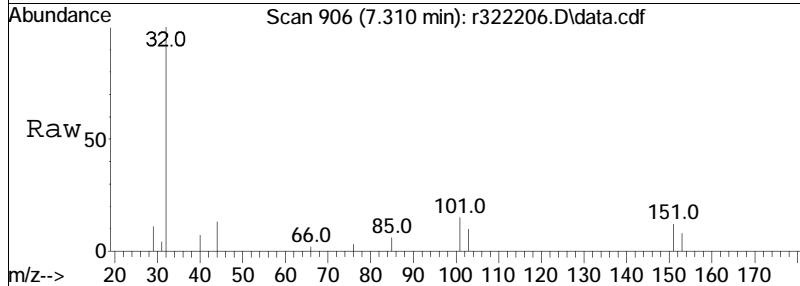
Tgt Ion	Resp	Lower	Upper
76	100		
44	44.8	7.6	11.4#

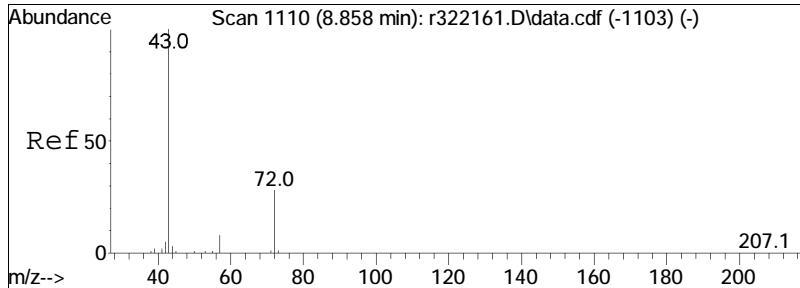




#31  
 Freon 113  
 Concen: 0.08 ppbV  
 RT: 7.310 min Scan# 906  
 Delta R.T. -0.024 min  
 Lab File: r322206.D  
 Acq: 18 May 2022 11:47 PM

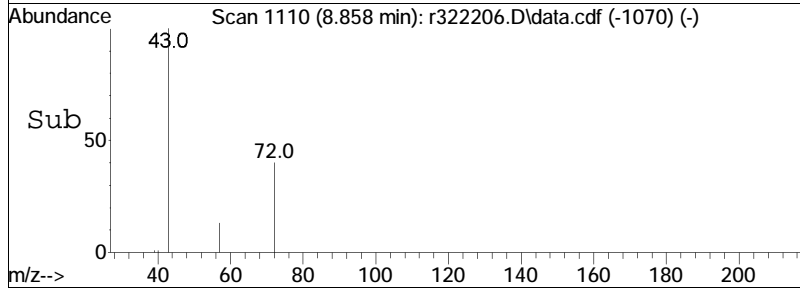
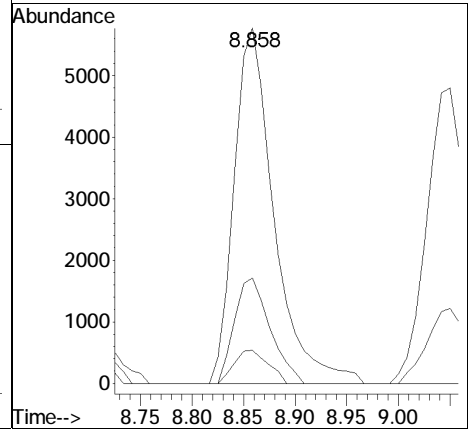
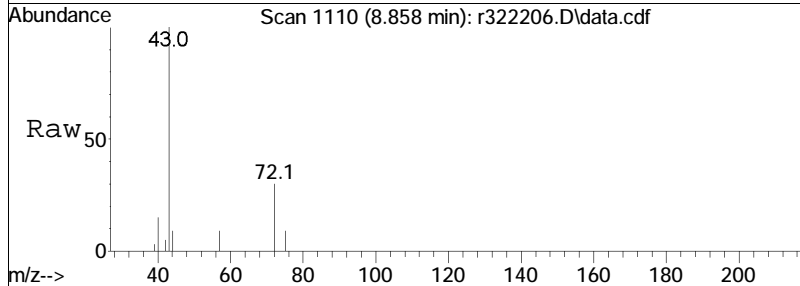
Tgt Ion	101	Resp	2870
Ion Ratio	Lower	Upper	
101	100		
85	40.6	31.8	47.8
151	81.7	72.2	108.4

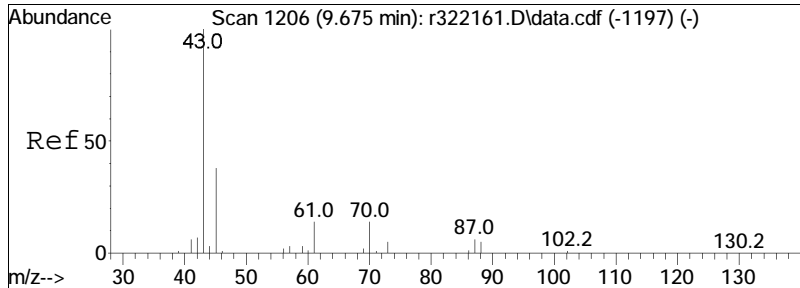




#36  
 2-butanone  
 Concen: 0.36 ppbV  
 RT: 8.858 min Scan# 1110  
 Delta R.T. 0.000 min  
 Lab File: r322206.D  
 Acq: 18 May 2022 11:47 PM

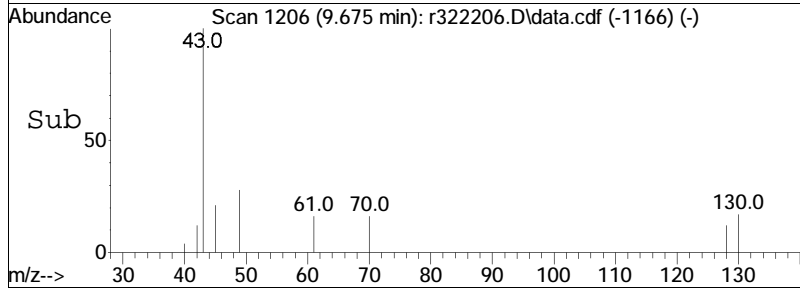
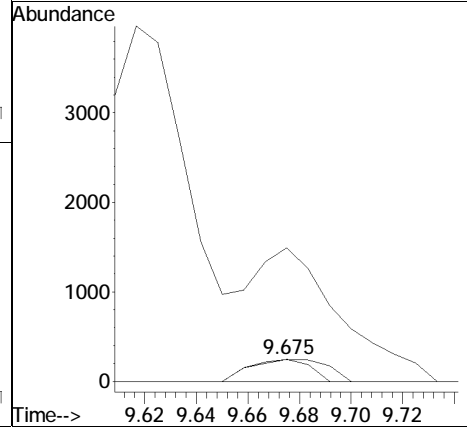
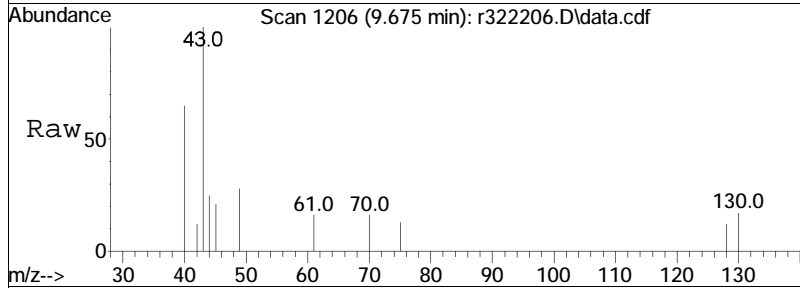
Tgt Ion	Resp	Lower	Upper
43	15529		
72	29.7	22.6	33.8
57	9.3	6.6	10.0

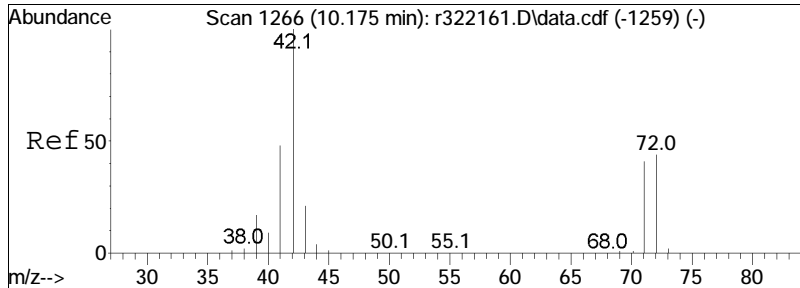




#38  
 Ethyl Acetate  
 Concen: 0.07 ppbV  
 RT: 9.675 min Scan# 1206  
 Delta R.T. 0.000 min  
 Lab File: r322206.D  
 Acq: 18 May 2022 11:47 PM

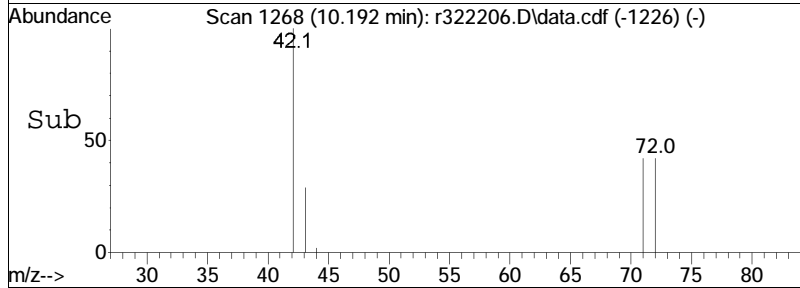
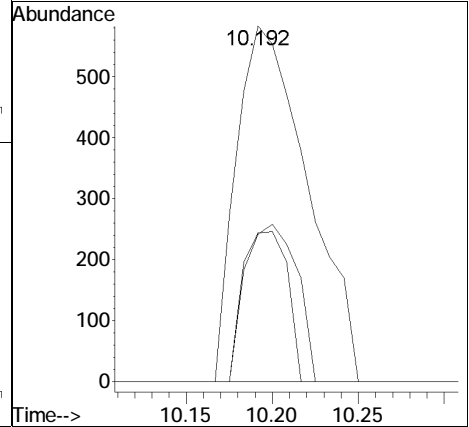
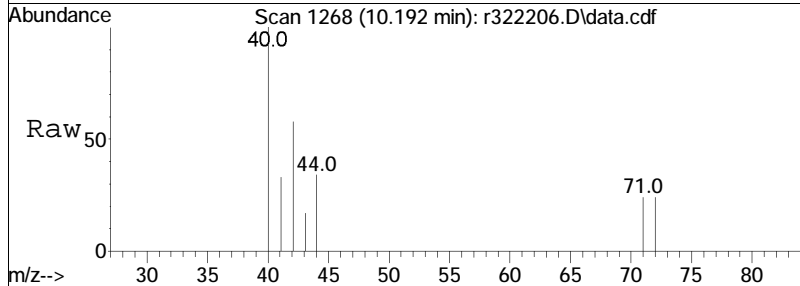
Tgt Ion	Resp	Lower	Upper
61	100		
70	100.0	78.8	118.2
43	607.3	593.4	890.0

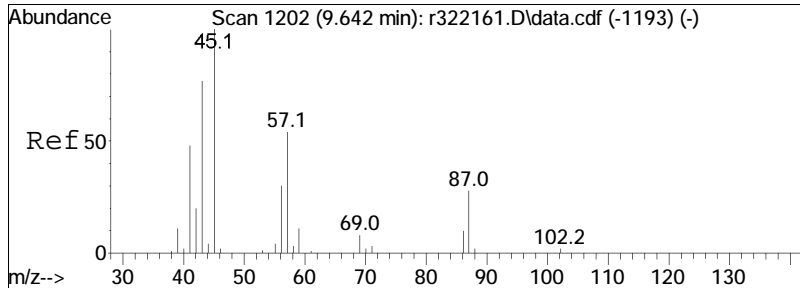




#40  
 Tetrahydrofuran  
 Concen: 0.07 ppbV  
 RT: 10.192 min Scan# 1268  
 Delta R.T. 0.017 min  
 Lab File: r322206.D  
 Acq: 18 May 2022 11:47 PM

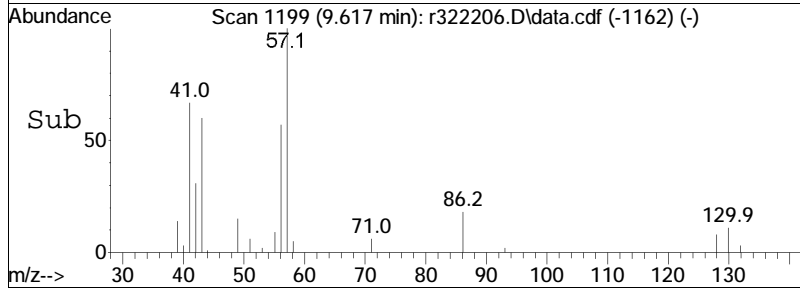
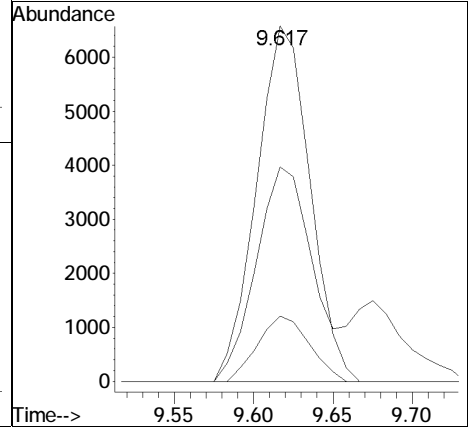
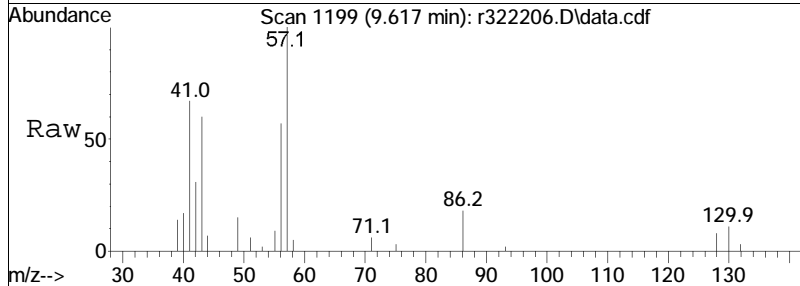
Tgt Ion	Resp	Lower	Upper
42	100		
71	41.5	32.4	48.6
72	41.9	35.2	52.8

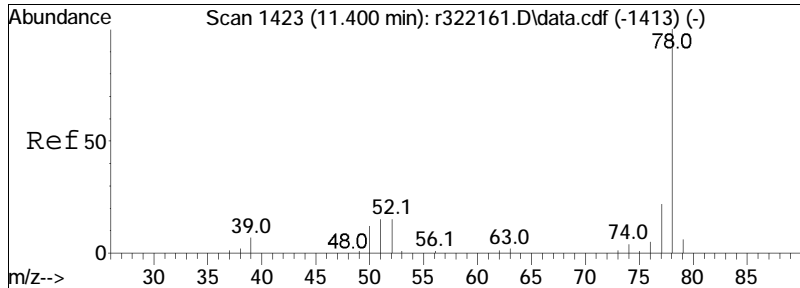




#44  
 hexane  
 Concen: 0.42 ppbV  
 RT: 9.617 min Scan# 1199  
 Delta R.T. -0.025 min  
 Lab File: r322206.D  
 Acq: 18 May 2022 11:47 PM

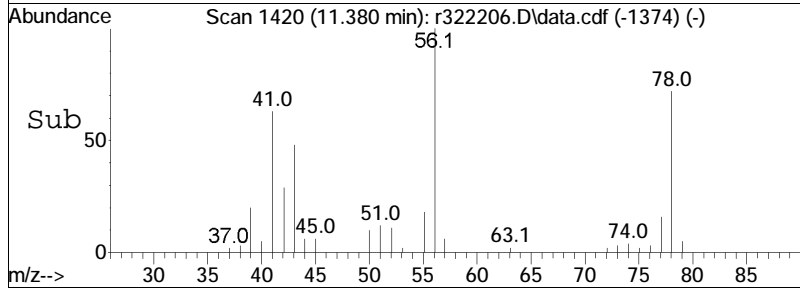
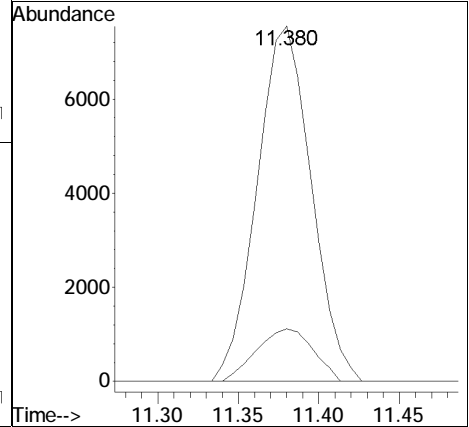
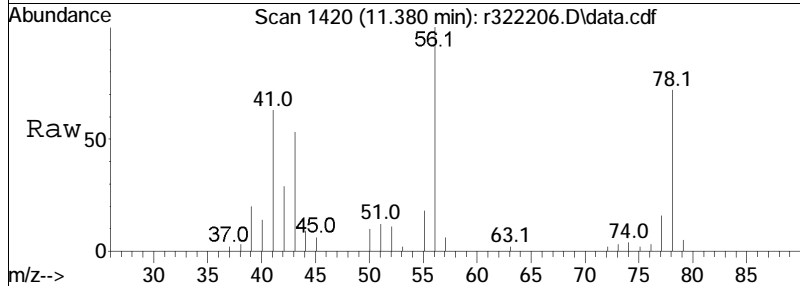
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
57	100		
43	60.4	115.0	172.6#
86	18.4	15.5	23.3



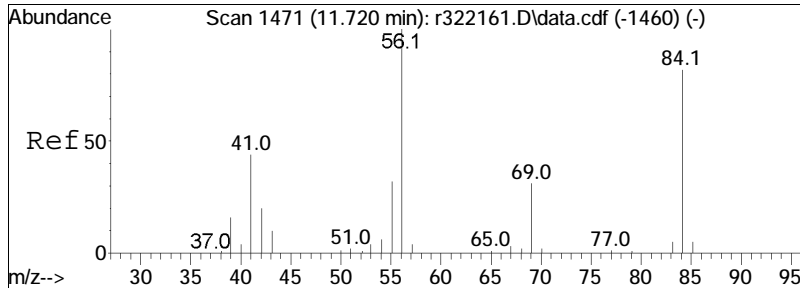


#50  
benzene  
Concen: 0.23 ppbV  
RT: 11.380 min Scan# 1420  
Delta R.T. -0.020 min  
Lab File: r322206.D  
Acq: 18 May 2022 11:47 PM

Tgt Ion:	78	52	Resp:	17659
Ion Ratio	100	14.8	Lower	Upper
			12.2	18.2

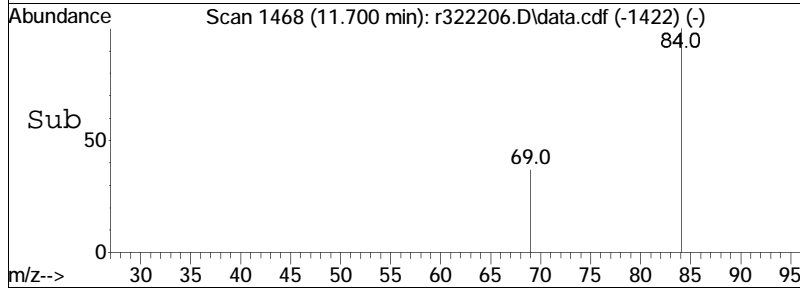
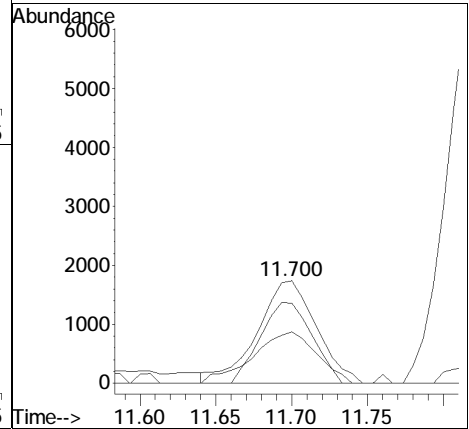
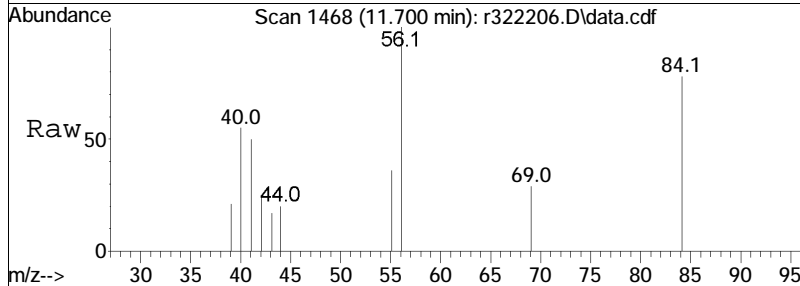


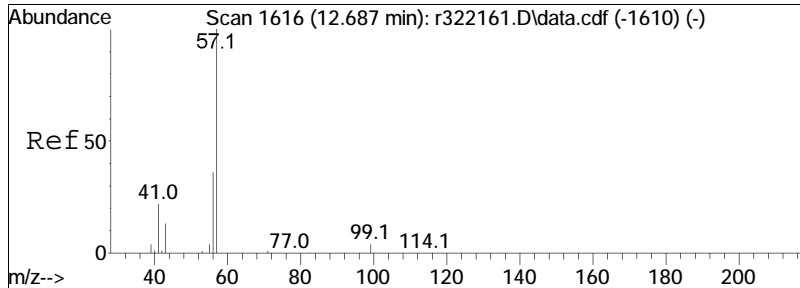




#53  
 cyclohexane  
 Concen: 0.12 ppbV  
 RT: 11.700 min Scan# 1468  
 Delta R.T. -0.020 min  
 Lab File: r322206.D  
 Acq: 18 May 2022 11:47 PM

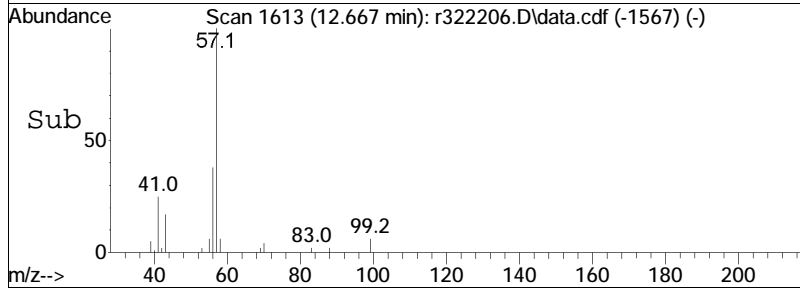
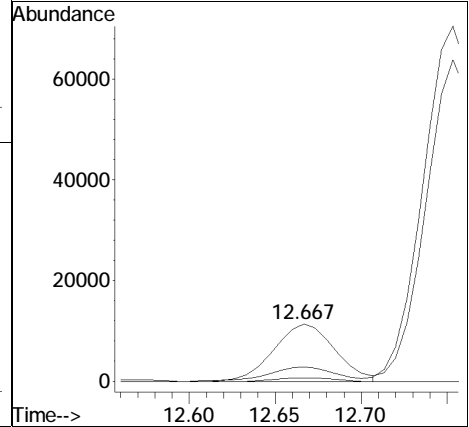
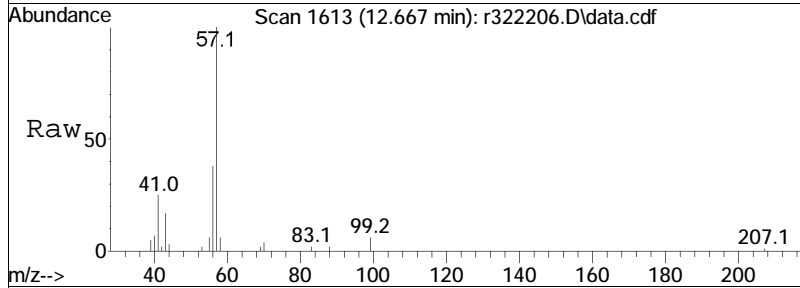
Tgt Ion	Resp	Lower	Upper
56	100		
84	78.3	65.4	98.0
41	50.2	35.4	53.2

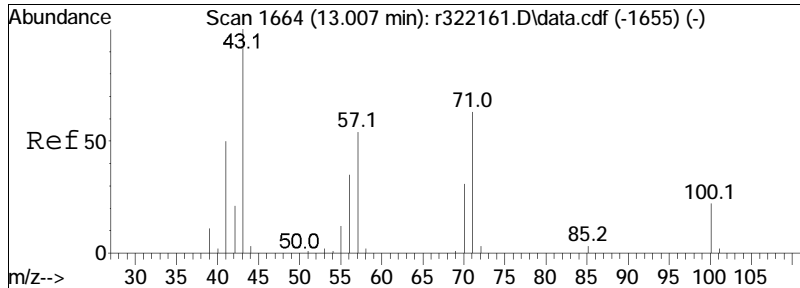




#60  
 2,2,4-trimethylpentane  
 Concen: 0.25 ppbV  
 RT: 12.667 min Scan# 1613  
 Delta R.T. -0.020 min  
 Lab File: r322206.D  
 Acq: 18 May 2022 11:47 PM

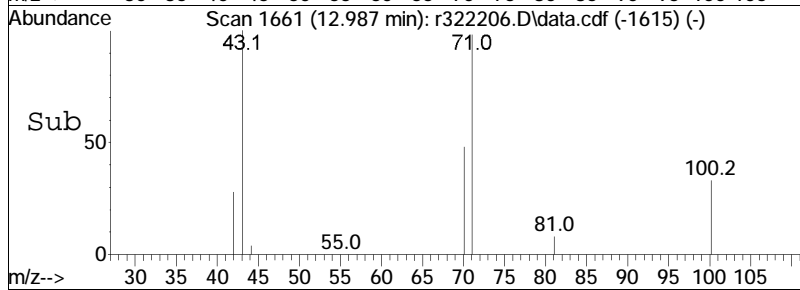
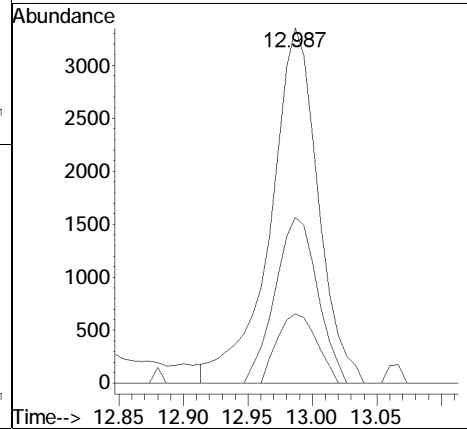
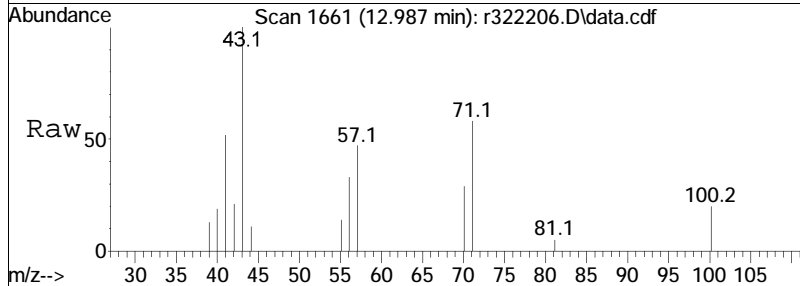
Tgt Ion:	Resp:		
Ion Ratio	Lower	Upper	
57	100		
99	6.2	5.0	7.4
41	25.3	17.4	26.2

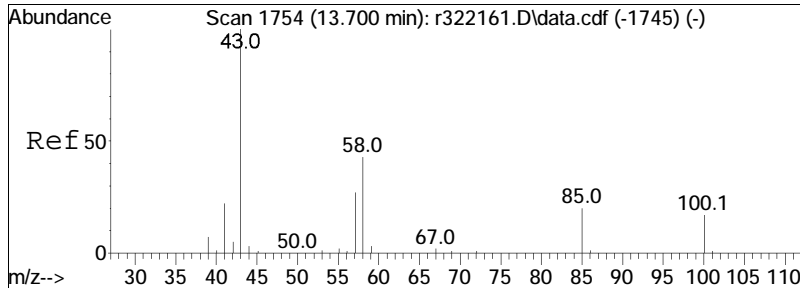




#62  
 heptane  
 Concen: 0.20 ppbV  
 RT: 12.987 min Scan# 1661  
 Delta R.T. -0.020 min  
 Lab File: r322206.D  
 Acq: 18 May 2022 11:47 PM

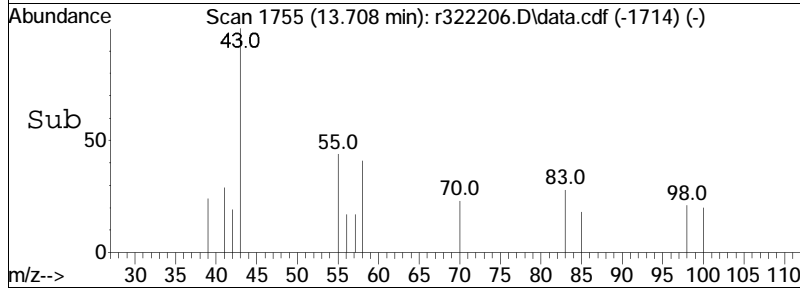
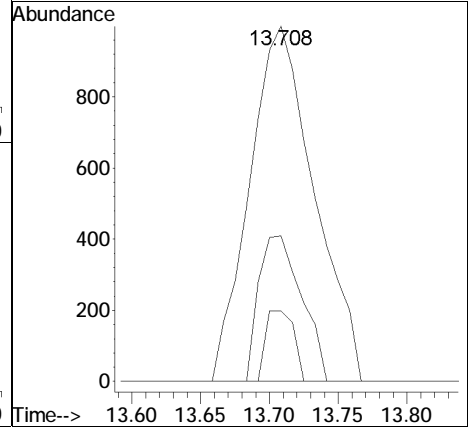
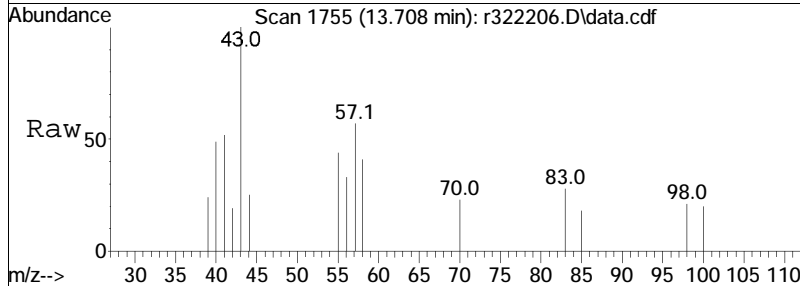
Tgt Ion	Resp	Lower	Upper
43	100		
57	46.7	43.0	64.4
100	19.6	17.6	26.4

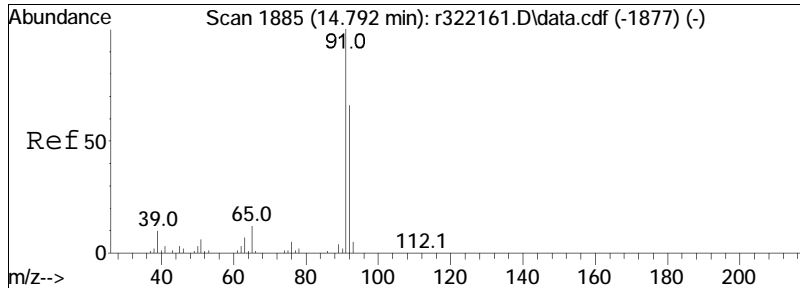




#64  
 4-methyl-2-pentanone  
 Concen: 0.07 ppbV  
 RT: 13.708 min Scan# 1755  
 Delta R.T. 0.008 min  
 Lab File: r322206.D  
 Acq: 18 May 2022 11:47 PM

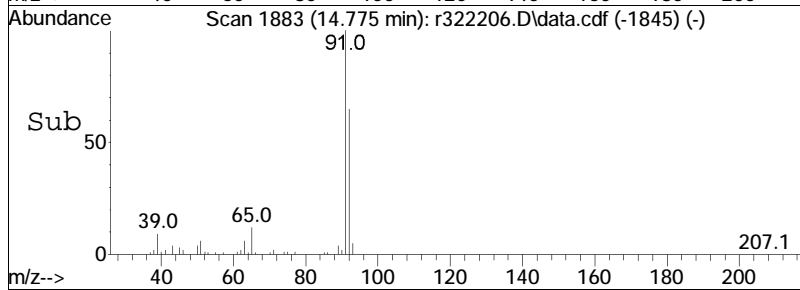
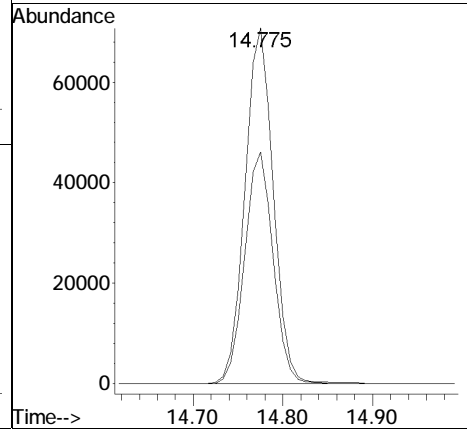
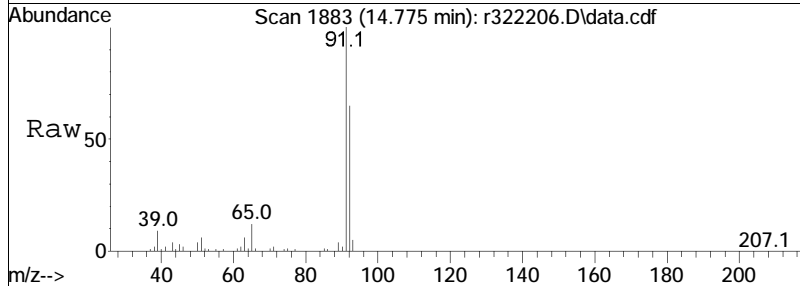
Tgt Ion	Resp	Lower	Upper
43	3270		
58	40.9	34.3	51.5
100	19.8	13.8	20.6

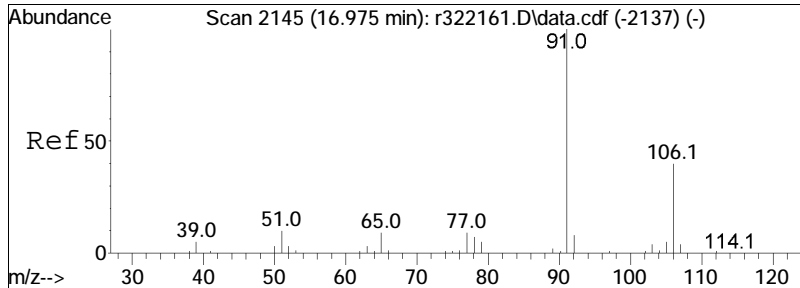




#68  
 toluene  
 Concen: 2.05 ppbV  
 RT: 14.775 min Scan# 1883  
 Delta R.T. -0.017 min  
 Lab File: r322206.D  
 Acq: 18 May 2022 11:47 PM

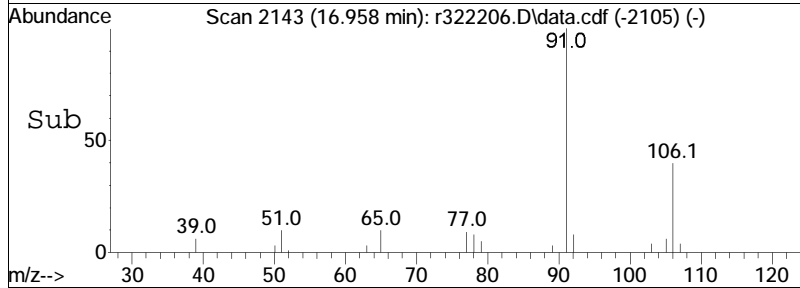
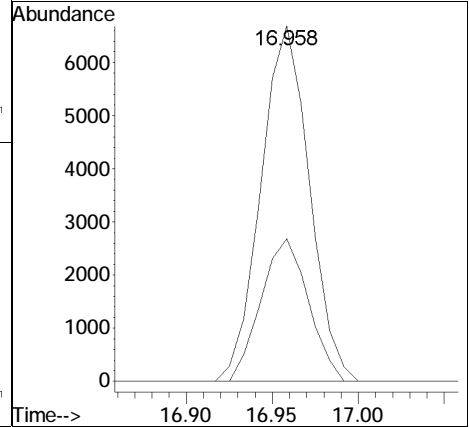
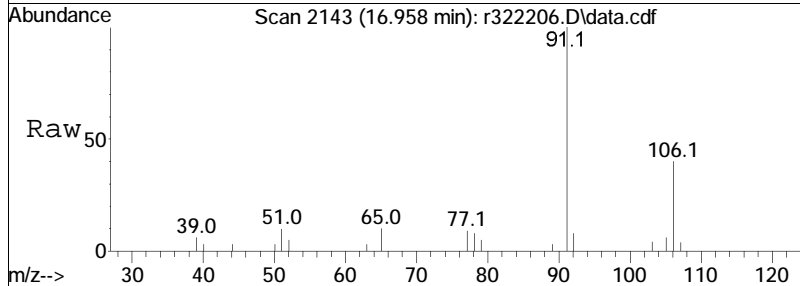
Tgt Ion:	91	Resp:	155091
Ion Ratio	Lower	Upper	
91	100		
92	65.1	52.7	79.1

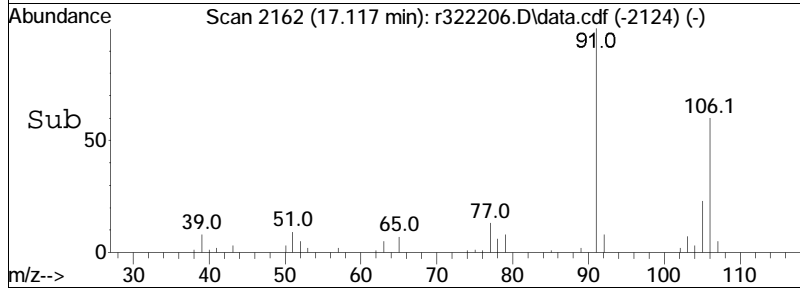
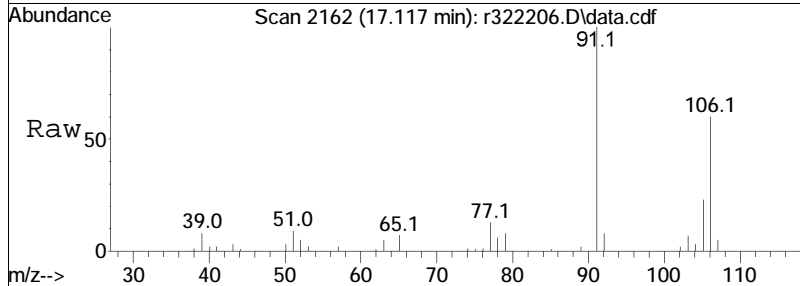
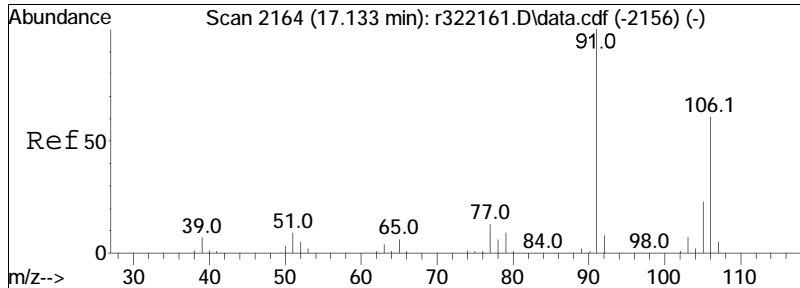




#81  
 ethylbenzene  
 Concen: 0.14 ppbV  
 RT: 16.958 min Scan# 2143  
 Delta R.T. -0.017 min  
 Lab File: r322206.D  
 Acq: 18 May 2022 11:47 PM

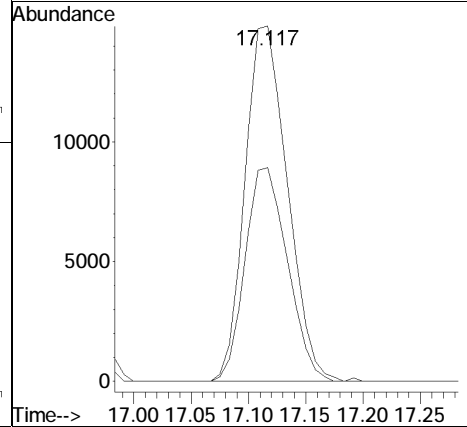
Tgt Ion	Resp	Lower	Upper
91	13111		
106	40.1	32.4	48.6

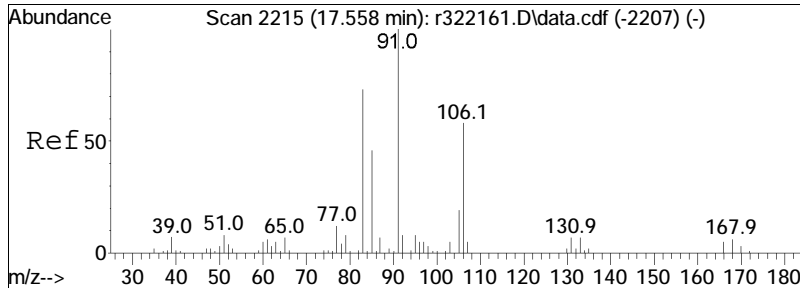




#83  
 m+p-xylene  
 Concen: 0.52 ppbV  
 RT: 17.117 min Scan# 2162  
 Delta R.T. -0.017 min  
 Lab File: r322206.D  
 Acq: 18 May 2022 11:47 PM

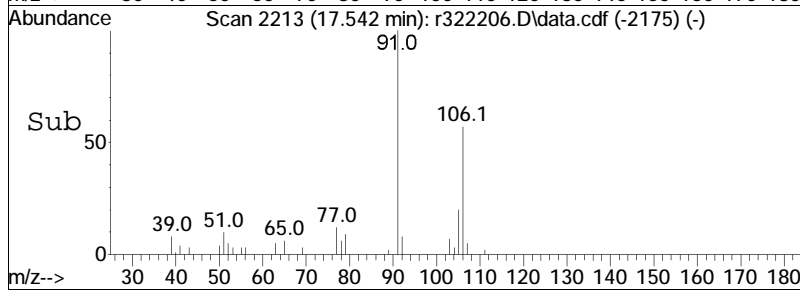
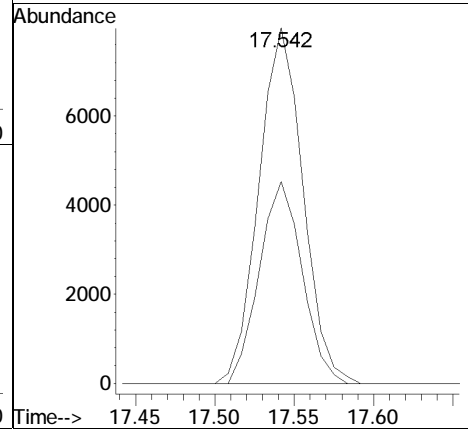
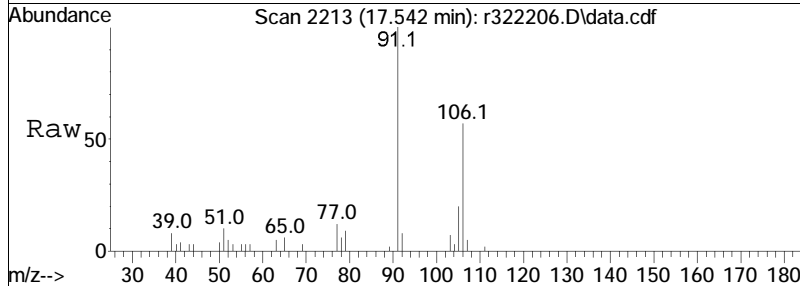
Tgt Ion: 91 Resp: 38263  
 Ion Ratio Lower Upper  
 91 100  
 106 60.2 48.4 72.6



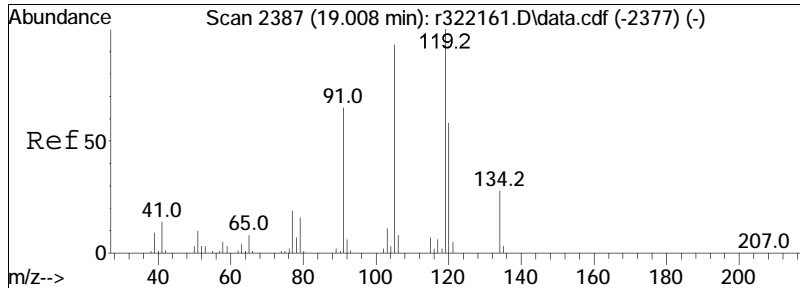


#87  
 o-xylene  
 Concen: 0.21 ppbV  
 RT: 17.542 min Scan# 2213  
 Delta R.T. -0.017 min  
 Lab File: r322206.D  
 Acq: 18 May 2022 11:47 PM

Tgt Ion: 91 Resp: 15426  
 Ion Ratio Lower Upper  
 91 100  
 106 56.8 46.4 69.6

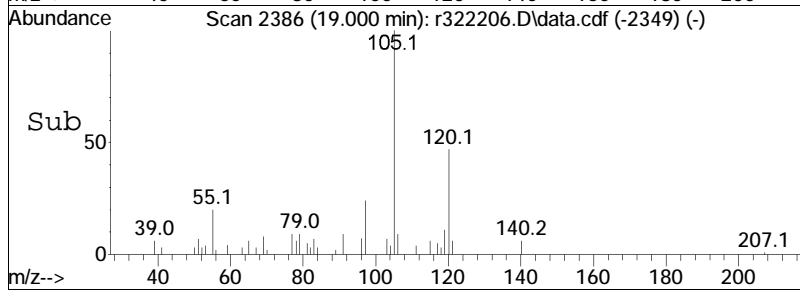
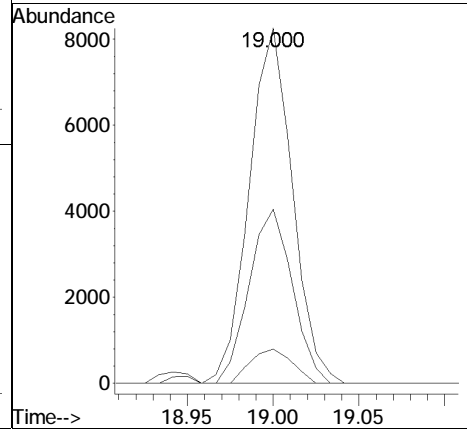
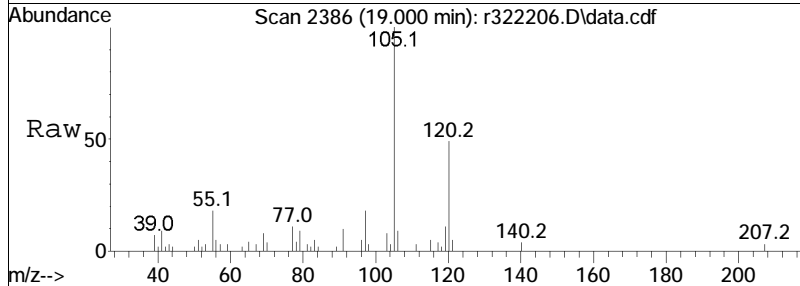






#99  
 1,2,4-trimethylbenzene  
 Concen: 0.16 ppbV m  
 RT: 19.000 min Scan# 2386  
 Delta R.T. -0.008 min  
 Lab File: r322206.D  
 Acq: 18 May 2022 11:47 PM

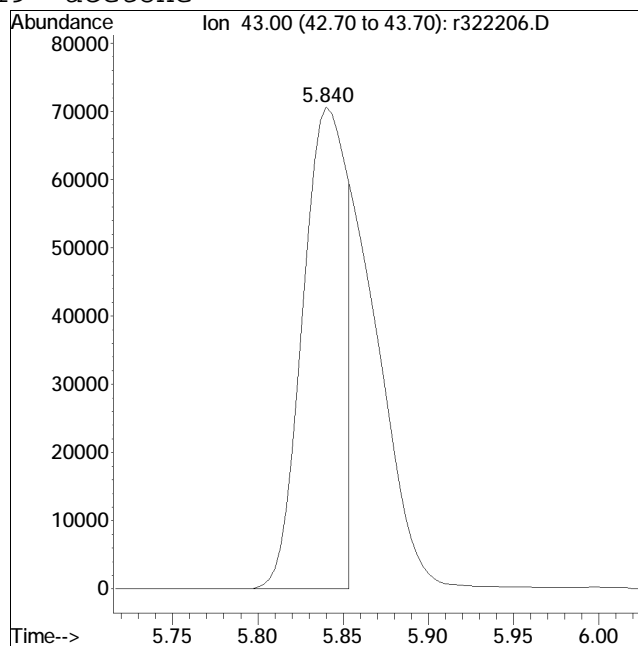
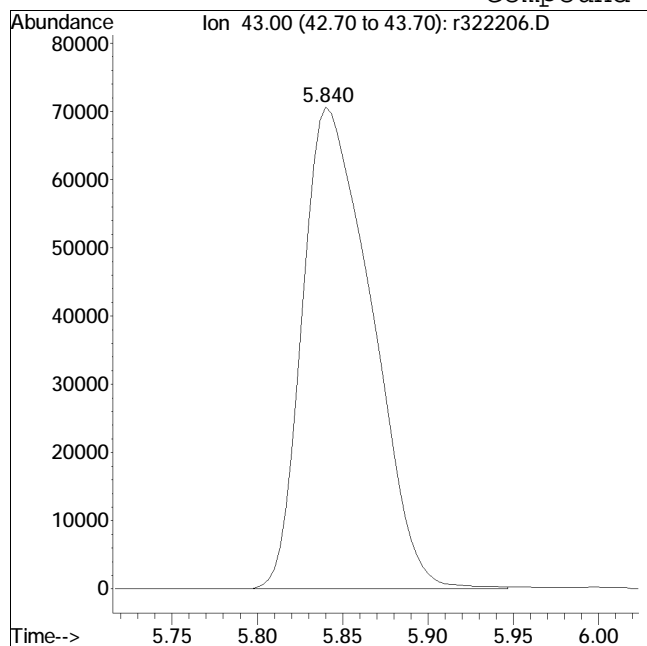
Tgt Ion	Ratio	Lower	Upper
105	100		
120	49.0	49.4	74.2#
91	9.7	55.8	83.8#



# Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322206.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/18/2020 0:1: 7 Instrument :  
Sample : L2225590-10,3,250,250 Quant Date : 5/19/2022 8:50 am

## Compound #19: acetone



Original Peak Response = 198713

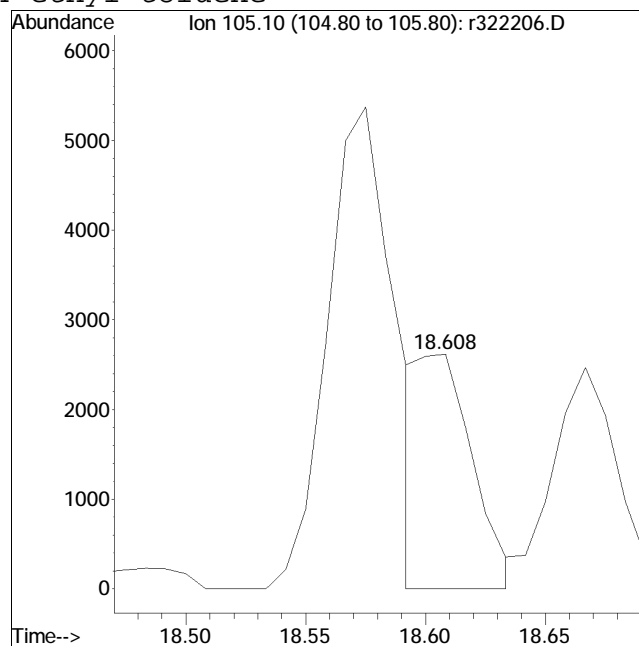
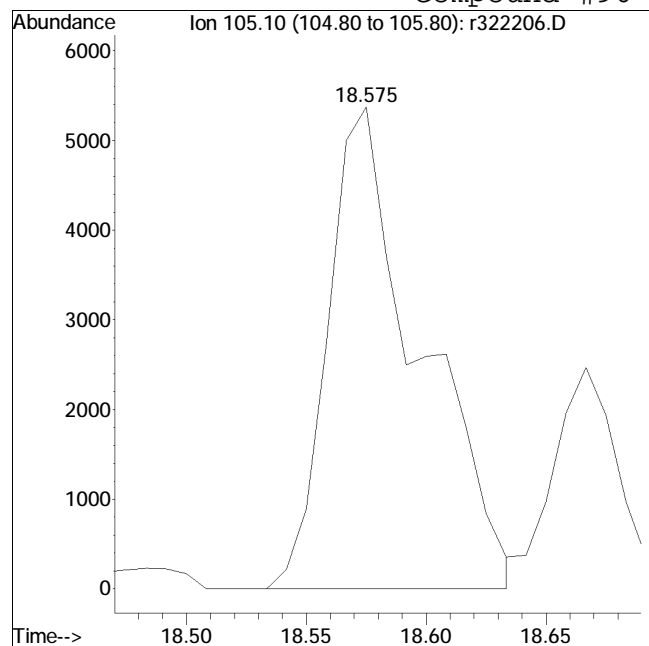
Manual Peak Response = 126205 M6

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

# Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322206.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/18/2020 0:1: 7 Instrument :  
Sample : L2225590-10,3,250,250 Quant Date : 5/19/2022 8:50 am

## Compound #96: 4-ethyl toluene



Original Peak Response = 14323

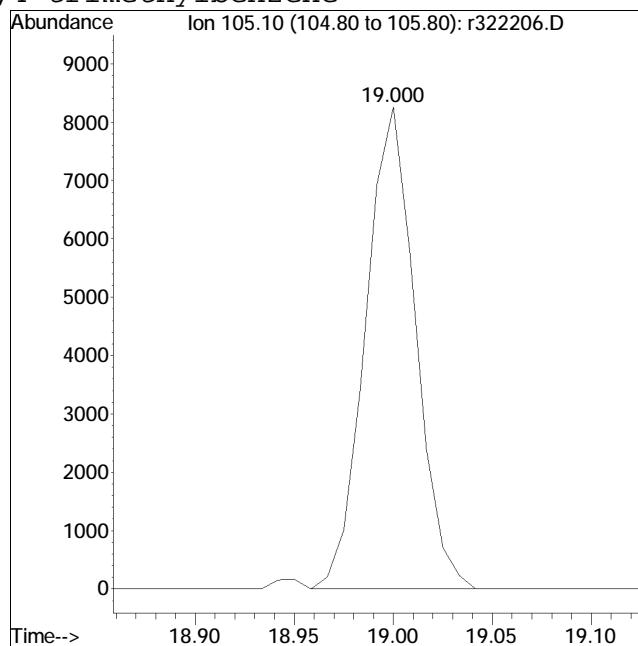
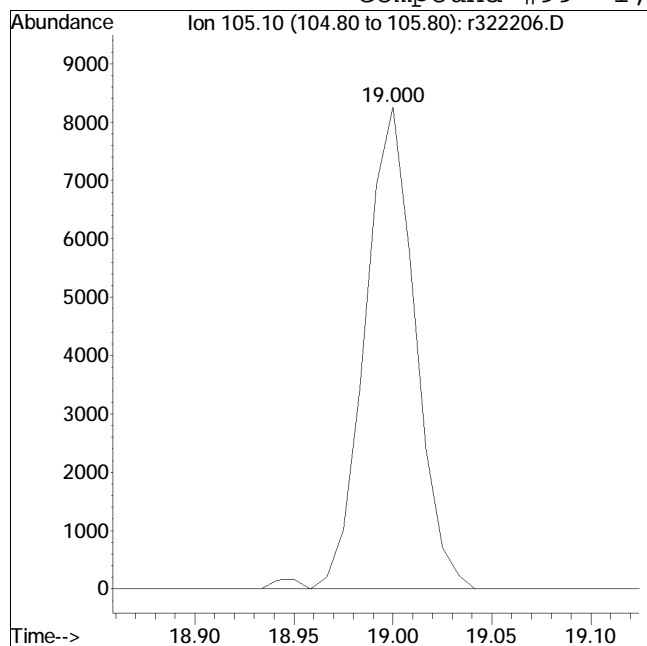
Manual Peak Response = 4106 M6

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

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322206.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/18/2020 0:1: 7 Instrument :  
Sample : L2225590-10,3,250,250 Quant Date : 5/19/2022 8:50 am

Compound #99: 1,2,4-trimethylbenzene



Original Peak Response = 14642

Manual Peak Response = 14481 M6

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
 Data File : r322208.D  
 Acq On : 19 May 2022 1:07 AM  
 Operator : AIRPIANO3:TS  
 Sample : L2225590-09,3,250,250  
 Misc : WG1640147,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 18:03:32 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518T\r322194.D  
 Sub List : TO15-NY-7-SIM - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) bromochloromethane	9.533	49	428242	10.000	ppbV	-0.03
Standard Area =	443368		Recovery =	96.59%		
43) 1,4-difluorobenzene	11.813	114	1283972	10.000	ppbV	-0.03
Standard Area =	1337389		Recovery =	96.01%		
67) chlorobenzene-D5	16.558	54	202285	10.000	ppbV	-0.02
Standard Area =	206902		Recovery =	97.77%		

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) dichlorodifluoromethane	3.940	85	21009	0.624	ppbV	100
6) chloromethane	4.120	50	11517	0.711	ppbV	99
7) Freon-114	4.246		0	N.D.		
10) 1,3-butadiene	4.546		0	N.D.		
13) bromomethane	4.858		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	5.260	31	120967	7.352	ppbV	98
17) vinyl bromide	0.000		0	N.D.		
19) acetone	5.837	43	100750M6	4.294	ppbV	
21) trichlorofluoromethane	6.030	101	9377	0.306	ppbV	99
22) isopropyl alcohol	6.173	45	35689	1.264	ppbV	100
27) tertiary butyl alcohol	6.902	59	125669	3.578	ppbV	99
28) methylene chloride	6.974	49	4180	0.156	ppbV	99
29) 3-chloropropene	0.000		0	N.D.		
30) carbon disulfide	7.268	76	8368	0.137	ppbV #	29
31) Freon 113	7.310	101	3007	0.088	ppbV	95
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	8.858	43	13014	0.305	ppbV	97
38) Ethyl Acetate	9.667	61	448	0.064	ppbV	79
39) chloroform	9.700		0	N.D.		
40) Tetrahydrofuran	10.192	42	1651	0.067	ppbV	93
42) 1,2-dichloroethane	10.558		0	N.D.		
44) hexane	9.617	57	7155	0.195	ppbV #	42
50) benzene	11.373	78	14056	0.187	ppbV	98
53) cyclohexane	11.693	56	2024	0.053	ppbV #	94

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
 Data File : r322208.D  
 Acq On : 19 May 2022 1:07 AM  
 Operator : AIRPIANO3:TS  
 Sample : L2225590-09,3,250,250  
 Misc : WG1640147,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 18:03:32 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518T\r322194.D  
 Sub List : TO15-NY-7-SIM - .

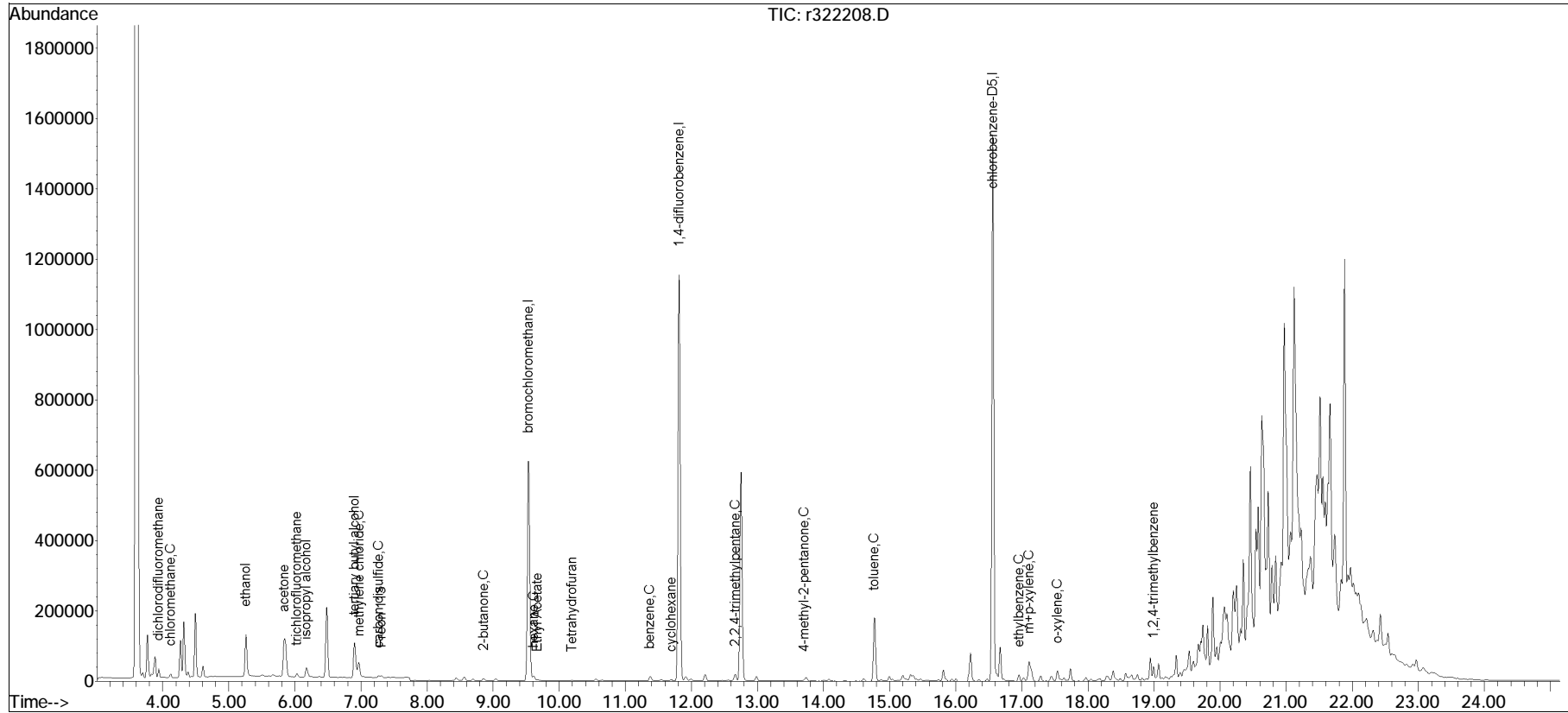
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
56) 1,2-dichloropropane	0.000		0		N.D.	
57) bromodichloromethane	12.660		0		N.D.	
58) 1,4-dioxane	12.667		0		N.D.	
60) 2,2,4-trimethylpentane	12.667	57	21543	0.190	ppbV	95
62) heptane	0.000		0		N.D.	
63) cis-1,3-dichloropropene	0.000		0		N.D.	
64) 4-methyl-2-pentanone	13.708	43	2535	0.052	ppbV #	86
65) trans-1,3-dichloropropene	0.000		0		N.D.	
66) 1,1,2-trichloroethane	0.000		0		N.D.	
68) toluene	14.767	91	163749	2.155	ppbV	98
72) 2-hexanone	15.100		0		N.D.	
74) dibromochloromethane	0.000		0		N.D.	
75) 1,2-dibromoethane	0.000		0		N.D.	
80) chlorobenzene	16.617		0		N.D.	
81) ethylbenzene	16.958	91	15379	0.169	ppbV	98
83) m+p-xylene	17.108	91	46315	0.622	ppbV	99
84) bromoform	0.000		0		N.D.	
85) styrene	17.450		0		N.D.	
86) 1,1,2,2-tetrachloroethane	17.592		0		N.D.	
87) o-xylene	17.542	91	18456	0.249	ppbV	100
96) 4-ethyl toluene	18.600		0		N.D.	
97) 1,3,5-trimethylbenzene	18.667		0		N.D.	
99) 1,2,4-trimethylbenzene	18.992	105	15898	0.175	ppbV #	55
101) Benzyl Chloride	19.175		0		N.D.	
102) 1,3-dichlorobenzene	19.183		0		N.D.	
103) 1,4-dichlorobenzene	19.183		0		N.D.	
107) 1,2-dichlorobenzene	0.000		0		N.D.	
115) 1,2,4-trichlorobenzene	20.925		0		N.D.	
119) hexachlorobutadiene	0.000		0		N.D.	

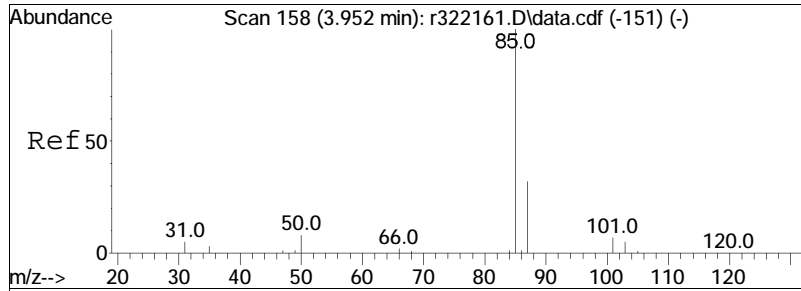
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : TO15-NY-7-SIM - .\Airpiano3\2022\05\0518T\r322194.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
Data File : r322208.D  
Acq On : 19 May 2022 1:07 AM  
Operator : AIRPIANO3:TS  
Sample : L2225590-09,3,250,250  
Misc : WG1640147,ICAL19030  
ALS Vial : 0 Sample Multiplier: 1

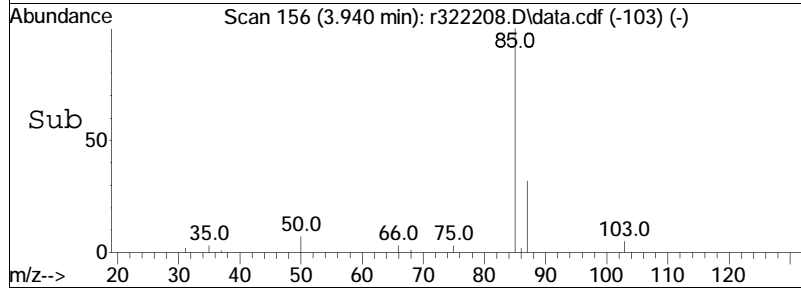
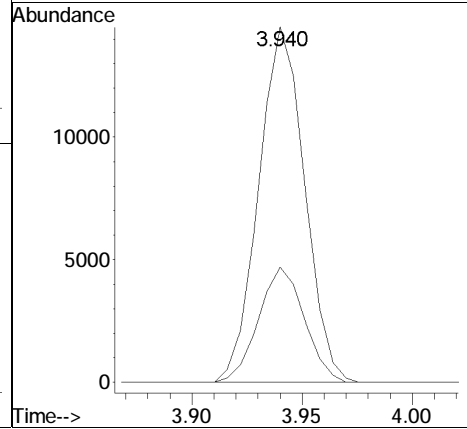
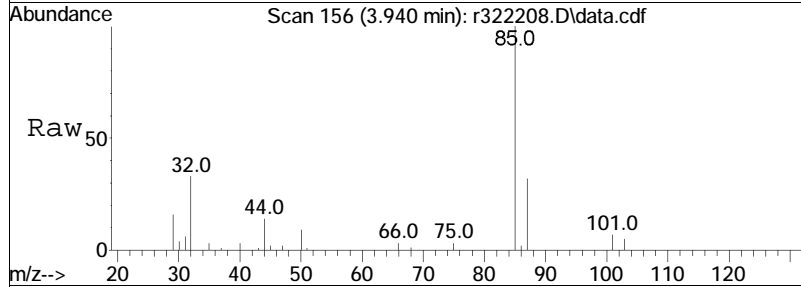
Quant Time: May 19 18:03:32 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 15:52:12 2022  
Response via : Initial Calibration



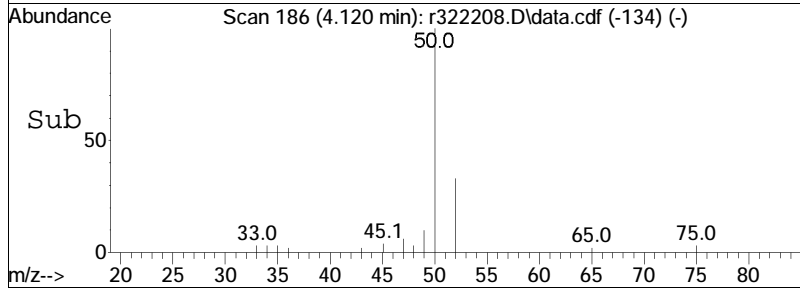
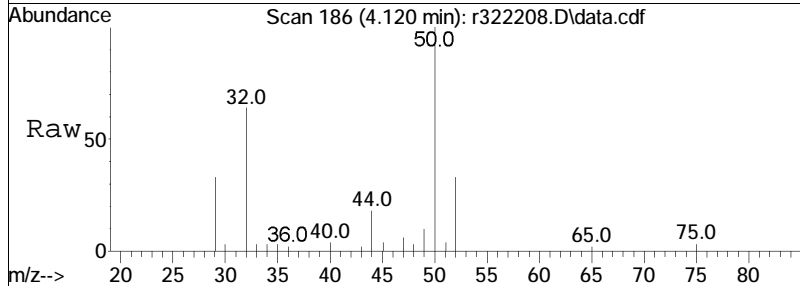
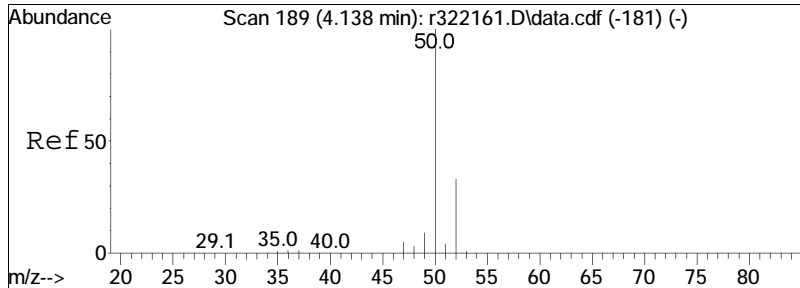


#5  
 dichlorodifluoromethane  
 Concen: 0.62 ppbV  
 RT: 3.940 min Scan# 156  
 Delta R.T. -0.012 min  
 Lab File: r322208.D  
 Acq: 19 May 2022 1:07 AM

Tgt Ion	85	87	Ratio	Lower	Upper	Resp
	85	87	100	32.4	25.8	21009

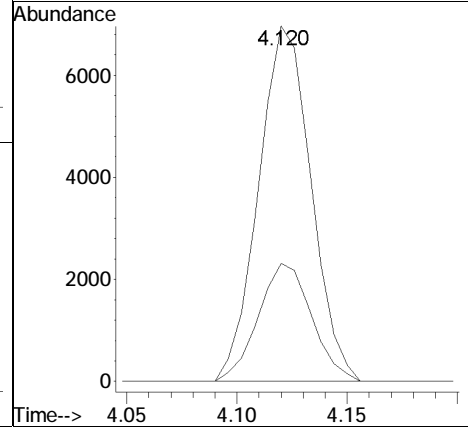


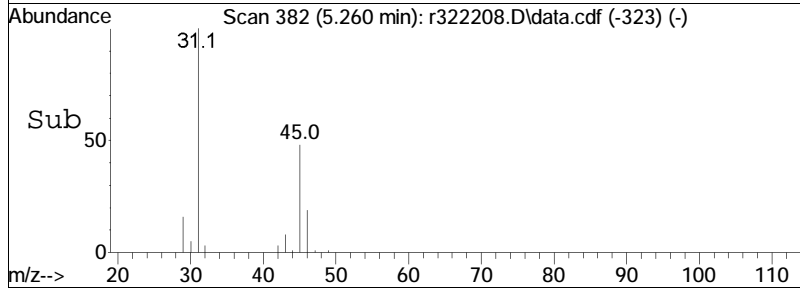
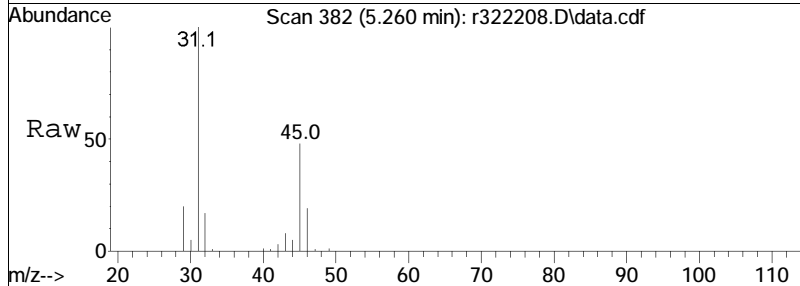
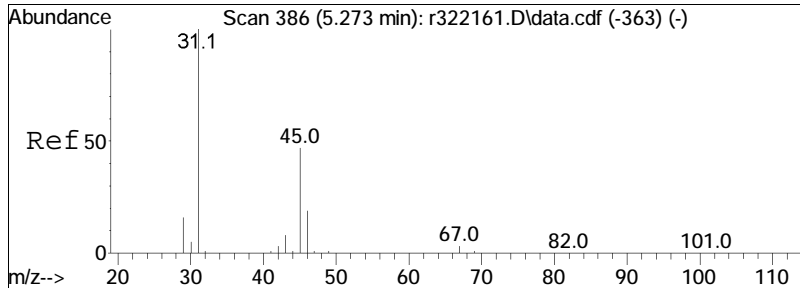




#6  
 chloromethane  
 Concen: 0.71 ppbV  
 RT: 4.120 min Scan# 186  
 Delta R.T. -0.018 min  
 Lab File: r322208.D  
 Acq: 19 May 2022 1:07 AM

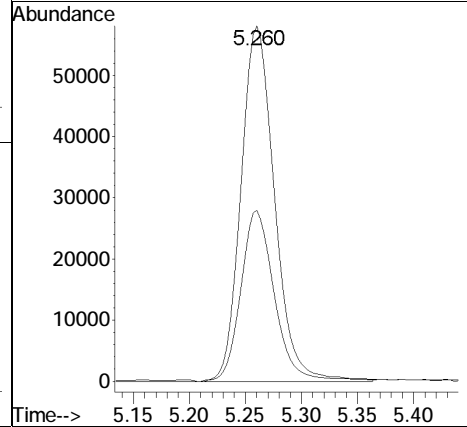
Tgt Ion:	50	52	Resp:	11517
Ion Ratio	100	33.2	Lower	Upper
			26.3	39.5

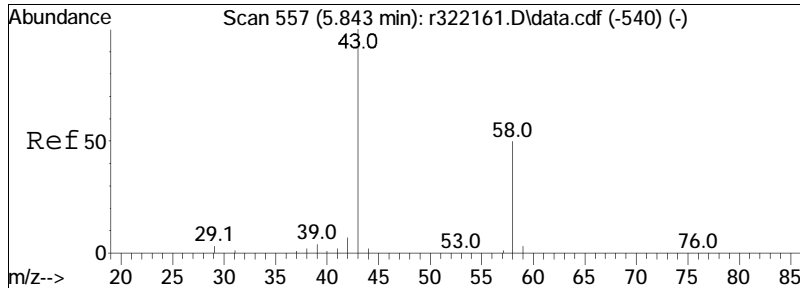




#15  
 ethanol  
 Concen: 7.35 ppbV  
 RT: 5.260 min Scan# 382  
 Delta R.T. -0.013 min  
 Lab File: r322208.D  
 Acq: 19 May 2022 1:07 AM

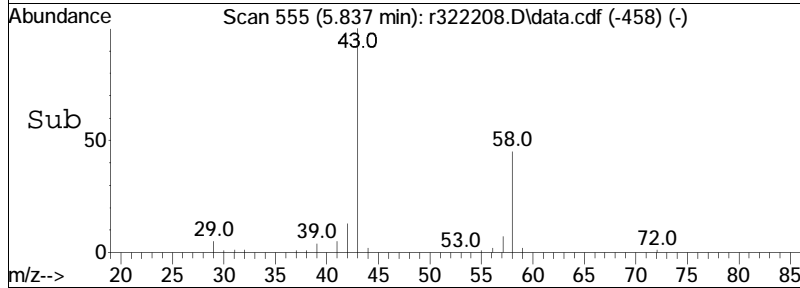
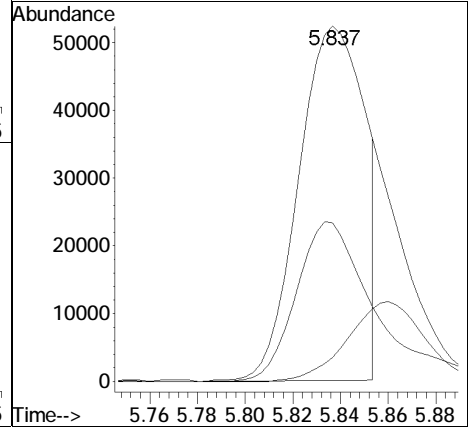
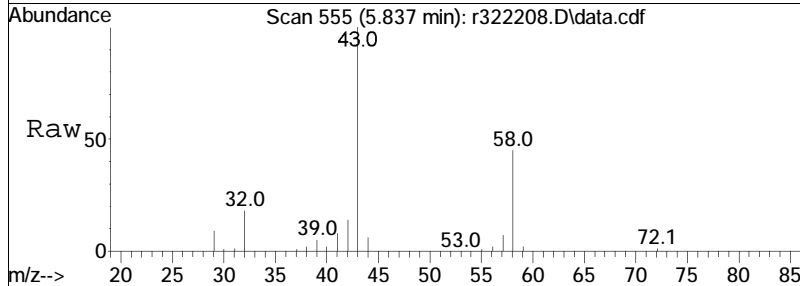
Tgt Ion:	31	45	Resp:	120967
Ion Ratio	100	48.2	Lower	Upper
			37.6	56.4

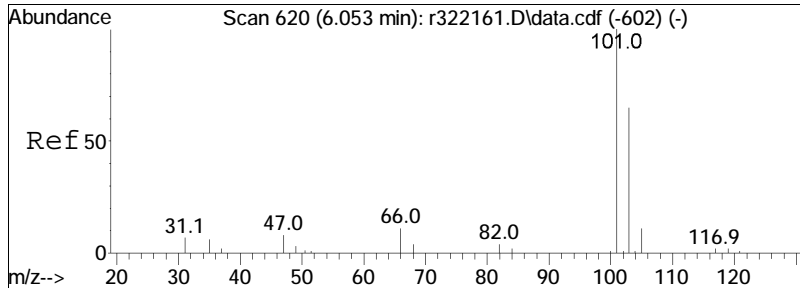




#19  
 acetone  
 Concen: 4.29 ppbV m  
 RT: 5.837 min Scan# 555  
 Delta R.T. -0.007 min  
 Lab File: r322208.D  
 Acq: 19 May 2022 1:07 AM

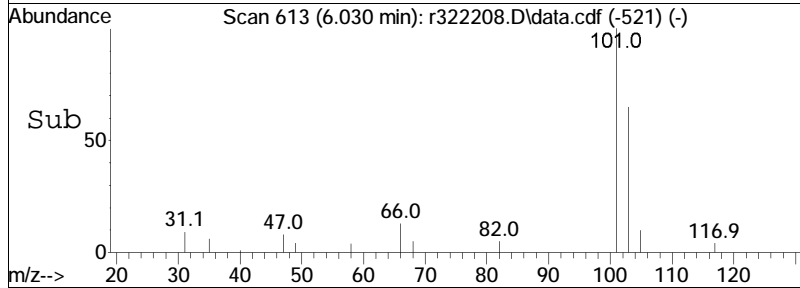
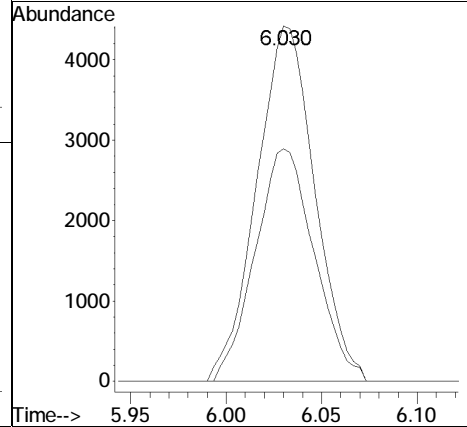
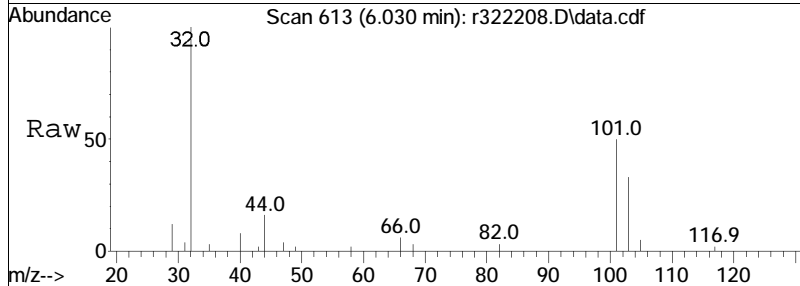
Tgt Ion	Resp	Lower	Upper
43	100		
58	44.6	39.8	59.8
57	6.8	1.0	1.6#

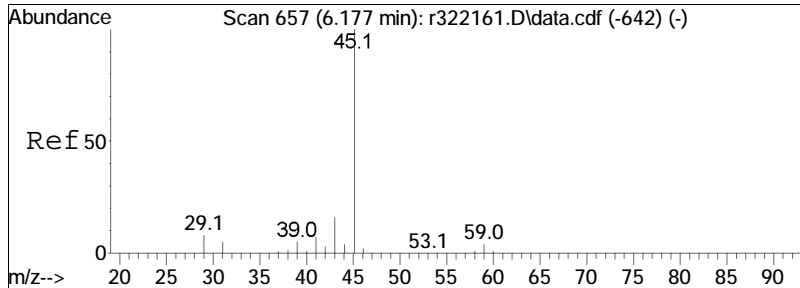




#21  
 trichlorofluoromethane  
 Concen: 0.31 ppbV  
 RT: 6.030 min Scan# 613  
 Delta R.T. -0.023 min  
 Lab File: r322208.D  
 Acq: 19 May 2022 1:07 AM

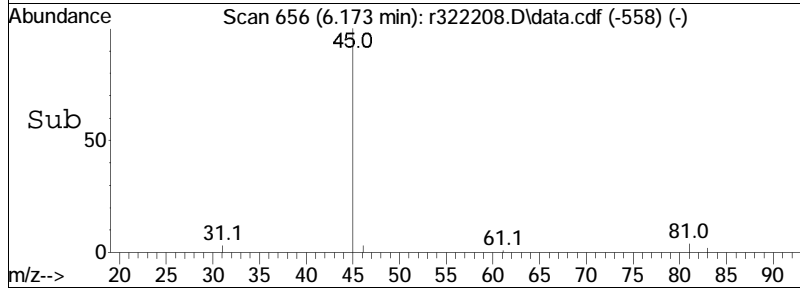
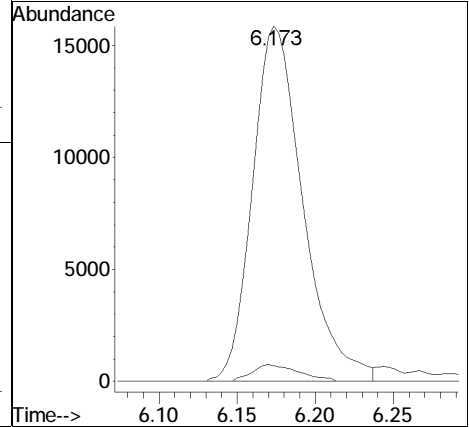
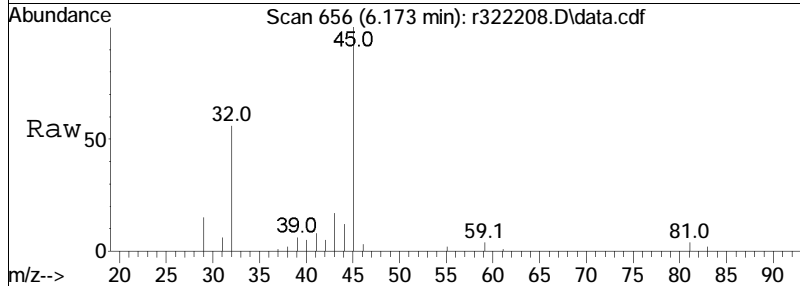
Tgt Ion	Ratio	Lower	Upper
101	100		
103	65.5	51.8	77.6

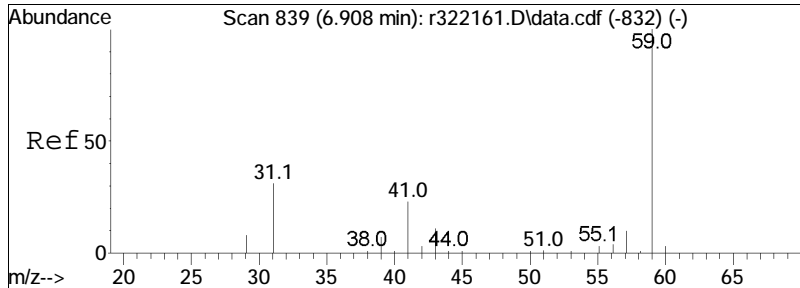




#22  
 isopropyl alcohol  
 Concen: 1.26 ppbV  
 RT: 6.173 min Scan# 656  
 Delta R.T. -0.003 min  
 Lab File: r322208.D  
 Acq: 19 May 2022 1:07 AM

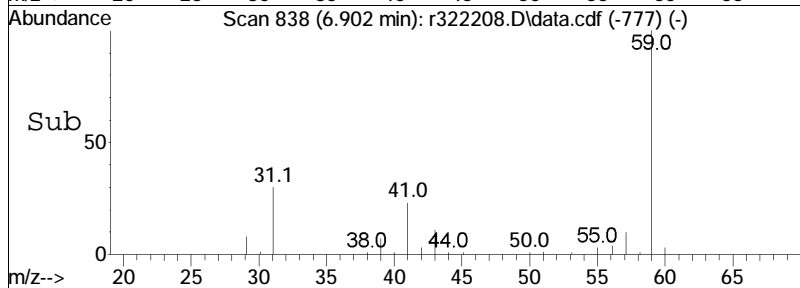
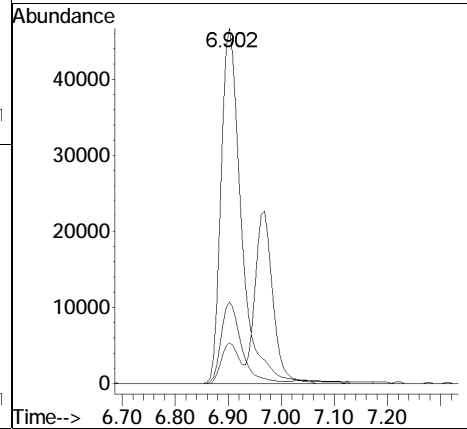
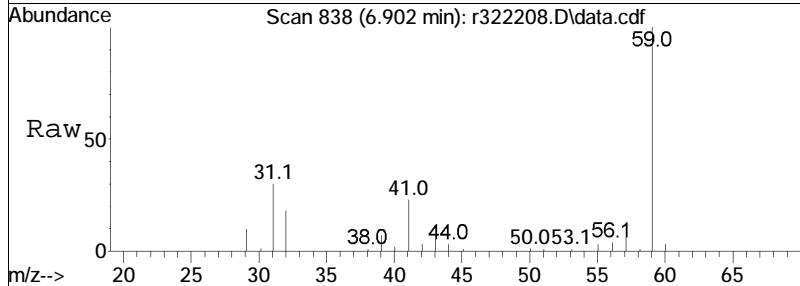
Tgt Ion	Resp	Lower	Upper
45	100		
59	4.4	3.5	5.3

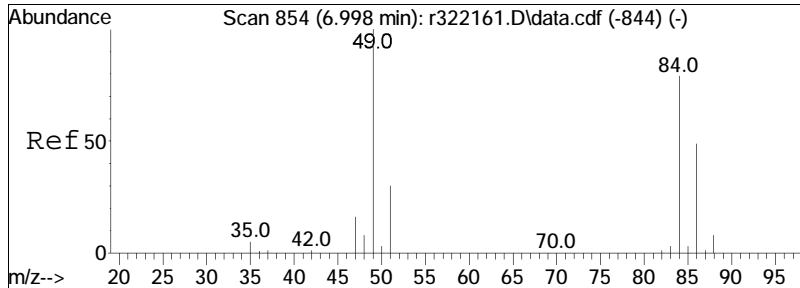




#27  
 tertiary butyl alcohol  
 Concen: 3.58 ppbV  
 RT: 6.902 min Scan# 838  
 Delta R.T. -0.006 min  
 Lab File: r322208.D  
 Acq: 19 May 2022 1:07 AM

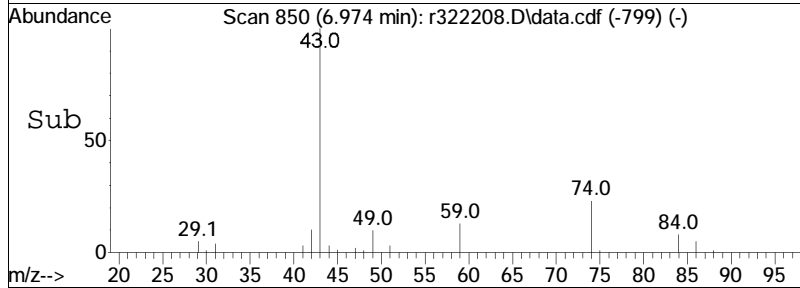
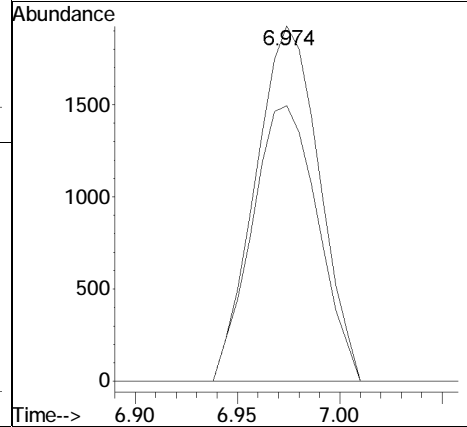
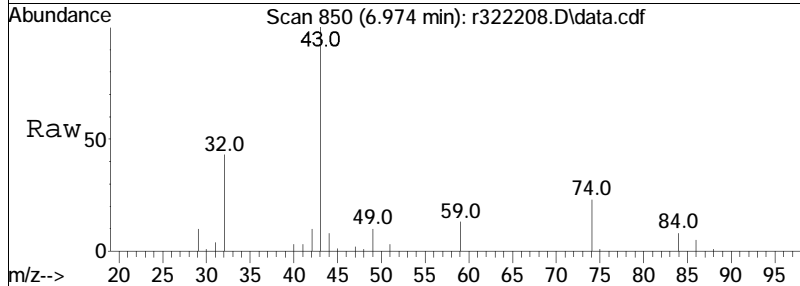
Tgt Ion	Resp	Lower	Upper
59	100		
41	23.0	18.2	27.2
43	11.4	8.9	13.3

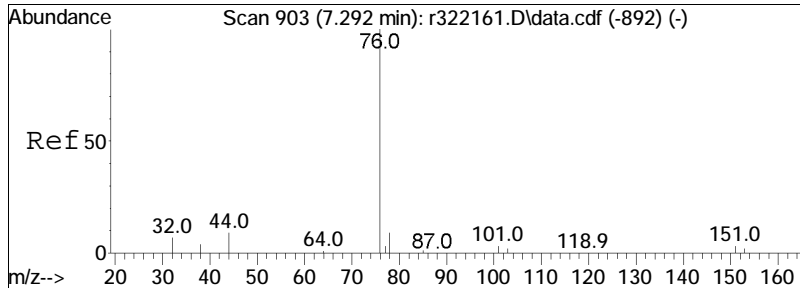




#28  
 methylene chloride  
 Concen: 0.16 ppbV  
 RT: 6.974 min Scan# 850  
 Delta R.T. -0.024 min  
 Lab File: r322208.D  
 Acq: 19 May 2022 1:07 AM

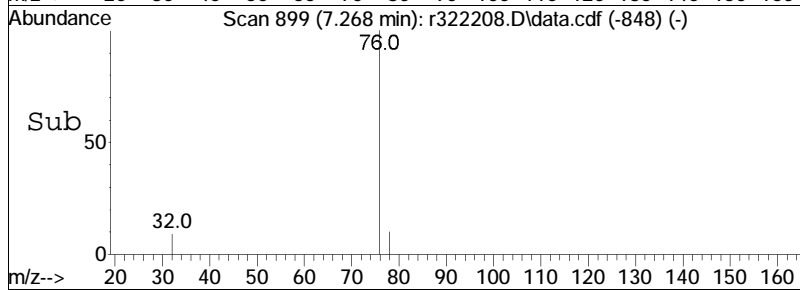
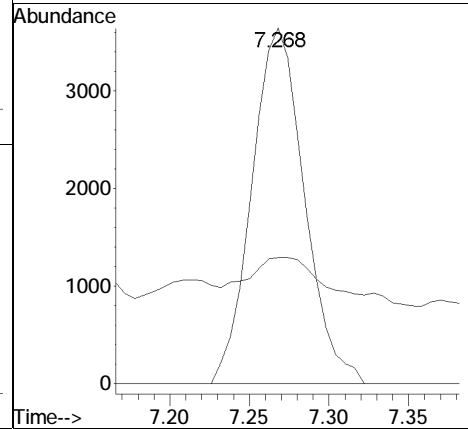
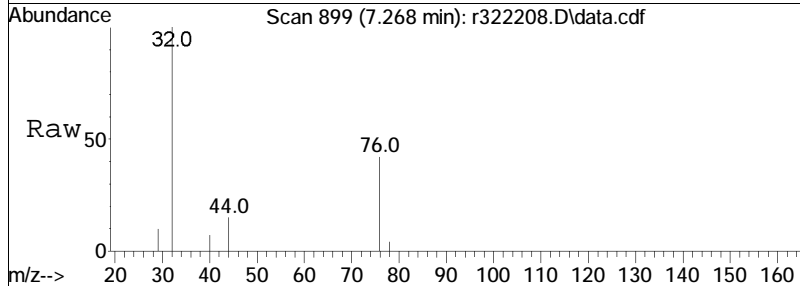
Tgt Ion:	Resp:	Lower	Upper
49	4180		
84	77.6	63.0	94.6



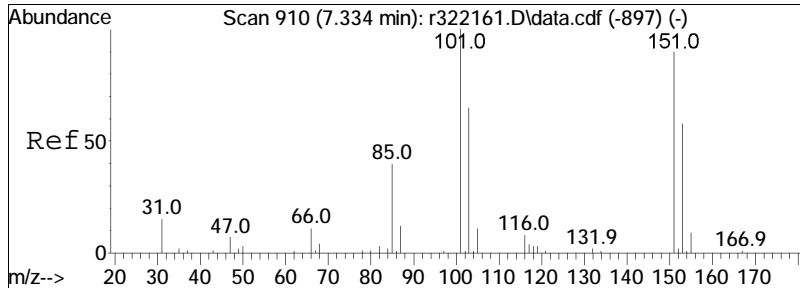


#30  
 carbon disulfide  
 Concen: 0.14 ppbV  
 RT: 7.268 min Scan# 899  
 Delta R.T. -0.024 min  
 Lab File: r322208.D  
 Acq: 19 May 2022 1:07 AM

Tgt Ion: 76 Resp: 8368  
 Ion Ratio Lower Upper  
 76 100  
 44 35.4 7.6 11.4#

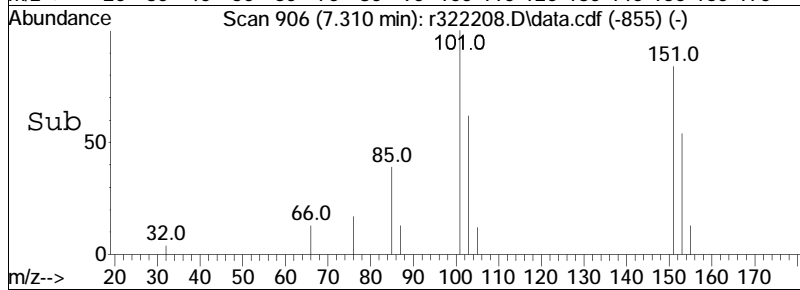
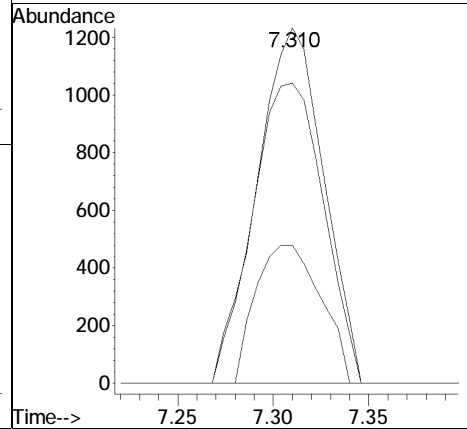
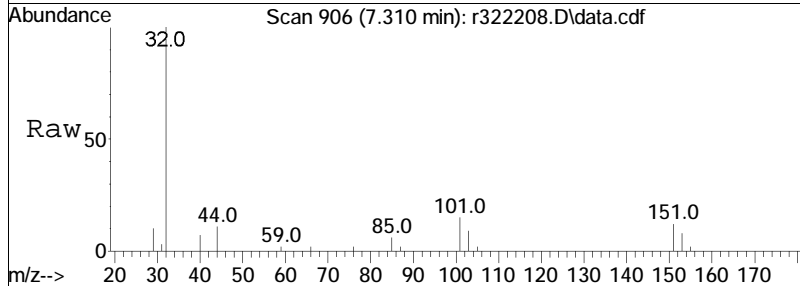


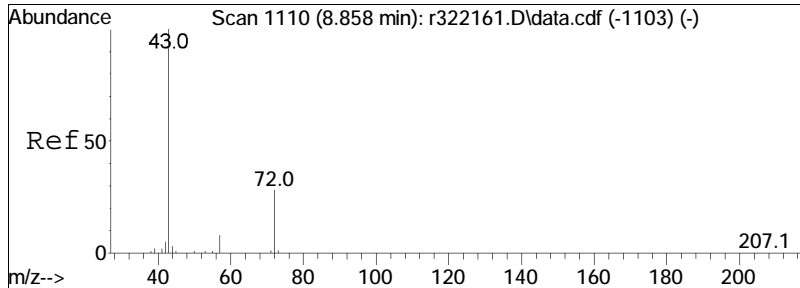




#31  
 Freon 113  
 Concen: 0.09 ppbV  
 RT: 7.310 min Scan# 906  
 Delta R.T. -0.024 min  
 Lab File: r322208.D  
 Acq: 19 May 2022 1:07 AM

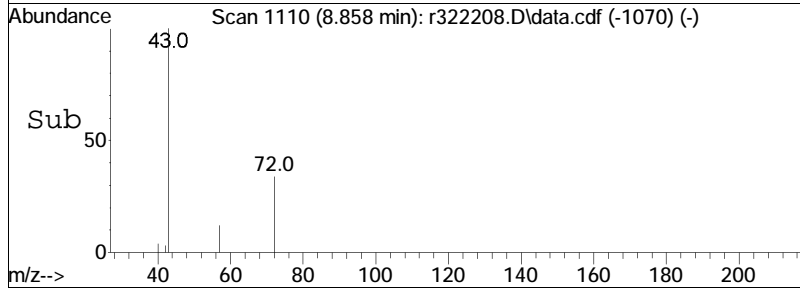
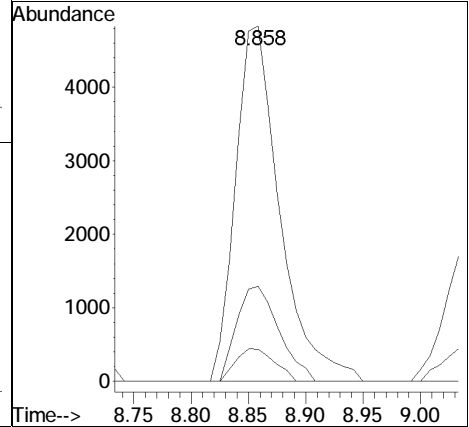
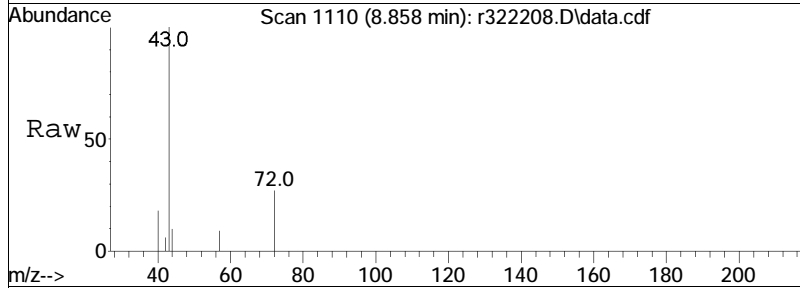
Tgt Ion	Resp	Lower	Upper
101	3007		
101	100		
85	38.9	31.8	47.8
151	84.5	72.2	108.4

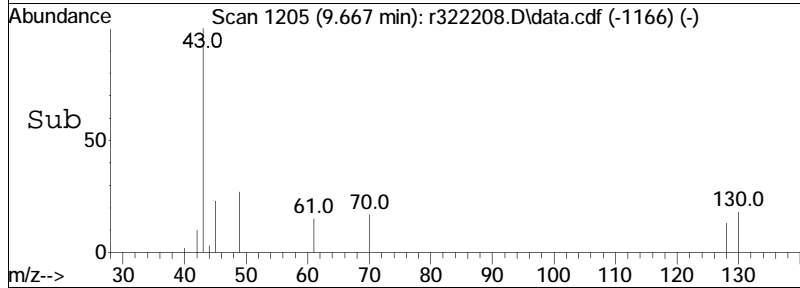
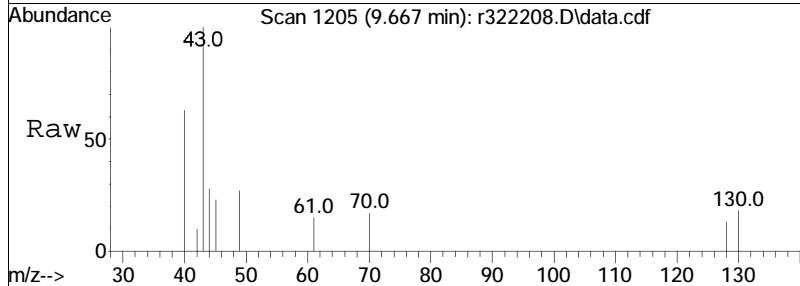
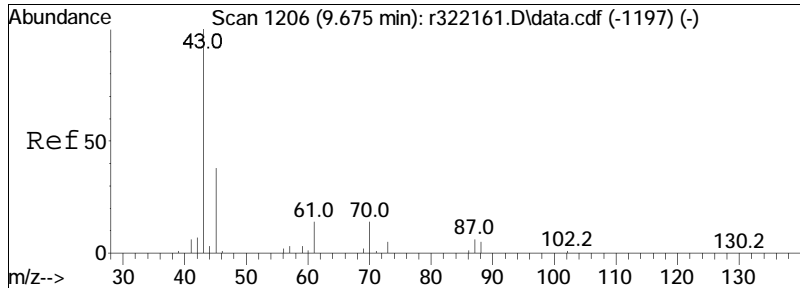




#36  
 2-butanone  
 Concen: 0.31 ppbV  
 RT: 8.858 min Scan# 1110  
 Delta R.T. 0.000 min  
 Lab File: r322208.D  
 Acq: 19 May 2022 1:07 AM

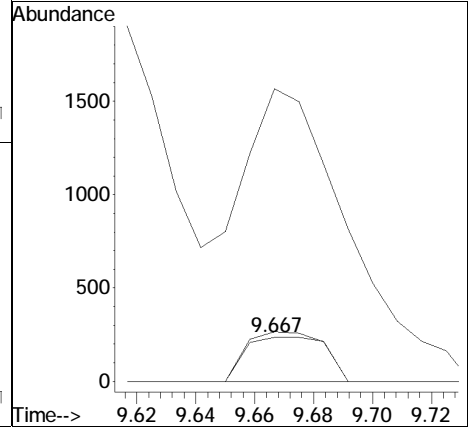
Tgt Ion	Resp	Lower	Upper
43	13014		
72	26.8	22.6	33.8
57	9.1	6.6	10.0

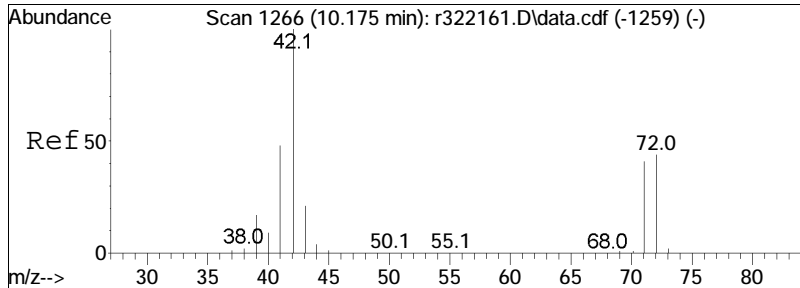




#38  
 Ethyl Acetate  
 Concen: 0.06 ppbV  
 RT: 9.667 min Scan# 1205  
 Delta R.T. -0.008 min  
 Lab File: r322208.D  
 Acq: 19 May 2022 1:07 AM

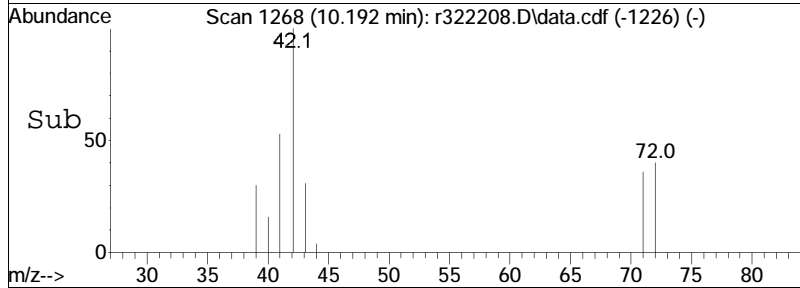
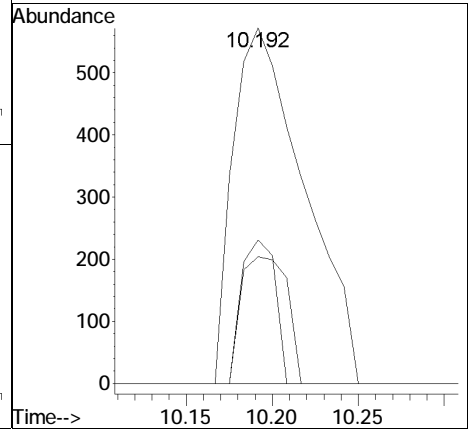
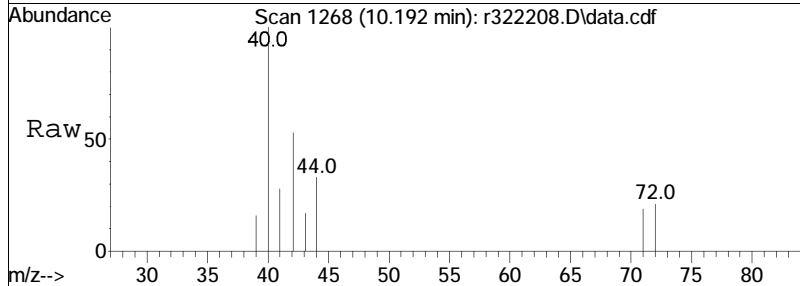
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
61	100		
70	112.7	78.8	118.2
43	664.0	593.4	890.0

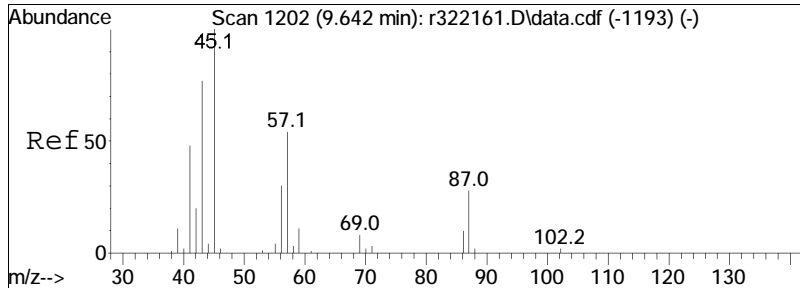




#40  
 Tetrahydrofuran  
 Concen: 0.07 ppbV  
 RT: 10.192 min Scan# 1268  
 Delta R.T. 0.017 min  
 Lab File: r322208.D  
 Acq: 19 May 2022 1:07 AM

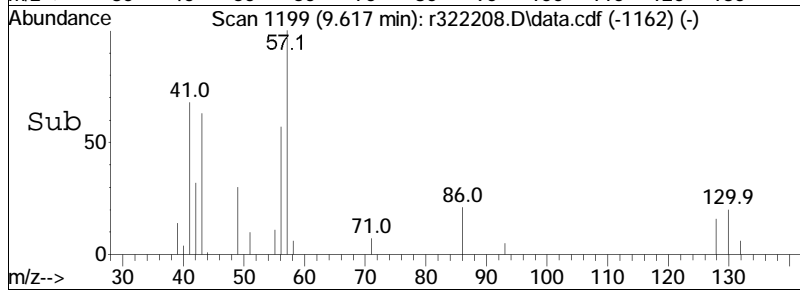
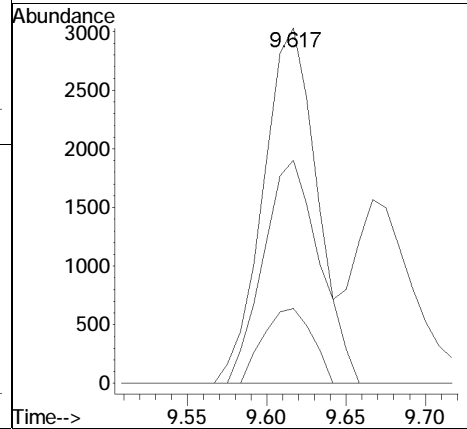
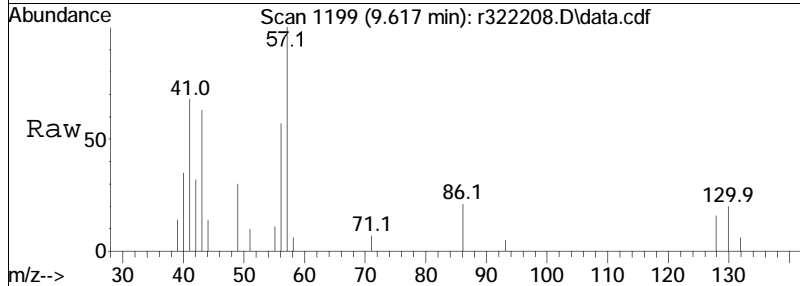
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
42	100		
71	35.7	32.4	48.6
72	40.4	35.2	52.8

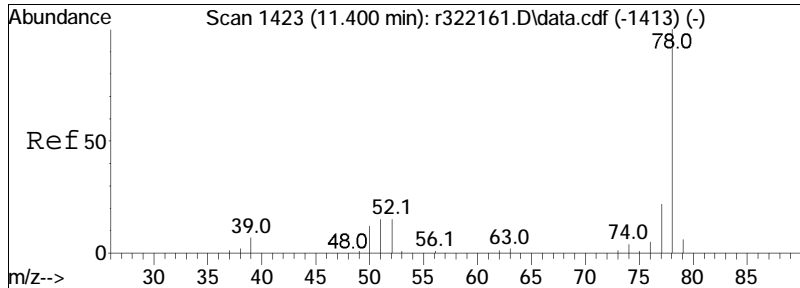




#44  
 hexane  
 Concen: 0.20 ppbV  
 RT: 9.617 min Scan# 1199  
 Delta R.T. -0.025 min  
 Lab File: r322208.D  
 Acq: 19 May 2022 1:07 AM

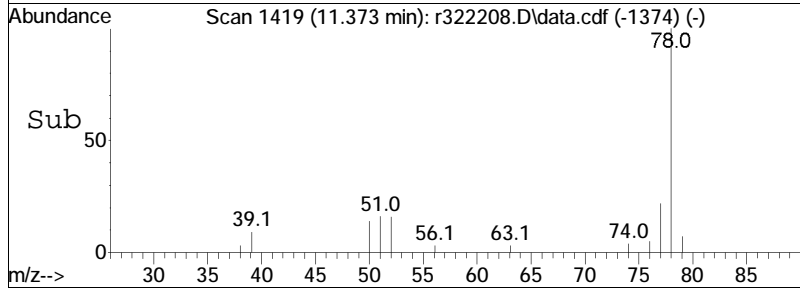
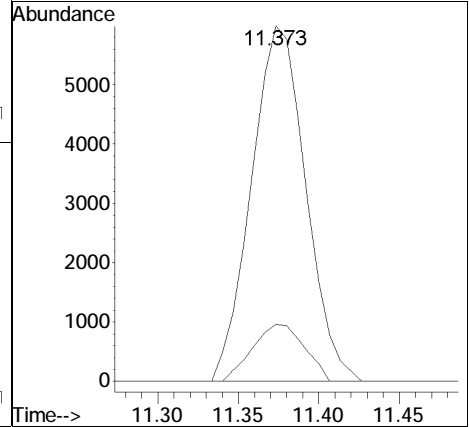
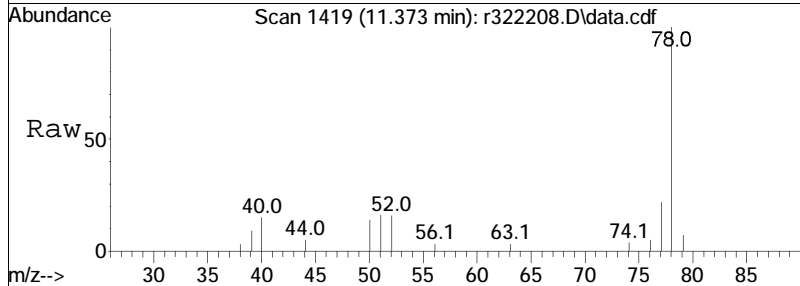
Tgt Ion:	Resp:		
Ion Ratio	Lower	Upper	
57	100		
43	62.8	115.0	172.6#
86	21.1	15.5	23.3

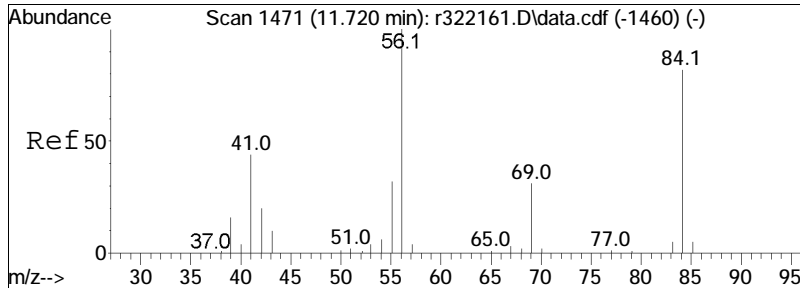




#50  
benzene  
Concen: 0.19 ppbV  
RT: 11.373 min Scan# 1419  
Delta R.T. -0.027 min  
Lab File: r322208.D  
Acq: 19 May 2022 1:07 AM

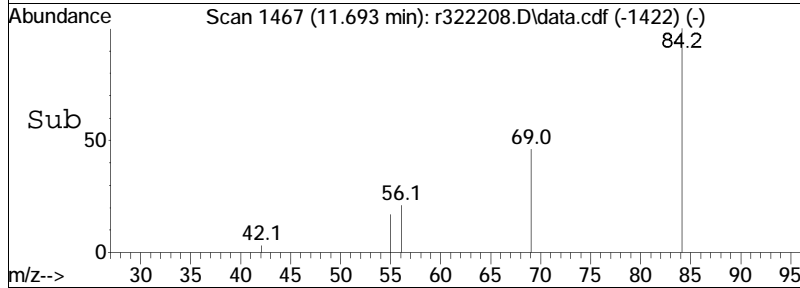
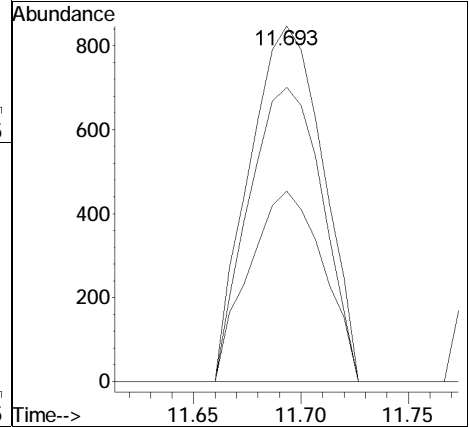
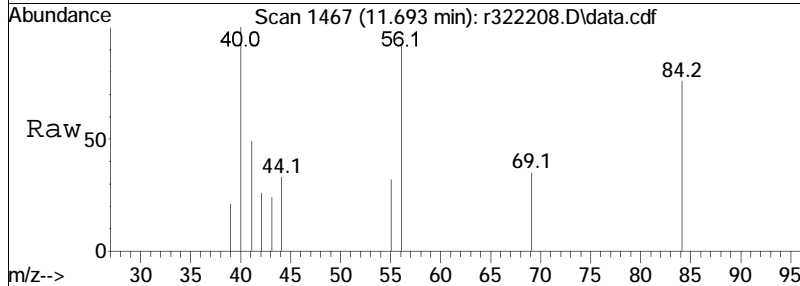
Tgt Ion	Resp	Lower	Upper
78	14056		
52	16.1	12.2	18.2

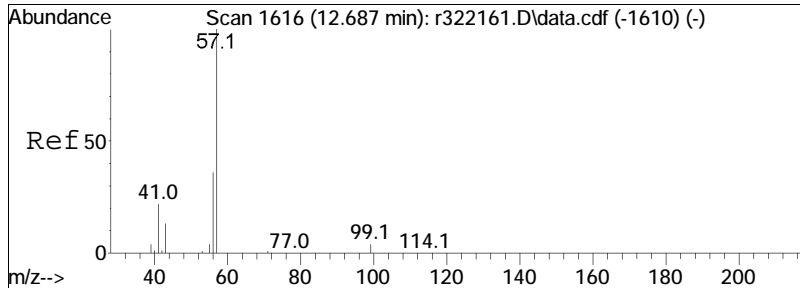




#53  
 cyclohexane  
 Concen: 0.05 ppbV  
 RT: 11.693 min Scan# 1467  
 Delta R.T. -0.027 min  
 Lab File: r322208.D  
 Acq: 19 May 2022 1:07 AM

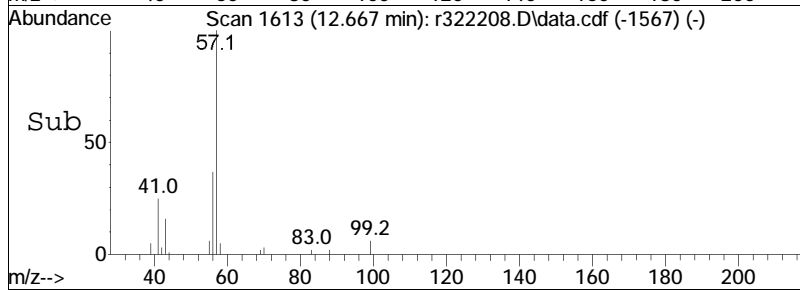
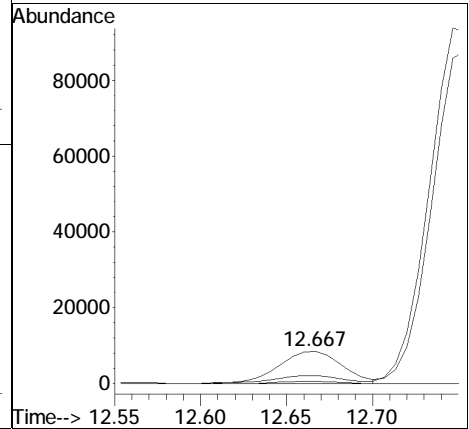
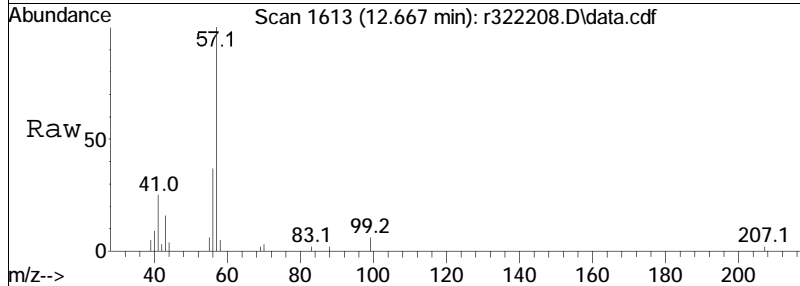
Tgt Ion	Ratio	Lower	Upper
56	100		
84	82.8	65.4	98.0
41	53.6	35.4	53.2#



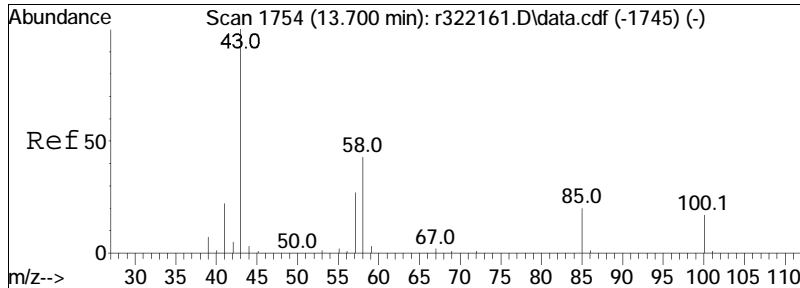


#60  
 2,2,4-trimethylpentane  
 Concen: 0.19 ppbV  
 RT: 12.667 min Scan# 1613  
 Delta R.T. -0.020 min  
 Lab File: r322208.D  
 Acq: 19 May 2022 1:07 AM

Tgt Ion	Resp	Lower	Upper
57	21543		
57	100		
99	6.3	5.0	7.4
41	24.6	17.4	26.2

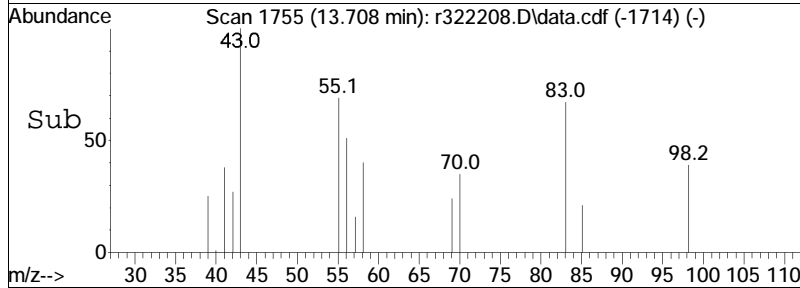
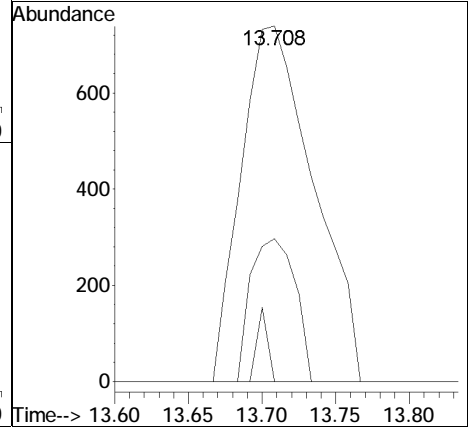
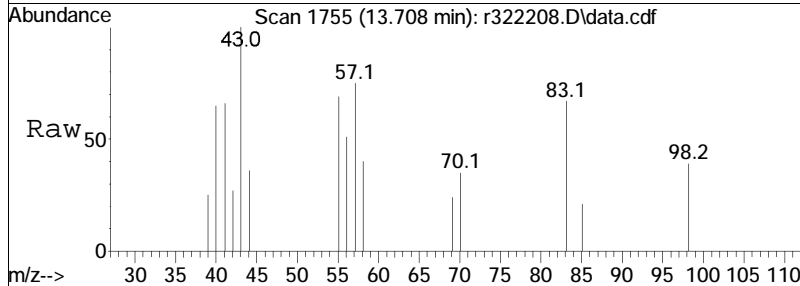


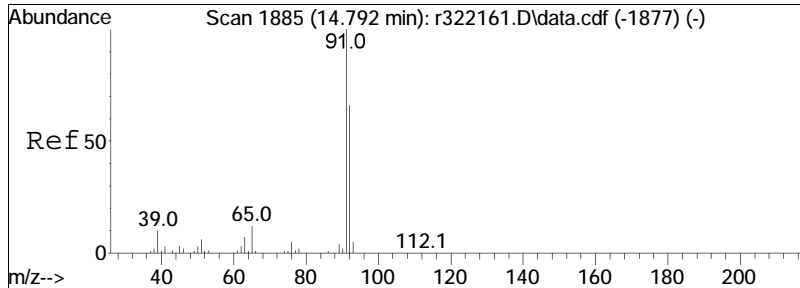




#64  
 4-methyl-2-pentanone  
 Concen: 0.05 ppbV  
 RT: 13.708 min Scan# 1755  
 Delta R.T. 0.008 min  
 Lab File: r322208.D  
 Acq: 19 May 2022 1:07 AM

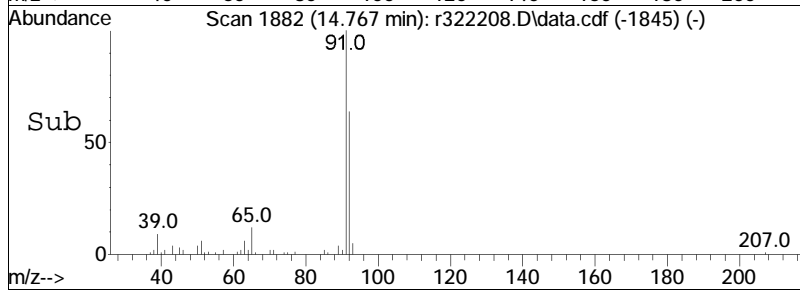
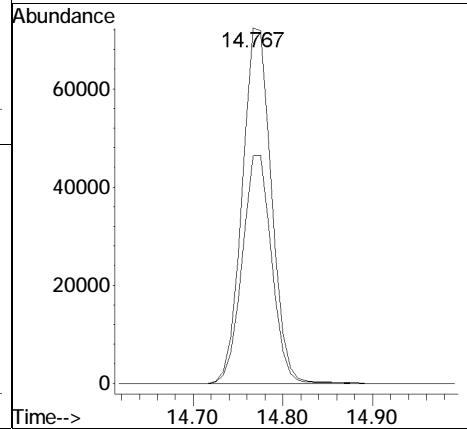
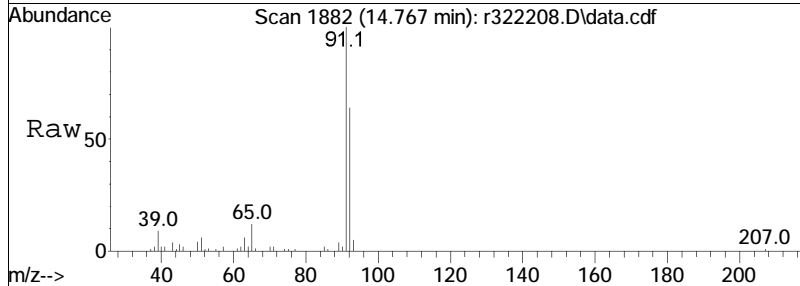
Tgt Ion:	43	58	100	Resp:	2535	Lower	Upper
Ion Ratio	100	40.2	0.0			34.3	51.5
						13.8	20.6#

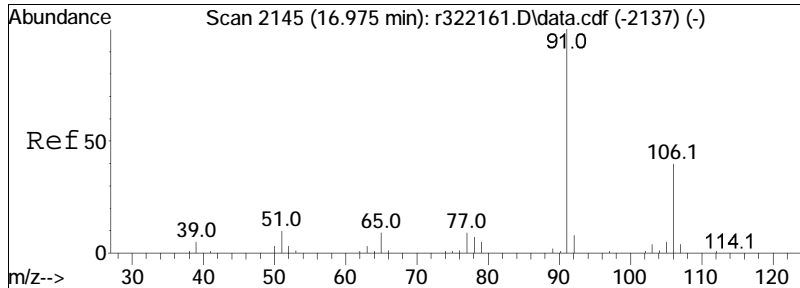




#68  
 toluene  
 Concen: 2.15 ppbV  
 RT: 14.767 min Scan# 1882  
 Delta R.T. -0.025 min  
 Lab File: r322208.D  
 Acq: 19 May 2022 1:07 AM

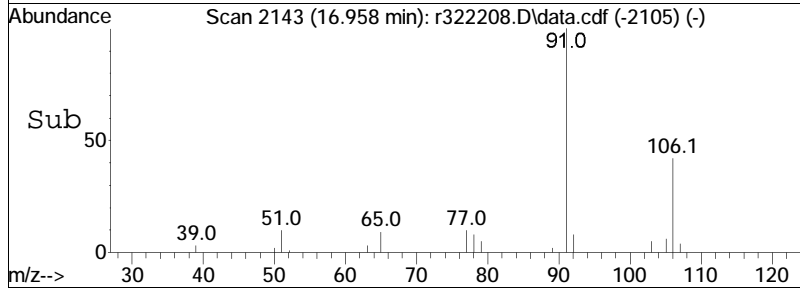
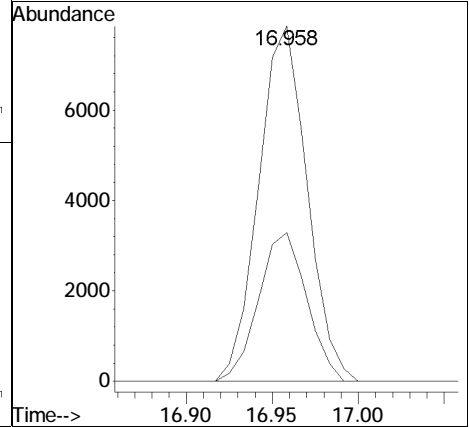
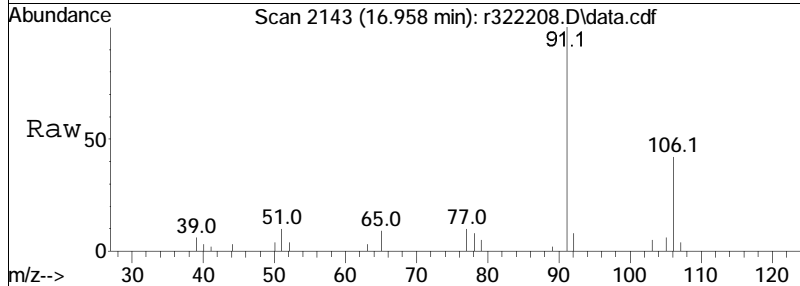
Tgt Ion: 91 Resp: 163749  
 Ion Ratio Lower Upper  
 91 100  
 92 64.0 52.7 79.1

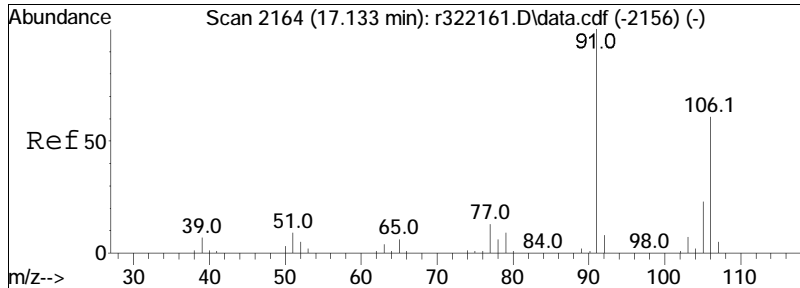




#81  
 ethylbenzene  
 Concen: 0.17 ppbV  
 RT: 16.958 min Scan# 2143  
 Delta R.T. -0.017 min  
 Lab File: r322208.D  
 Acq: 19 May 2022 1:07 AM

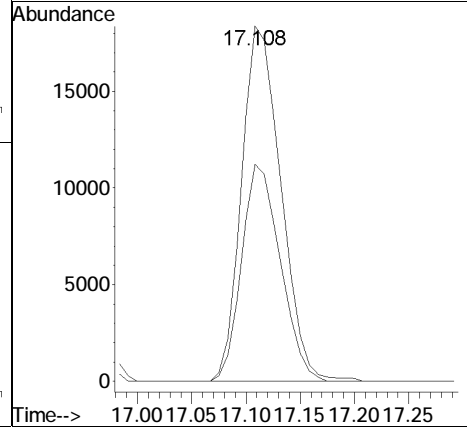
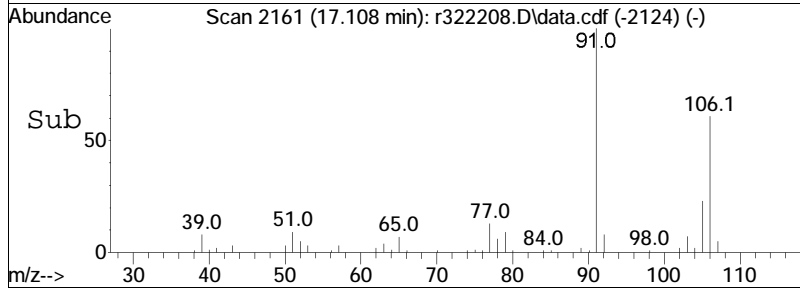
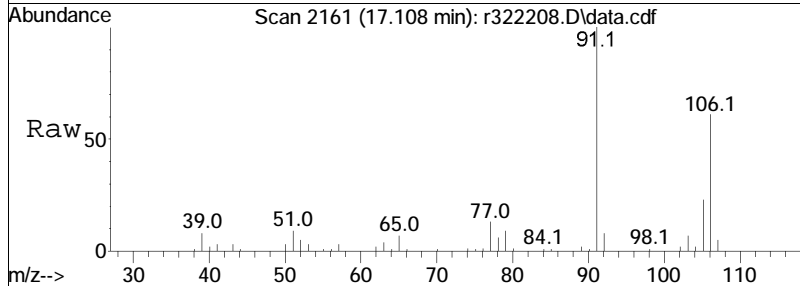
Tgt Ion	Resp	Lower	Upper
91	100		
106	41.8	32.4	48.6

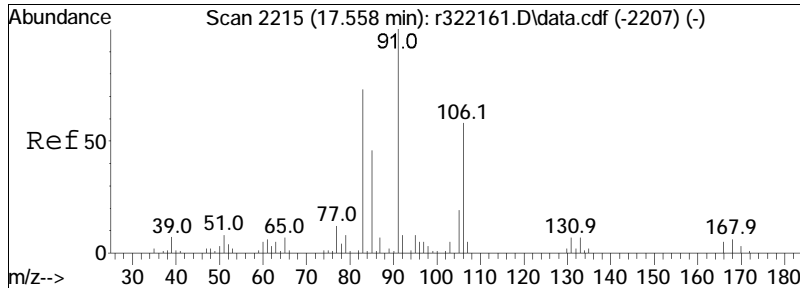




#83  
 m+p-xylene  
 Concen: 0.62 ppbV  
 RT: 17.108 min Scan# 2161  
 Delta R.T. -0.025 min  
 Lab File: r322208.D  
 Acq: 19 May 2022 1:07 AM

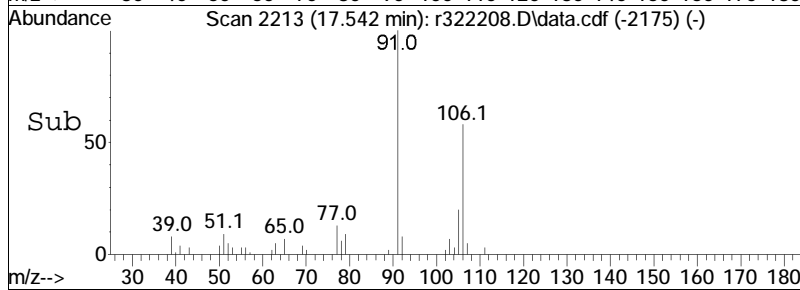
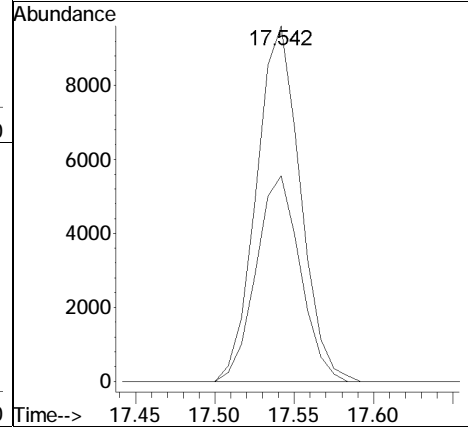
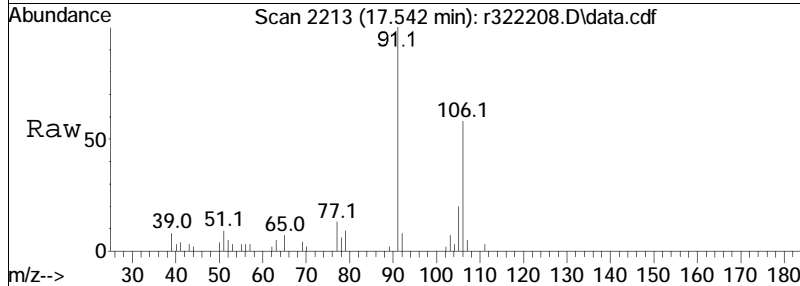
Tgt Ion: 91 Resp: 46315  
 Ion Ratio Lower Upper  
 91 100  
 106 61.1 48.4 72.6

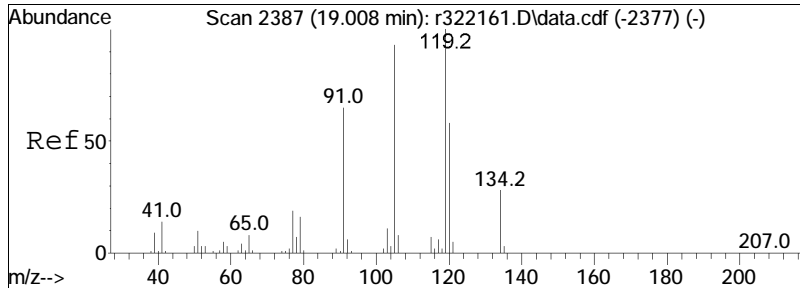




#87  
 o-xylene  
 Concen: 0.25 ppbV  
 RT: 17.542 min Scan# 2213  
 Delta R.T. -0.017 min  
 Lab File: r322208.D  
 Acq: 19 May 2022 1:07 AM

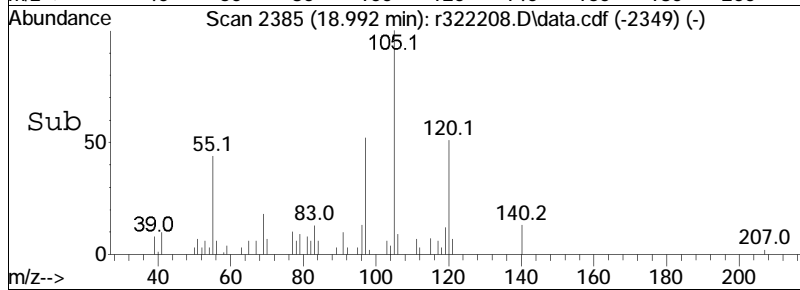
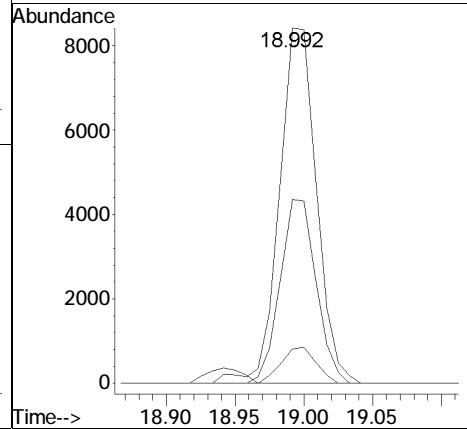
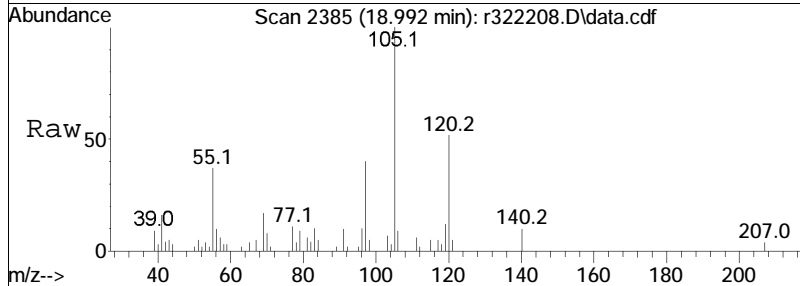
Tgt Ion: 91 Resp: 18456  
 Ion Ratio Lower Upper  
 91 100  
 106 57.9 46.4 69.6





#99  
 1,2,4-trimethylbenzene  
 Concen: 0.18 ppbV  
 RT: 18.992 min Scan# 2385  
 Delta R.T. -0.017 min  
 Lab File: r322208.D  
 Acq: 19 May 2022 1:07 AM

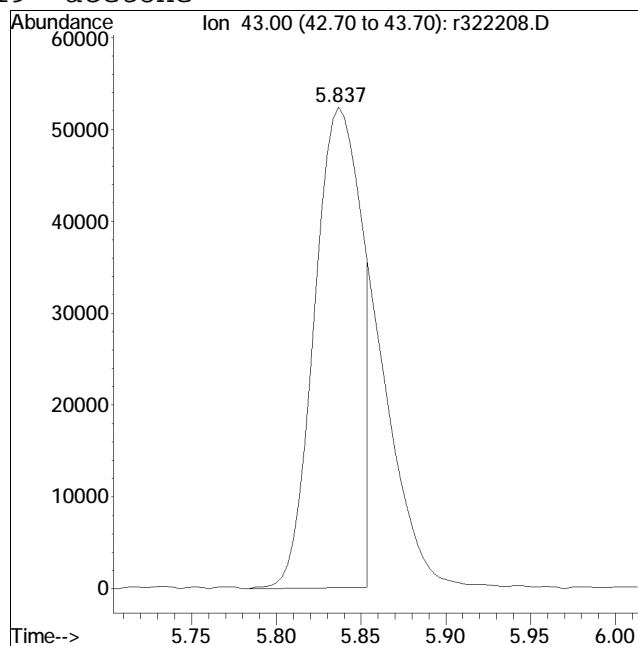
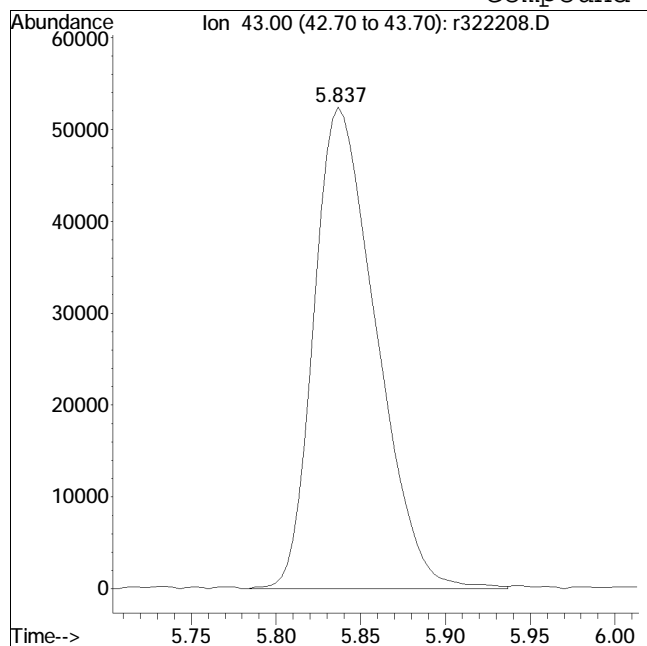
Tgt Ion	Ratio	Lower	Upper
105	100		
120	51.8	49.4	74.2
91	9.7	55.8	83.8#



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322208.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:1: 7 Instrument :  
Sample : L2225590-09,3,250,250 Quant Date : 5/19/2022 8:51 am

Compound #19: acetone



Original Peak Response = 133901

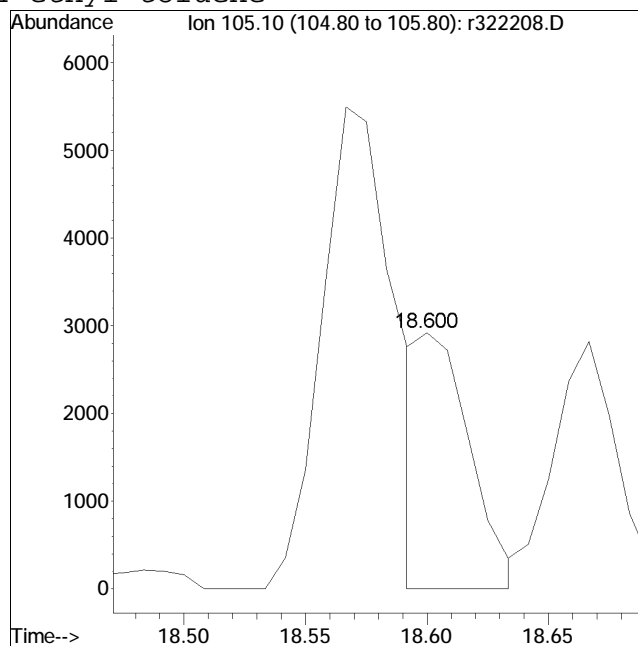
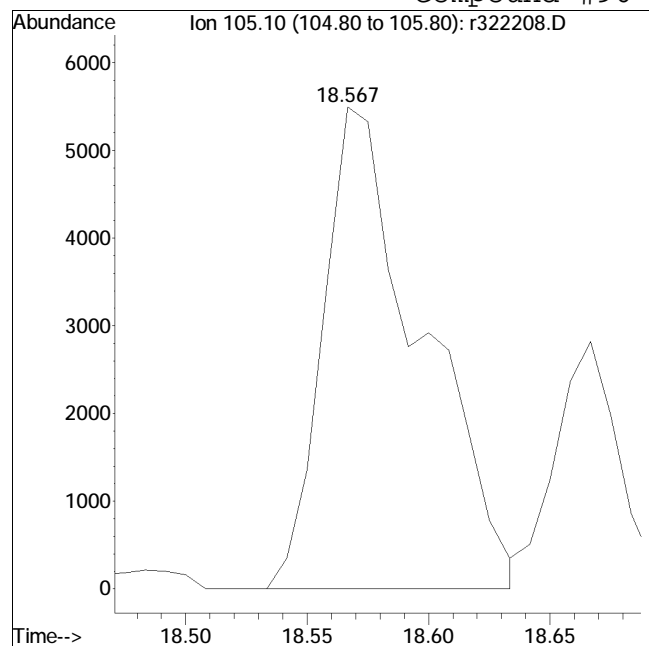
Manual Peak Response = 100750 M6

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

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322208.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:1: 7 Instrument :  
Sample : L2225590-09,3,250,250 Quant Date : 5/19/2022 8:51 am

Compound #96: 4-ethyl toluene



Original Peak Response = 15505

Manual Peak Response = 4272 M6

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



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
 Data File : r322209.D  
 Acq On : 19 May 2022 1:46 AM  
 Operator : AIRPIANO3:TS  
 Sample : L2225590-08,3,250,250  
 Misc : WG1640147,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 18:06:24 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518T\r322194.D  
 Sub List : TO15-NY-7-SIM - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.542	49	439167	10.000	ppbV	-0.03
Standard Area =	443368		Recovery =	99.05%		
43) 1,4-difluorobenzene	11.813	114	1320992	10.000	ppbV	-0.03
Standard Area =	1337389		Recovery =	98.77%		
67) chlorobenzene-D5	16.558	54	205701	10.000	ppbV	-0.02
Standard Area =	206902		Recovery =	99.42%		

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) dichlorodifluoromethane	3.946	85	20502	0.594	ppbV	99
6) chloromethane	4.126	50	11021	0.664	ppbV	98
7) Freon-114	4.252		0	N.D.		
10) 1,3-butadiene	4.546		0	N.D.		
13) bromomethane	4.864		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	5.263	31	108617	6.437	ppbV	100
17) vinyl bromide	0.000		0	N.D.		
19) acetone	5.840	43	101781M6	4.231	ppbV	
21) trichlorofluoromethane	6.033	101	10133	0.323	ppbV	98
22) isopropyl alcohol	6.167	45	43707	1.510	ppbV	100
27) tertiary butyl alcohol	6.884	59	1088326	30.214	ppbV	98
28) methylene chloride	6.974	49	4091	0.149	ppbV	99
29) 3-chloropropene	0.000		0	N.D.		
30) carbon disulfide	7.268	76	5878	0.094	ppbV #	1
31) Freon 113	7.310	101	2909	0.083	ppbV	94
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	8.850	43	18596	0.425	ppbV	99
38) Ethyl Acetate	9.667	61	613	0.086	ppbV #	55
39) chloroform	9.700		0	N.D.		
40) Tetrahydrofuran	10.183	42	4046	0.160	ppbV	98
42) 1,2-dichloroethane	10.558		0	N.D.		
44) hexane	9.617	57	11171	0.297	ppbV #	42
50) benzene	11.373	78	13518	0.175	ppbV	97
53) cyclohexane	11.693	56	3140	0.080	ppbV	92

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
 Data File : r322209.D  
 Acq On : 19 May 2022 1:46 AM  
 Operator : AIRPIANO3:TS  
 Sample : L2225590-08,3,250,250  
 Misc : WG1640147,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 18:06:24 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518T\r322194.D  
 Sub List : TO15-NY-7-SIM - .

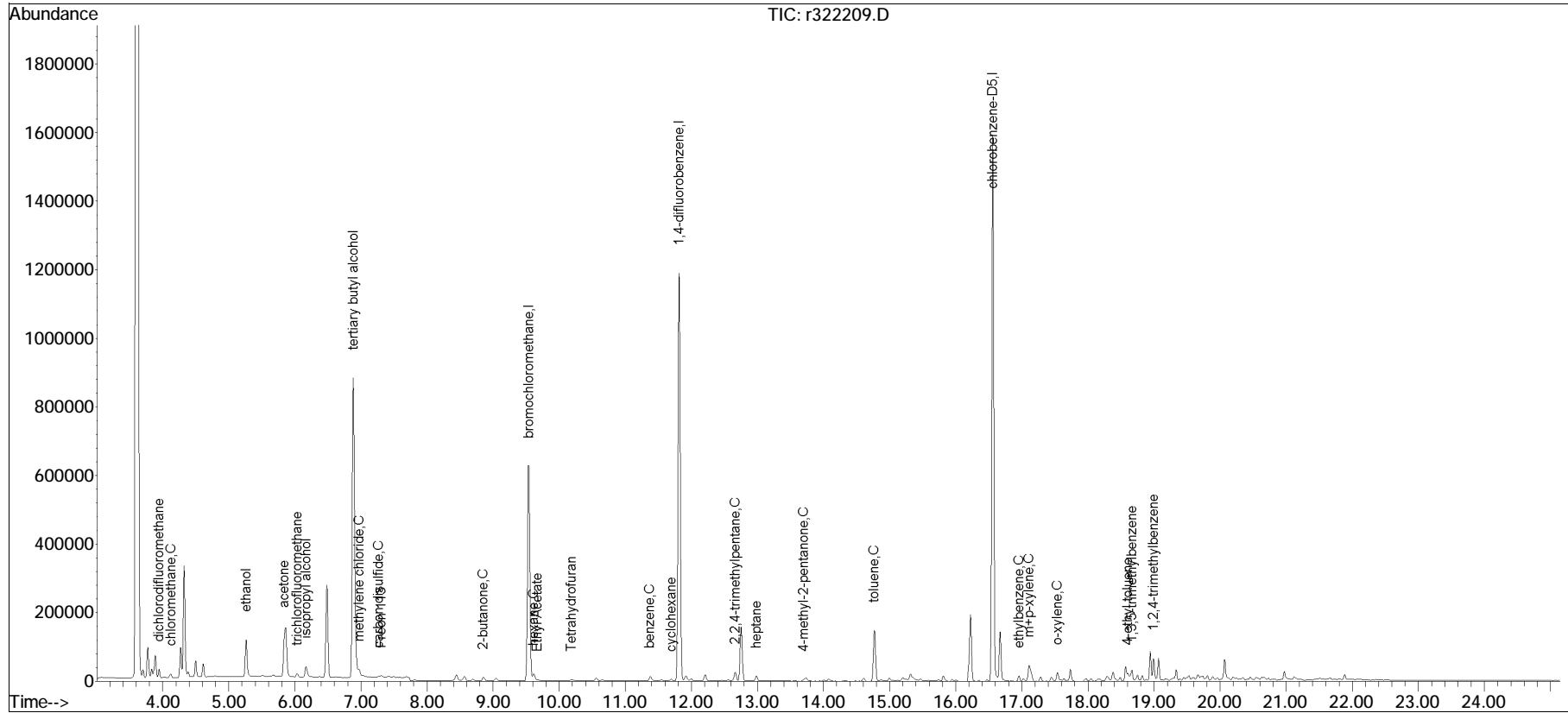
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
56) 1,2-dichloropropane	0.000		0		N.D.	
57) bromodichloromethane	12.560		0		N.D.	
58) 1,4-dioxane	12.660		0		N.D.	
60) 2,2,4-trimethylpentane	12.667	57	29316	0.252	ppbV	97
62) heptane	12.987	43	8833	0.204	ppbV	96
63) cis-1,3-dichloropropene	0.000		0		N.D.	
64) 4-methyl-2-pentanone	13.700	43	3848	0.077	ppbV	95
65) trans-1,3-dichloropropene	0.000		0		N.D.	
66) 1,1,2-trichloroethane	0.000		0		N.D.	
68) toluene	14.767	91	133947	1.733	ppbV	99
72) 2-hexanone	15.100		0		N.D.	
74) dibromochloromethane	0.000		0		N.D.	
75) 1,2-dibromoethane	0.000		0		N.D.	
80) chlorobenzene	16.617		0		N.D.	
81) ethylbenzene	16.958	91	13670	0.147	ppbV	99
83) m+p-xylene	17.108	91	40228	0.531	ppbV	98
84) bromoform	0.000		0		N.D.	
85) styrene	17.450		0		N.D.	
86) 1,1,2,2-tetrachloroethane	17.592		0		N.D.	
87) o-xylene	17.542	91	16589	0.220	ppbV	100
96) 4-ethyl toluene	18.600	105	9533M6	0.083	ppbV	
97) 1,3,5-trimethylbenzene	18.667	105	13913	0.132	ppbV	98
99) 1,2,4-trimethylbenzene	18.992	105	37006M6	0.401	ppbV	
101) Benzyl Chloride	19.175		0		N.D.	
102) 1,3-dichlorobenzene	19.183		0		N.D.	
103) 1,4-dichlorobenzene	19.183		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.	

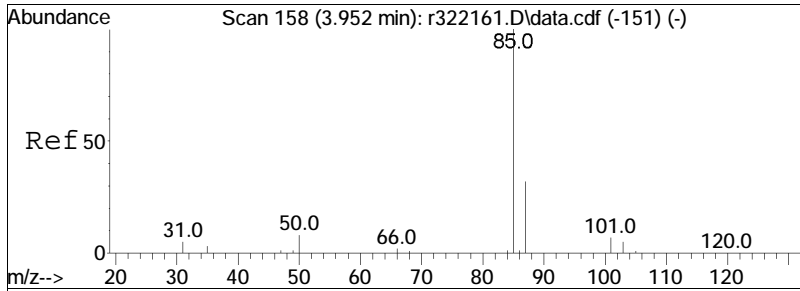
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : TO15-NY-7-SIM - .\Airpiano3\2022\05\0518T\r322194.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
Data File : r322209.D  
Acq On : 19 May 2022 1:46 AM  
Operator : AIRPIANO3:TS  
Sample : L2225590-08,3,250,250  
Misc : WG1640147,ICAL19030  
ALS Vial : 0 Sample Multiplier: 1

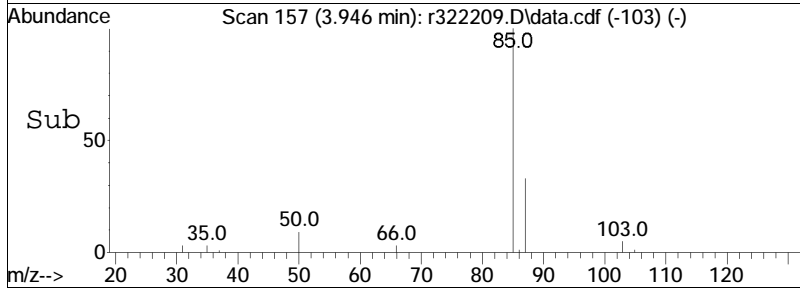
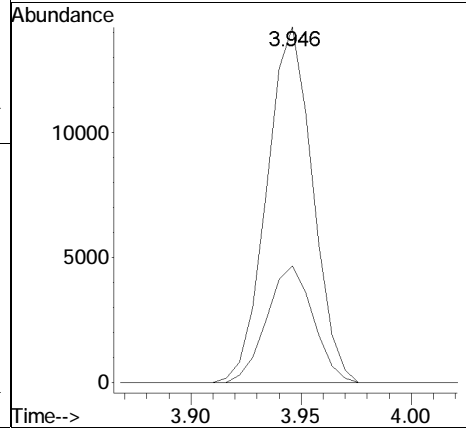
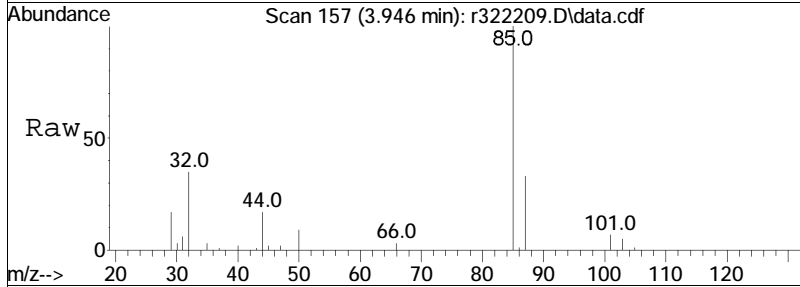
Quant Time: May 19 18:06:24 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 15:52:12 2022  
Response via : Initial Calibration

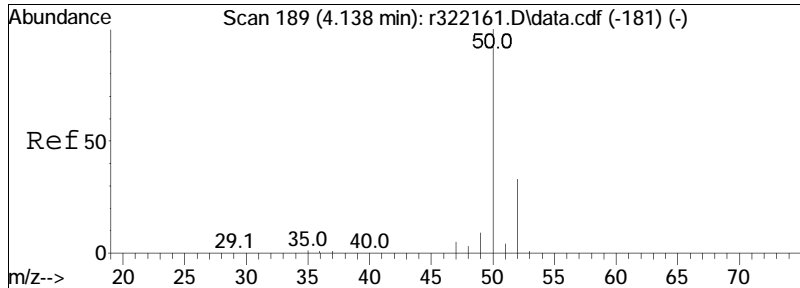




#5  
dichlorodifluoromethane  
Concen: 0.59 ppbV  
RT: 3.946 min Scan# 157  
Delta R.T. -0.006 min  
Lab File: r322209.D  
Acq: 19 May 2022 1:46 AM

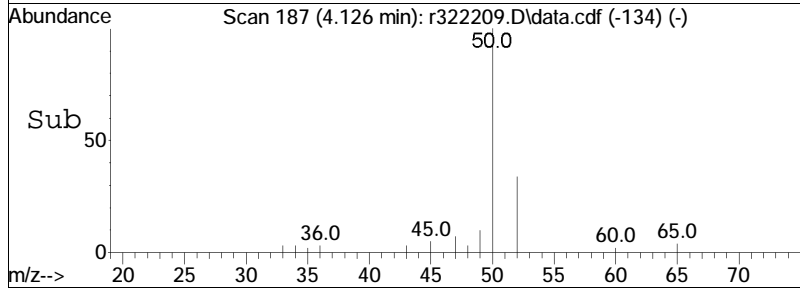
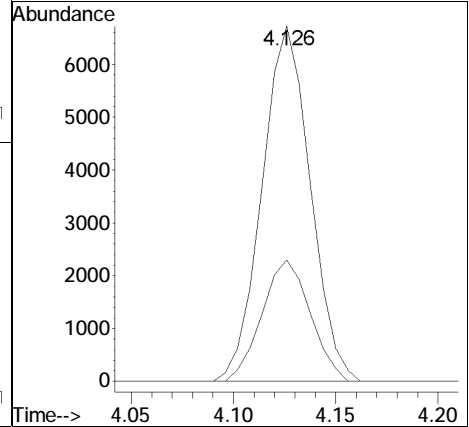
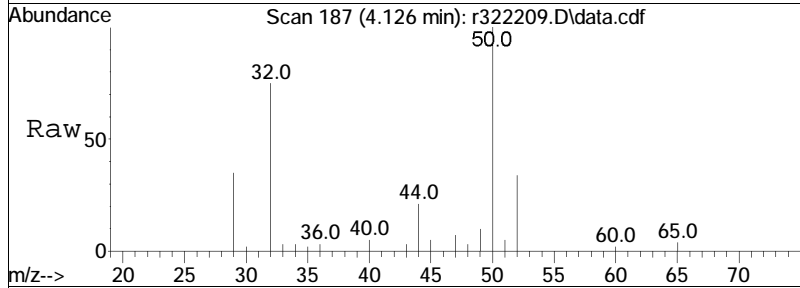
Tgt Ion:	85	Resp:	20502
Ion Ratio	Lower	Upper	
85	100		
87	32.8	25.8	38.6

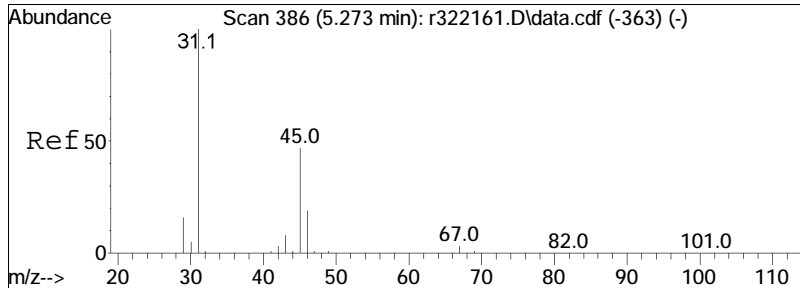




#6  
 chloromethane  
 Concen: 0.66 ppbV  
 RT: 4.126 min Scan# 187  
 Delta R.T. -0.012 min  
 Lab File: r322209.D  
 Acq: 19 May 2022 1:46 AM

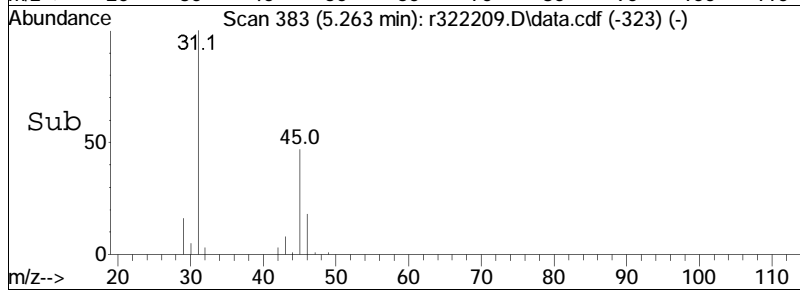
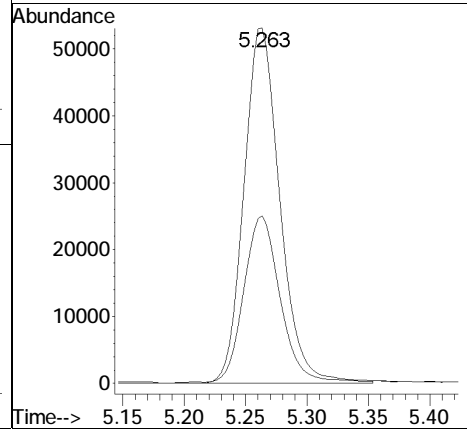
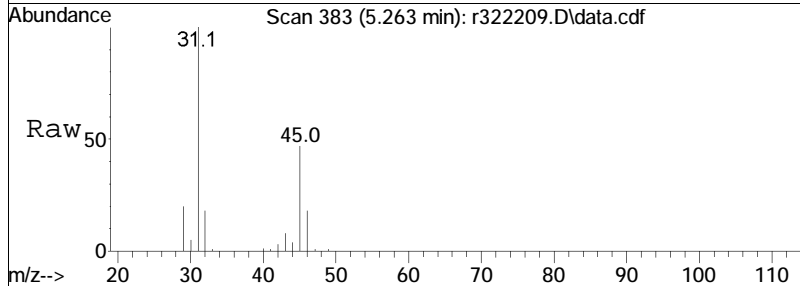
Tgt Ion	Resp	Lower	Upper
50	11021		
50	100		
52	34.2	26.3	39.5

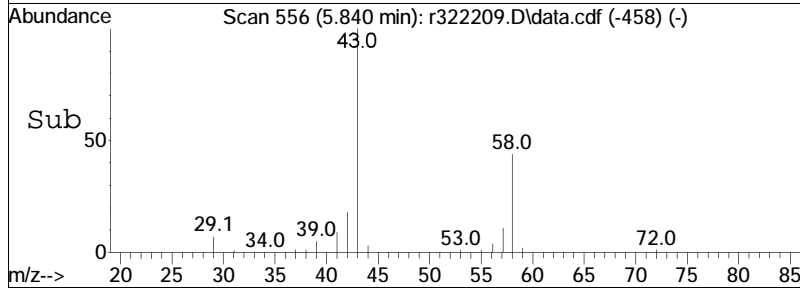
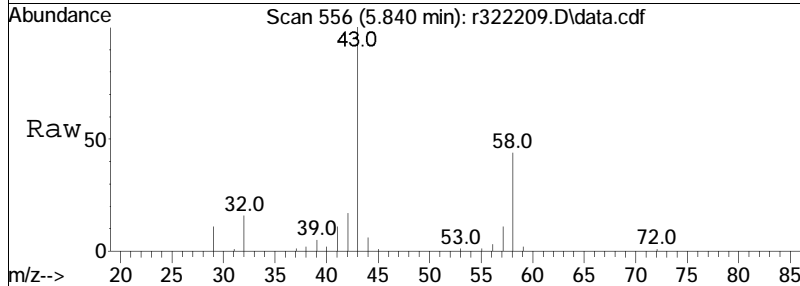
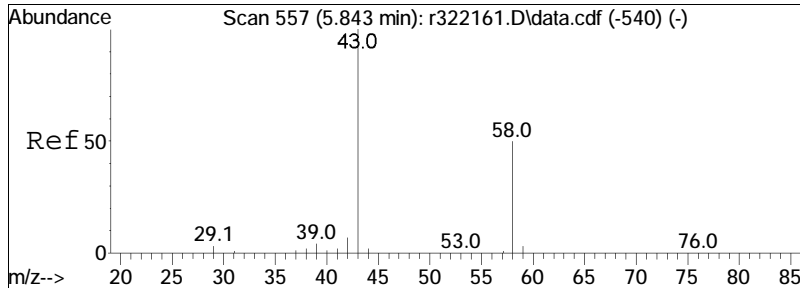




#15  
 ethanol  
 Concen: 6.44 ppbV  
 RT: 5.263 min Scan# 383  
 Delta R.T. -0.010 min  
 Lab File: r322209.D  
 Acq: 19 May 2022 1:46 AM

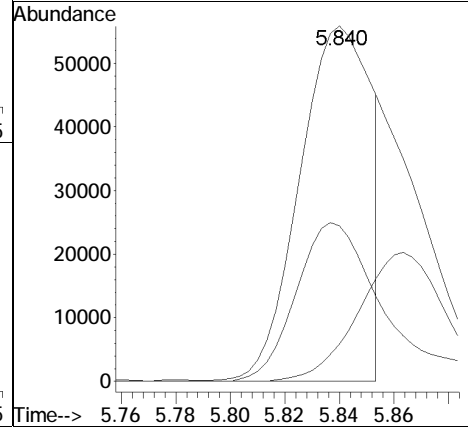
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
31	100		
45	47.1	37.6	56.4

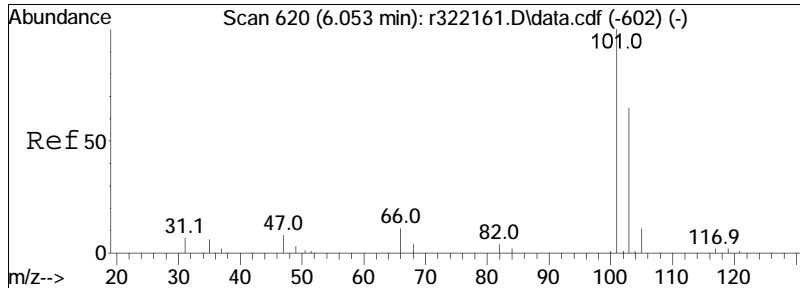




#19  
 acetone  
 Concen: 4.23 ppbV m  
 RT: 5.840 min Scan# 556  
 Delta R.T. -0.003 min  
 Lab File: r322209.D  
 Acq: 19 May 2022 1:46 AM

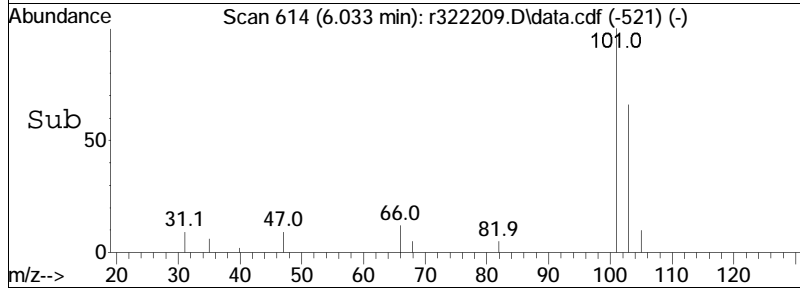
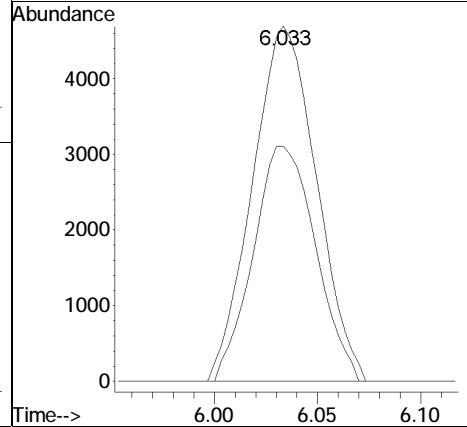
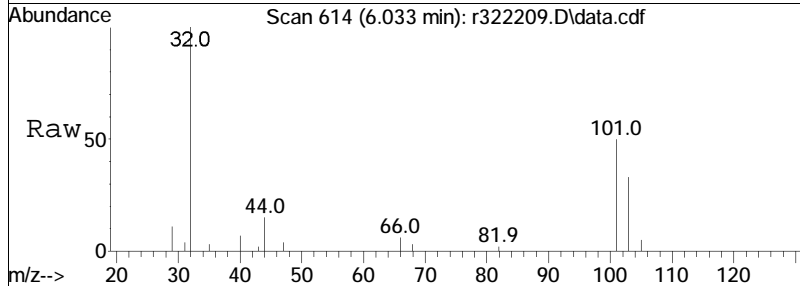
Tgt Ion	Resp	Lower	Upper
43	101781		
58	43.8	39.8	59.8
57	10.5	1.0	1.6#



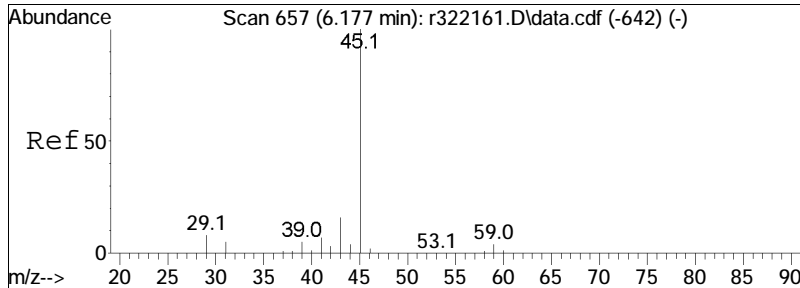


#21  
 trichlorofluoromethane  
 Concen: 0.32 ppbV  
 RT: 6.033 min Scan# 614  
 Delta R.T. -0.020 min  
 Lab File: r322209.D  
 Acq: 19 May 2022 1:46 AM

Tgt Ion: 101 Resp: 10133  
 Ion Ratio Lower Upper  
 101 100  
 103 66.2 51.8 77.6

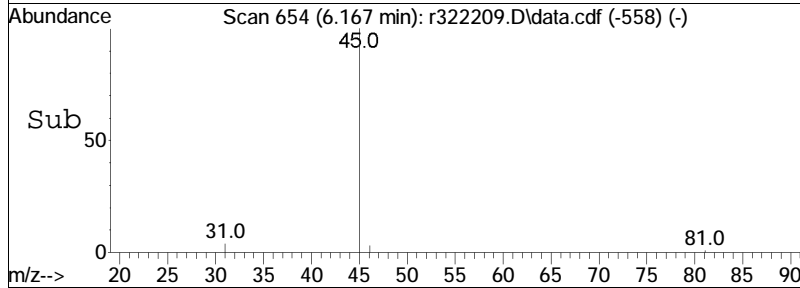
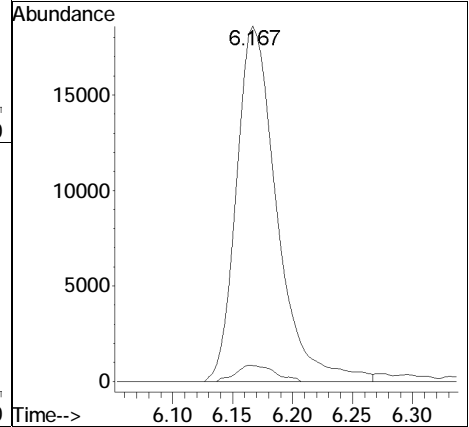
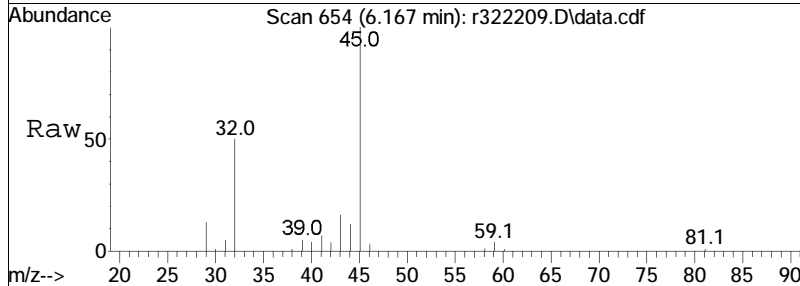


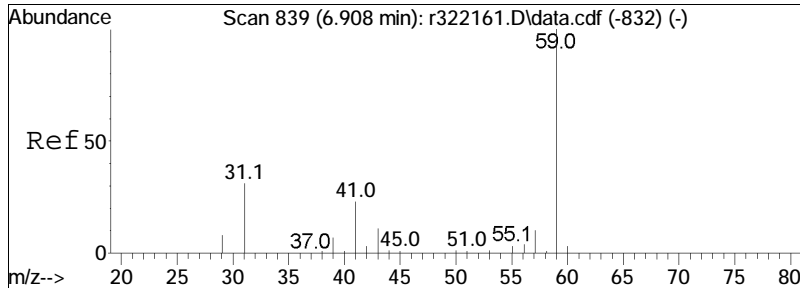




#22  
 isopropyl alcohol  
 Concen: 1.51 ppbV  
 RT: 6.167 min Scan# 654  
 Delta R.T. -0.010 min  
 Lab File: r322209.D  
 Acq: 19 May 2022 1:46 AM

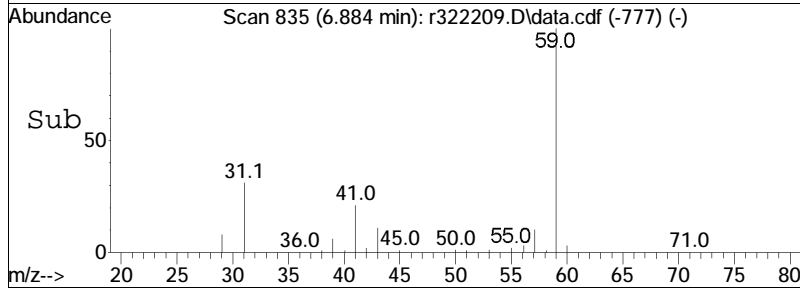
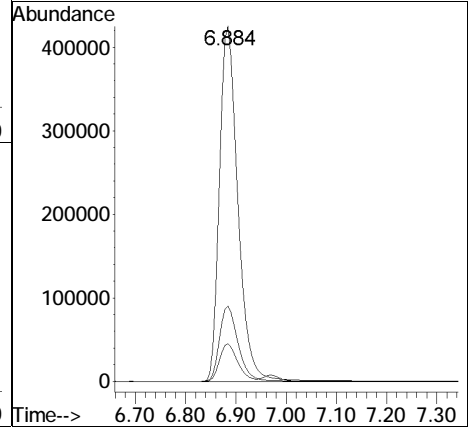
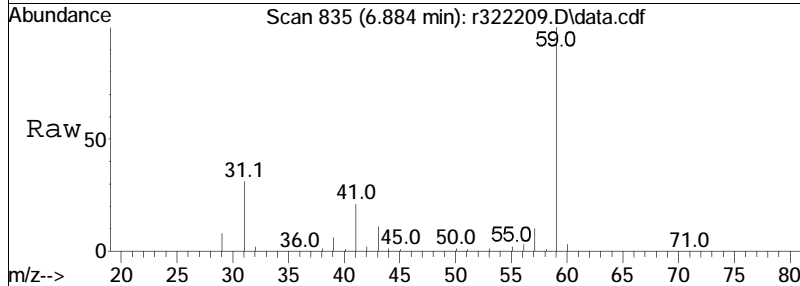
Tgt Ion: 45 Resp: 43707  
 Ion Ratio Lower Upper  
 45 100  
 59 4.5 3.5 5.3

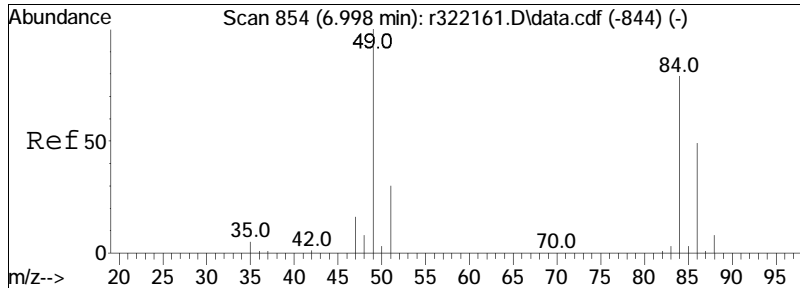




#27  
 tertiary butyl alcohol  
 Concen: 30.21 ppbV  
 RT: 6.884 min Scan# 835  
 Delta R.T. -0.024 min  
 Lab File: r322209.D  
 Acq: 19 May 2022 1:46 AM

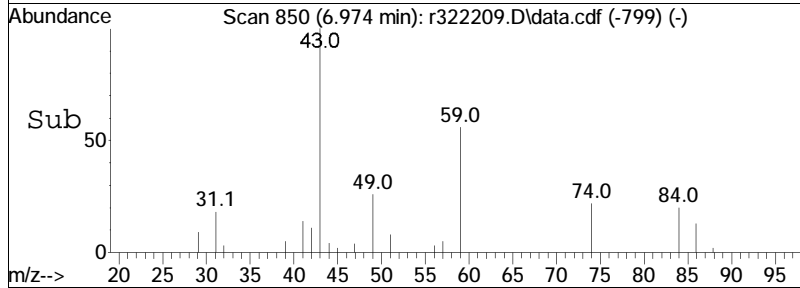
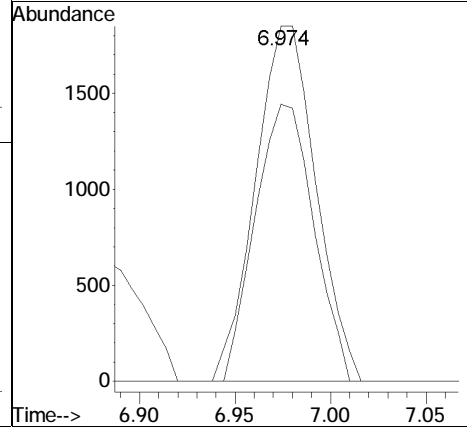
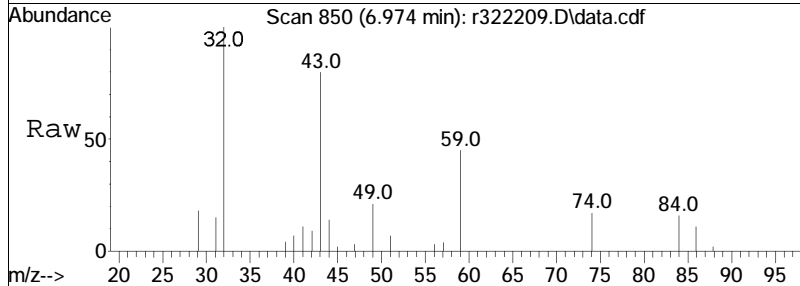
Tgt Ion	Resp	Lower	Upper
59	1088326		
41	21.3	18.2	27.2
43	10.6	8.9	13.3

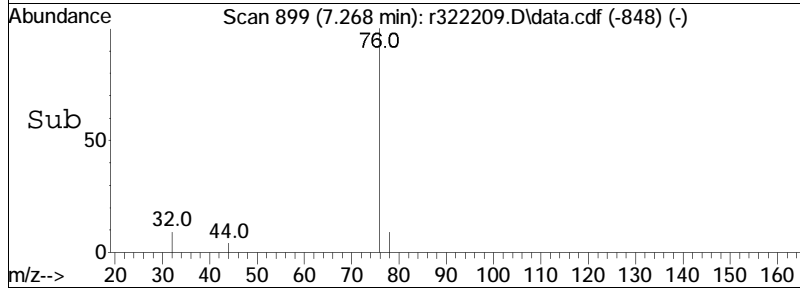
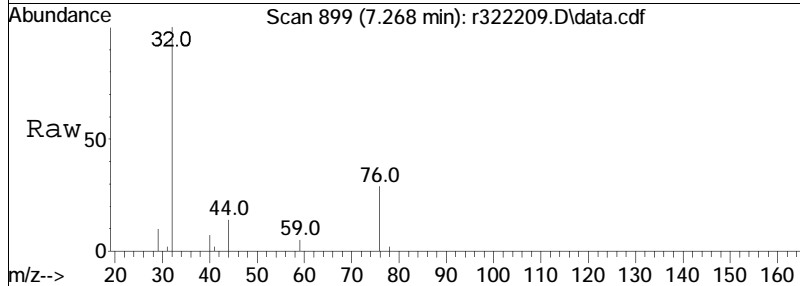
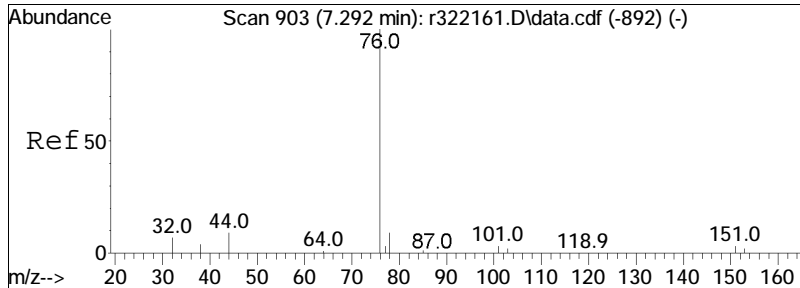




#28  
 methylene chloride  
 Concen: 0.15 ppbV  
 RT: 6.974 min Scan# 850  
 Delta R.T. -0.024 min  
 Lab File: r322209.D  
 Acq: 19 May 2022 1:46 AM

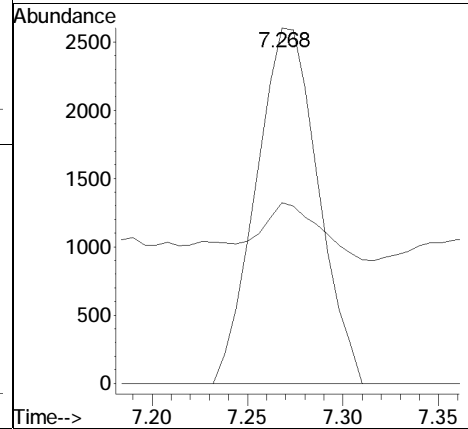
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
49	100		
84	78.0	63.0	94.6

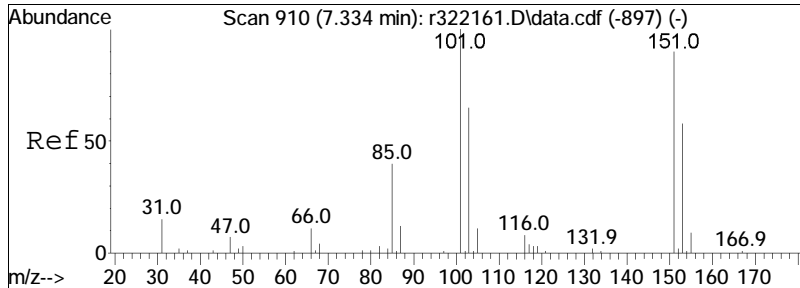




#30  
 carbon disulfide  
 Concen: 0.09 ppbV  
 RT: 7.268 min Scan# 899  
 Delta R.T. -0.024 min  
 Lab File: r322209.D  
 Acq: 19 May 2022 1:46 AM

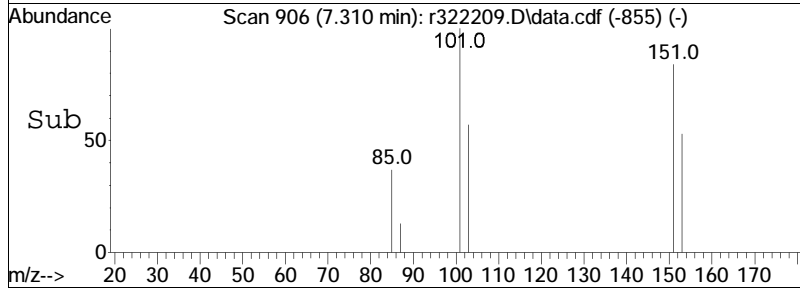
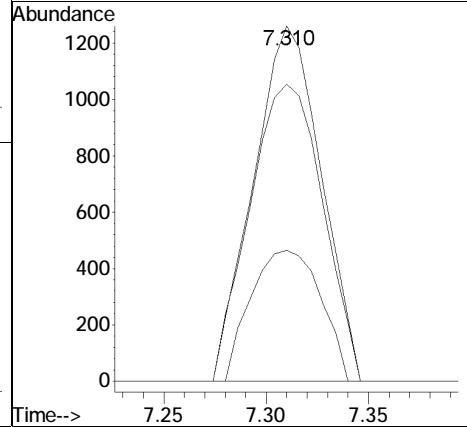
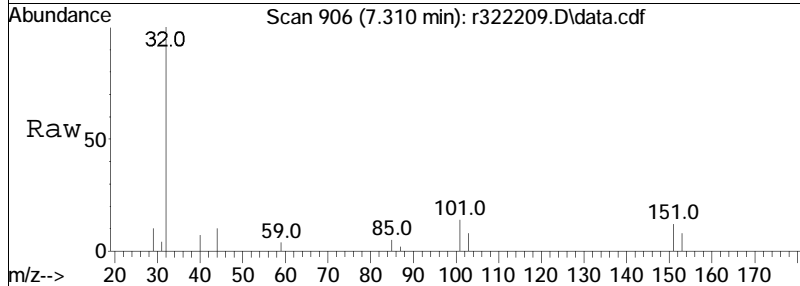
Tgt Ion	Resp	Lower	Upper
76	100		
44	50.8	7.6	11.4#

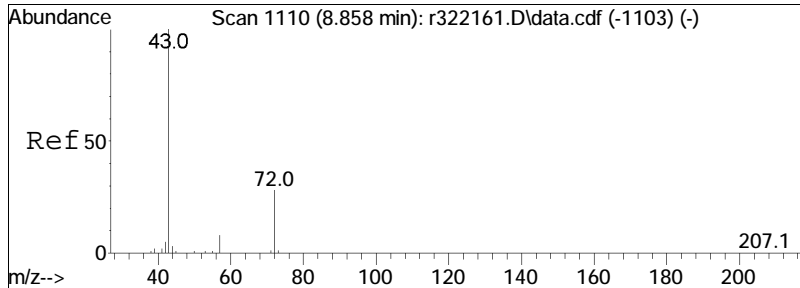




#31  
 Freon 113  
 Concen: 0.08 ppbV  
 RT: 7.310 min Scan# 906  
 Delta R.T. -0.024 min  
 Lab File: r322209.D  
 Acq: 19 May 2022 1:46 AM

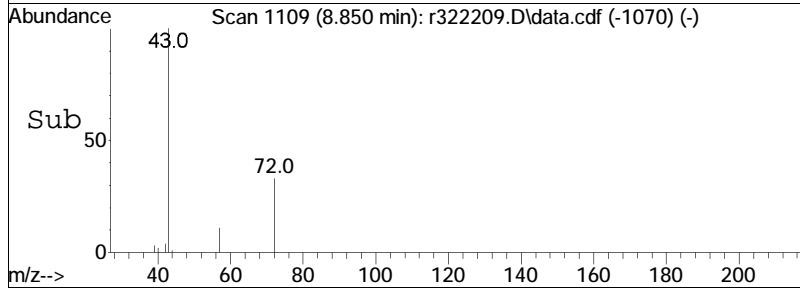
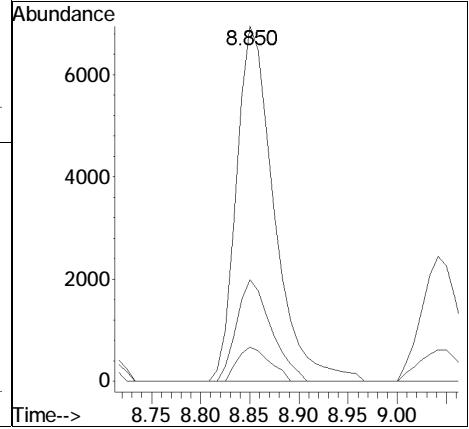
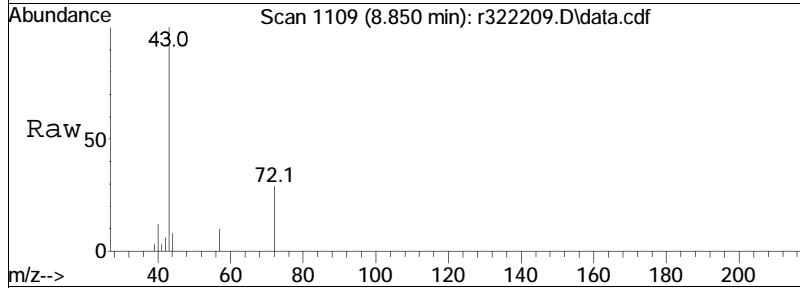
Tgt Ion	Ratio	Lower	Upper
101	100		
85	36.9	31.8	47.8
151	83.7	72.2	108.4

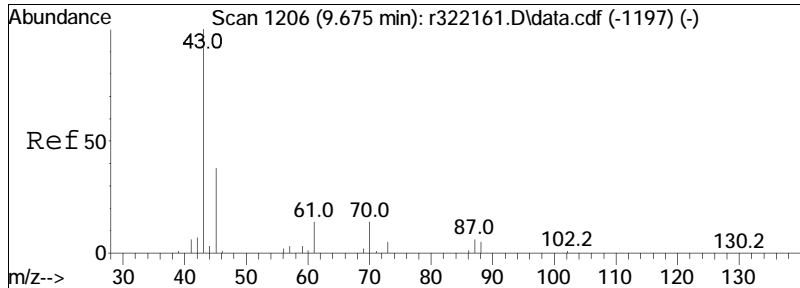




#36  
 2-butanone  
 Concen: 0.43 ppbV  
 RT: 8.850 min Scan# 1109  
 Delta R.T. -0.008 min  
 Lab File: r322209.D  
 Acq: 19 May 2022 1:46 AM

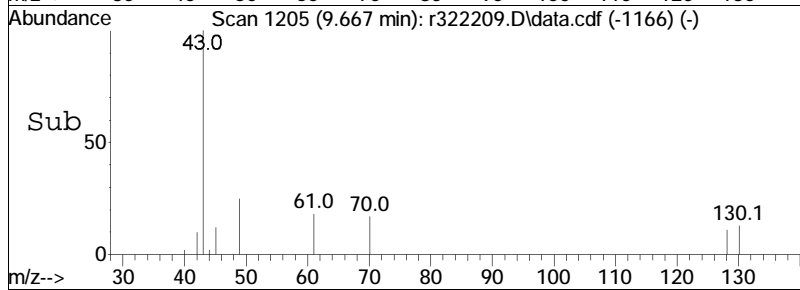
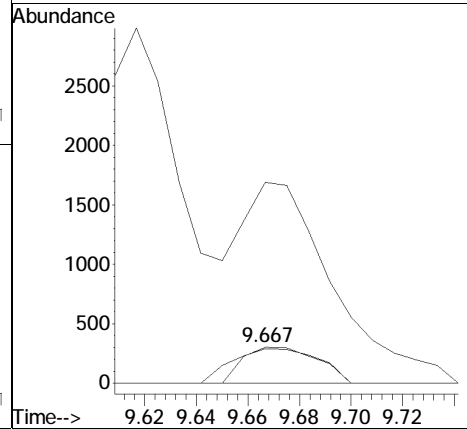
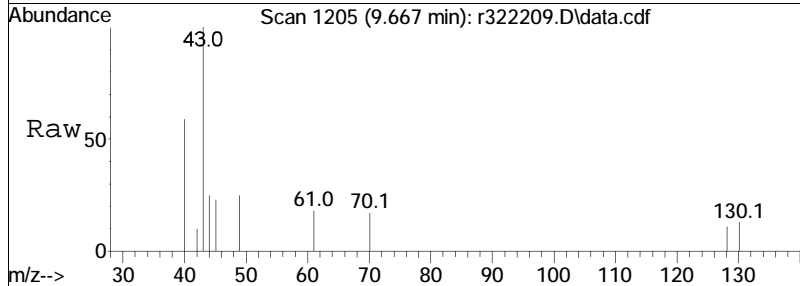
Tgt Ion	Resp	Lower	Upper
43	18596		
72	28.6	22.6	33.8
57	9.7	6.6	10.0

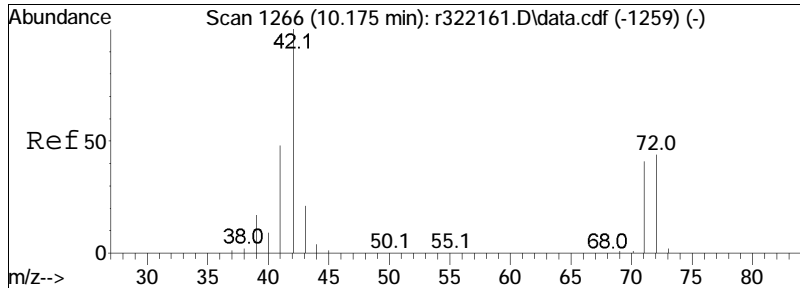




#38  
 Ethyl Acetate  
 Concen: 0.09 ppbV  
 RT: 9.667 min Scan# 1205  
 Delta R.T. -0.008 min  
 Lab File: r322209.D  
 Acq: 19 May 2022 1:46 AM

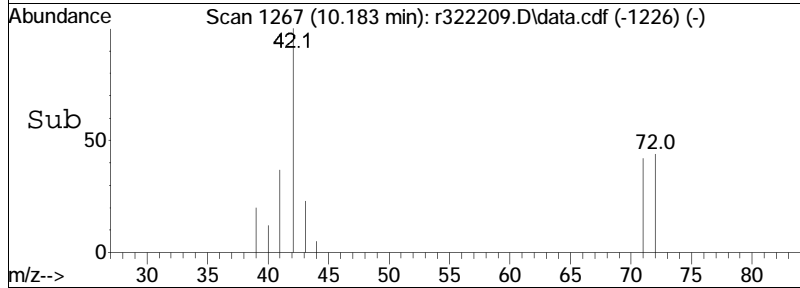
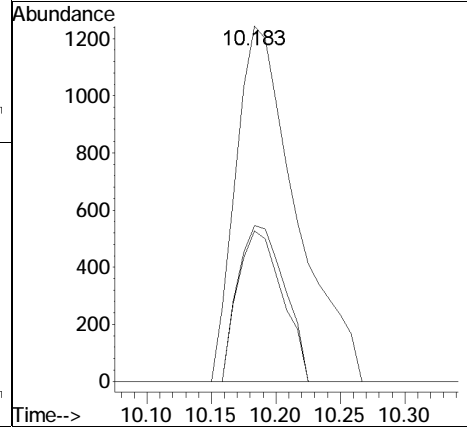
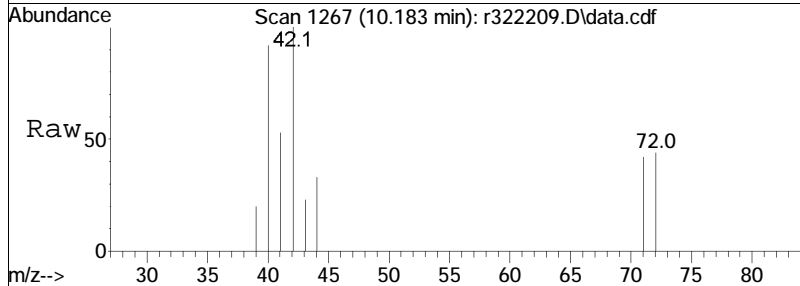
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
61	100		
70	96.4	78.8	118.2
43	557.8	593.4	890.0#



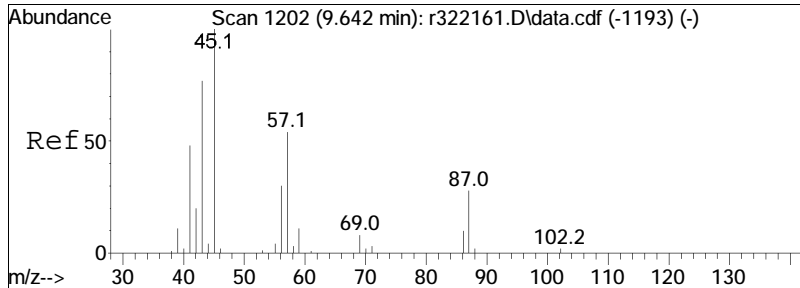


#40  
 Tetrahydrofuran  
 Concen: 0.16 ppbV  
 RT: 10.183 min Scan# 1267  
 Delta R.T. 0.008 min  
 Lab File: r322209.D  
 Acq: 19 May 2022 1:46 AM

Tgt Ion	Resp	Lower	Upper
42	100		
71	42.4	32.4	48.6
72	43.9	35.2	52.8

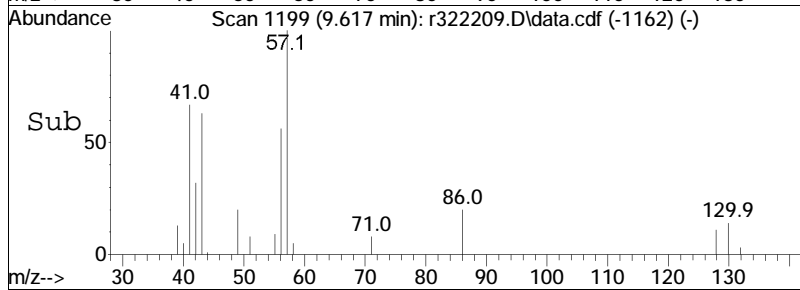
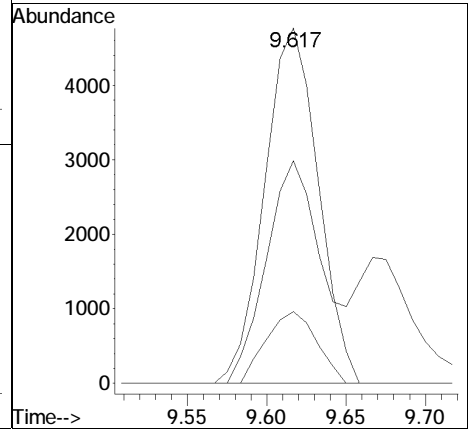
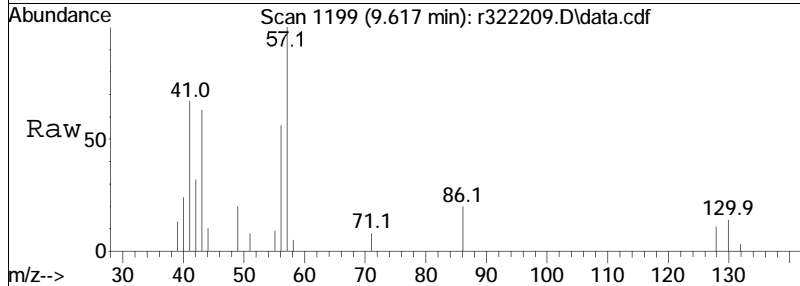


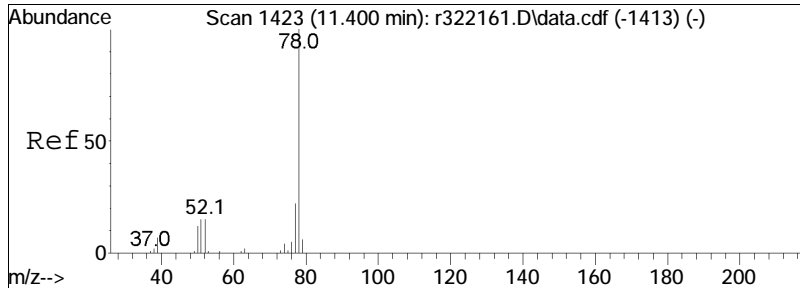




#44  
 hexane  
 Concen: 0.30 ppbV  
 RT: 9.617 min Scan# 1199  
 Delta R.T. -0.025 min  
 Lab File: r322209.D  
 Acq: 19 May 2022 1:46 AM

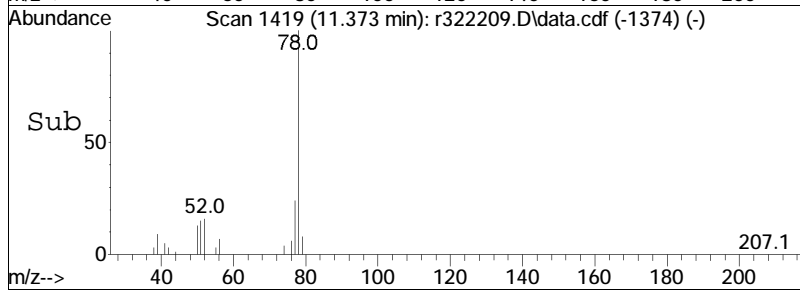
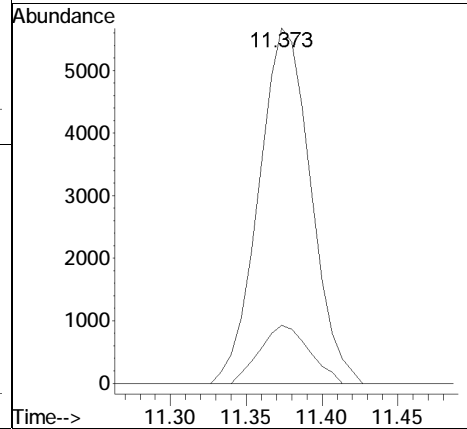
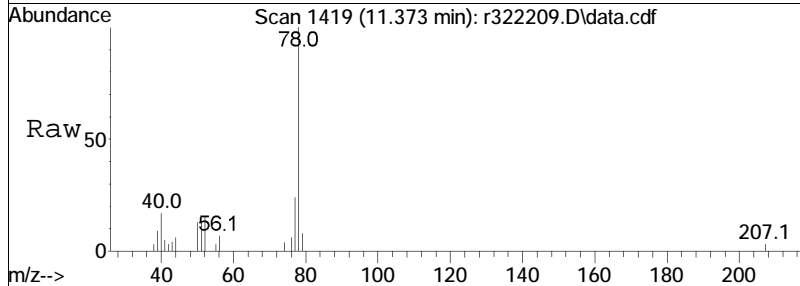
Tgt Ion:	Resp:		
Ion Ratio	Lower	Upper	
57	100		
43	62.6	115.0	172.6#
86	20.2	15.5	23.3

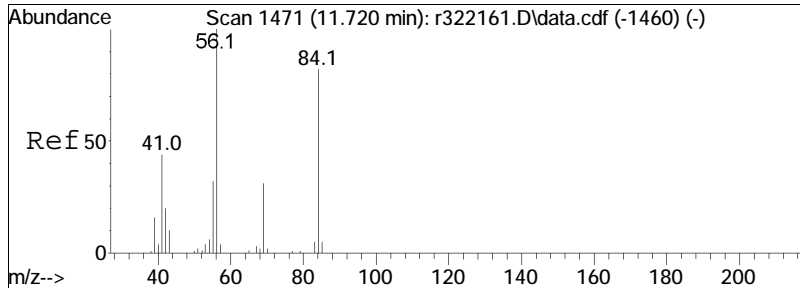




#50  
 benzene  
 Concen: 0.17 ppbV  
 RT: 11.373 min Scan# 1419  
 Delta R.T. -0.027 min  
 Lab File: r322209.D  
 Acq: 19 May 2022 1:46 AM

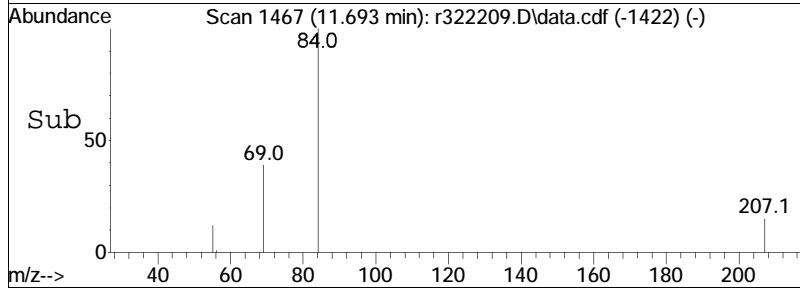
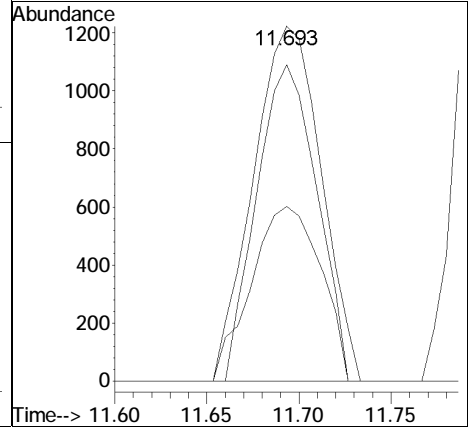
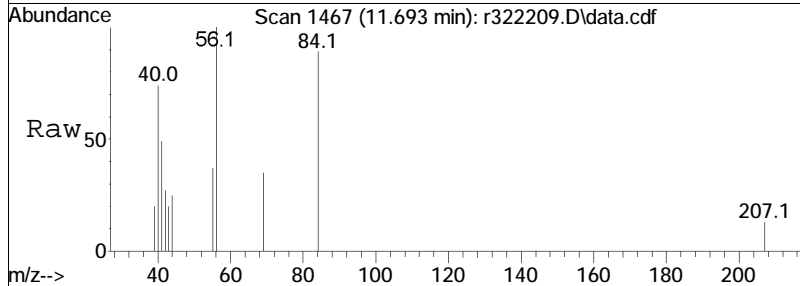
Tgt Ion:	78	Resp:	13518
Ion Ratio	Lower	Upper	
78	100		
52	16.4	12.2	18.2

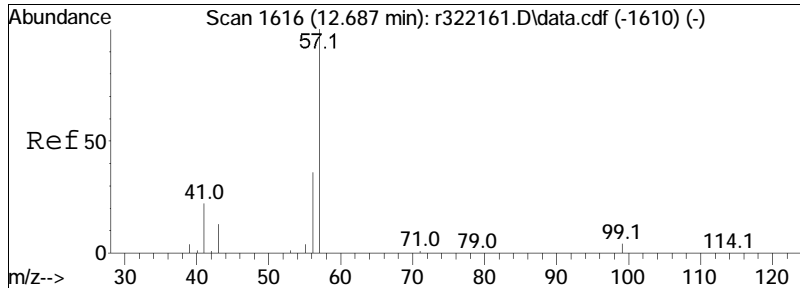




#53  
 cyclohexane  
 Concen: 0.08 ppbV  
 RT: 11.693 min Scan# 1467  
 Delta R.T. -0.027 min  
 Lab File: r322209.D  
 Acq: 19 May 2022 1:46 AM

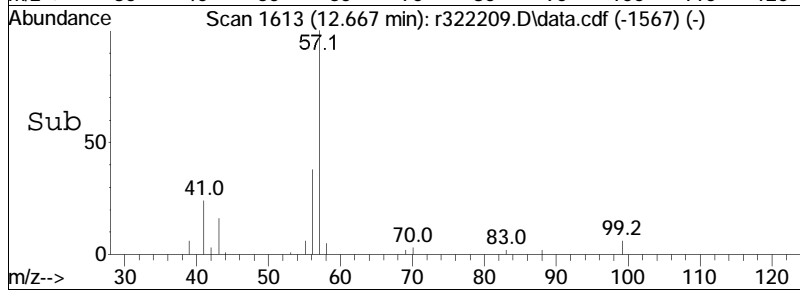
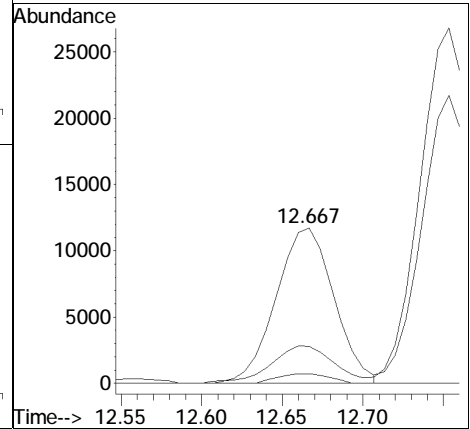
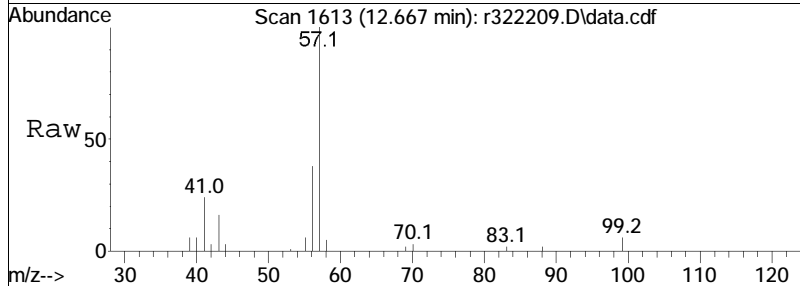
Tgt Ion	Resp	Lower	Upper
56	100		
84	89.1	65.4	98.0
41	49.2	35.4	53.2

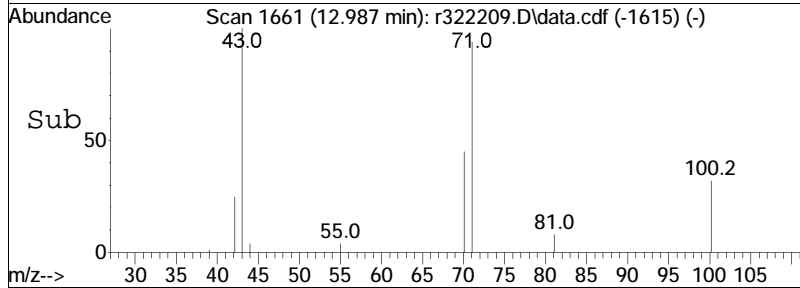
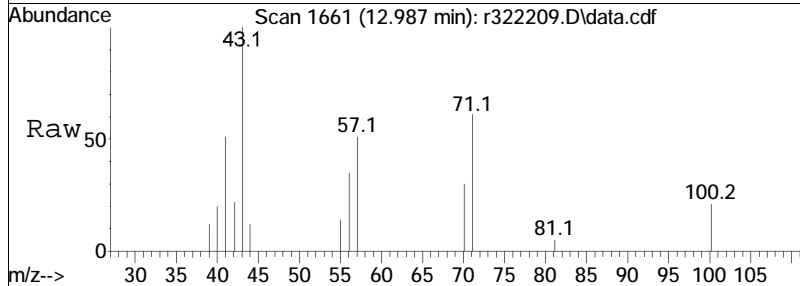
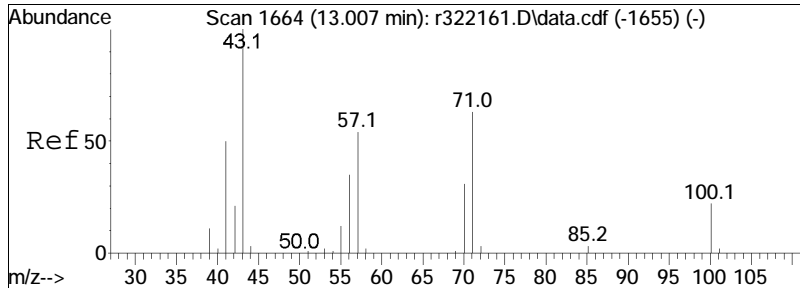




#60  
 2,2,4-trimethylpentane  
 Concen: 0.25 ppbV  
 RT: 12.667 min Scan# 1613  
 Delta R.T. -0.020 min  
 Lab File: r322209.D  
 Acq: 19 May 2022 1:46 AM

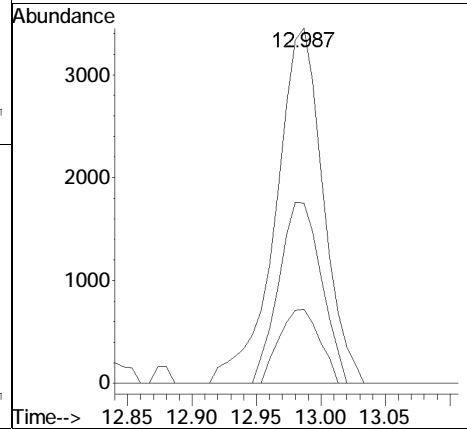
Tgt Ion	Resp	Lower	Upper
57	100		
99	6.3	5.0	7.4
41	23.8	17.4	26.2

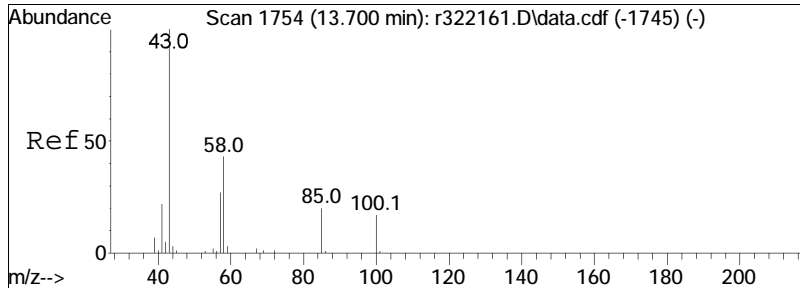




#62  
 heptane  
 Concen: 0.20 ppbV  
 RT: 12.987 min Scan# 1661  
 Delta R.T. -0.020 min  
 Lab File: r322209.D  
 Acq: 19 May 2022 1:46 AM

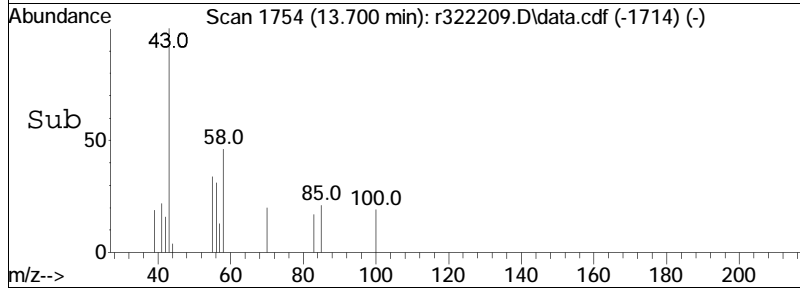
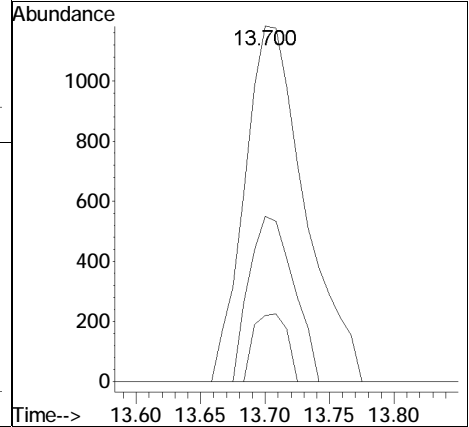
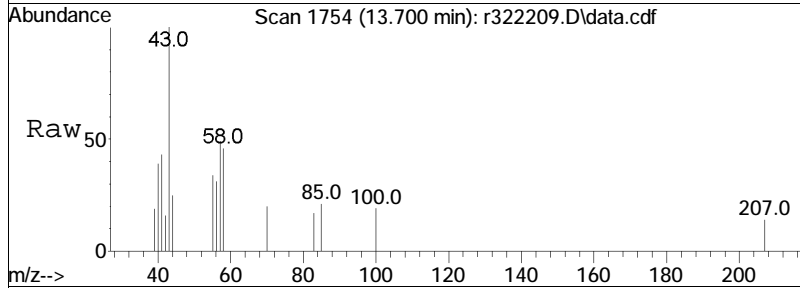
Tgt Ion:	43	Resp:	8833
Ion Ratio	Lower	Upper	
43	100		
57	50.8	43.0	64.4
100	20.9	17.6	26.4

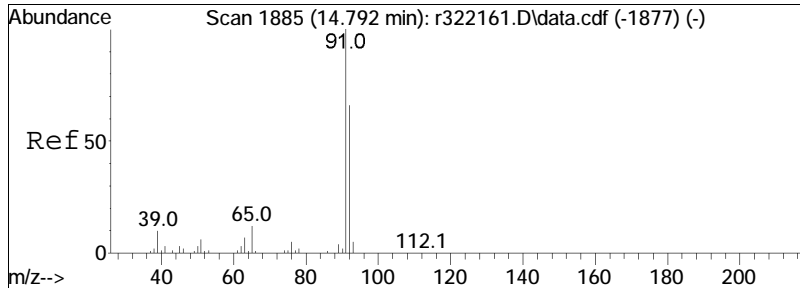




#64  
 4-methyl-2-pentanone  
 Concen: 0.08 ppbV  
 RT: 13.700 min Scan# 1754  
 Delta R.T. 0.000 min  
 Lab File: r322209.D  
 Acq: 19 May 2022 1:46 AM

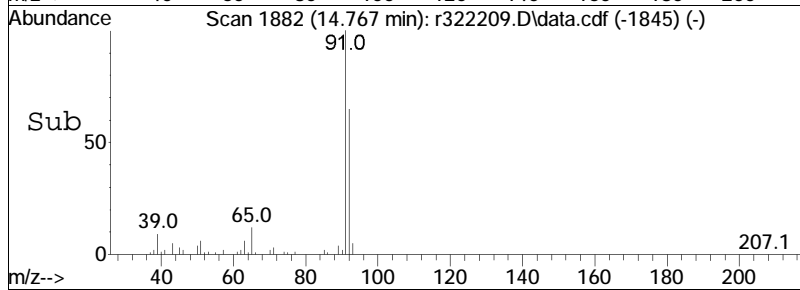
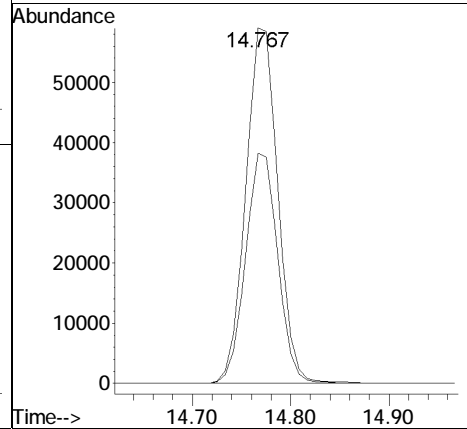
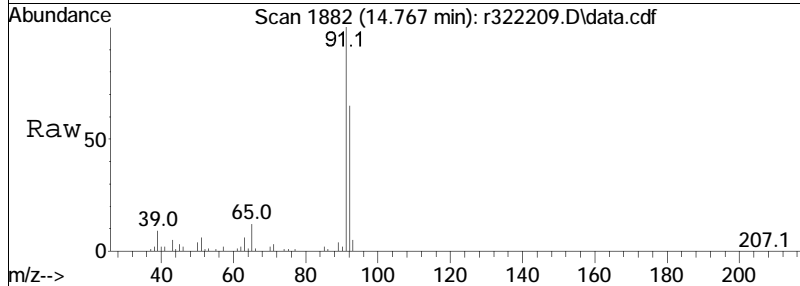
Tgt Ion	Resp	Lower	Upper
43	3848		
58	46.5	34.3	51.5
100	18.6	13.8	20.6

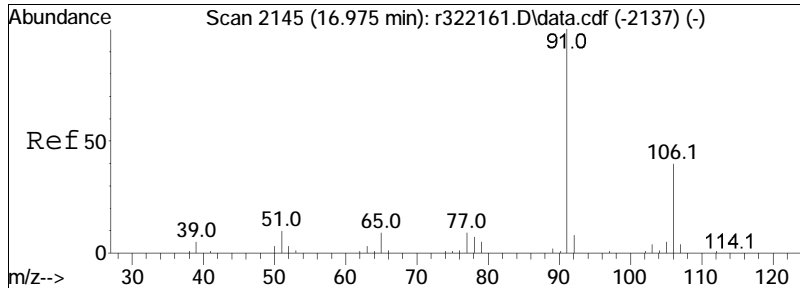




#68  
 toluene  
 Concen: 1.73 ppbV  
 RT: 14.767 min Scan# 1882  
 Delta R.T. -0.025 min  
 Lab File: r322209.D  
 Acq: 19 May 2022 1:46 AM

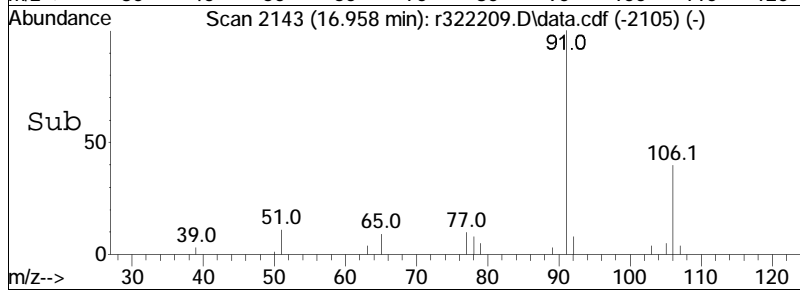
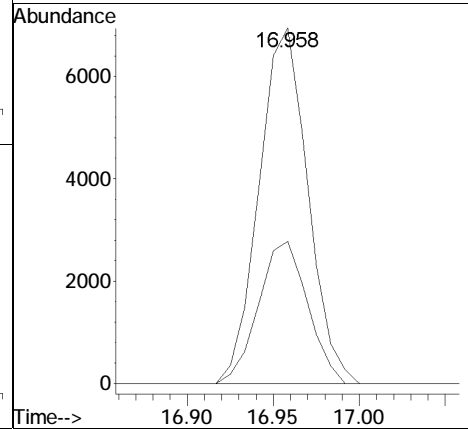
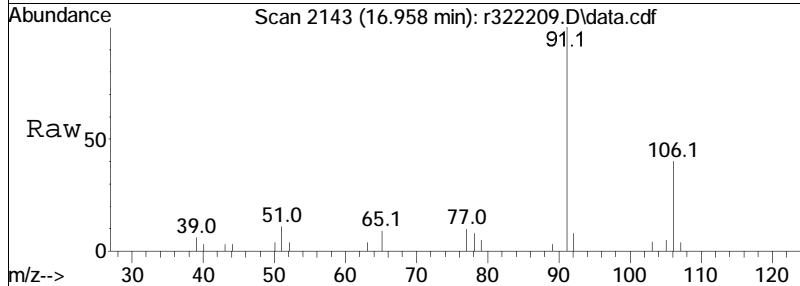
Tgt Ion: 91 Resp: 133947  
 Ion Ratio Lower Upper  
 91 100  
 92 64.8 52.7 79.1



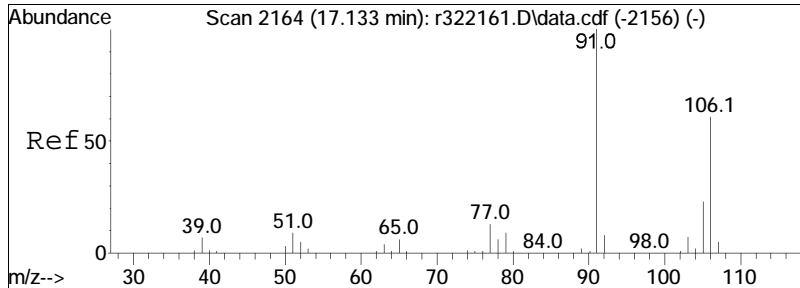


#81  
ethylbenzene  
Concen: 0.15 ppbV  
RT: 16.958 min Scan# 2143  
Delta R.T. -0.017 min  
Lab File: r322209.D  
Acq: 19 May 2022 1:46 AM

Tgt Ion	Resp	Lower	Upper
91	13670		
106	40.0	32.4	48.6

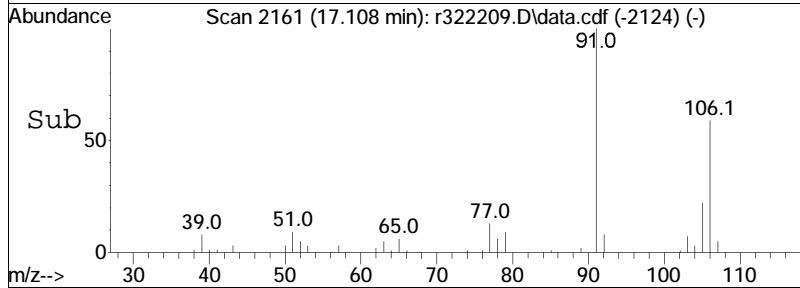
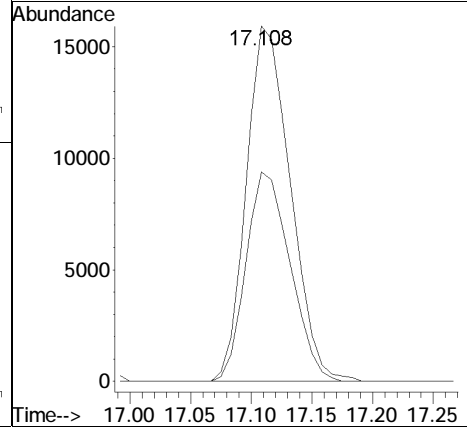
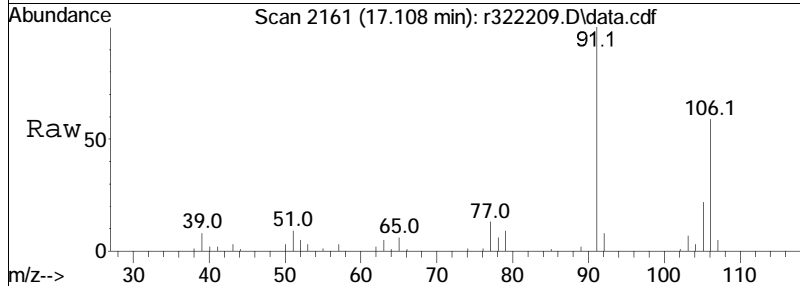


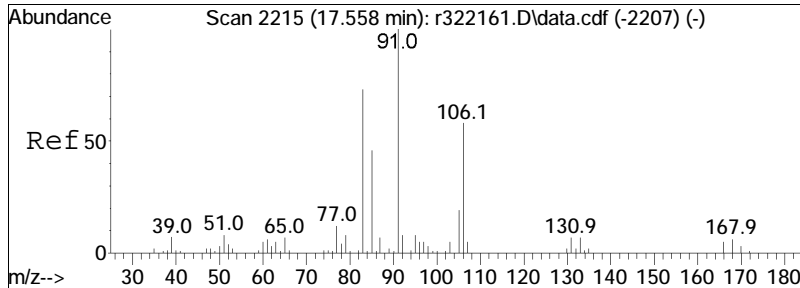




#83  
 m+p-xylene  
 Concen: 0.53 ppbV  
 RT: 17.108 min Scan# 2161  
 Delta R.T. -0.025 min  
 Lab File: r322209.D  
 Acq: 19 May 2022 1:46 AM

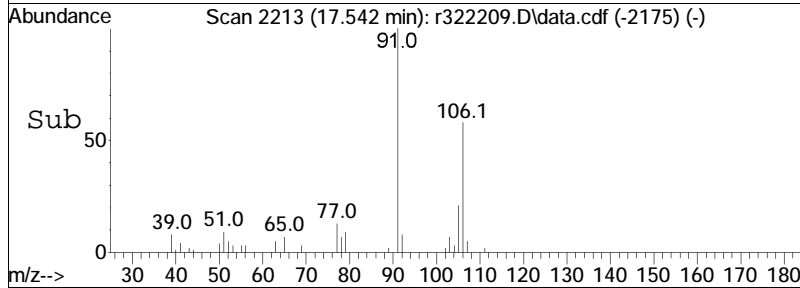
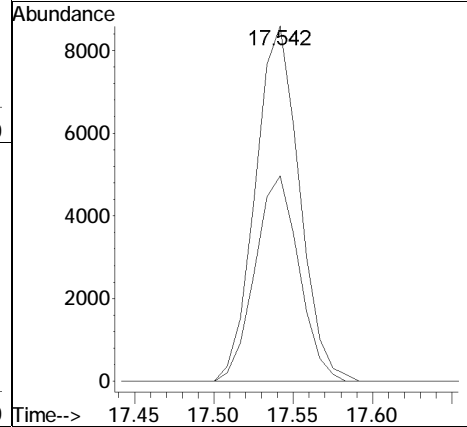
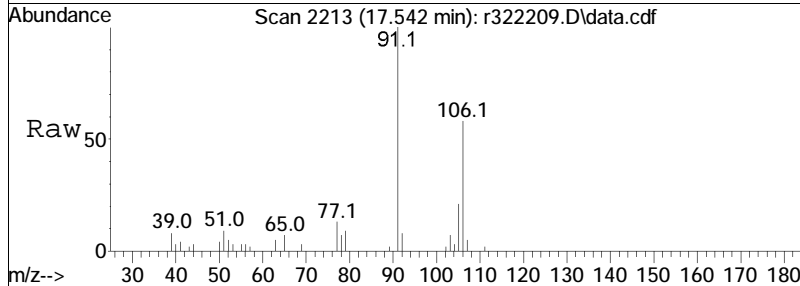
Tgt Ion: 91 Resp: 40228  
 Ion Ratio Lower Upper  
 91 100  
 106 58.9 48.4 72.6

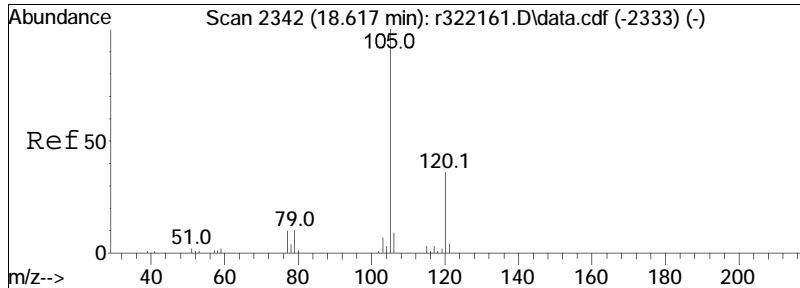




#87  
 o-xylene  
 Concen: 0.22 ppbV  
 RT: 17.542 min Scan# 2213  
 Delta R.T. -0.017 min  
 Lab File: r322209.D  
 Acq: 19 May 2022 1:46 AM

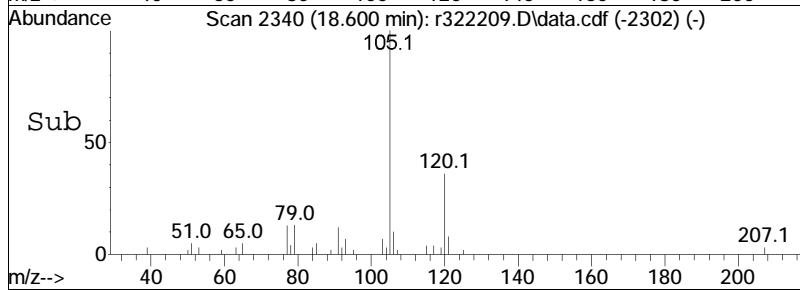
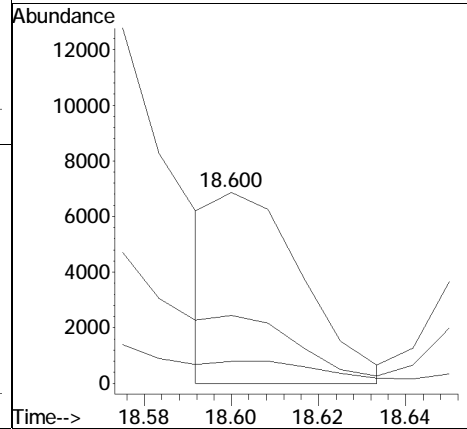
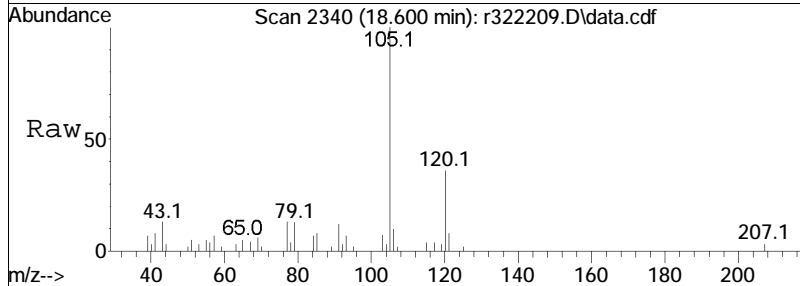
Tgt Ion: 91 Resp: 16589  
 Ion Ratio Lower Upper  
 91 100  
 106 57.8 46.4 69.6

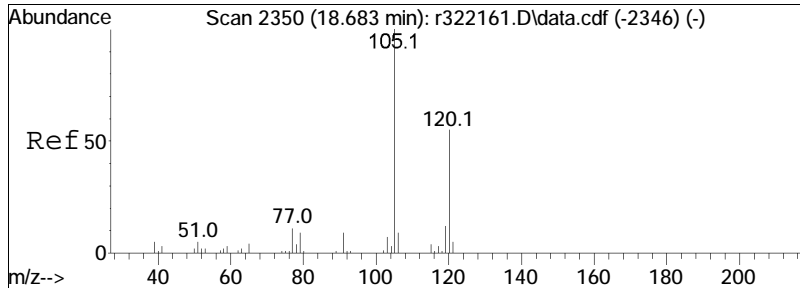




#96  
 4-ethyl toluene  
 Concen: 0.08 ppbV m  
 RT: 18.600 min Scan# 2340  
 Delta R.T. -0.017 min  
 Lab File: r322209.D  
 Acq: 19 May 2022 1:46 AM

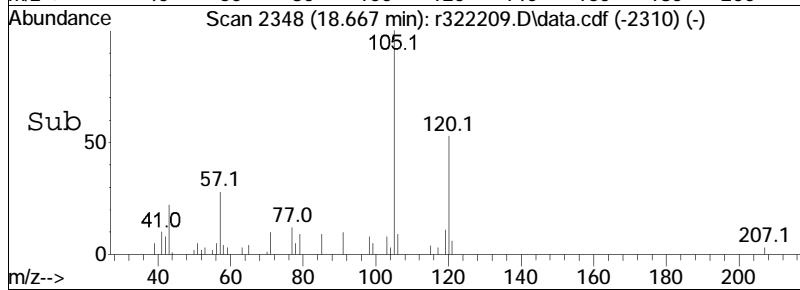
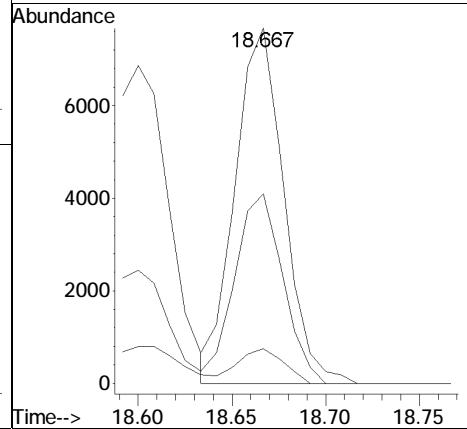
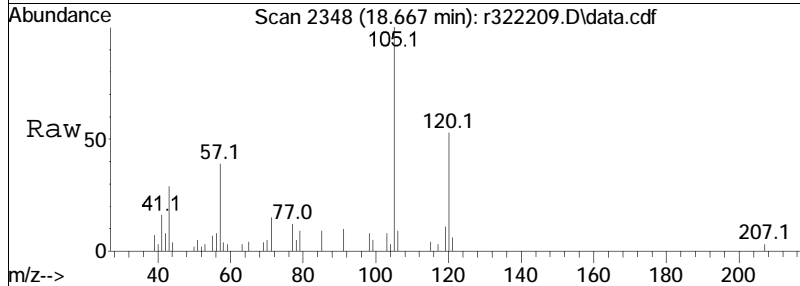
Tgt Ion	Resp	Lower	Upper
105	100		
120	35.6	28.6	42.8
91	11.6	7.4	11.2#

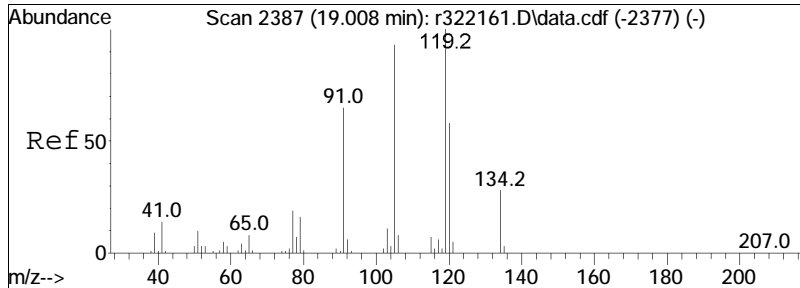




#97  
 1,3,5-trimethylbenzene  
 Concen: 0.13 ppbV  
 RT: 18.667 min Scan# 2348  
 Delta R.T. -0.017 min  
 Lab File: r322209.D  
 Acq: 19 May 2022 1:46 AM

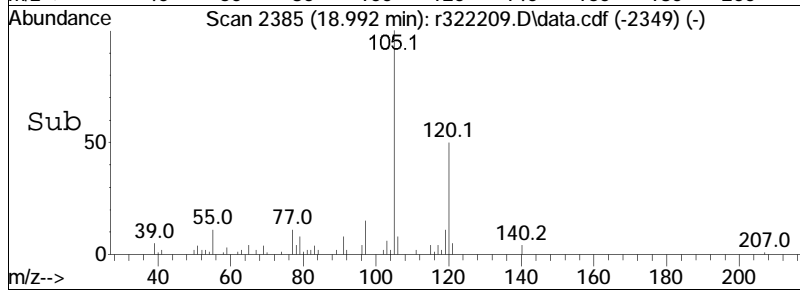
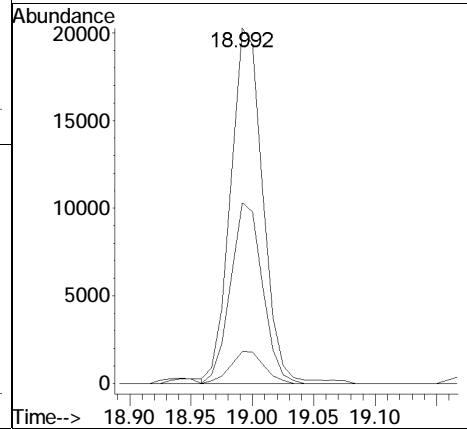
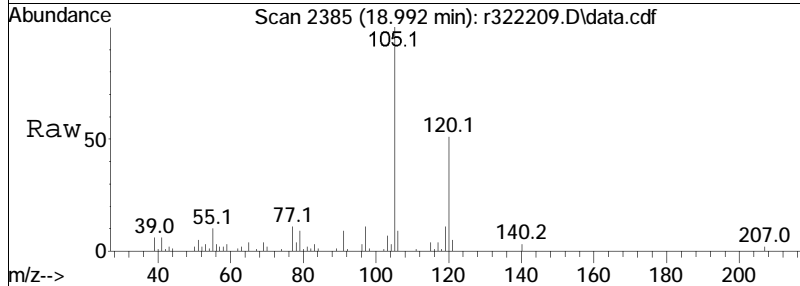
Tgt Ion	Ratio	Lower	Upper
105	100		
120	53.4	43.7	65.5
91	9.7	7.0	10.4





#99  
 1,2,4-trimethylbenzene  
 Concen: 0.40 ppbV m  
 RT: 18.992 min Scan# 2385  
 Delta R.T. -0.017 min  
 Lab File: r322209.D  
 Acq: 19 May 2022 1:46 AM

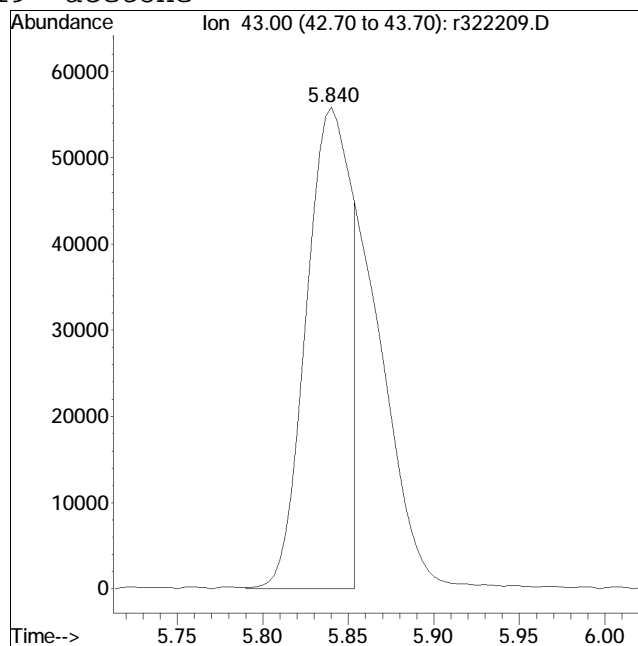
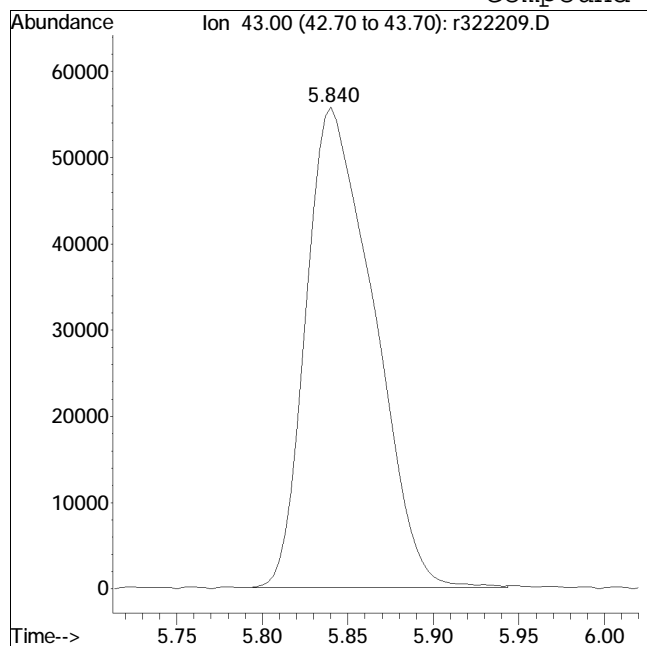
Tgt Ion	Resp	Lower	Upper
105	100		
120	50.9	49.4	74.2
91	9.0	55.8	83.8#



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322209.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:1: 6 Instrument :  
Sample : L2225590-08,3,250,250 Quant Date : 5/19/2022 8:51 am

Compound #19: acetone



Original Peak Response = 152729

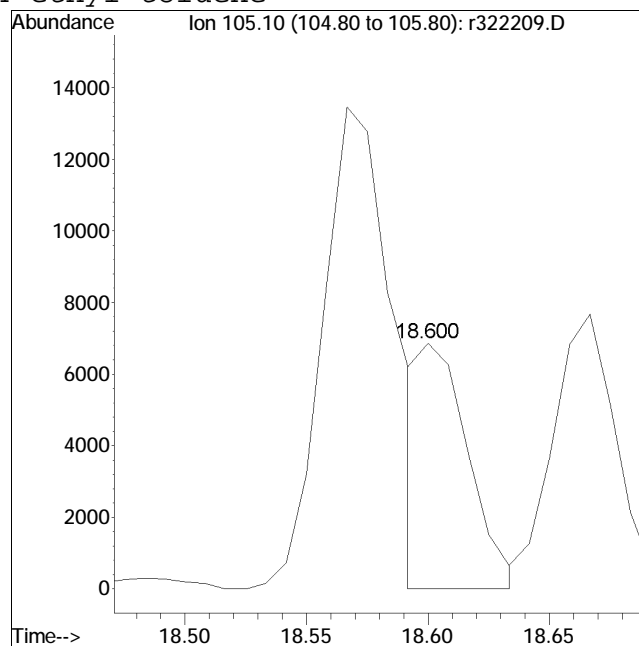
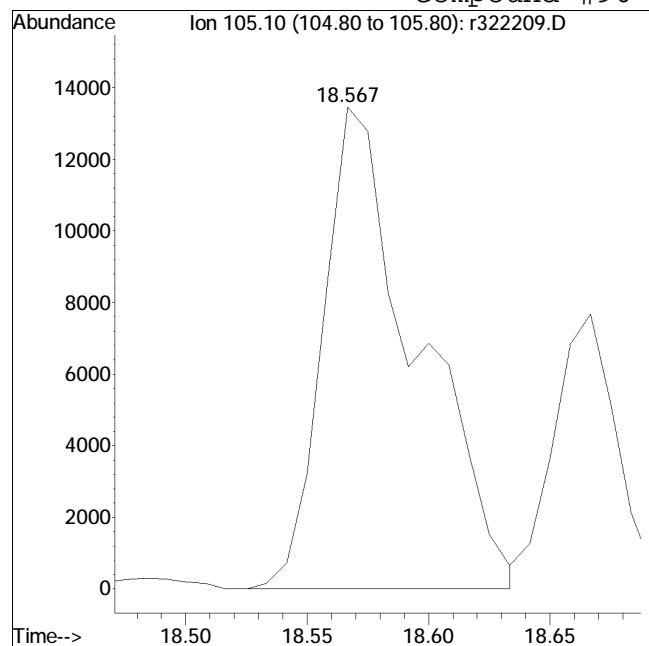
Manual Peak Response = 101781 M6

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

# Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322209.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:1: 6 Instrument :  
Sample : L2225590-08,3,250,250 Quant Date : 5/19/2022 8:51 am

## Compound #96: 4-ethyl toluene



Original Peak Response = 36233

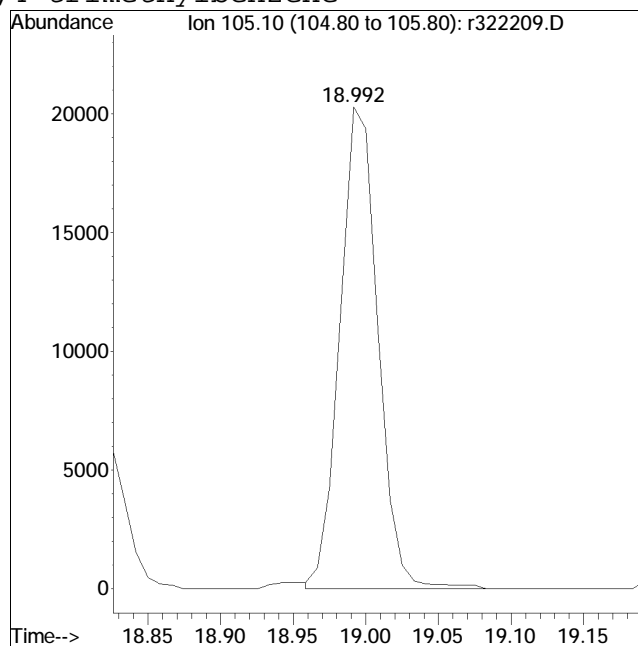
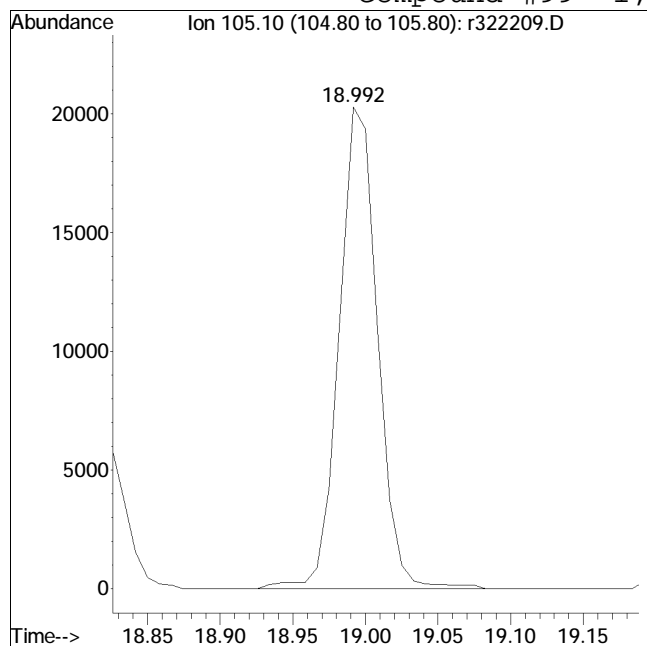
Manual Peak Response = 9533 M6

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

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322209.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:1: 6 Instrument :  
Sample : L2225590-08,3,250,250 Quant Date : 5/19/2022 8:51 am

Compound #99: 1,2,4-trimethylbenzene



Original Peak Response = 37495

Manual Peak Response = 37006 M6

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



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
 Data File : r322210.D  
 Acq On : 19 May 2022 2:26 AM  
 Operator : AIRPIANO3:TS  
 Sample : L2225590-07,3,250,250  
 Misc : WG1640147,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 18:07:21 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518T\r322194.D  
 Sub List : TO15-NY-7-SIM - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.533	49	430159	10.000	ppbV	-0.03
Standard Area =	443368		Recovery =	97.02%		
43) 1,4-difluorobenzene	11.813	114	1297063	10.000	ppbV	-0.03
Standard Area =	1337389		Recovery =	96.98%		
67) chlorobenzene-D5	16.558	54	201715	10.000	ppbV	-0.02
Standard Area =	206902		Recovery =	97.49%		

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) dichlorodifluoromethane	3.946	85	20804	0.615	ppbV	99
6) chloromethane	4.126	50	11026	0.678	ppbV	97
7) Freon-114	4.252		0	N.D.		
10) 1,3-butadiene	4.546		0	N.D.		
13) bromomethane	4.858		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	5.260	31	105033	6.355	ppbV	99
17) vinyl bromide	0.000		0	N.D.		
19) acetone	5.837	43	129032M6	5.476	ppbV	
21) trichlorofluoromethane	6.033	101	9888	0.321	ppbV	98
22) isopropyl alcohol	6.167	45	36418	1.284	ppbV	99
27) tertiary butyl alcohol	6.878	59	1194075	33.844	ppbV	98
28) methylene chloride	6.974	49	3897	0.145	ppbV	100
29) 3-chloropropene	0.000		0	N.D.		
30) carbon disulfide	7.274	76	6890	0.112	ppbV #	24
31) Freon 113	7.310	101	2767	0.080	ppbV	96
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	8.850	43	16832	0.393	ppbV	98
38) Ethyl Acetate	9.667	61	464	0.066	ppbV #	45
39) chloroform	9.700		0	N.D.		
40) Tetrahydrofuran	10.192	42	2401	0.097	ppbV	98
42) 1,2-dichloroethane	0.000		0	N.D.		
44) hexane	9.617	57	7979	0.216	ppbV #	40
50) benzene	11.373	78	13411	0.177	ppbV	99
53) cyclohexane	11.693	56	2789	0.073	ppbV #	91

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
 Data File : r322210.D  
 Acq On : 19 May 2022 2:26 AM  
 Operator : AIRPIANO3:TS  
 Sample : L2225590-07,3,250,250  
 Misc : WG1640147,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 18:07:21 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518T\r322194.D  
 Sub List : TO15-NY-7-SIM - .

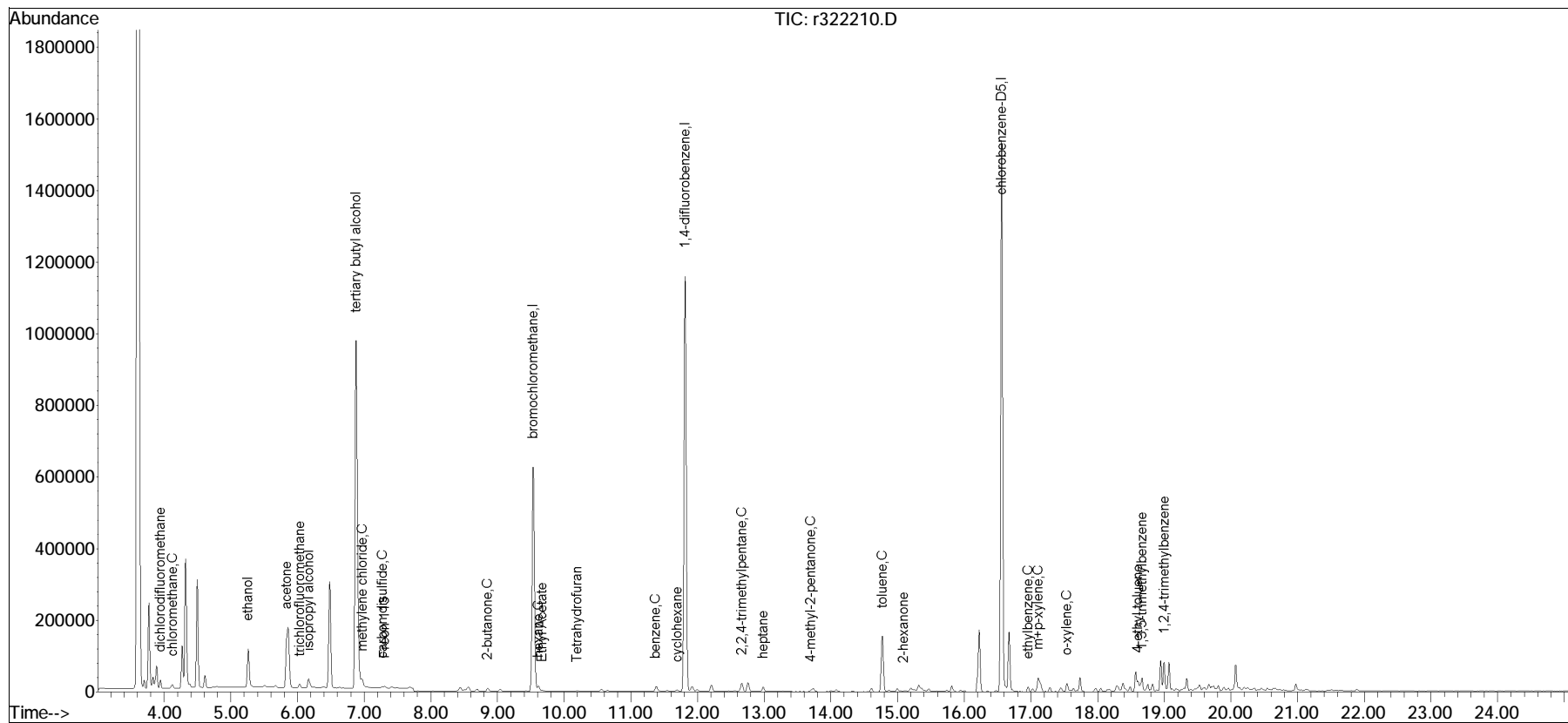
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
56) 1,2-dichloropropane	0.000		0		N.D.	
57) bromodichloromethane	12.647		0		N.D.	
58) 1,4-dioxane	12.660		0		N.D.	
60) 2,2,4-trimethylpentane	12.667	57	26923	0.236	ppbV	96
62) heptane	12.987	43	7821	0.184	ppbV	96
63) cis-1,3-dichloropropene	0.000		0		N.D.	
64) 4-methyl-2-pentanone	13.700	43	3445	0.071	ppbV	98
65) trans-1,3-dichloropropene	0.000		0		N.D.	
66) 1,1,2-trichloroethane	0.000		0		N.D.	
68) toluene	14.775	91	141393	1.866	ppbV	100
72) 2-hexanone	15.092	43	2369	0.052	ppbV #	82
74) dibromochloromethane	0.000		0		N.D.	
75) 1,2-dibromoethane	0.000		0		N.D.	
80) chlorobenzene	16.617		0		N.D.	
81) ethylbenzene	16.958	91	12012	0.132	ppbV	99
83) m+p-xylene	17.108	91	32851	0.442	ppbV	99
84) bromoform	0.000		0		N.D.	
85) styrene	17.450		0		N.D.	
86) 1,1,2,2-tetrachloroethane	17.600		0		N.D.	
87) o-xylene	17.542	91	15038	0.203	ppbV	99
96) 4-ethyl toluene	18.600	105	13556M6	0.120	ppbV	
97) 1,3,5-trimethylbenzene	18.667	105	16388	0.159	ppbV	99
99) 1,2,4-trimethylbenzene	19.000	105	47383M6	0.524	ppbV	
101) Benzyl Chloride	19.175		0		N.D.	
102) 1,3-dichlorobenzene	19.183		0		N.D.	
103) 1,4-dichlorobenzene	19.183		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.	

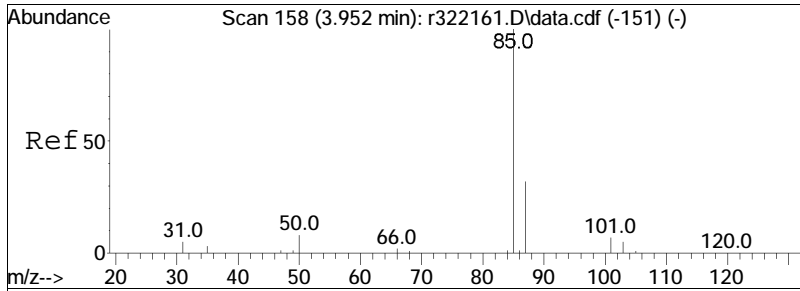
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : TO15-NY-7-SIM - .\Airpiano3\2022\05\0518T\r322194.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
Data File : r322210.D  
Acq On : 19 May 2022 2:26 AM  
Operator : AIRPIANO3:TS  
Sample : L2225590-07,3,250,250  
Misc : WG1640147,ICAL19030  
ALS Vial : 0 Sample Multiplier: 1

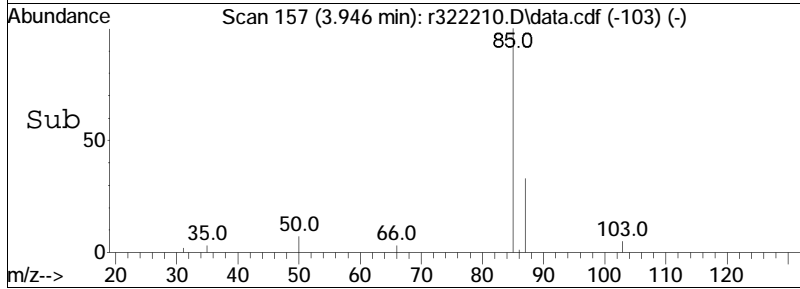
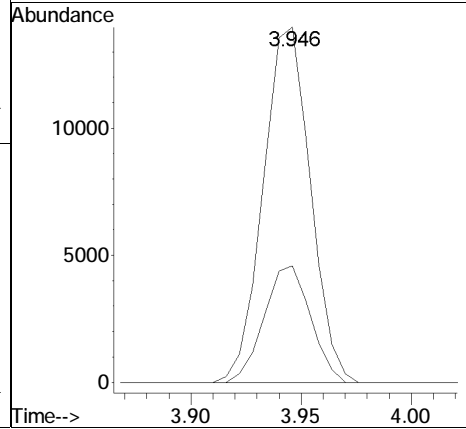
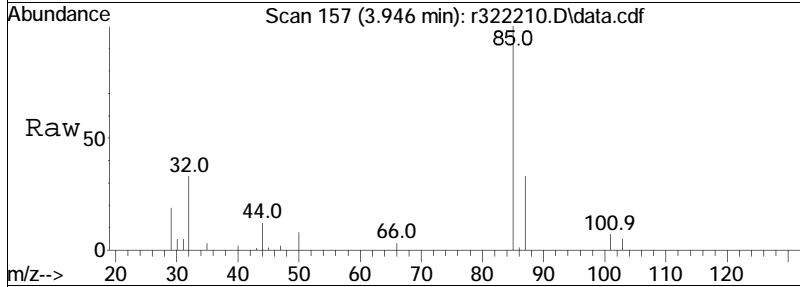
Quant Time: May 19 18:07:21 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 15:52:12 2022  
Response via : Initial Calibration

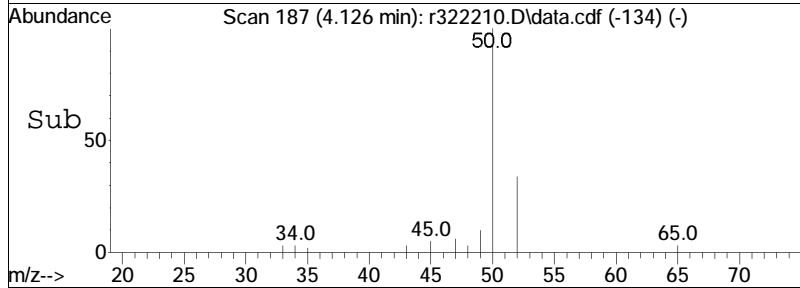
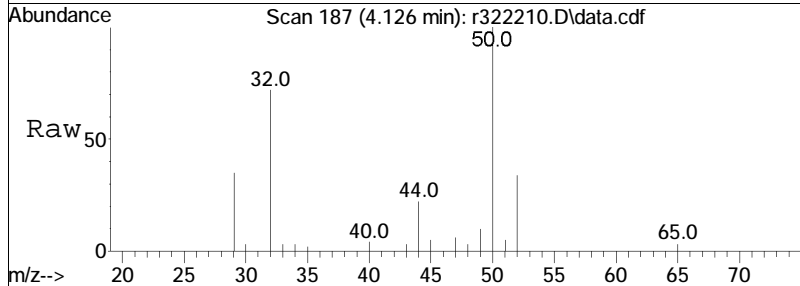
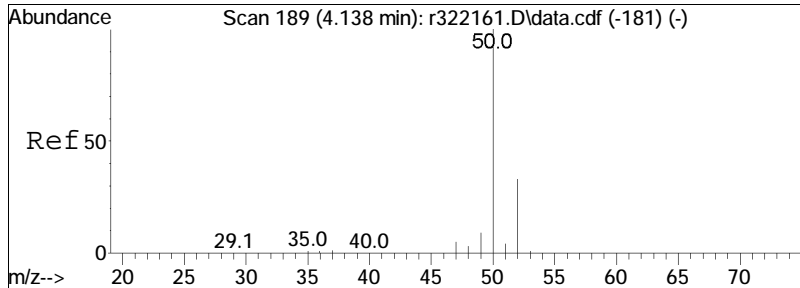




#5  
 dichlorodifluoromethane  
 Concen: 0.61 ppbV  
 RT: 3.946 min Scan# 157  
 Delta R.T. -0.006 min  
 Lab File: r322210.D  
 Acq: 19 May 2022 2:26 AM

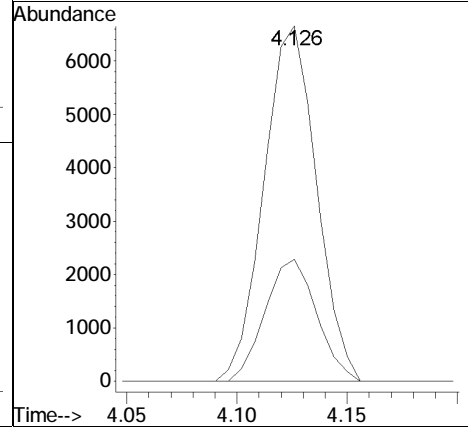
Tgt Ion: 85 Resp: 20804  
 Ion Ratio Lower Upper  
 85 100  
 87 32.8 25.8 38.6

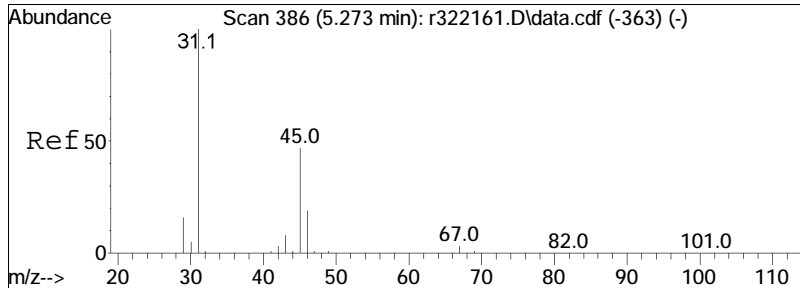




#6  
 chloromethane  
 Concen: 0.68 ppbV  
 RT: 4.126 min Scan# 187  
 Delta R.T. -0.012 min  
 Lab File: r322210.D  
 Acq: 19 May 2022 2:26 AM

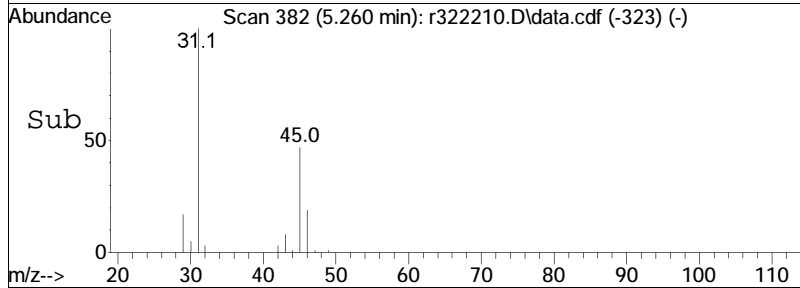
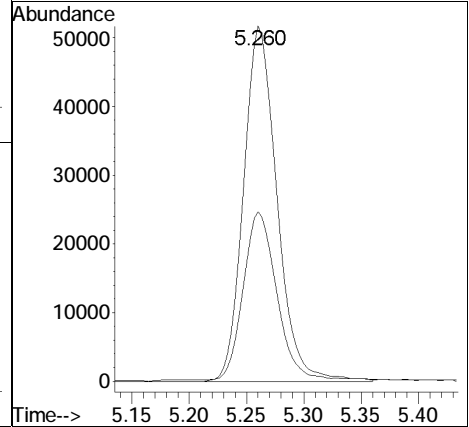
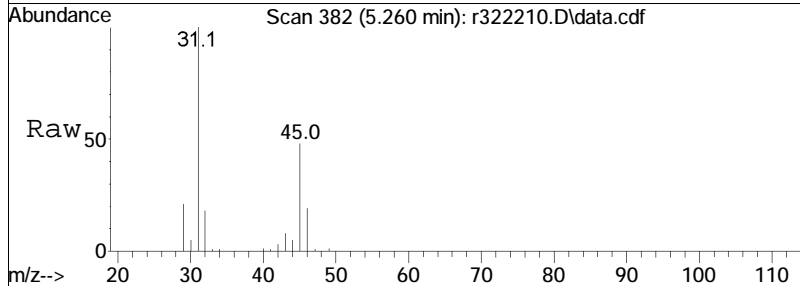
Tgt Ion:	Resp:	Lower	Upper
50	11026		
52	34.4	26.3	39.5

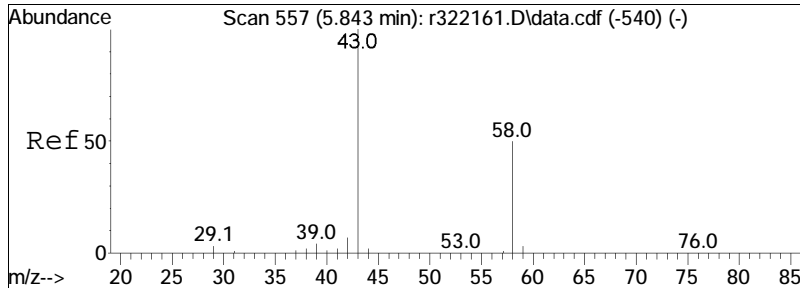




#15  
 ethanol  
 Concen: 6.36 ppbV  
 RT: 5.260 min Scan# 382  
 Delta R.T. -0.013 min  
 Lab File: r322210.D  
 Acq: 19 May 2022 2:26 AM

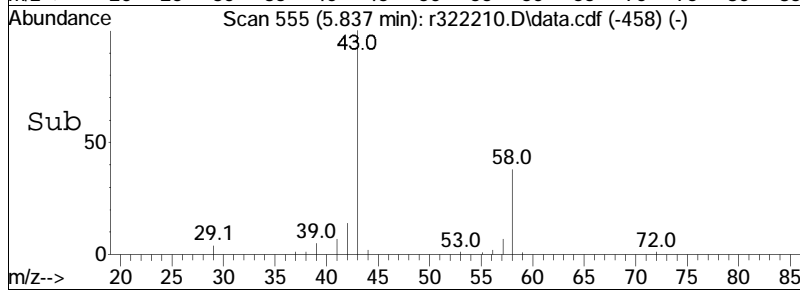
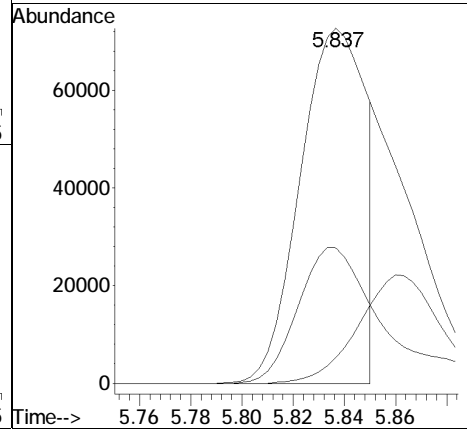
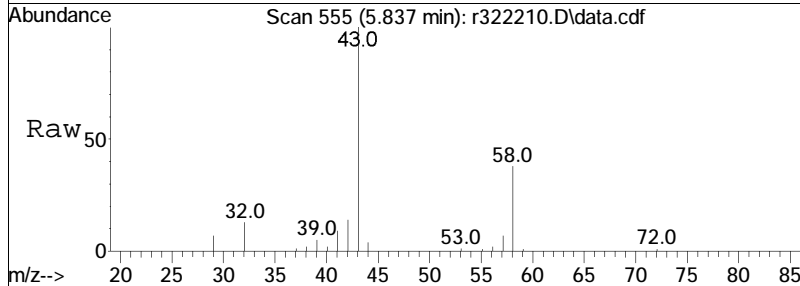
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
31	100		
45	47.8	37.6	56.4

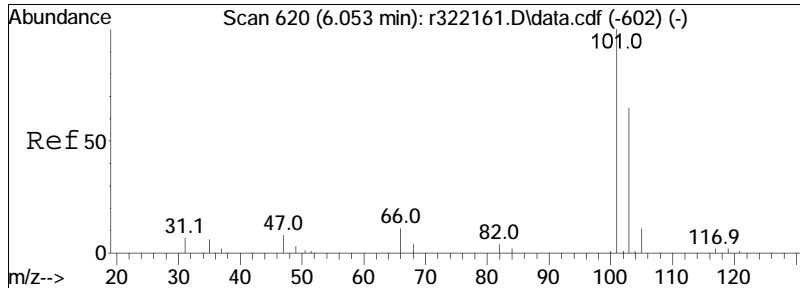




#19  
 acetone  
 Concen: 5.48 ppbV m  
 RT: 5.837 min Scan# 555  
 Delta R.T. -0.007 min  
 Lab File: r322210.D  
 Acq: 19 May 2022 2:26 AM

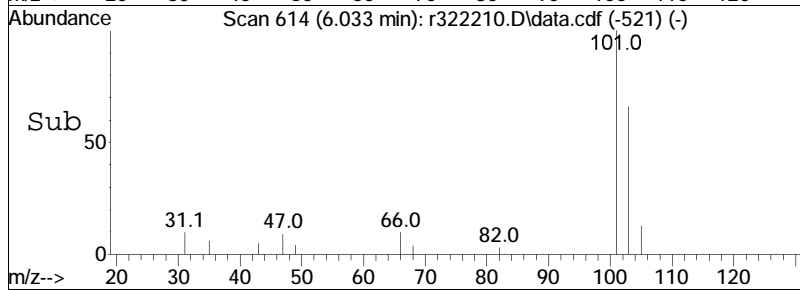
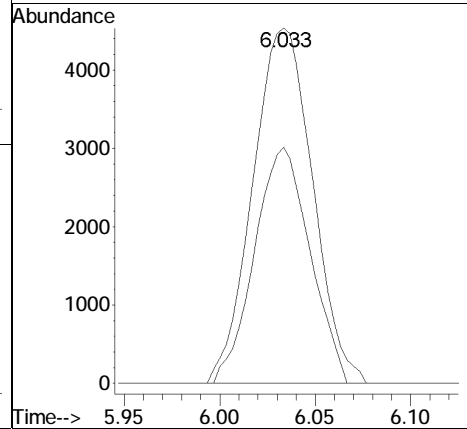
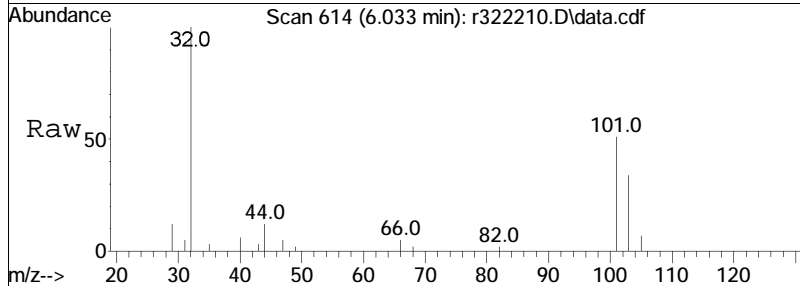
Tgt Ion	Resp	Lower	Upper
43	129032		
58	38.1	39.8	59.8#
57	7.3	1.0	1.6#



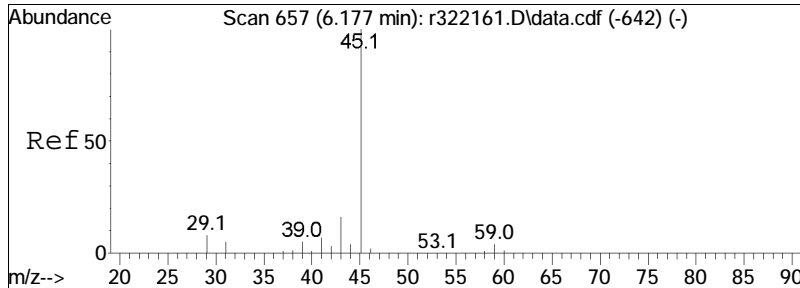


#21  
 trichlorofluoromethane  
 Concen: 0.32 ppbV  
 RT: 6.033 min Scan# 614  
 Delta R.T. -0.020 min  
 Lab File: r322210.D  
 Acq: 19 May 2022 2:26 AM

Tgt Ion	Resp	Lower	Upper
101	9888		
103	66.5	51.8	77.6

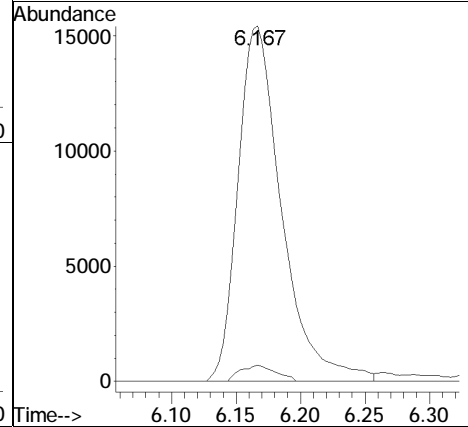
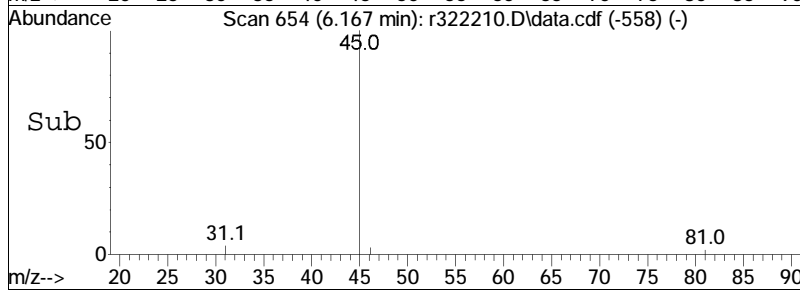
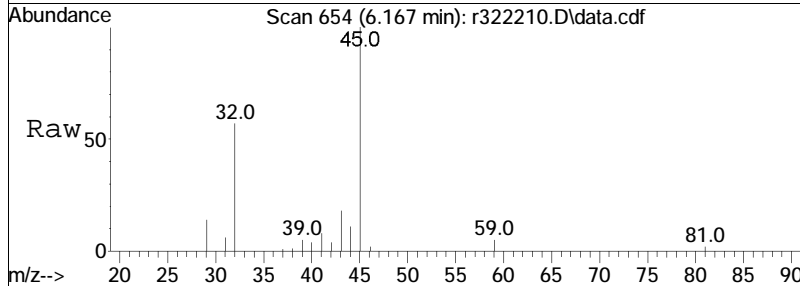


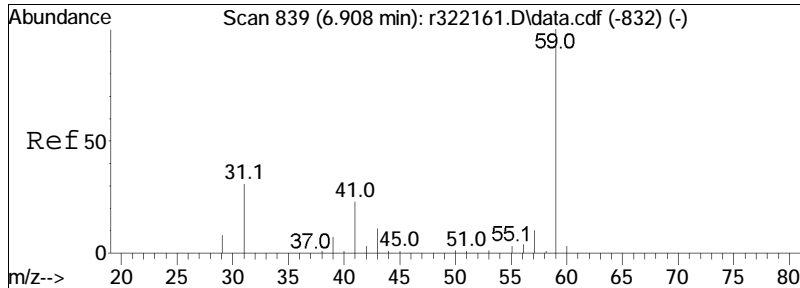




#22  
 isopropyl alcohol  
 Concen: 1.28 ppbV  
 RT: 6.167 min Scan# 654  
 Delta R.T. -0.010 min  
 Lab File: r322210.D  
 Acq: 19 May 2022 2:26 AM

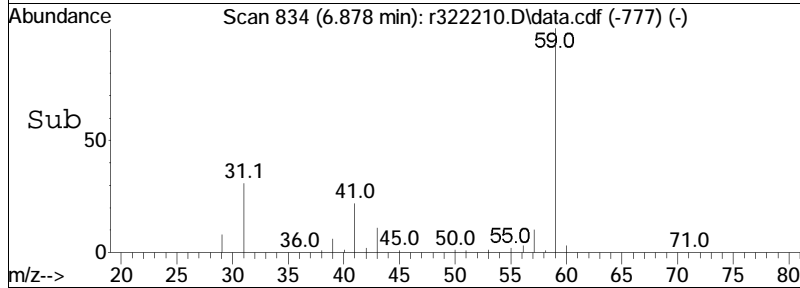
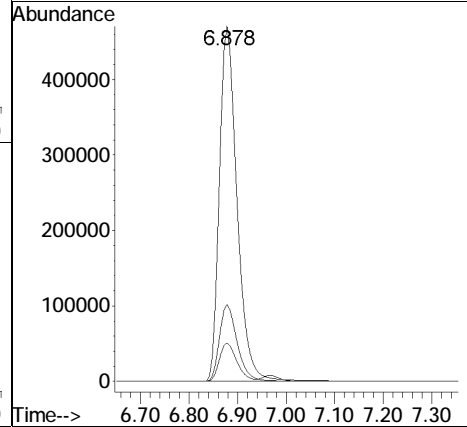
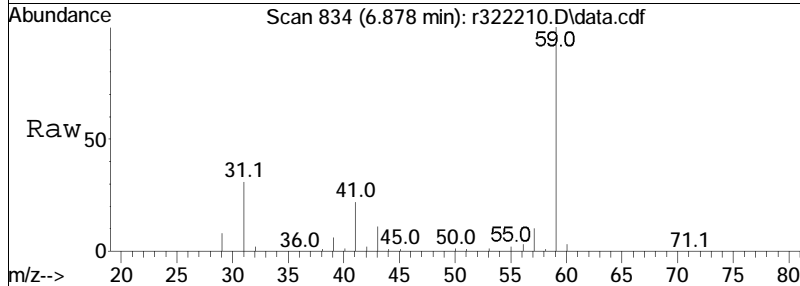
Tgt Ion: 45 Resp: 36418  
 Ion Ratio Lower Upper  
 45 100  
 59 4.6 3.5 5.3

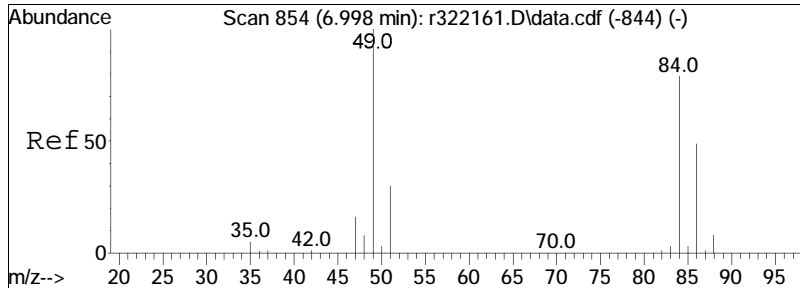




#27  
 tertiary butyl alcohol  
 Concen: 33.84 ppbV  
 RT: 6.878 min Scan# 834  
 Delta R.T. -0.030 min  
 Lab File: r322210.D  
 Acq: 19 May 2022 2:26 AM

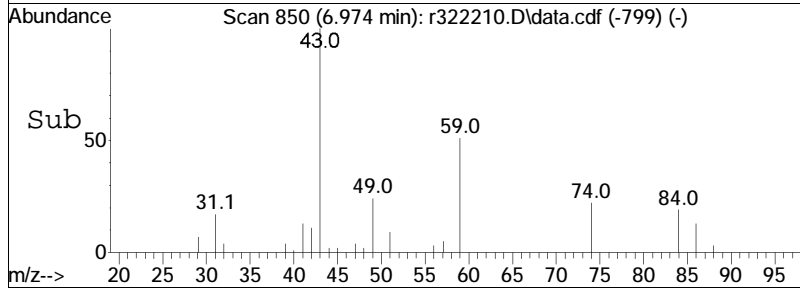
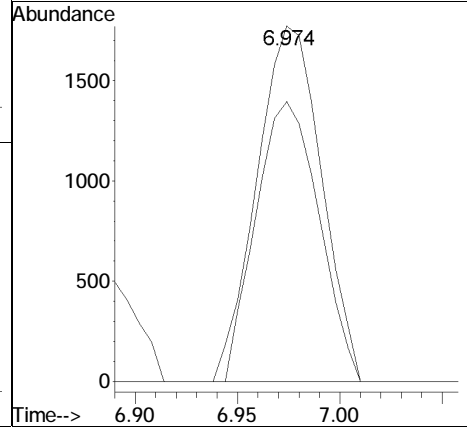
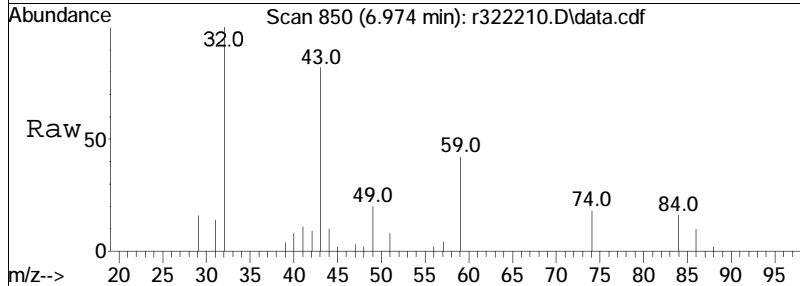
Tgt Ion:	Resp:	Lower	Upper
59	100		
41	21.6	18.2	27.2
43	10.9	8.9	13.3

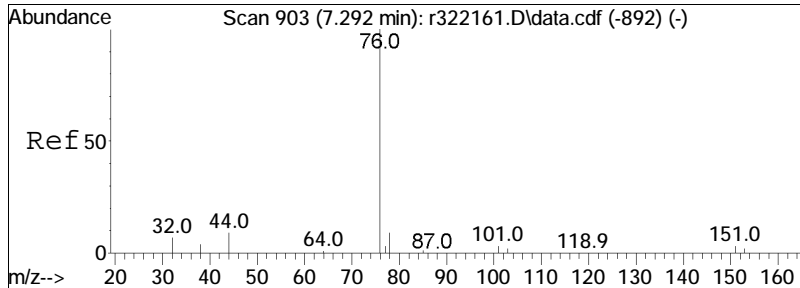




#28  
 methylene chloride  
 Concen: 0.15 ppbV  
 RT: 6.974 min Scan# 850  
 Delta R.T. -0.024 min  
 Lab File: r322210.D  
 Acq: 19 May 2022 2:26 AM

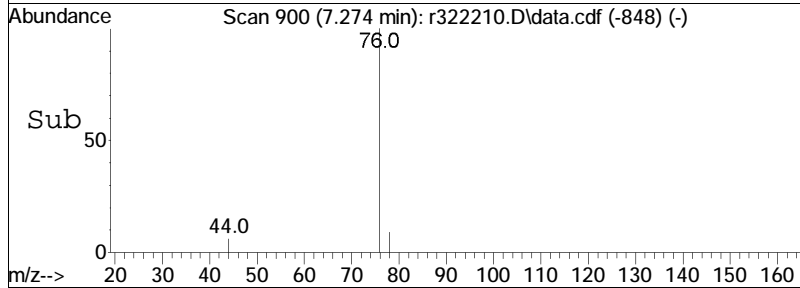
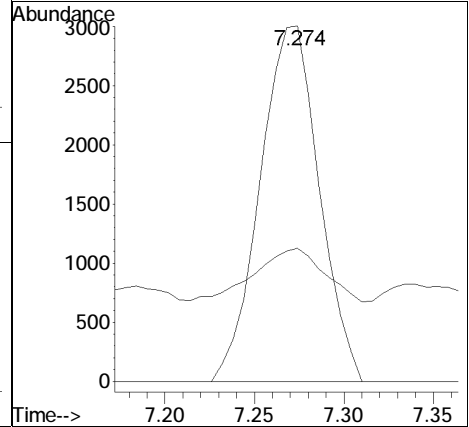
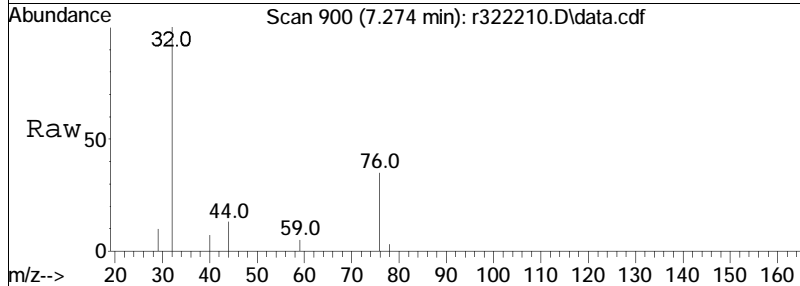
Tgt Ion:	Resp:	Lower	Upper
49	100		
84	78.7	63.0	94.6

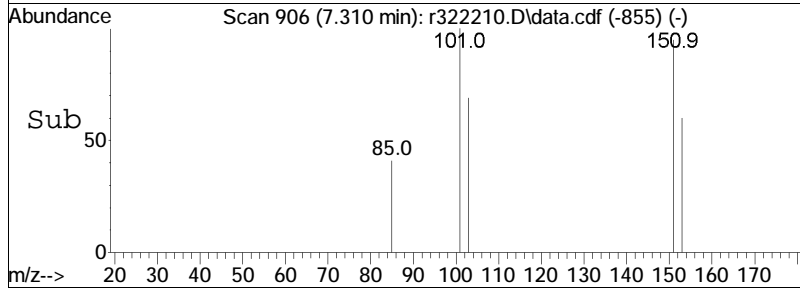
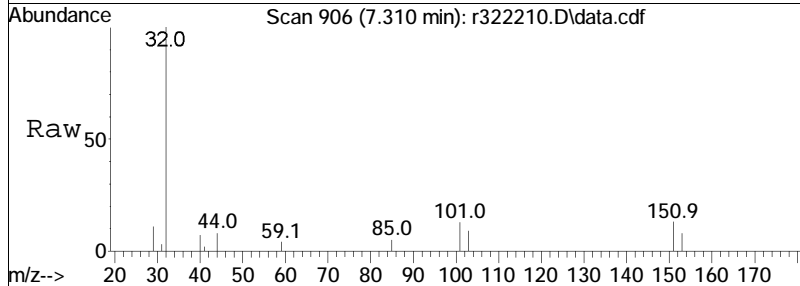
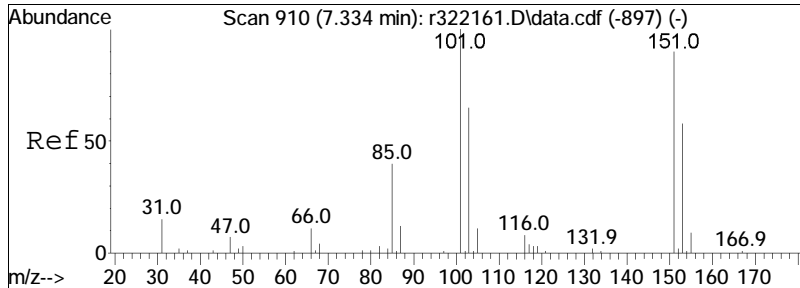




#30  
 carbon disulfide  
 Concen: 0.11 ppbV  
 RT: 7.274 min Scan# 900  
 Delta R.T. -0.018 min  
 Lab File: r322210.D  
 Acq: 19 May 2022 2:26 AM

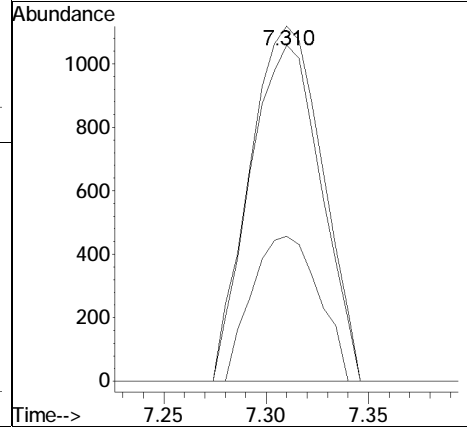
Tgt Ion:	76	Resp:	6890
Ion Ratio	100	Lower	Upper
44	37.5	7.6	11.4#

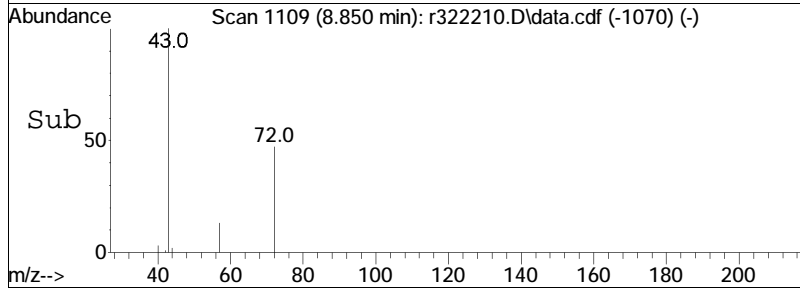
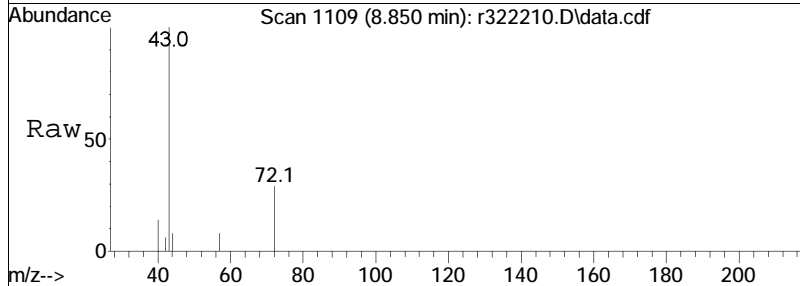
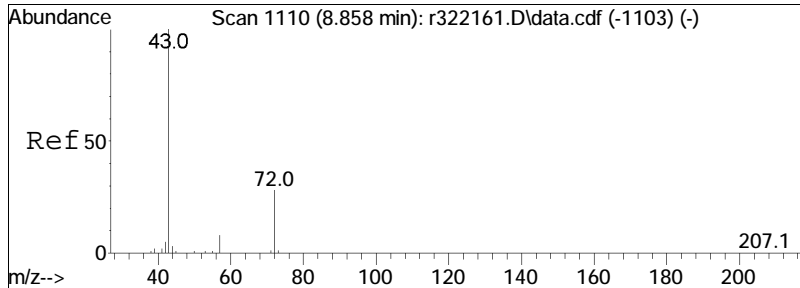




#31  
 Freon 113  
 Concen: 0.08 ppbV  
 RT: 7.310 min Scan# 906  
 Delta R.T. -0.024 min  
 Lab File: r322210.D  
 Acq: 19 May 2022 2:26 AM

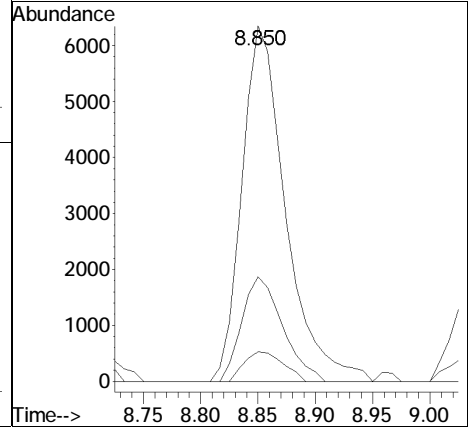
Tgt Ion	Ratio	Lower	Upper
101	100		
85	40.8	31.8	47.8
151	94.6	72.2	108.4

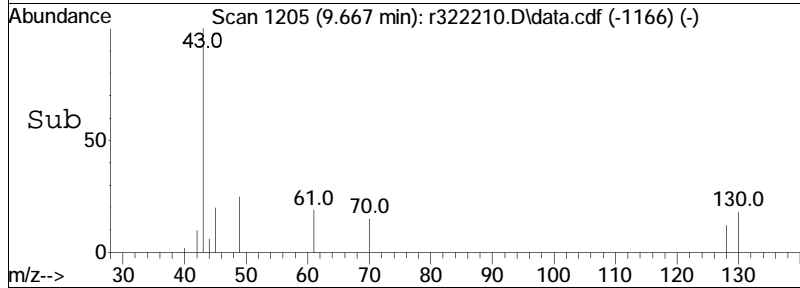
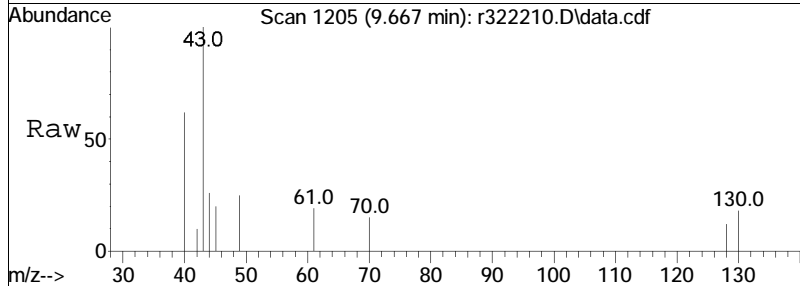
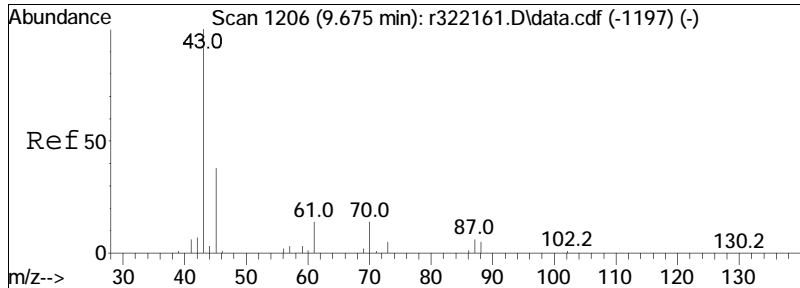




#36  
 2-butanone  
 Concen: 0.39 ppbV  
 RT: 8.850 min Scan# 1109  
 Delta R.T. -0.008 min  
 Lab File: r322210.D  
 Acq: 19 May 2022 2:26 AM

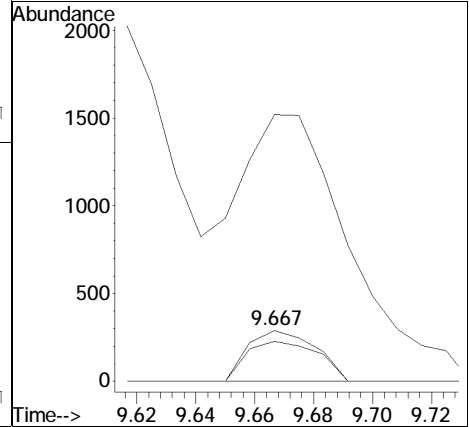
Tgt Ion	Resp	Lower	Upper
43	16832		
72	29.5	22.6	33.8
57	8.3	6.6	10.0

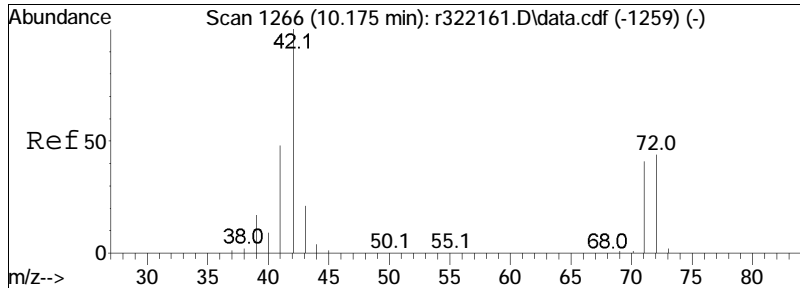




#38  
 Ethyl Acetate  
 Concen: 0.07 ppbV  
 RT: 9.667 min Scan# 1205  
 Delta R.T. -0.008 min  
 Lab File: r322210.D  
 Acq: 19 May 2022 2:26 AM

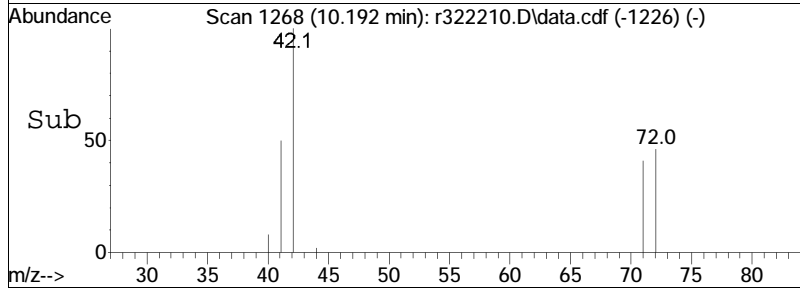
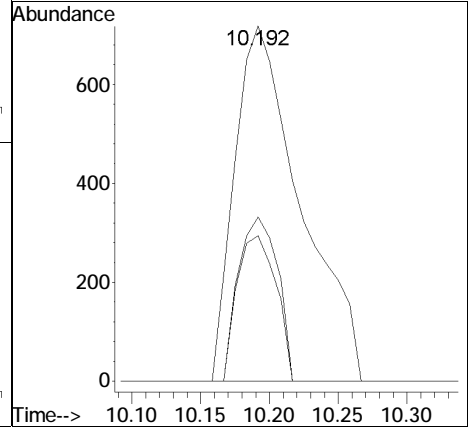
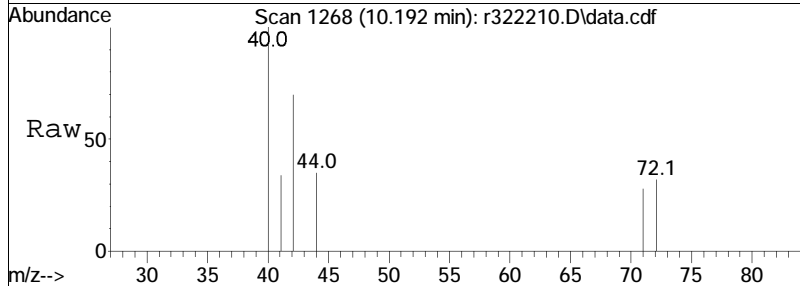
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
61	100		
70	78.9	78.8	118.2
43	525.6	593.4	890.0#



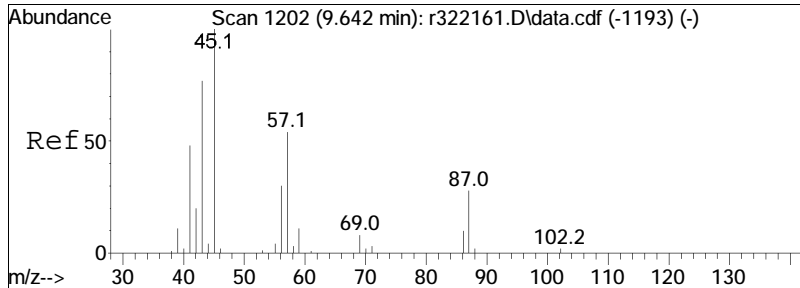


#40  
 Tetrahydrofuran  
 Concen: 0.10 ppbV  
 RT: 10.192 min Scan# 1268  
 Delta R.T. 0.017 min  
 Lab File: r322210.D  
 Acq: 19 May 2022 2:26 AM

Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
42	100		
71	40.9	32.4	48.6
72	46.2	35.2	52.8

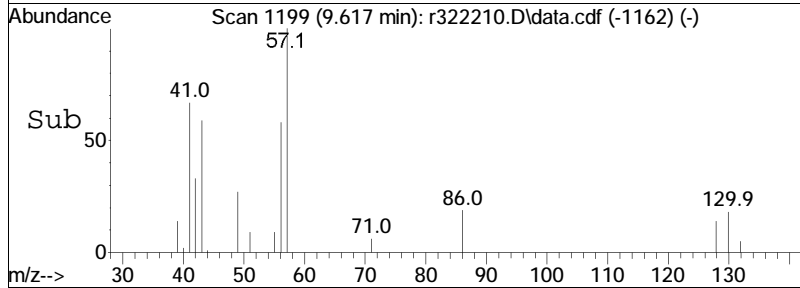
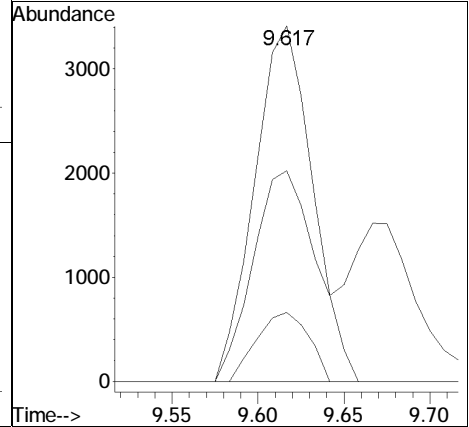
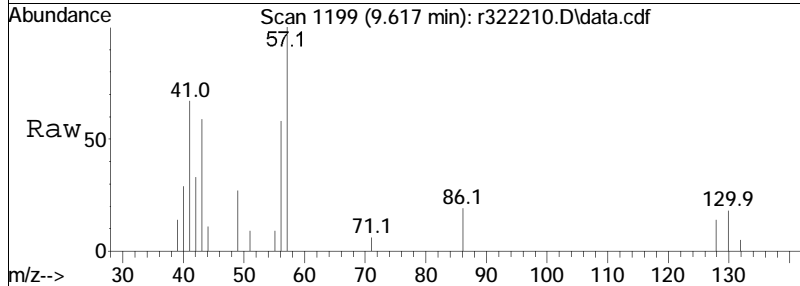


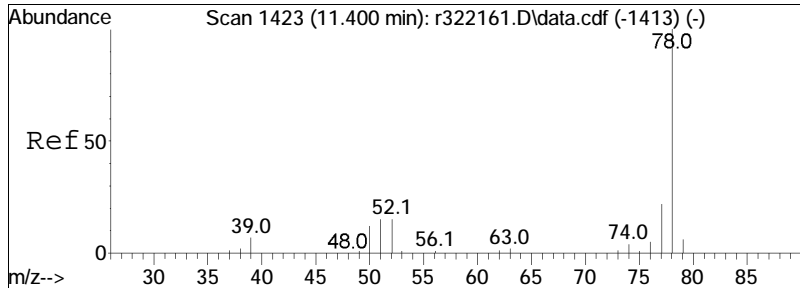




#44  
 hexane  
 Concen: 0.22 ppbV  
 RT: 9.617 min Scan# 1199  
 Delta R.T. -0.025 min  
 Lab File: r322210.D  
 Acq: 19 May 2022 2:26 AM

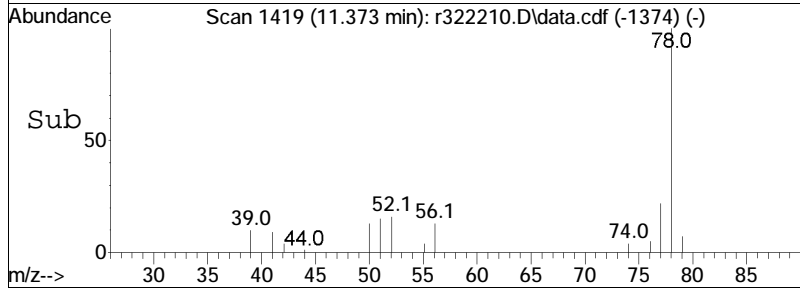
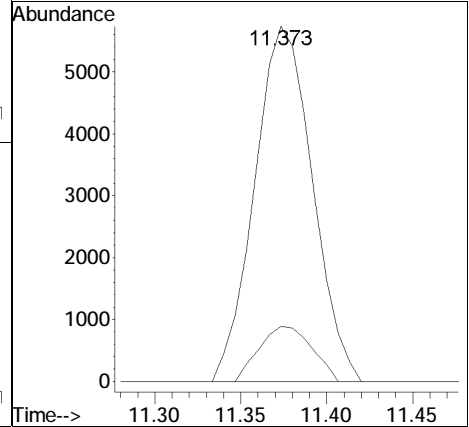
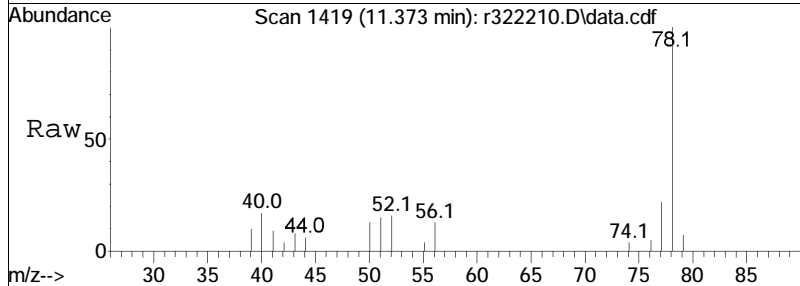
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
57	100		
43	59.3	115.0	172.6#
86	19.4	15.5	23.3

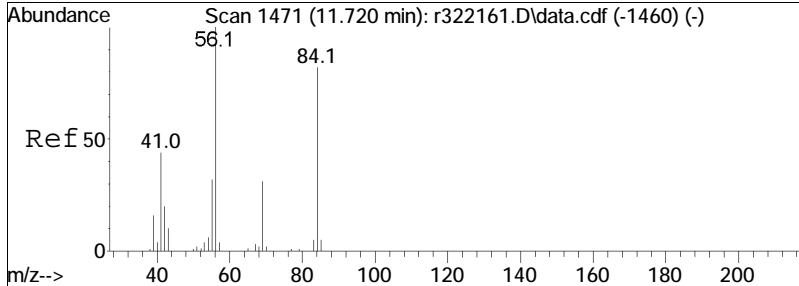




#50  
 benzene  
 Concen: 0.18 ppbV  
 RT: 11.373 min Scan# 1419  
 Delta R.T. -0.027 min  
 Lab File: r322210.D  
 Acq: 19 May 2022 2:26 AM

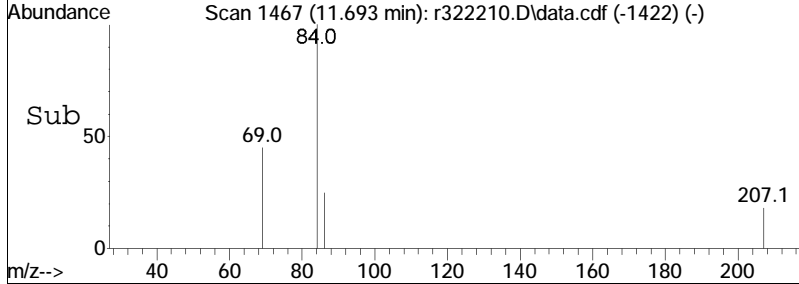
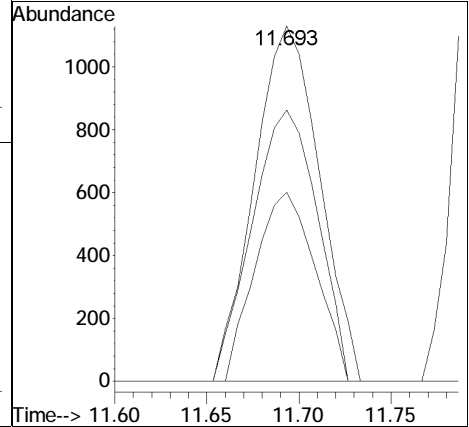
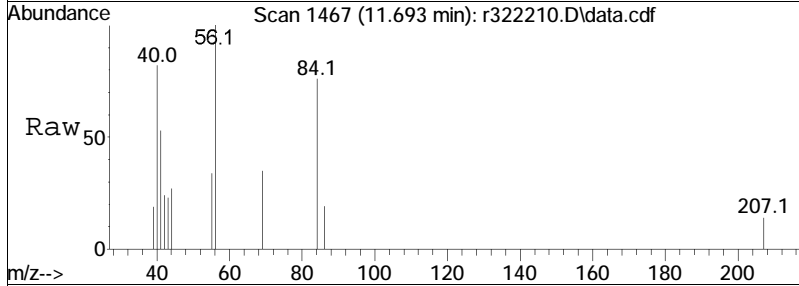
Tgt Ion	Resp	Lower	Upper
78	13411		
52	15.5	12.2	18.2

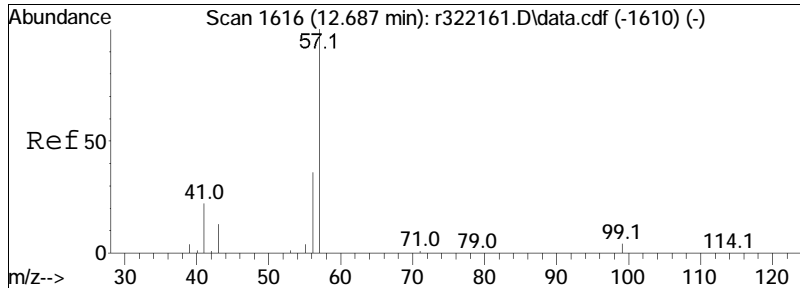




#53  
 cyclohexane  
 Concen: 0.07 ppbV  
 RT: 11.693 min Scan# 1467  
 Delta R.T. -0.027 min  
 Lab File: r322210.D  
 Acq: 19 May 2022 2:26 AM

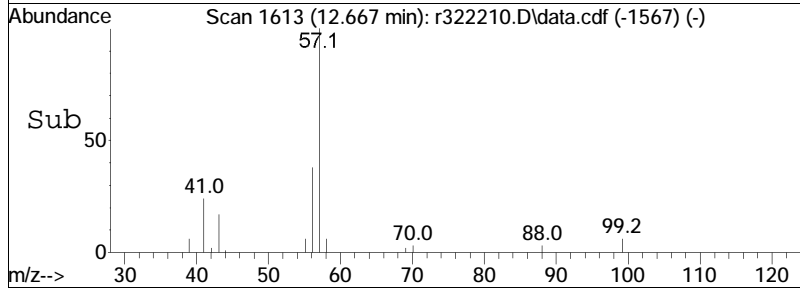
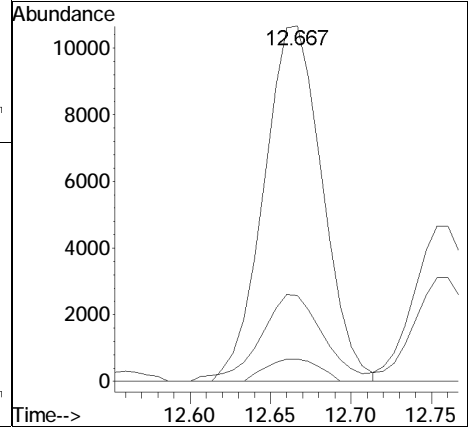
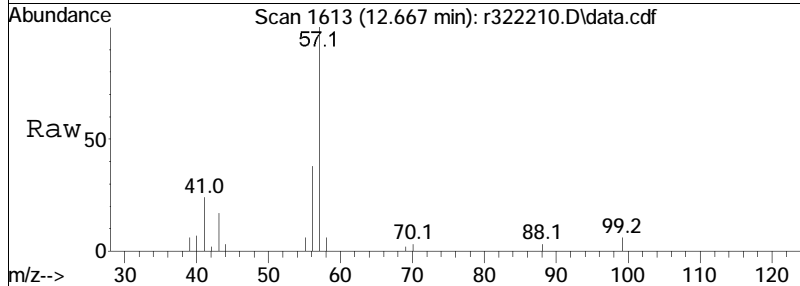
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
56	100		
84	76.4	65.4	98.0
41	53.2	35.4	53.2#

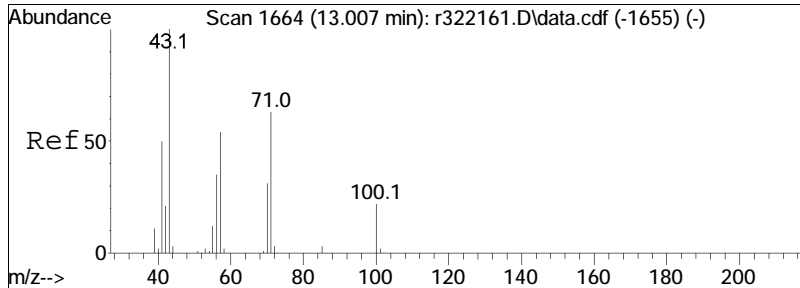




#60  
 2,2,4-trimethylpentane  
 Concen: 0.24 ppbV  
 RT: 12.667 min Scan# 1613  
 Delta R.T. -0.020 min  
 Lab File: r322210.D  
 Acq: 19 May 2022 2:26 AM

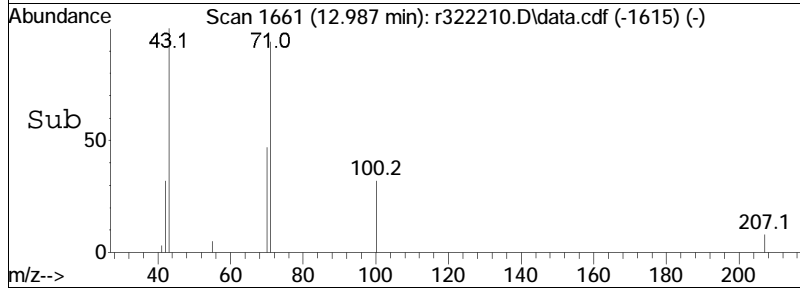
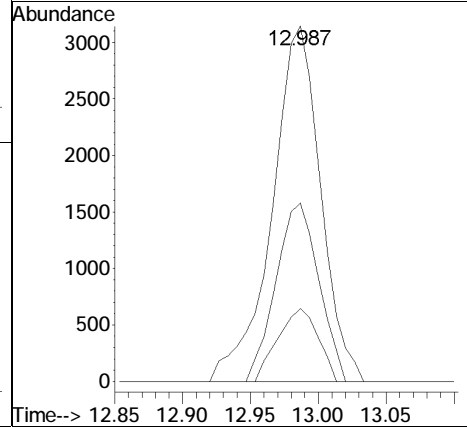
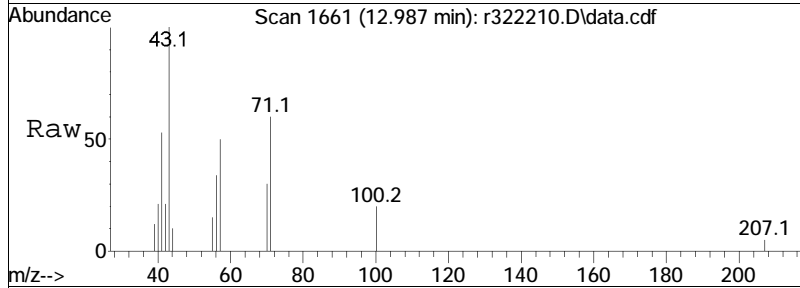
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
57	100		
99	6.3	5.0	7.4
41	24.1	17.4	26.2

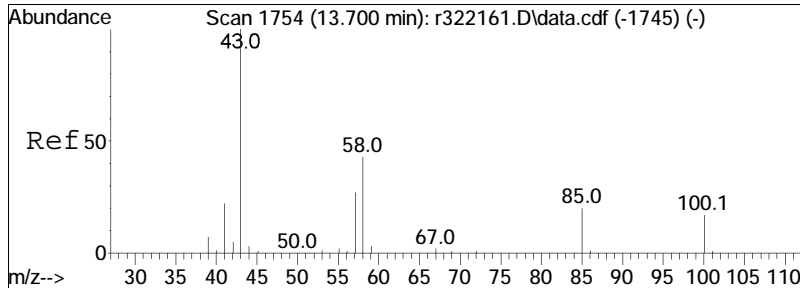




#62  
 heptane  
 Concen: 0.18 ppbV  
 RT: 12.987 min Scan# 1661  
 Delta R.T. -0.020 min  
 Lab File: r322210.D  
 Acq: 19 May 2022 2:26 AM

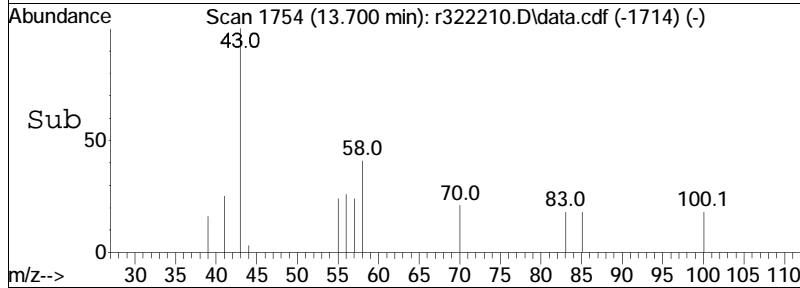
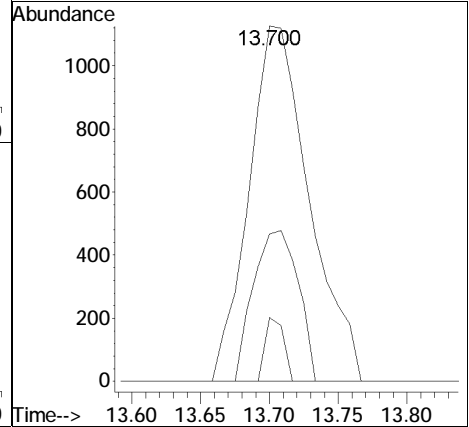
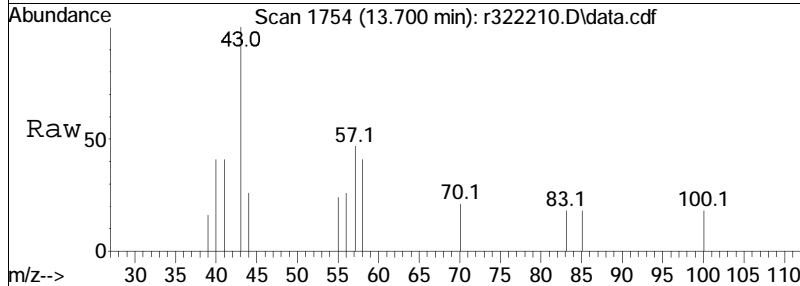
Tgt Ion:	43	Resp:	7821
Ion Ratio	Lower	Upper	
43	100		
57	50.2	43.0	64.4
100	20.5	17.6	26.4

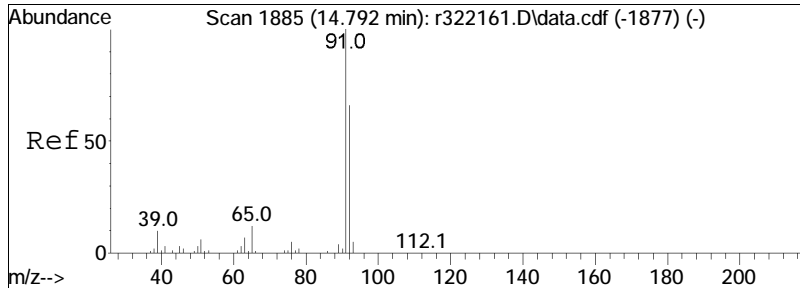




#64  
 4-methyl-2-pentanone  
 Concen: 0.07 ppbV  
 RT: 13.700 min Scan# 1754  
 Delta R.T. 0.000 min  
 Lab File: r322210.D  
 Acq: 19 May 2022 2:26 AM

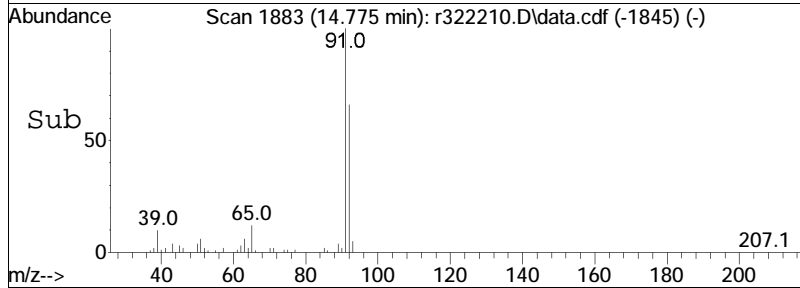
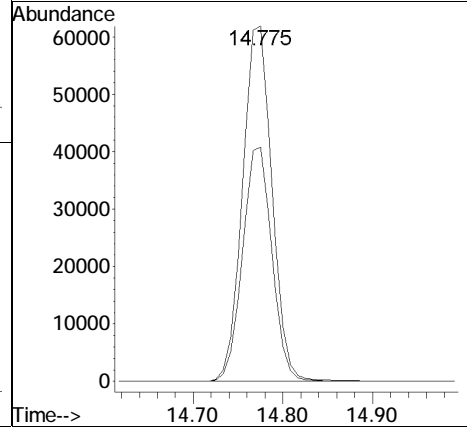
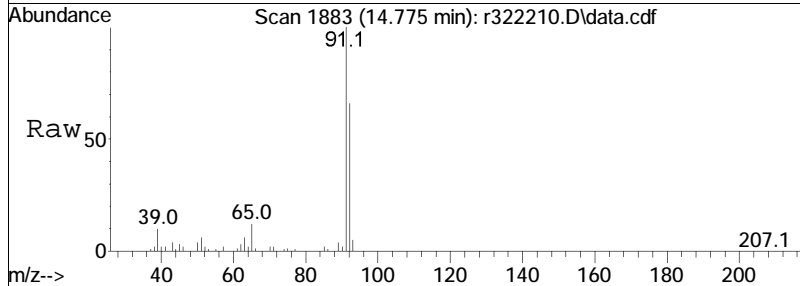
Tgt Ion	Resp	Lower	Upper
43	100		
58	41.5	34.3	51.5
100	17.9	13.8	20.6

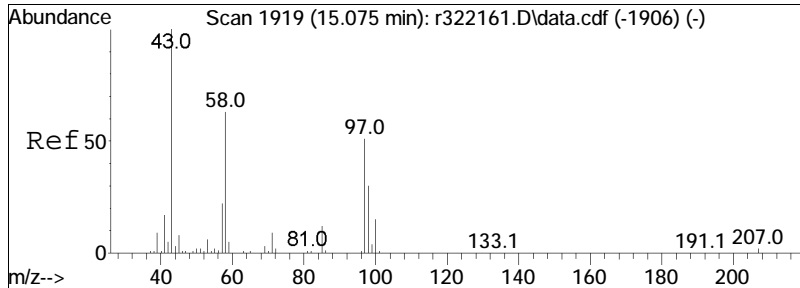




#68  
 toluene  
 Concen: 1.87 ppbV  
 RT: 14.775 min Scan# 1883  
 Delta R.T. -0.017 min  
 Lab File: r322210.D  
 Acq: 19 May 2022 2:26 AM

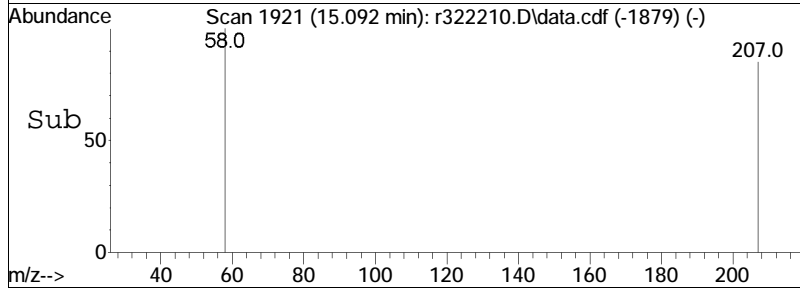
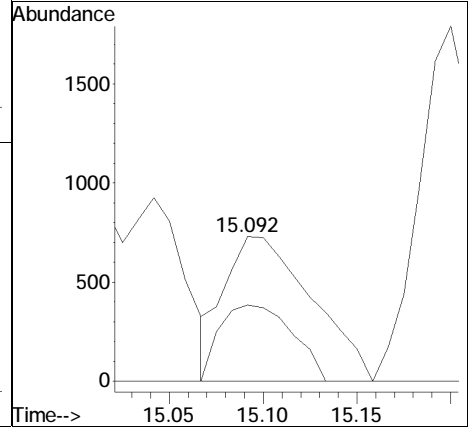
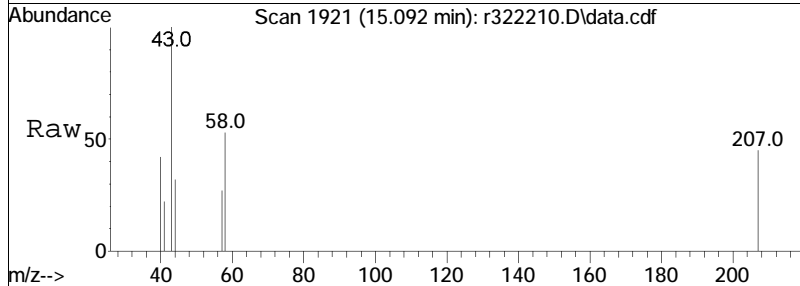
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
91	100		
92	66.0	52.7	79.1



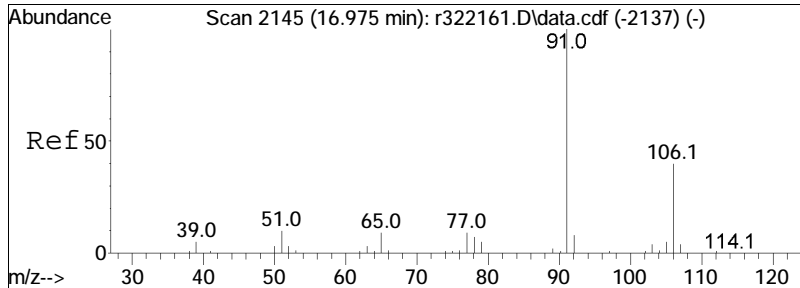


#72  
 2-hexanone  
 Concen: 0.05 ppbV  
 RT: 15.092 min Scan# 1921  
 Delta R.T. 0.017 min  
 Lab File: r322210.D  
 Acq: 19 May 2022 2:26 AM

Tgt Ion	Resp	Lower	Upper
43	100		
58	52.7	50.5	75.7
100	0.0	12.2	18.2#

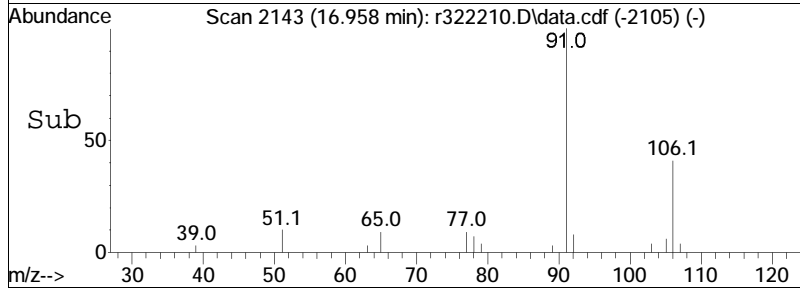
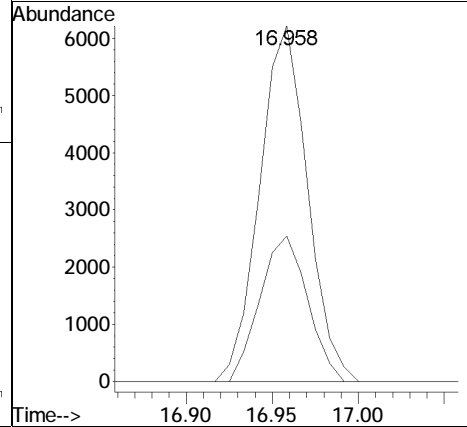
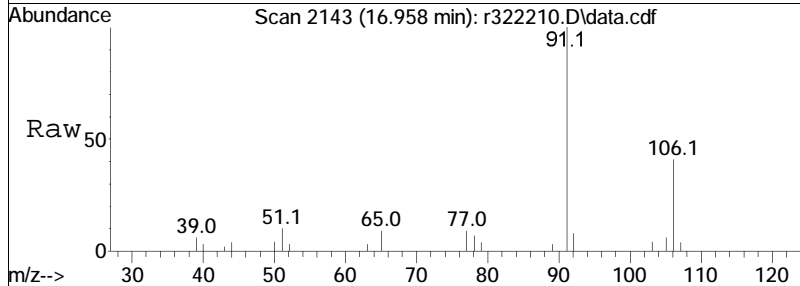


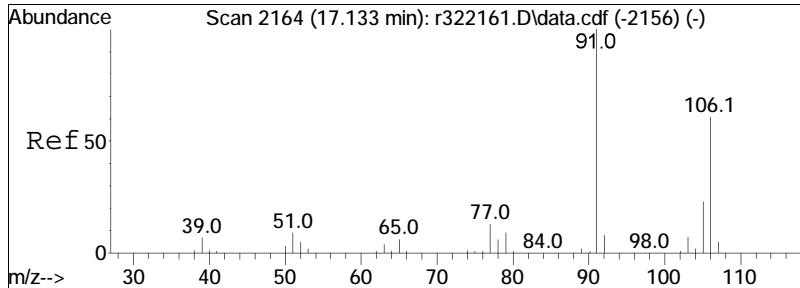




#81  
 ethylbenzene  
 Concen: 0.13 ppbV  
 RT: 16.958 min Scan# 2143  
 Delta R.T. -0.017 min  
 Lab File: r322210.D  
 Acq: 19 May 2022 2:26 AM

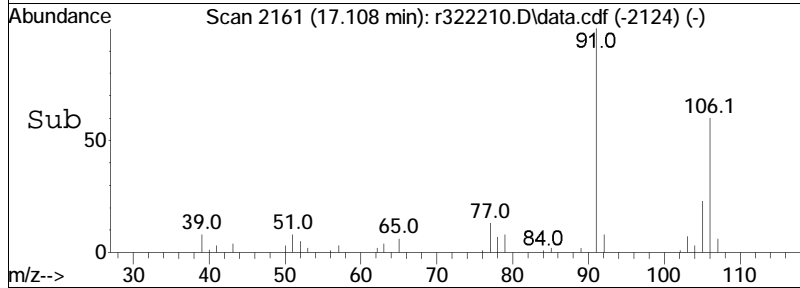
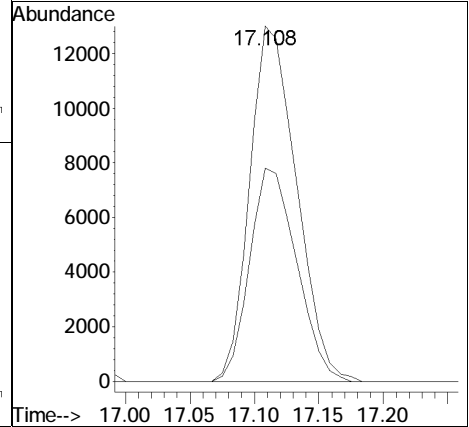
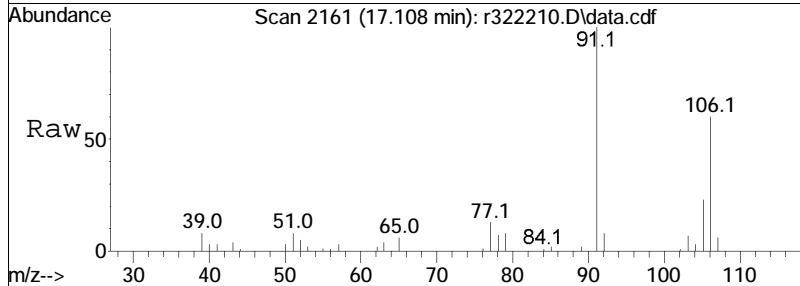
Tgt Ion	Resp	Lower	Upper
91	100		
106	40.9	32.4	48.6

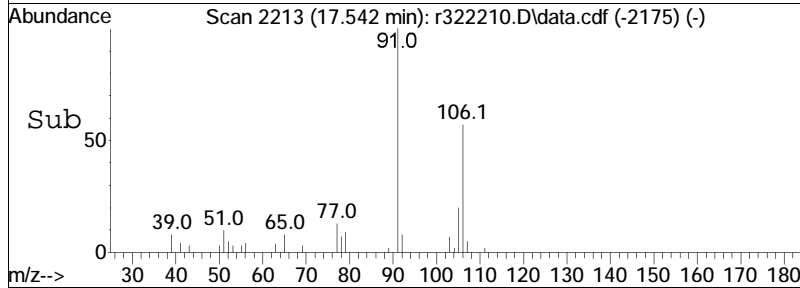
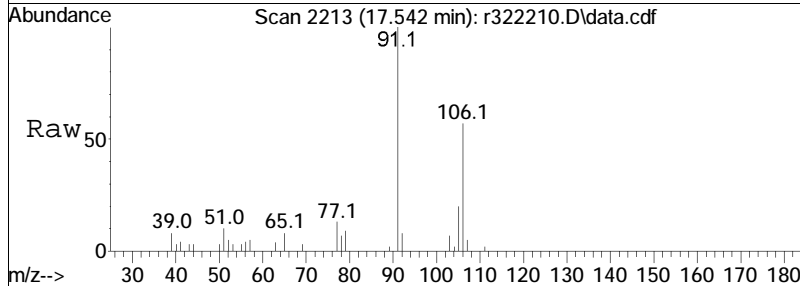
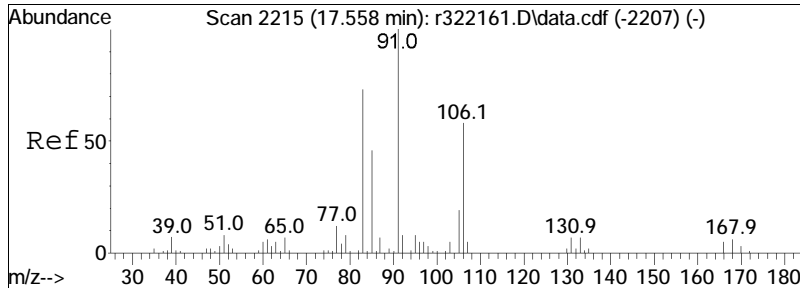




#83  
 m+p-xylene  
 Concen: 0.44 ppbV  
 RT: 17.108 min Scan# 2161  
 Delta R.T. -0.025 min  
 Lab File: r322210.D  
 Acq: 19 May 2022 2:26 AM

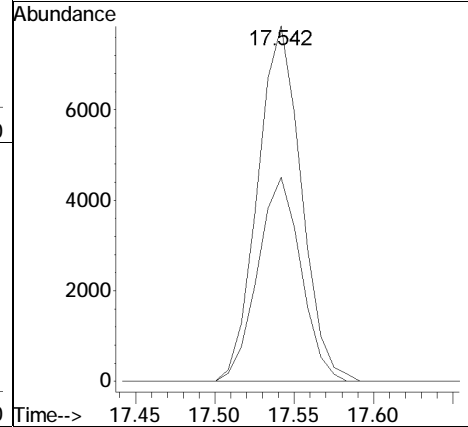
Tgt Ion: 91 Resp: 32851  
 Ion Ratio Lower Upper  
 91 100  
 106 60.0 48.4 72.6

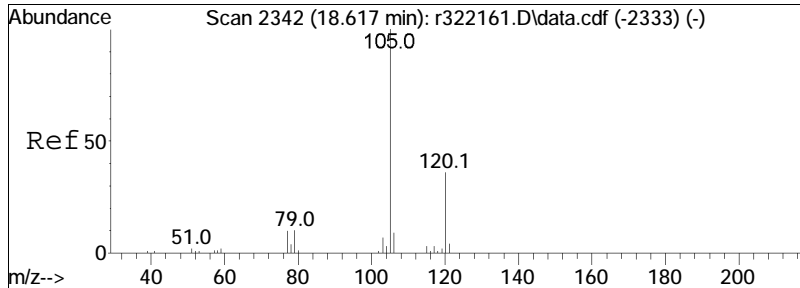




#87  
 o-xylene  
 Concen: 0.20 ppbV  
 RT: 17.542 min Scan# 2213  
 Delta R.T. -0.017 min  
 Lab File: r322210.D  
 Acq: 19 May 2022 2:26 AM

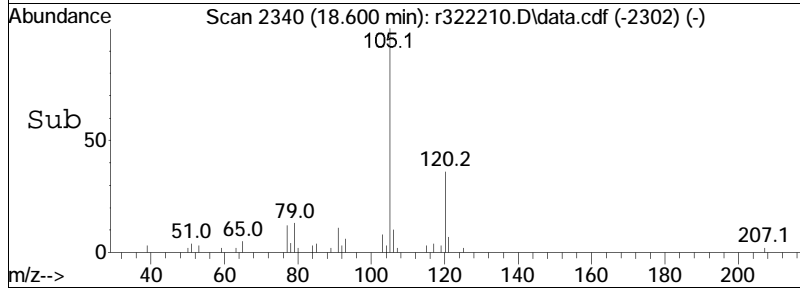
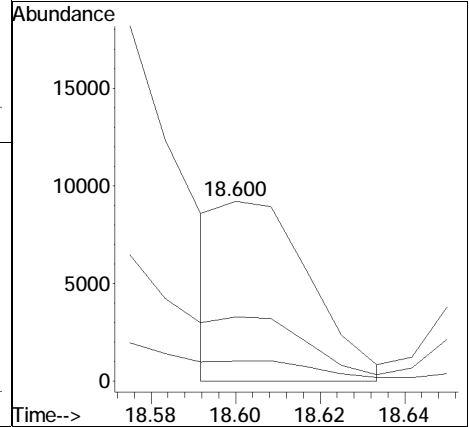
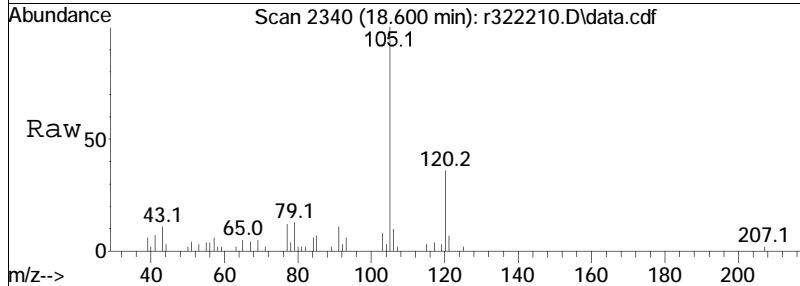
Tgt Ion: 91 Resp: 15038  
 Ion Ratio Lower Upper  
 91 100  
 106 57.4 46.4 69.6

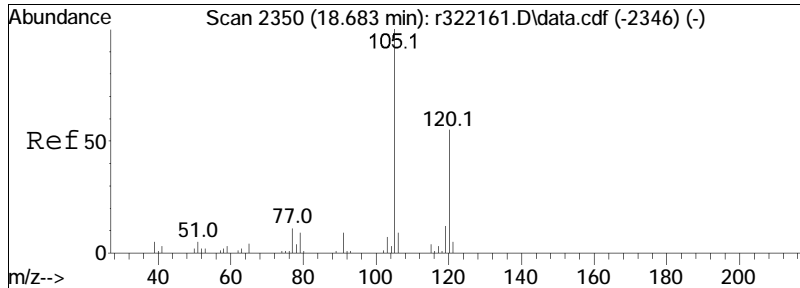




#96  
 4-ethyl toluene  
 Concen: 0.12 ppbV m  
 RT: 18.600 min Scan# 2340  
 Delta R.T. -0.017 min  
 Lab File: r322210.D  
 Acq: 19 May 2022 2:26 AM

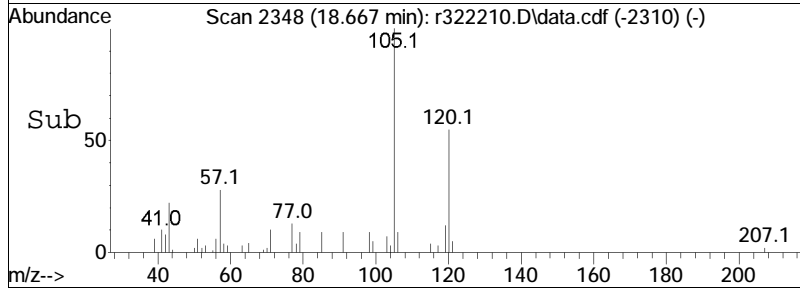
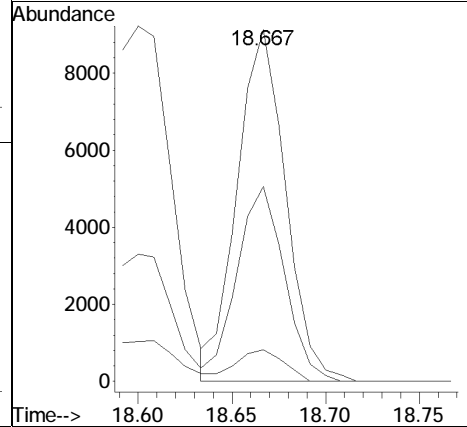
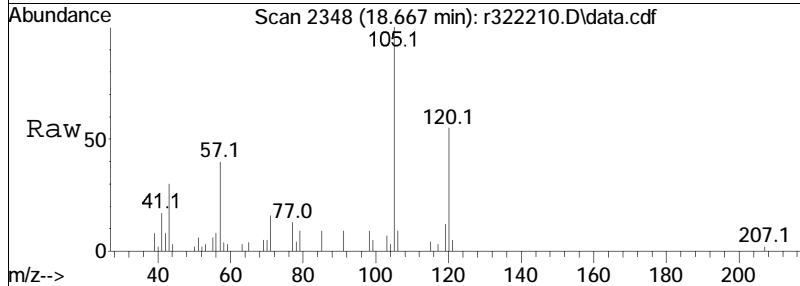
Tgt Ion	Resp	Lower	Upper
105	13556		
120	35.8	28.6	42.8
91	11.2	7.4	11.2#

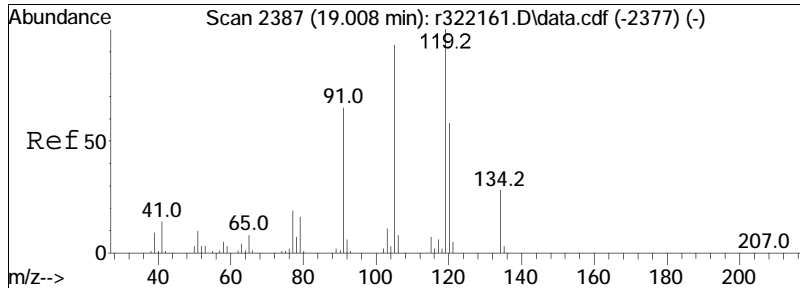




#97  
 1,3,5-trimethylbenzene  
 Concen: 0.16 ppbV  
 RT: 18.667 min Scan# 2348  
 Delta R.T. -0.017 min  
 Lab File: r322210.D  
 Acq: 19 May 2022 2:26 AM

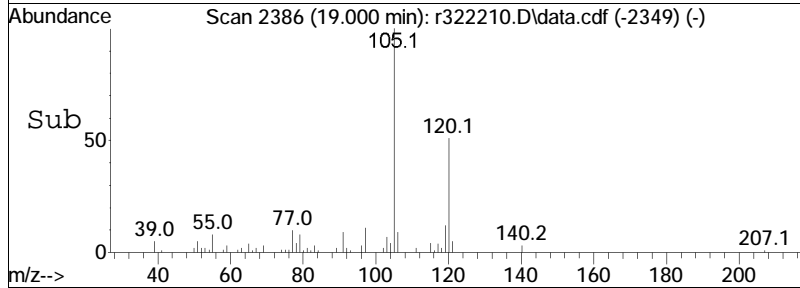
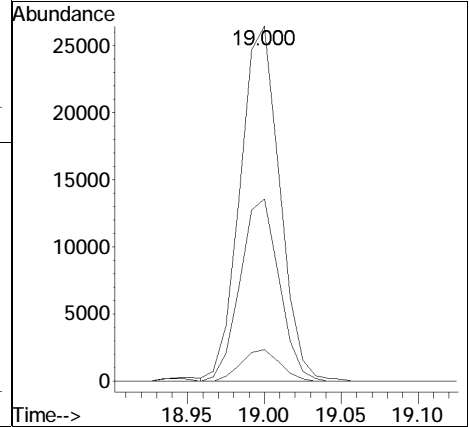
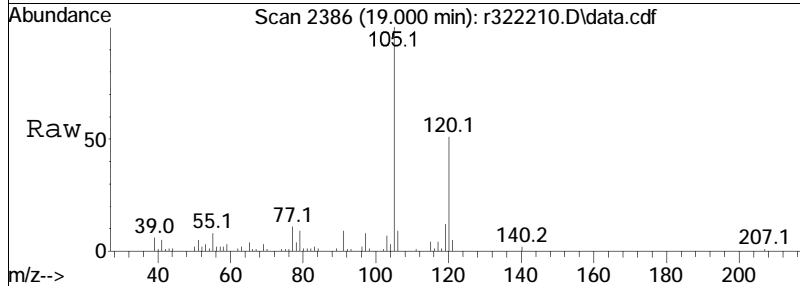
Tgt Ion	Resp	Lower	Upper
105	16388		
120	55.4	43.7	65.5
91	9.0	7.0	10.4





#99  
 1,2,4-trimethylbenzene  
 Concen: 0.52 ppbV m  
 RT: 19.000 min Scan# 2386  
 Delta R.T. -0.008 min  
 Lab File: r322210.D  
 Acq: 19 May 2022 2:26 AM

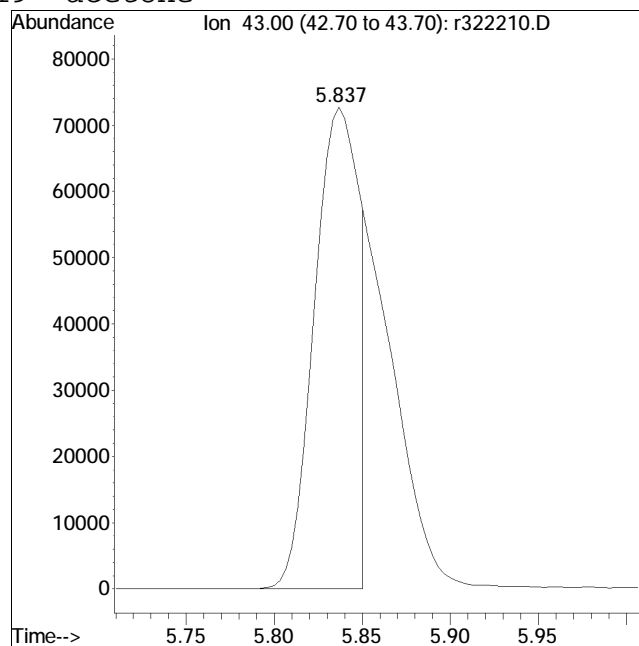
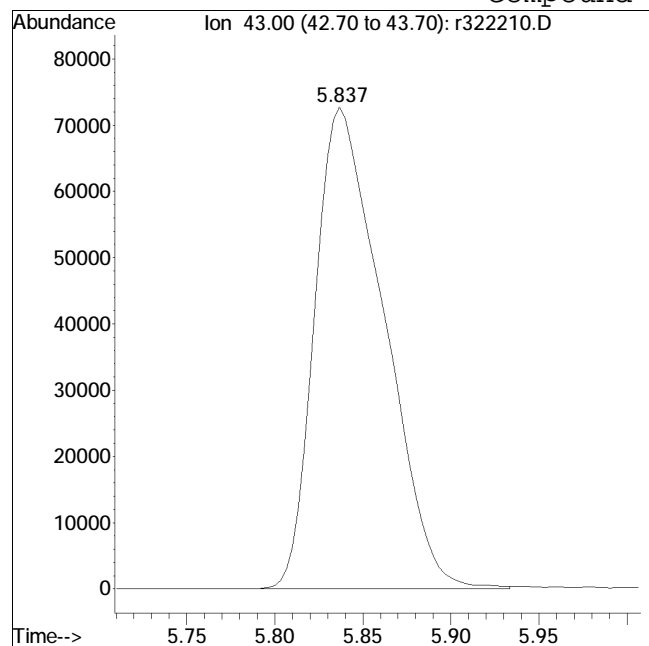
Tgt Ion	Ratio	Lower	Upper
105	100		
120	51.3	49.4	74.2
91	9.0	55.8	83.8#



# Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322210.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:2: 6 Instrument :  
Sample : L2225590-07,3,250,250 Quant Date : 5/19/2022 8:52 am

## Compound #19: acetone



Original Peak Response = 197808

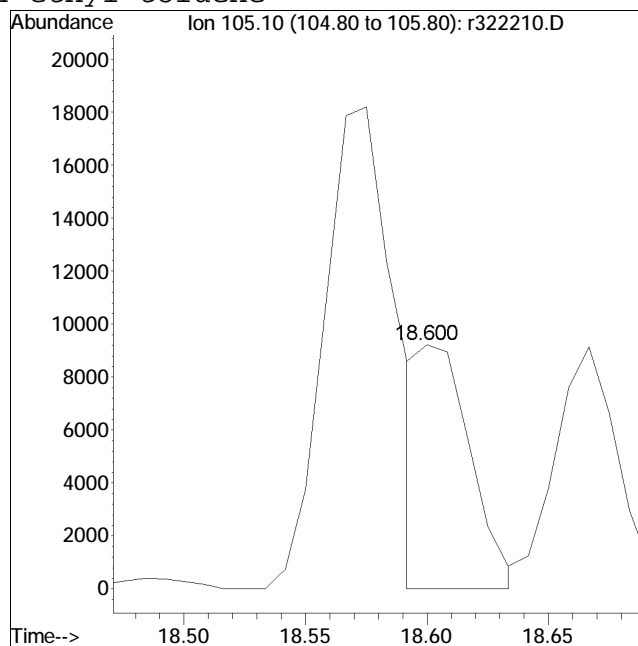
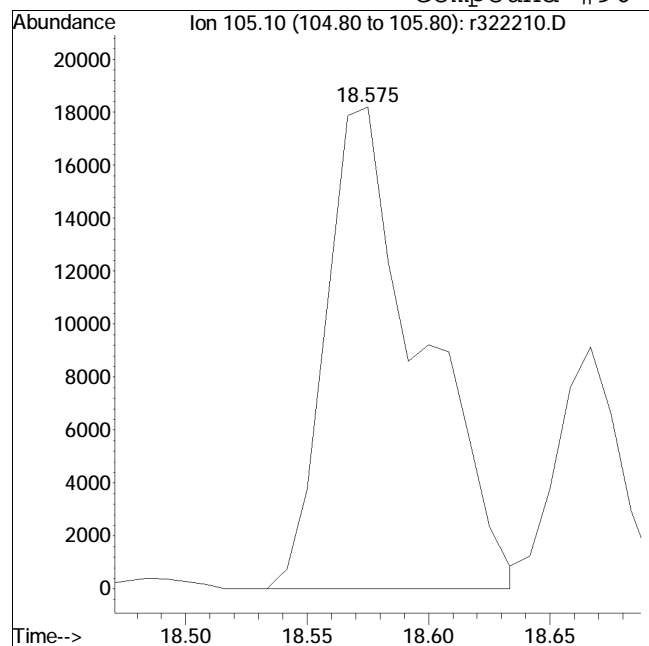
Manual Peak Response = 129032 M6

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

# Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322210.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:2: 6 Instrument :  
Sample : L2225590-07,3,250,250 Quant Date : 5/19/2022 8:52 am

## Compound #96: 4-ethyl toluene



Original Peak Response = 49712

Manual Peak Response = 13556 M6

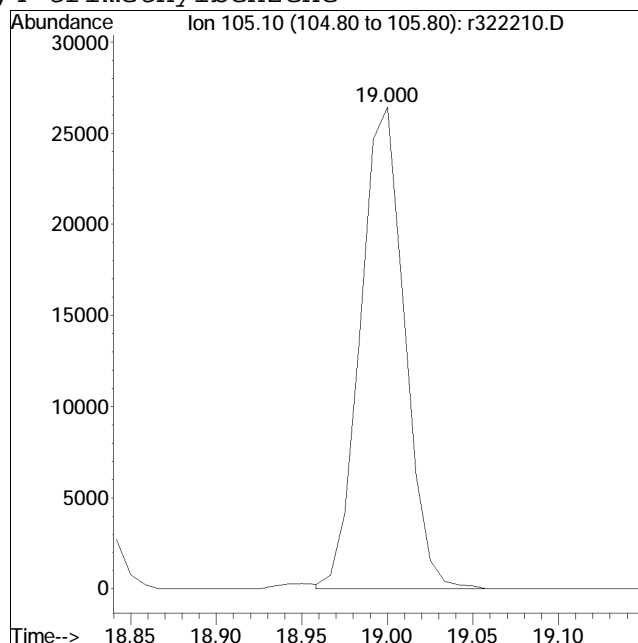
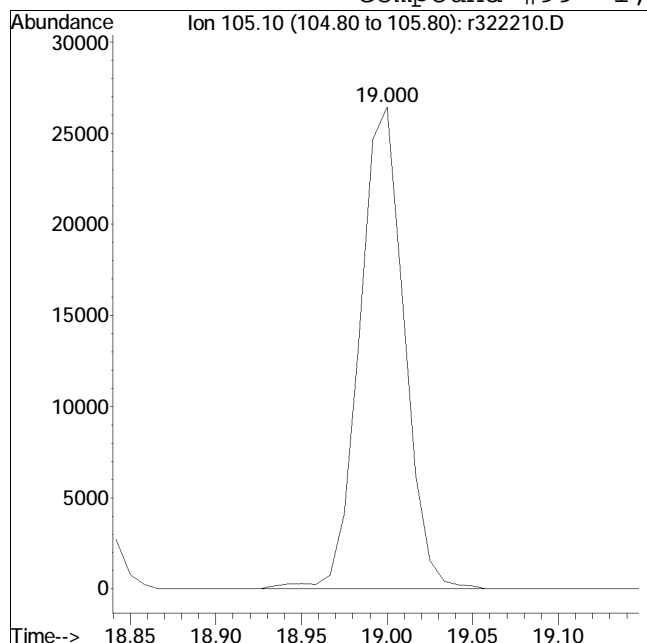
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322210.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:2: 6 Instrument :  
Sample : L2225590-07,3,250,250 Quant Date : 5/19/2022 8:52 am

Compound #99: 1,2,4-trimethylbenzene



Original Peak Response = 47872

Manual Peak Response = 47383 M6

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
 Data File : r322211.D  
 Acq On : 19 May 2022 3:06 AM  
 Operator : AIRPIANO3:TS  
 Sample : L2225590-06,3,250,250  
 Misc : WG1640147,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 18:08:17 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518T\r322194.D  
 Sub List : TO15-NY-7-SIM - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.542	49	426461	10.000	ppbV	-0.03
Standard Area =	443368		Recovery =	96.19%		
43) 1,4-difluorobenzene	11.820	114	1283406	10.000	ppbV	-0.02
Standard Area =	1337389		Recovery =	95.96%		
67) chlorobenzene-D5	16.567	54	201732	10.000	ppbV	-0.02
Standard Area =	206902		Recovery =	97.50%		

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) dichlorodifluoromethane	3.946	85	20312	0.606	ppbV	100
6) chloromethane	4.126	50	11525	0.715	ppbV	99
7) Freon-114	4.252		0	N.D.		
10) 1,3-butadiene	4.552		0	N.D.		
13) bromomethane	4.864		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	5.263	31	105508	6.440	ppbV	99
17) vinyl bromide	0.000		0	N.D.		
19) acetone	5.843	43	95448M6	4.085	ppbV	
21) trichlorofluoromethane	6.037	101	9528	0.312	ppbV	99
22) isopropyl alcohol	6.170	45	44428	1.580	ppbV	100
27) tertiary butyl alcohol	6.890	59	870272	24.880	ppbV	99
28) methylene chloride	6.980	49	4481	0.168	ppbV	99
29) 3-chloropropene	0.000		0	N.D.		
30) carbon disulfide	7.274	76	5561	0.091	ppbV #	1
31) Freon 113	7.310	101	2804	0.082	ppbV	96
32) trans-1,2-dichloroethene	0.000		0	N.D.		
33) 1,1-dichloroethane	0.000		0	N.D.		
34) MTBE	8.458		0	N.D.		
36) 2-butanone	8.858	43	15379	0.362	ppbV	100
38) Ethyl Acetate	9.675	61	400	0.058	ppbV	90
39) chloroform	9.708		0	N.D.		
40) Tetrahydrofuran	10.192	42	2829	0.115	ppbV	95
42) 1,2-dichloroethane	0.000		0	N.D.		
44) hexane	9.617	57	9341	0.255	ppbV #	43
50) benzene	11.380	78	15890	0.211	ppbV	100
53) cyclohexane	11.700	56	3528	0.093	ppbV	93

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
 Data File : r322211.D  
 Acq On : 19 May 2022 3:06 AM  
 Operator : AIRPIANO3:TS  
 Sample : L2225590-06,3,250,250  
 Misc : WG1640147,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 18:08:17 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518T\r322194.D  
 Sub List : TO15-NY-7-SIM - .

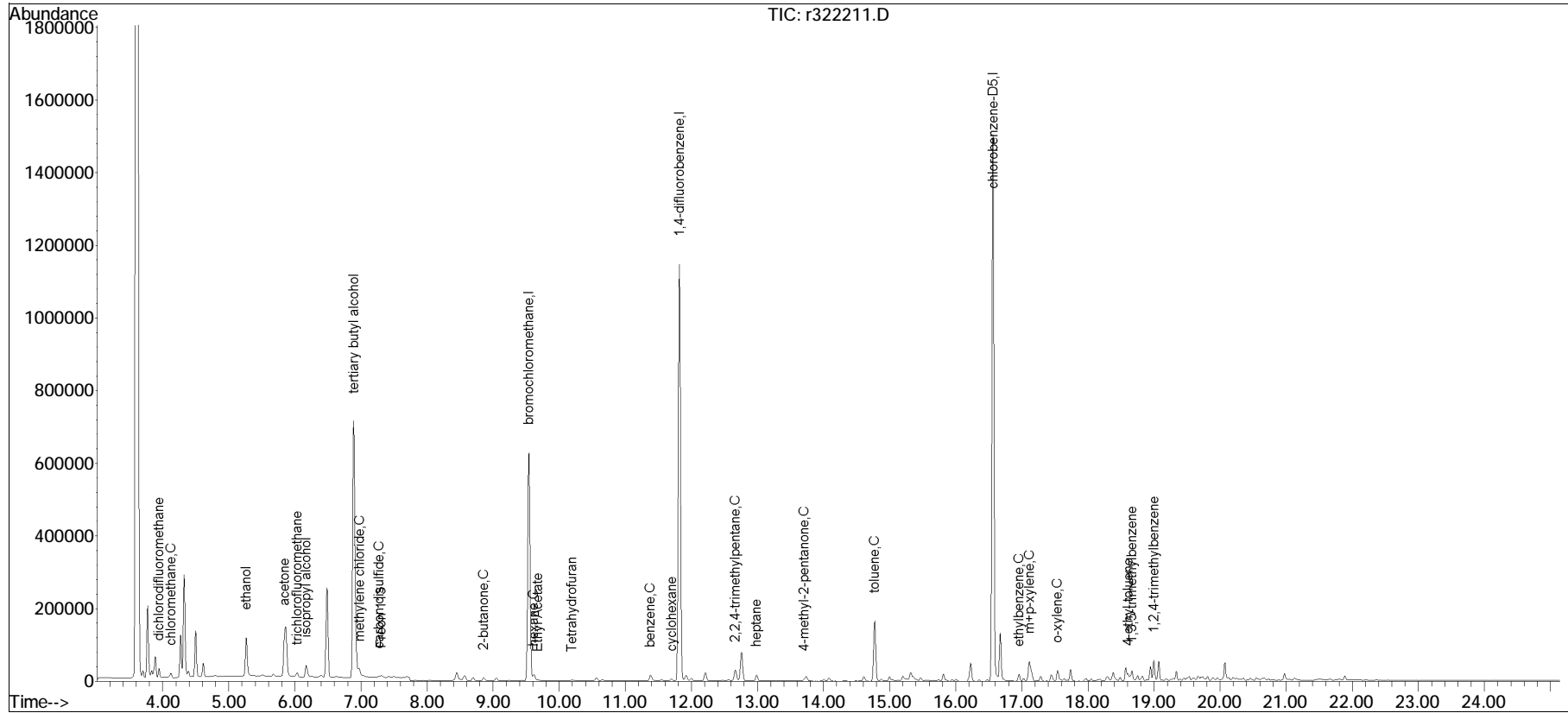
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
56) 1,2-dichloropropane	0.000		0		N.D.	
57) bromodichloromethane	12.567		0		N.D.	
58) 1,4-dioxane	12.660		0		N.D.	
60) 2,2,4-trimethylpentane	12.667	57	34920	0.309	ppbV	94
62) heptane	12.987	43	9831	0.233	ppbV	100
63) cis-1,3-dichloropropene	0.000		0		N.D.	
64) 4-methyl-2-pentanone	13.708	43	3976	0.082	ppbV	94
65) trans-1,3-dichloropropene	0.000		0		N.D.	
66) 1,1,2-trichloroethane	0.000		0		N.D.	
68) toluene	14.775	91	143629	1.895	ppbV	99
72) 2-hexanone	15.100		0		N.D.	
74) dibromochloromethane	0.000		0		N.D.	
75) 1,2-dibromoethane	0.000		0		N.D.	
80) chlorobenzene	16.617		0		N.D.	
81) ethylbenzene	16.958	91	16350	0.180	ppbV	98
83) m+p-xylene	17.117	91	46091	0.621	ppbV	99
84) bromoform	0.000		0		N.D.	
85) styrene	17.450		0		N.D.	
86) 1,1,2,2-tetrachloroethane	17.575		0		N.D.	
87) o-xylene	17.542	91	18979	0.256	ppbV	99
96) 4-ethyl toluene	18.608	105	9182M6	0.081	ppbV	
97) 1,3,5-trimethylbenzene	18.667	105	12110	0.117	ppbV	97
99) 1,2,4-trimethylbenzene	19.000	105	32277M6	0.357	ppbV	
101) Benzyl Chloride	19.175		0		N.D.	
102) 1,3-dichlorobenzene	19.183		0		N.D.	
103) 1,4-dichlorobenzene	19.183		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.	

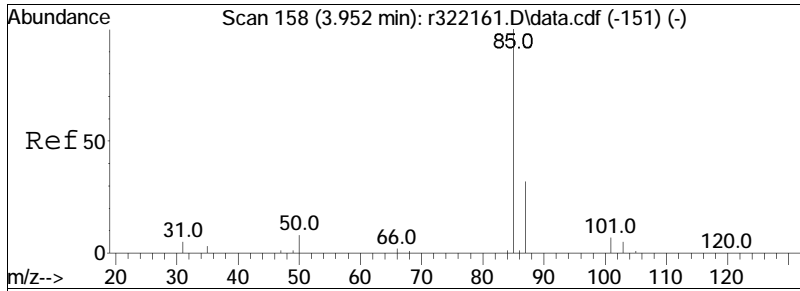
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : TO15-NY-7-SIM - .\Airpiano3\2022\05\0518T\r322194.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
Data File : r322211.D  
Acq On : 19 May 2022 3:06 AM  
Operator : AIRPIANO3:TS  
Sample : L2225590-06,3,250,250  
Misc : WG1640147,ICAL19030  
ALS Vial : 0 Sample Multiplier: 1

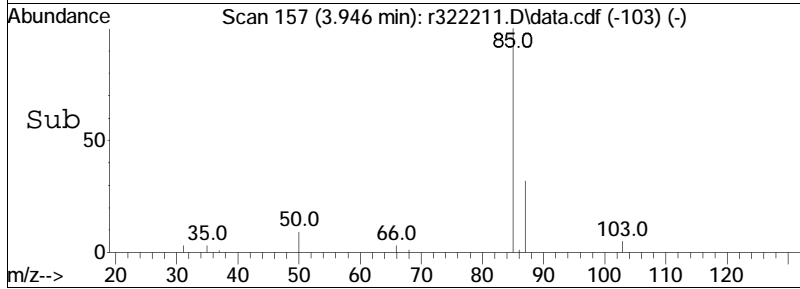
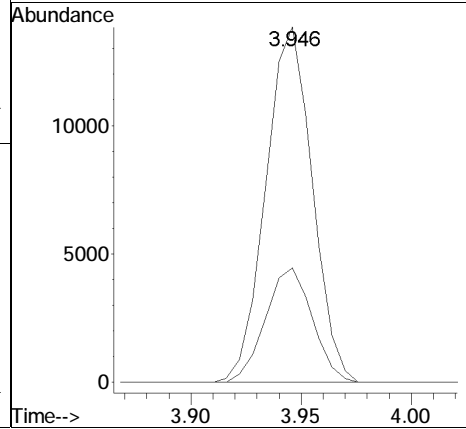
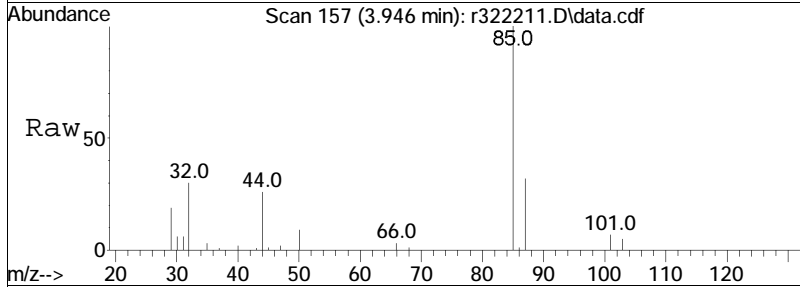
Quant Time: May 19 18:08:17 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 15:52:12 2022  
Response via : Initial Calibration

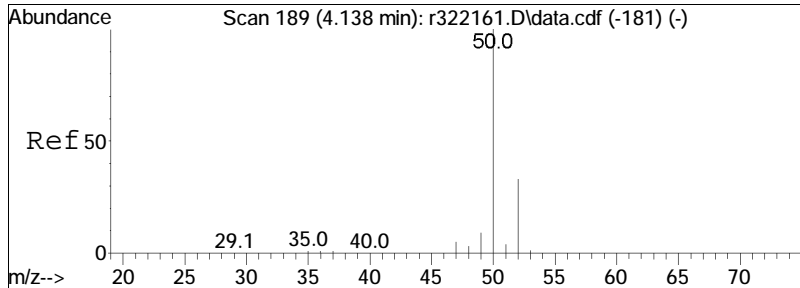




#5  
 dichlorodifluoromethane  
 Concen: 0.61 ppbV  
 RT: 3.946 min Scan# 157  
 Delta R.T. -0.006 min  
 Lab File: r322211.D  
 Acq: 19 May 2022 3:06 AM

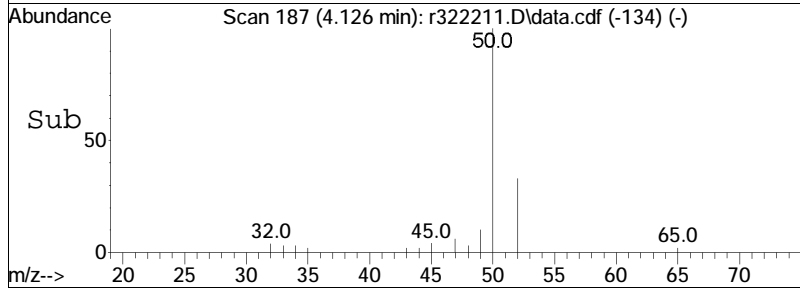
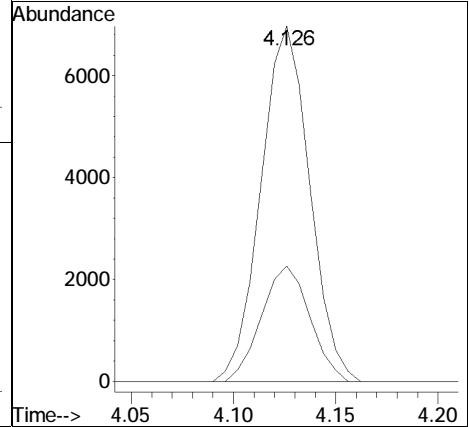
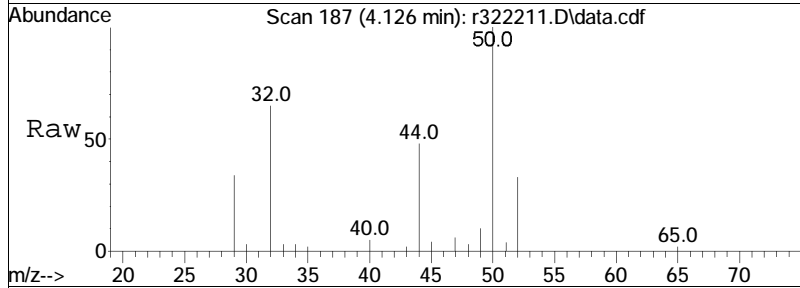
Tgt Ion:	85	Resp:	20312
Ion Ratio	Lower	Upper	
85	100		
87	32.2	25.8	38.6

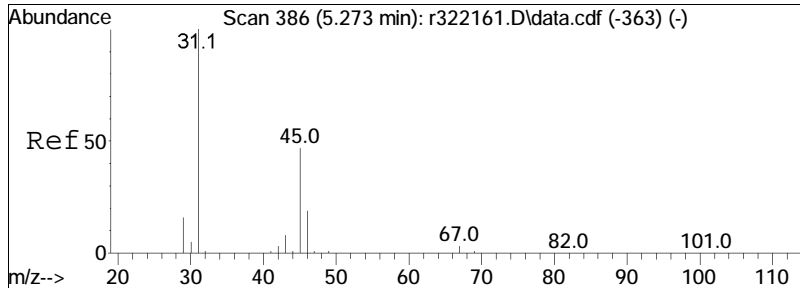




#6  
 chloromethane  
 Concen: 0.71 ppbV  
 RT: 4.126 min Scan# 187  
 Delta R.T. -0.012 min  
 Lab File: r322211.D  
 Acq: 19 May 2022 3:06 AM

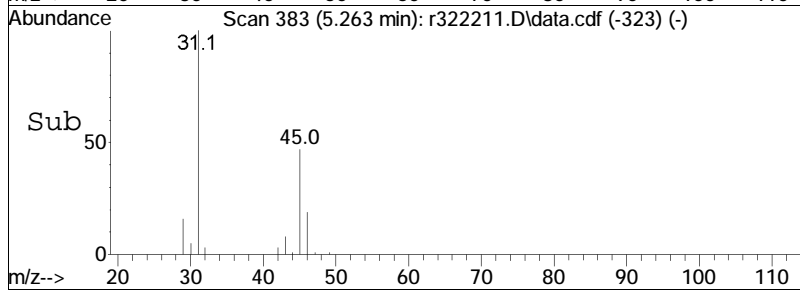
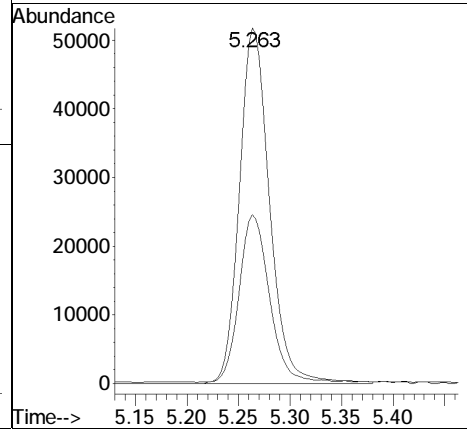
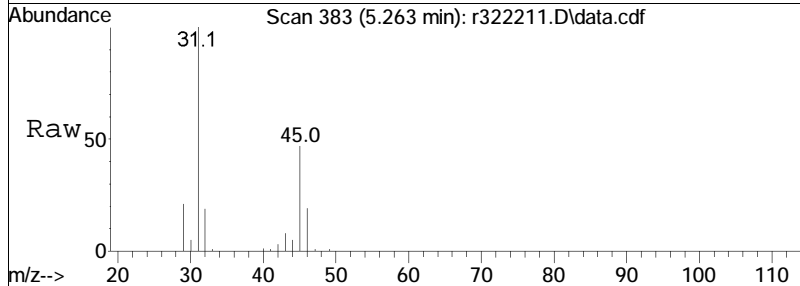
Tgt Ion	Resp	Lower	Upper
50	11525		
52	32.5	26.3	39.5

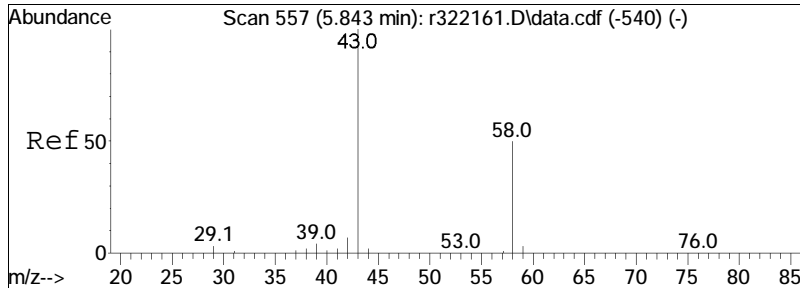




#15  
 ethanol  
 Concen: 6.44 ppbV  
 RT: 5.263 min Scan# 383  
 Delta R.T. -0.010 min  
 Lab File: r322211.D  
 Acq: 19 May 2022 3:06 AM

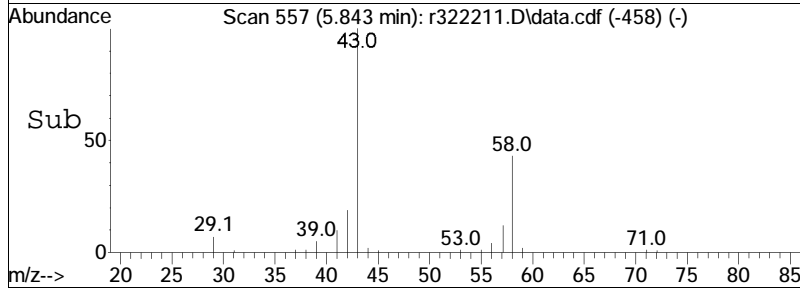
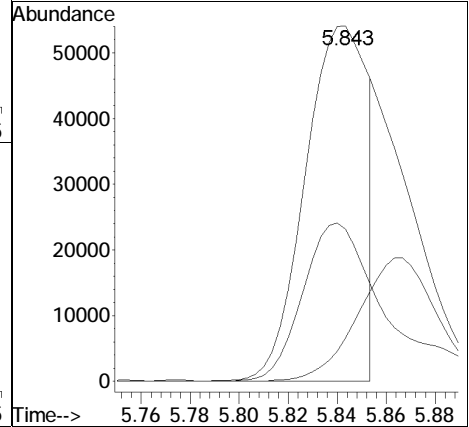
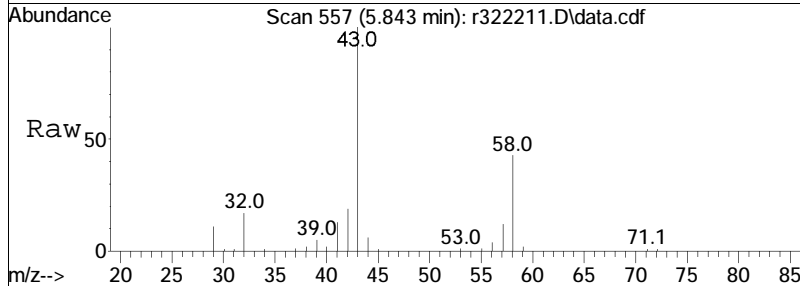
Tgt Ion	Resp	Lower	Upper
31	100		
45	47.5	37.6	56.4



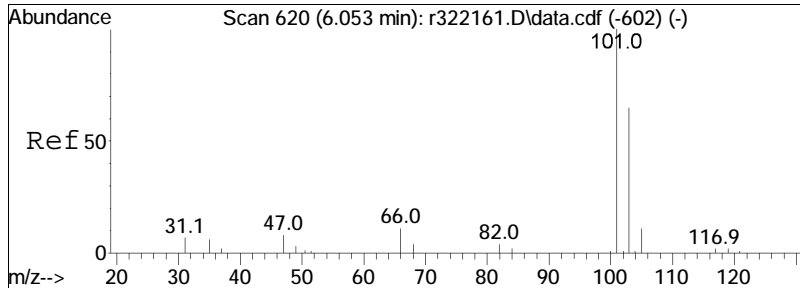


#19  
 acetone  
 Concen: 4.09 ppbV m  
 RT: 5.843 min Scan# 557  
 Delta R.T. 0.000 min  
 Lab File: r322211.D  
 Acq: 19 May 2022 3:06 AM

Tgt Ion	Ratio	Lower	Upper
43	100		
58	42.8	39.8	59.8
57	12.2	1.0	1.6#

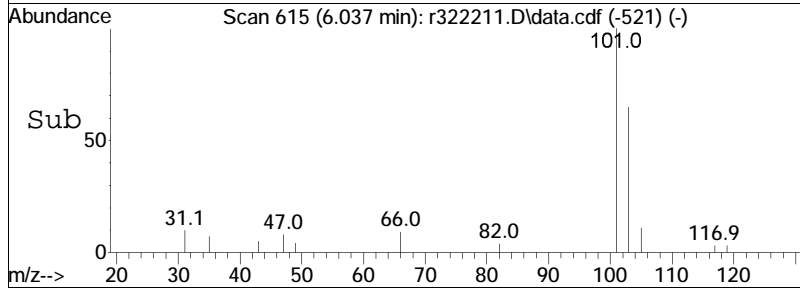
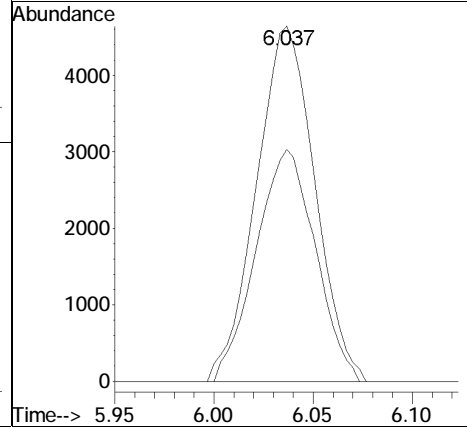
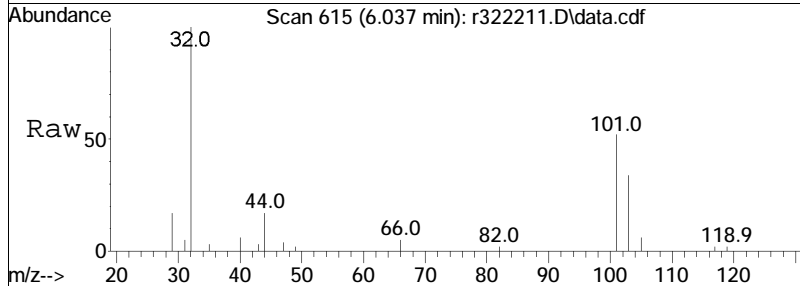


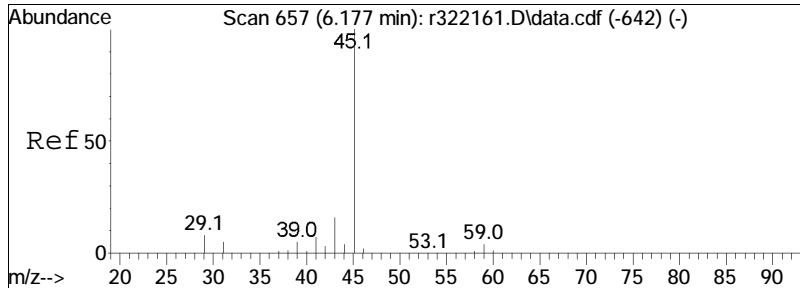




#21  
 trichlorofluoromethane  
 Concen: 0.31 ppbV  
 RT: 6.037 min Scan# 615  
 Delta R.T. -0.017 min  
 Lab File: r322211.D  
 Acq: 19 May 2022 3:06 AM

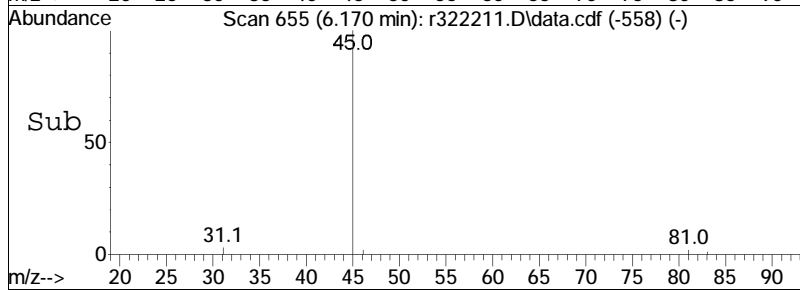
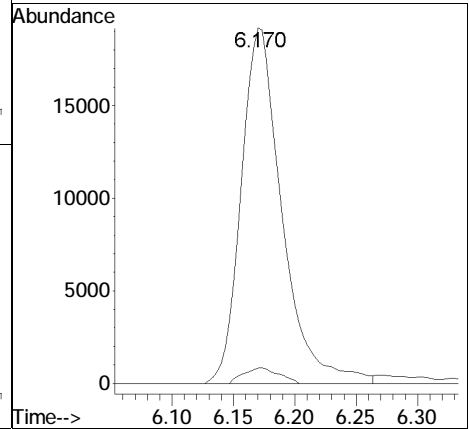
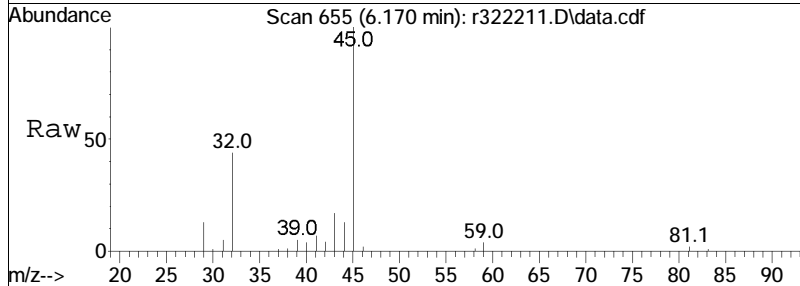
Tgt Ion	Resp	Lower	Upper
101	100		
103	65.3	51.8	77.6

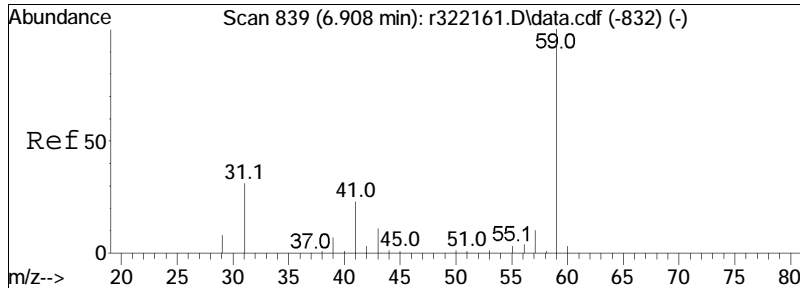




#22  
 isopropyl alcohol  
 Concen: 1.58 ppbV  
 RT: 6.170 min Scan# 655  
 Delta R.T. -0.007 min  
 Lab File: r322211.D  
 Acq: 19 May 2022 3:06 AM

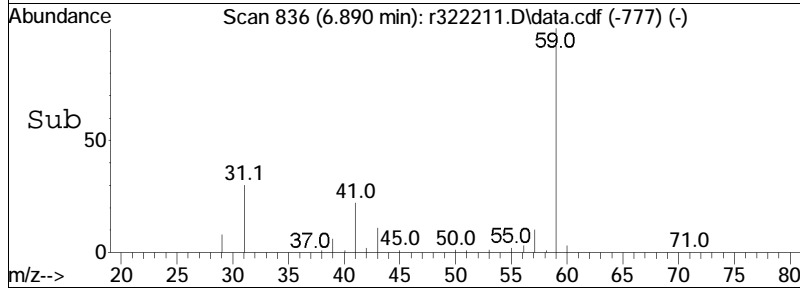
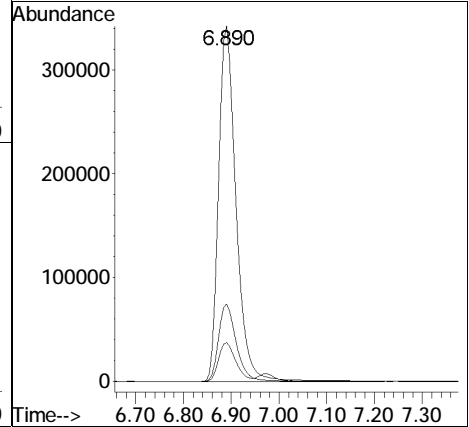
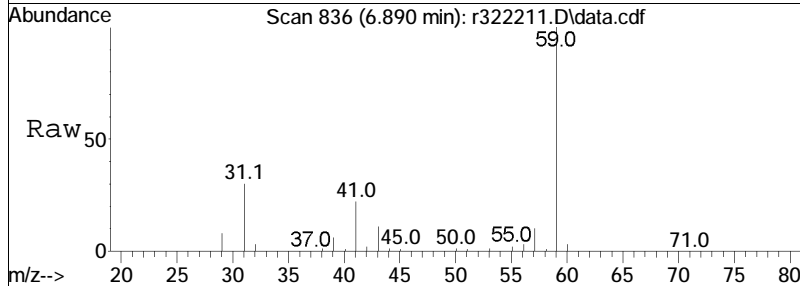
Tgt Ion	Resp	Lower	Upper
45	100		
59	4.3	3.5	5.3

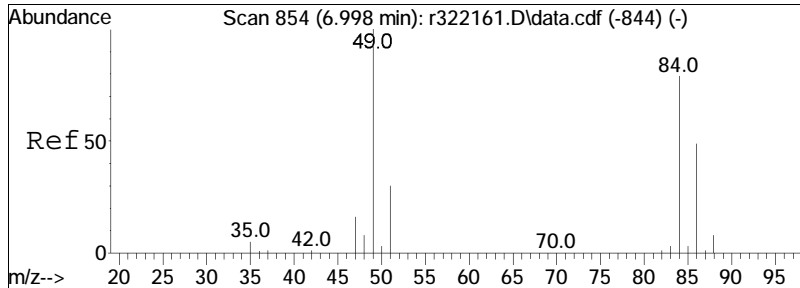




#27  
 tertiary butyl alcohol  
 Concen: 24.88 ppbV  
 RT: 6.890 min Scan# 836  
 Delta R.T. -0.018 min  
 Lab File: r322211.D  
 Acq: 19 May 2022 3:06 AM

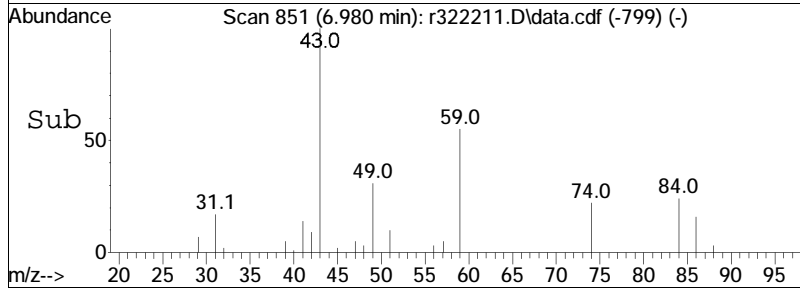
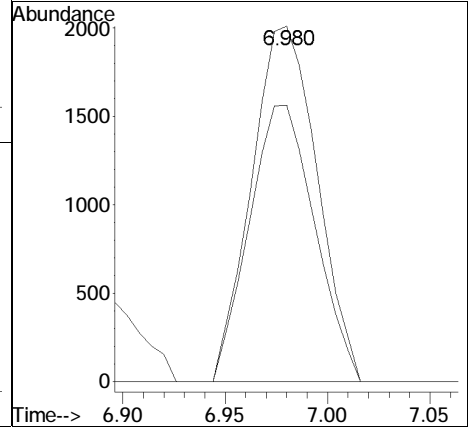
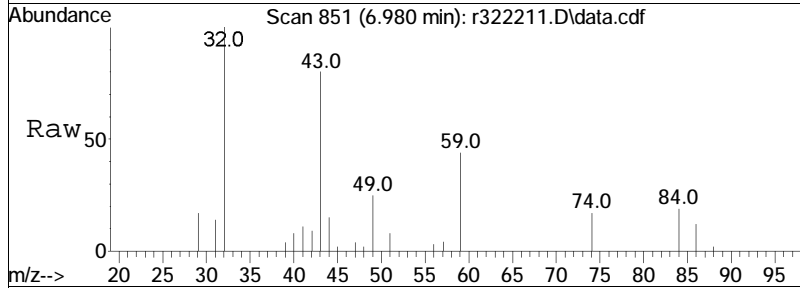
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
59	100		
41	21.8	18.2	27.2
43	10.9	8.9	13.3

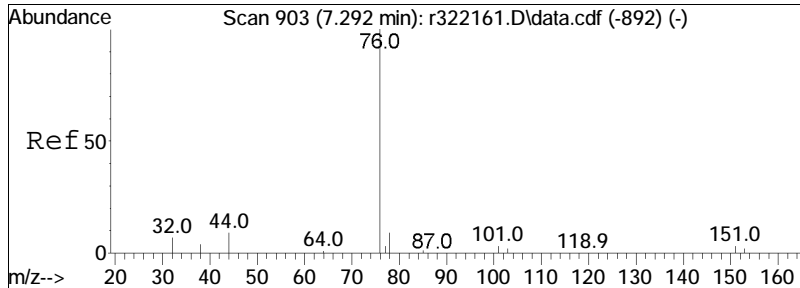




#28  
 methylene chloride  
 Concen: 0.17 ppbV  
 RT: 6.980 min Scan# 851  
 Delta R.T. -0.018 min  
 Lab File: r322211.D  
 Acq: 19 May 2022 3:06 AM

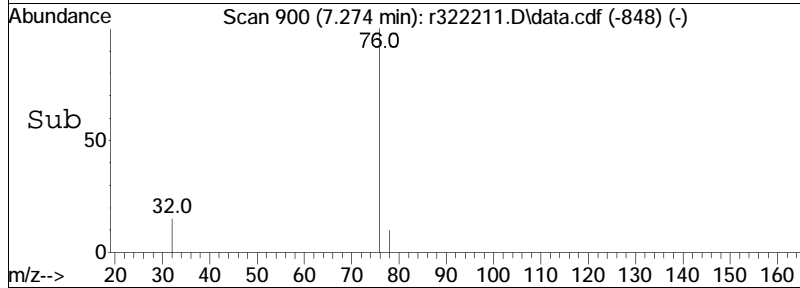
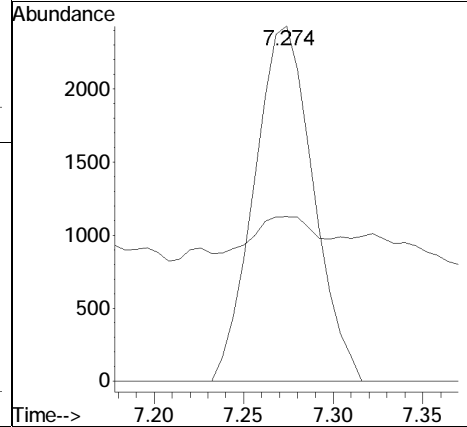
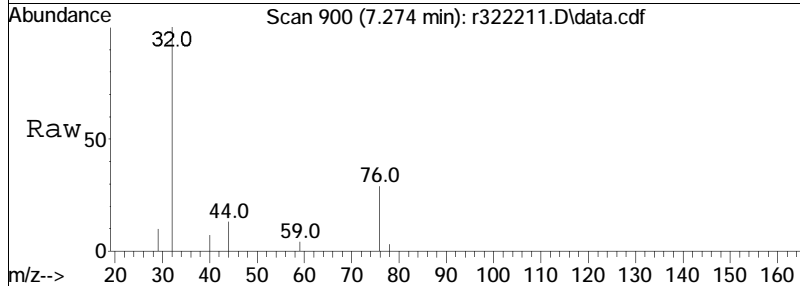
Tgt Ion:	Resp:	Lower	Upper
49	100		
84	77.7	63.0	94.6

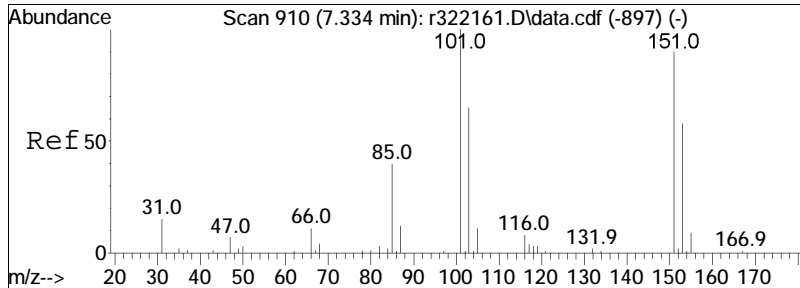




#30  
 carbon disulfide  
 Concen: 0.09 ppbV  
 RT: 7.274 min Scan# 900  
 Delta R.T. -0.018 min  
 Lab File: r322211.D  
 Acq: 19 May 2022 3:06 AM

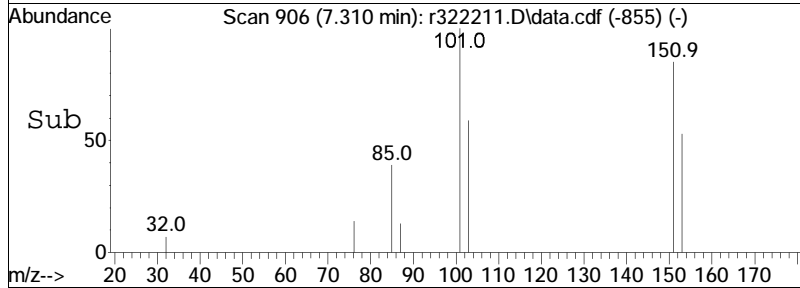
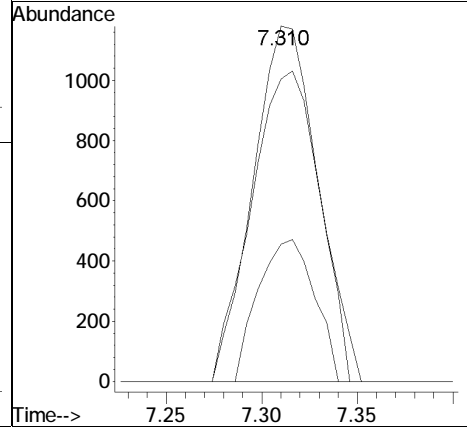
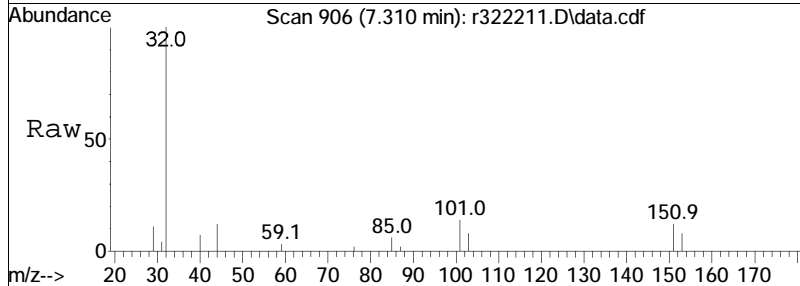
Tgt Ion	Resp	Lower	Upper
76	100		
44	46.4	7.6	11.4#

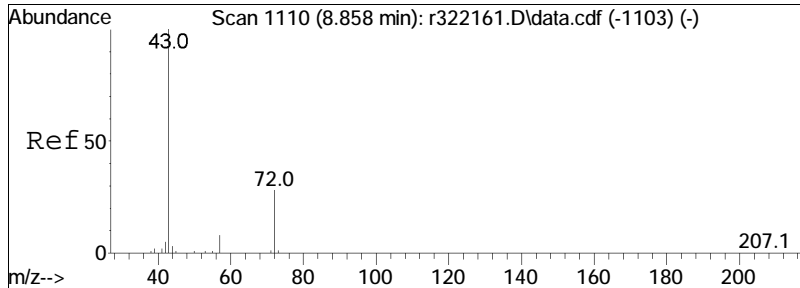




#31  
 Freon 113  
 Concen: 0.08 ppbV  
 RT: 7.310 min Scan# 906  
 Delta R.T. -0.024 min  
 Lab File: r322211.D  
 Acq: 19 May 2022 3:06 AM

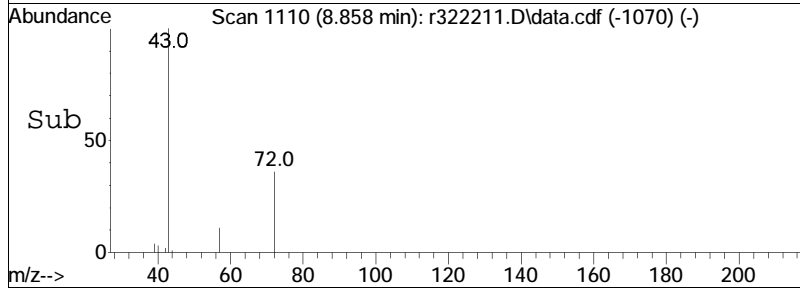
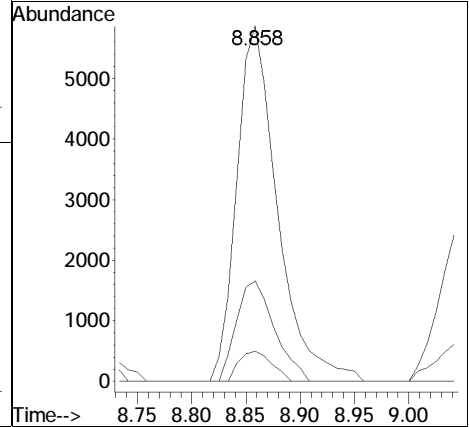
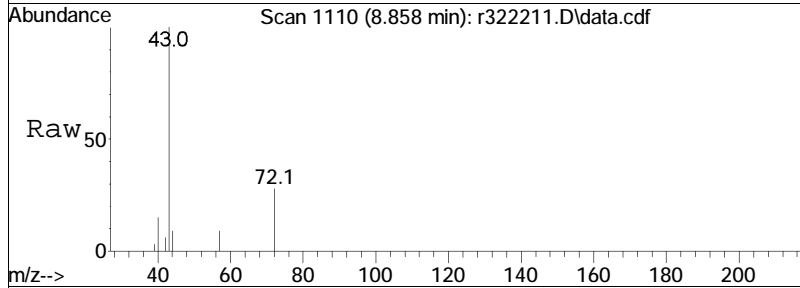
Tgt Ion	Ratio	Lower	Upper
101	100		
85	38.6	31.8	47.8
151	85.1	72.2	108.4

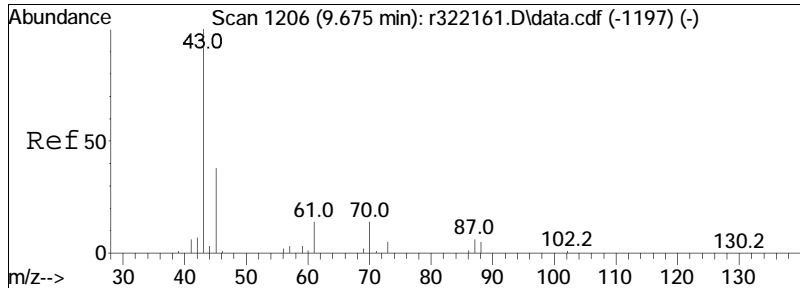




#36  
 2-butanone  
 Concen: 0.36 ppbV  
 RT: 8.858 min Scan# 1110  
 Delta R.T. 0.000 min  
 Lab File: r322211.D  
 Acq: 19 May 2022 3:06 AM

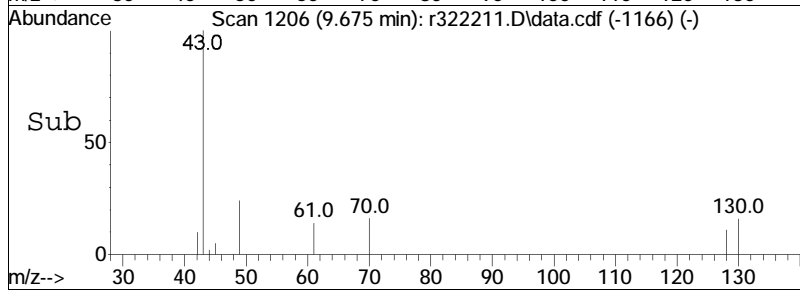
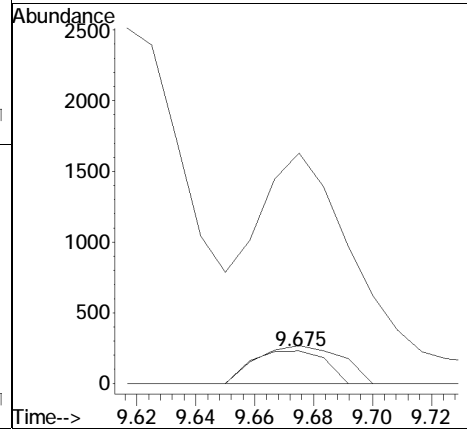
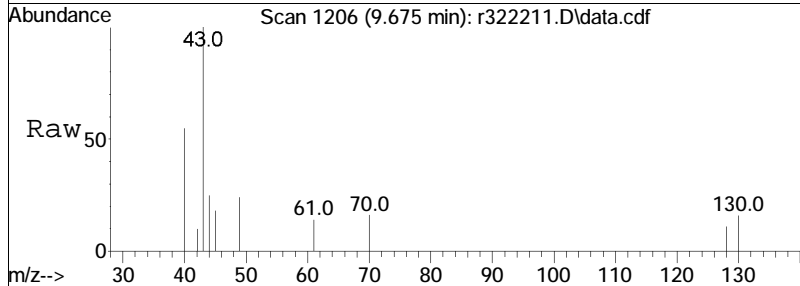
Tgt Ion	Resp	Lower	Upper
43	15379		
72	28.3	22.6	33.8
57	8.5	6.6	10.0



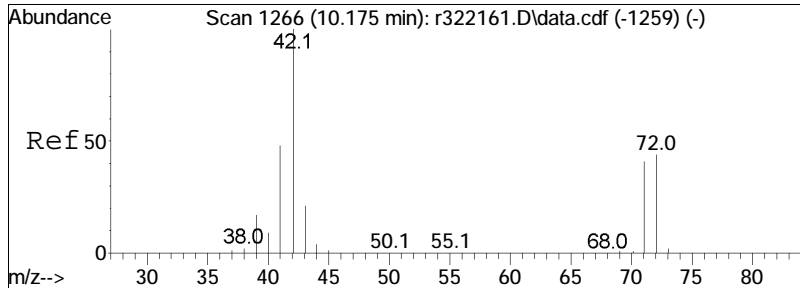


#38  
 Ethyl Acetate  
 Concen: 0.06 ppbV  
 RT: 9.675 min Scan# 1206  
 Delta R.T. 0.000 min  
 Lab File: r322211.D  
 Acq: 19 May 2022 3:06 AM

Tgt Ion:	Resp:	Lower	Upper
61	100		
70	116.5	78.8	118.2
43	708.7	593.4	890.0

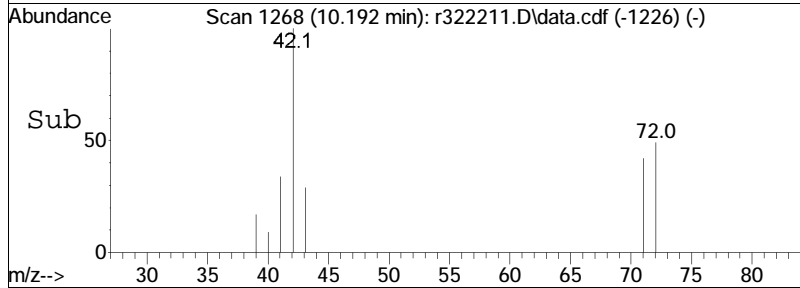
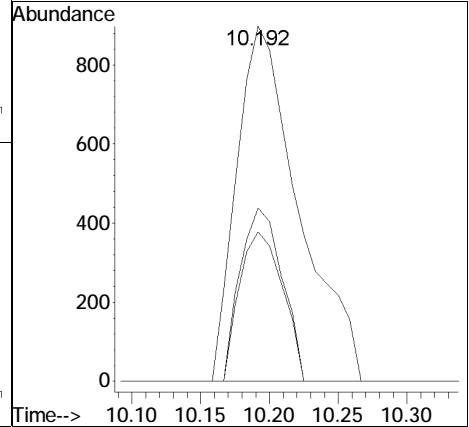
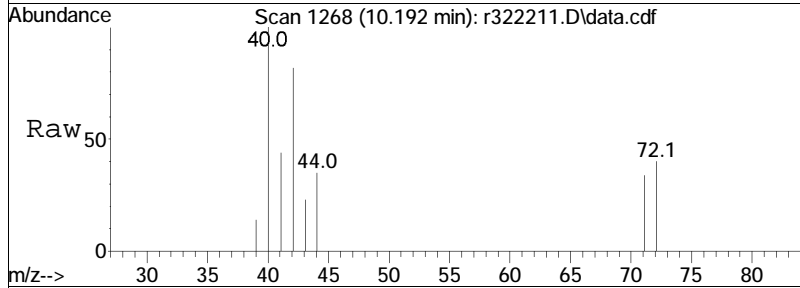


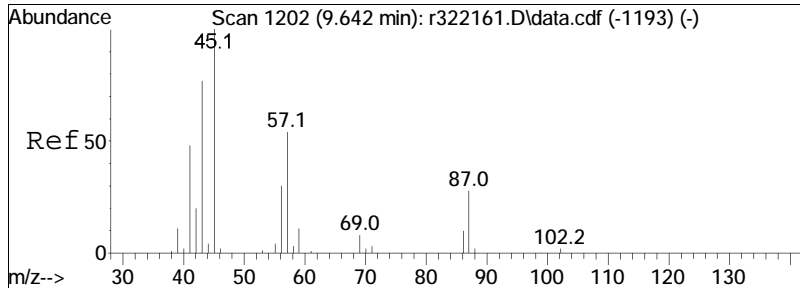




#40  
 Tetrahydrofuran  
 Concen: 0.12 ppbV  
 RT: 10.192 min Scan# 1268  
 Delta R.T. 0.017 min  
 Lab File: r322211.D  
 Acq: 19 May 2022 3:06 AM

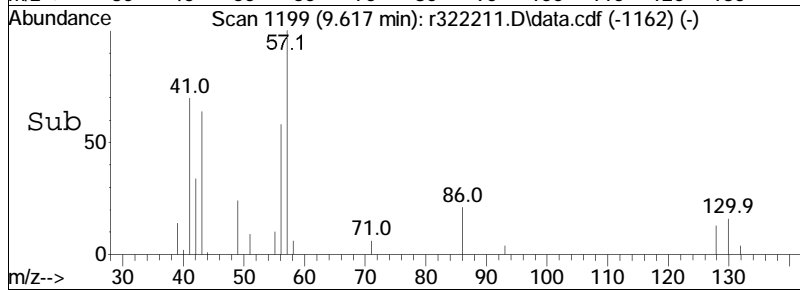
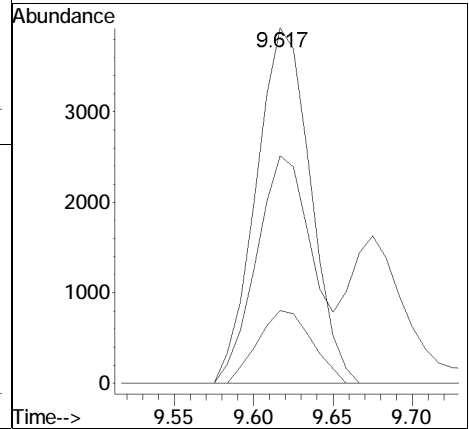
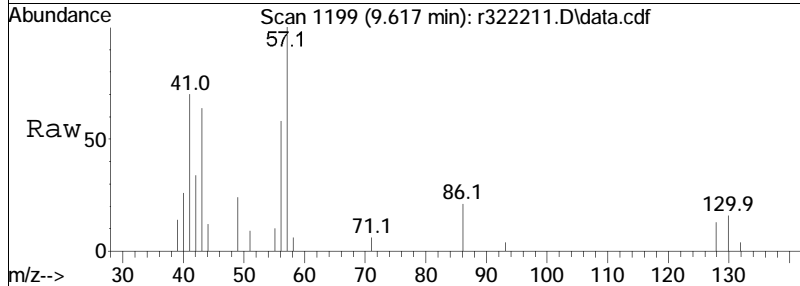
Tgt Ion	Resp	Lower	Upper
42	100		
71	42.1	32.4	48.6
72	48.8	35.2	52.8

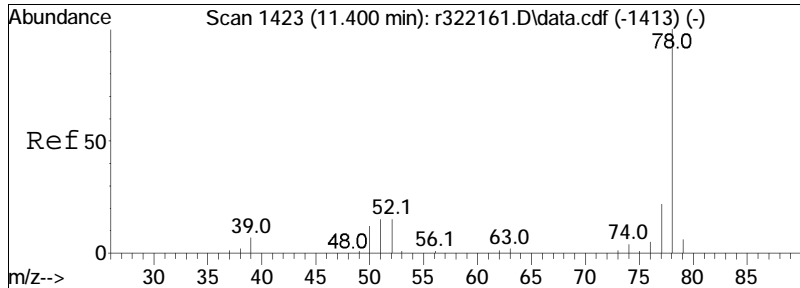




#44  
 hexane  
 Concen: 0.26 ppbV  
 RT: 9.617 min Scan# 1199  
 Delta R.T. -0.025 min  
 Lab File: r322211.D  
 Acq: 19 May 2022 3:06 AM

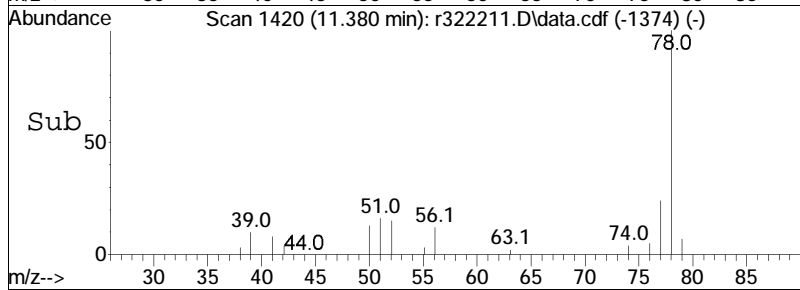
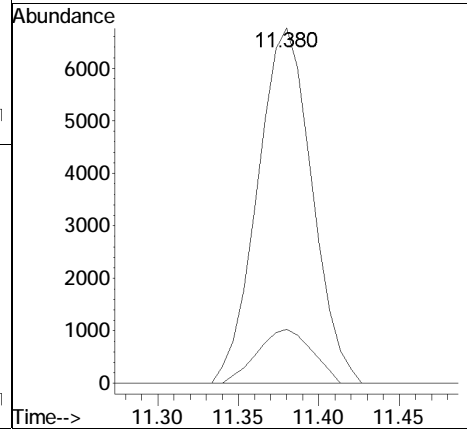
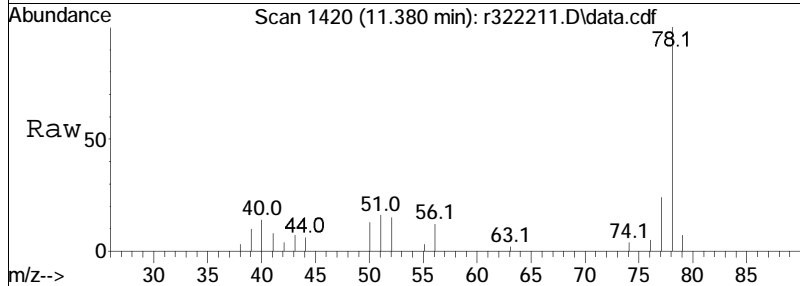
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
57	100		
43	64.0	115.0	172.6#
86	20.5	15.5	23.3

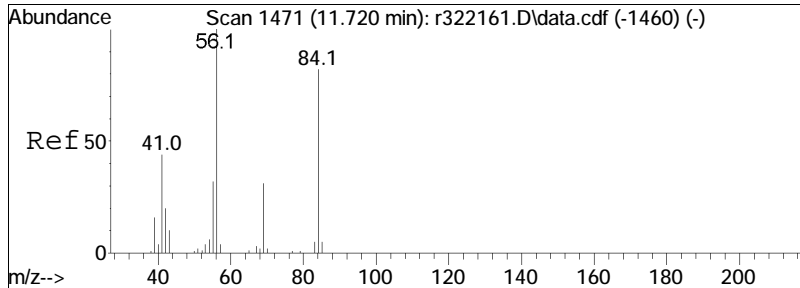




#50  
 benzene  
 Concen: 0.21 ppbV  
 RT: 11.380 min Scan# 1420  
 Delta R.T. -0.020 min  
 Lab File: r322211.D  
 Acq: 19 May 2022 3:06 AM

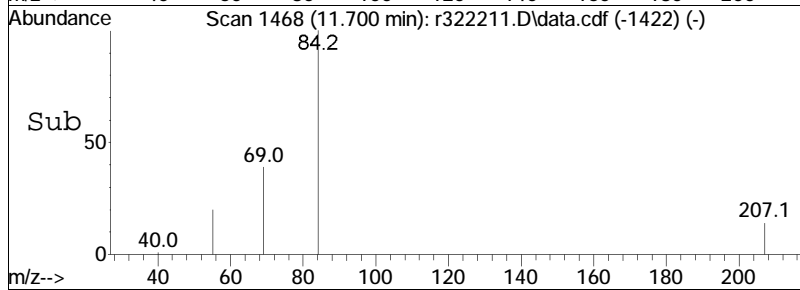
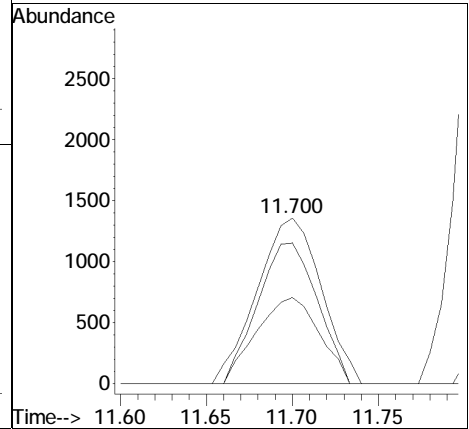
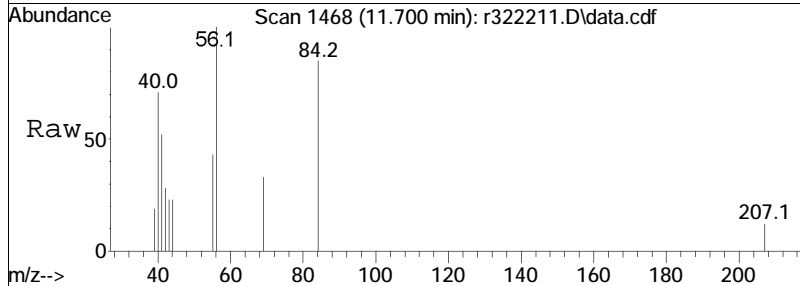
Tgt Ion	Resp	Lower	Upper
78	15890		
52	15.2	12.2	18.2

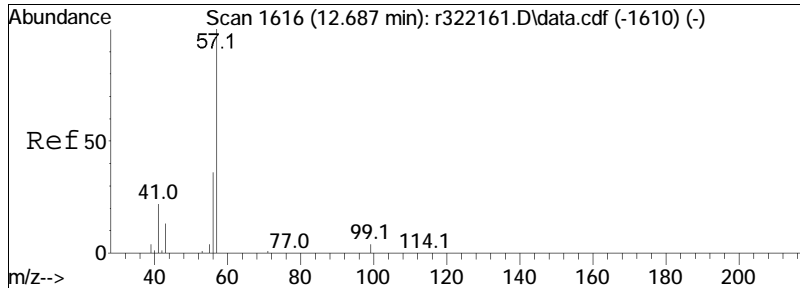




#53  
 cyclohexane  
 Concen: 0.09 ppbV  
 RT: 11.700 min Scan# 1468  
 Delta R.T. -0.020 min  
 Lab File: r322211.D  
 Acq: 19 May 2022 3:06 AM

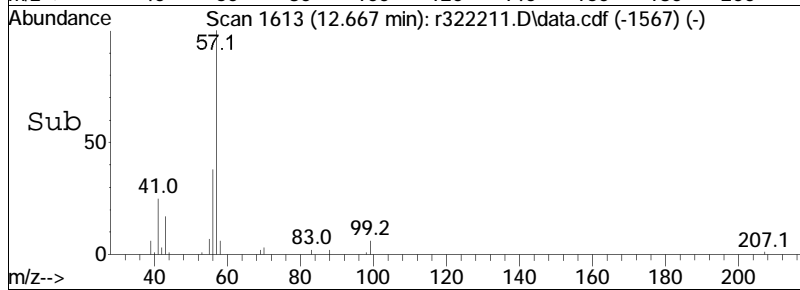
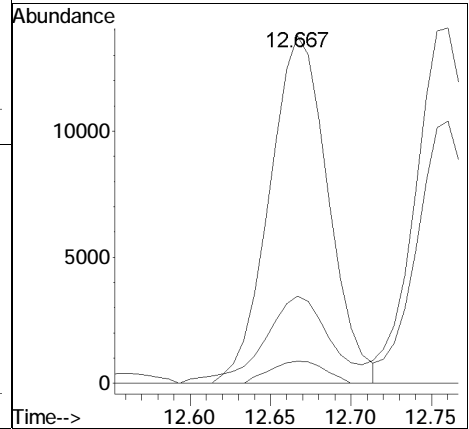
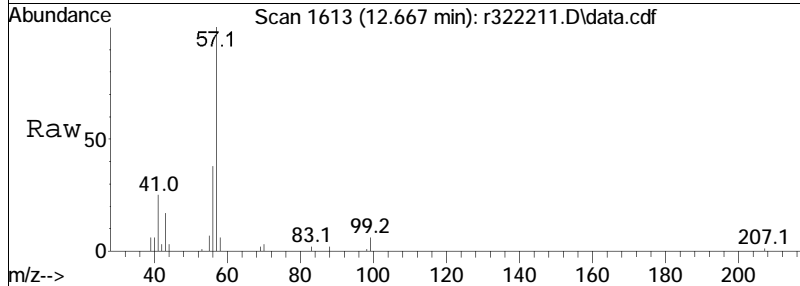
Tgt Ion	Resp	Lower	Upper
56	100		
84	85.0	65.4	98.0
41	52.0	35.4	53.2

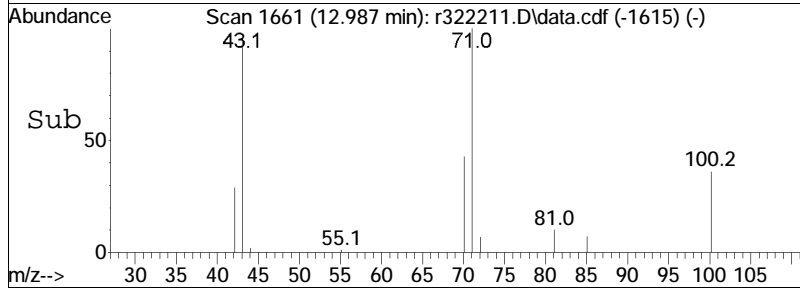
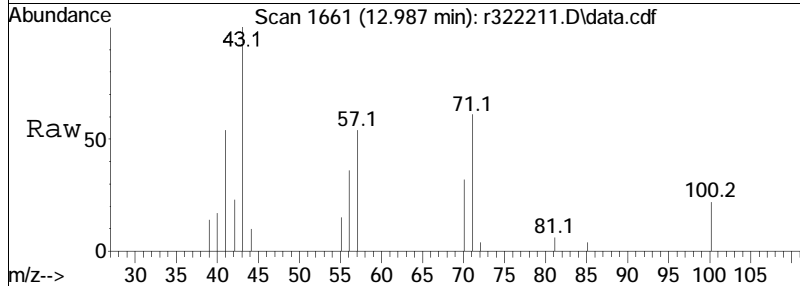
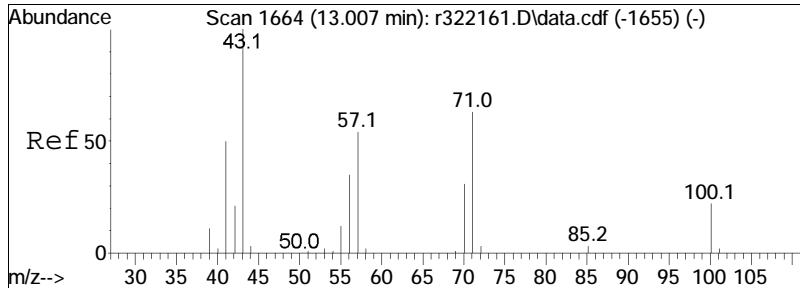




#60  
 2,2,4-trimethylpentane  
 Concen: 0.31 ppbV  
 RT: 12.667 min Scan# 1613  
 Delta R.T. -0.020 min  
 Lab File: r322211.D  
 Acq: 19 May 2022 3:06 AM

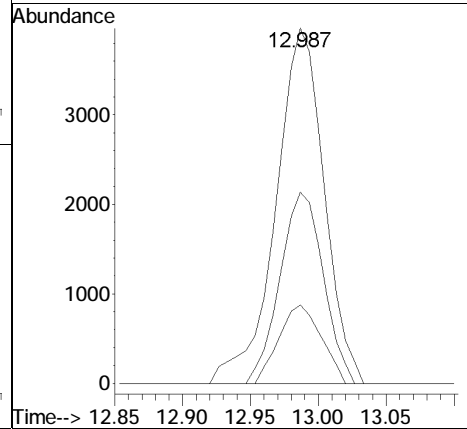
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
57	100		
99	6.4	5.0	7.4
41	25.1	17.4	26.2

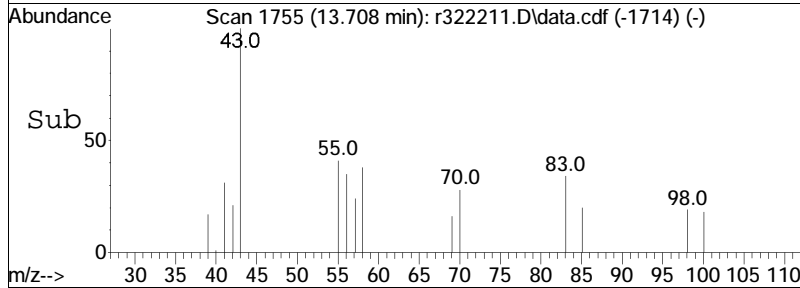
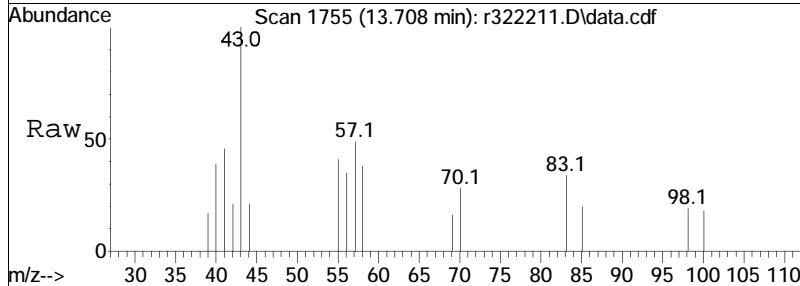
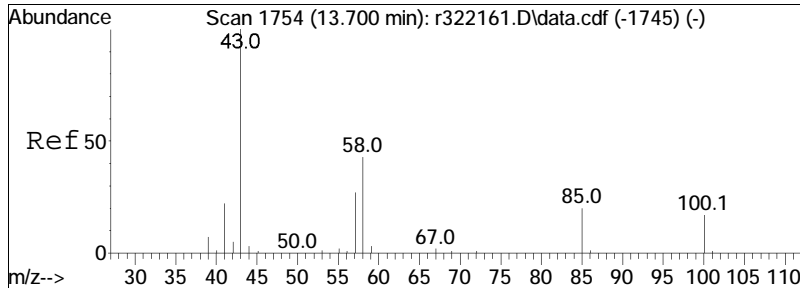




#62  
 heptane  
 Concen: 0.23 ppbV  
 RT: 12.987 min Scan# 1661  
 Delta R.T. -0.020 min  
 Lab File: r322211.D  
 Acq: 19 May 2022 3:06 AM

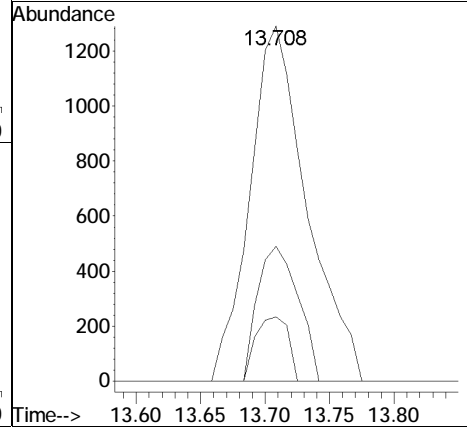
Tgt Ion	Resp	Lower	Upper
43	100		
57	53.8	43.0	64.4
100	22.1	17.6	26.4

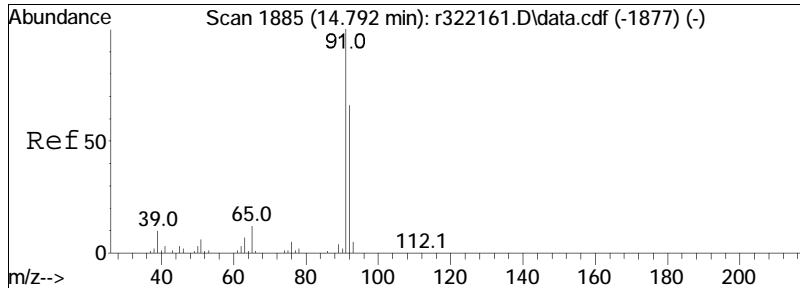




#64  
 4-methyl-2-pentanone  
 Concen: 0.08 ppbV  
 RT: 13.708 min Scan# 1755  
 Delta R.T. 0.008 min  
 Lab File: r322211.D  
 Acq: 19 May 2022 3:06 AM

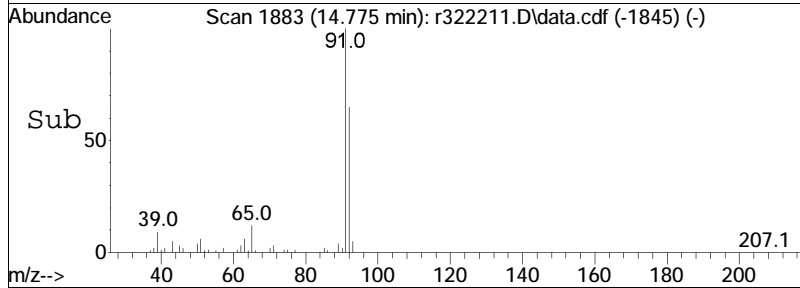
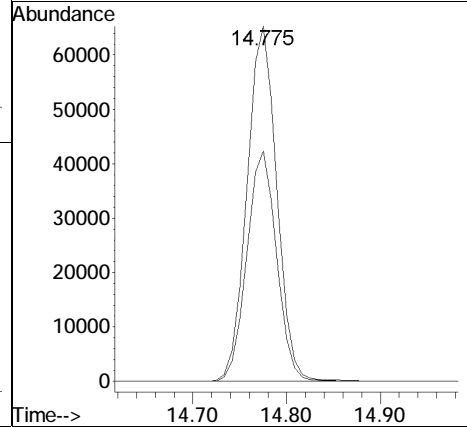
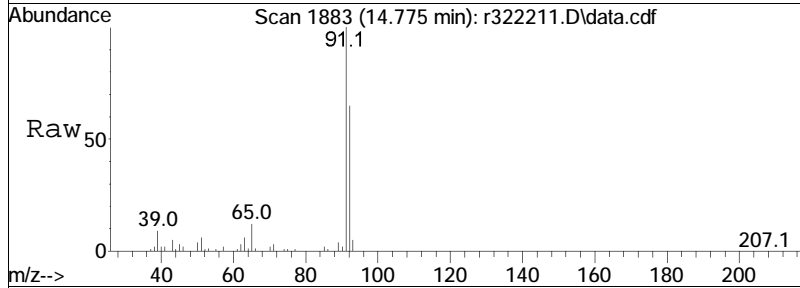
Tgt Ion:	43	58	100	Resp:	3976	Lower	Upper
Ion Ratio	100	38.0	18.1			34.3	51.5
						13.8	20.6



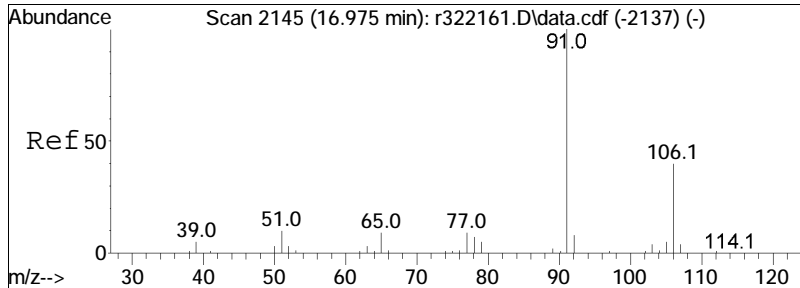


#68  
 toluene  
 Concen: 1.90 ppbV  
 RT: 14.775 min Scan# 1883  
 Delta R.T. -0.017 min  
 Lab File: r322211.D  
 Acq: 19 May 2022 3:06 AM

Tgt Ion:	91	Resp:	143629
Ion Ratio	Lower	Upper	
91	100		
92	64.9	52.7	79.1

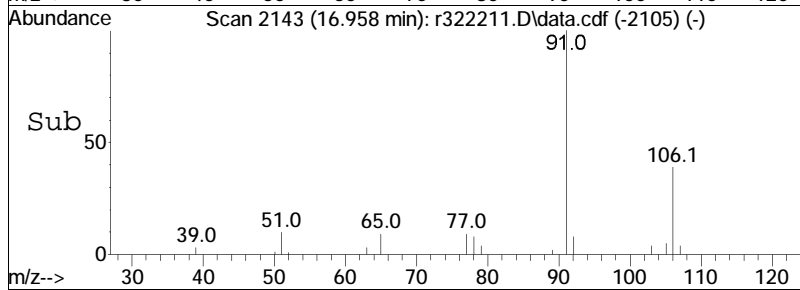
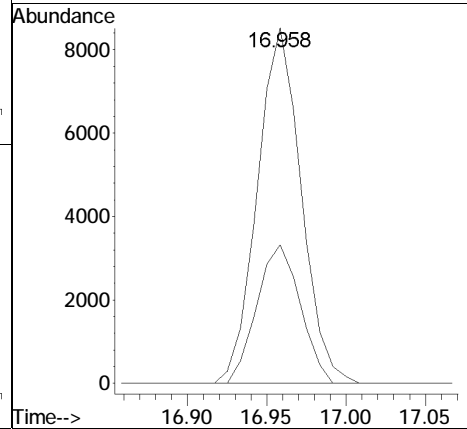
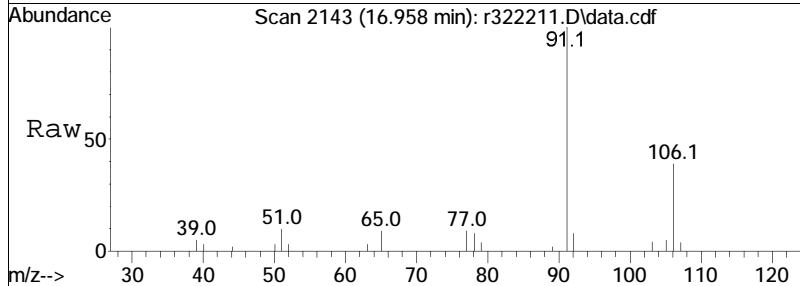


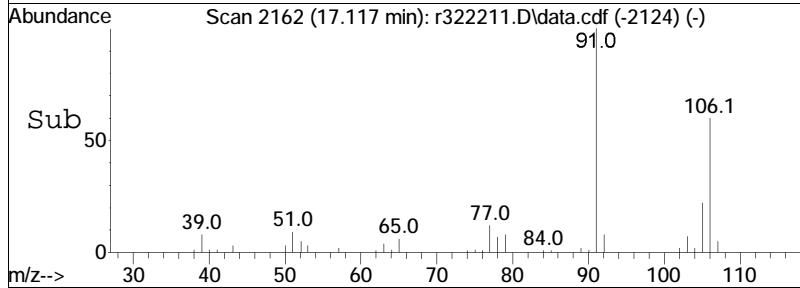
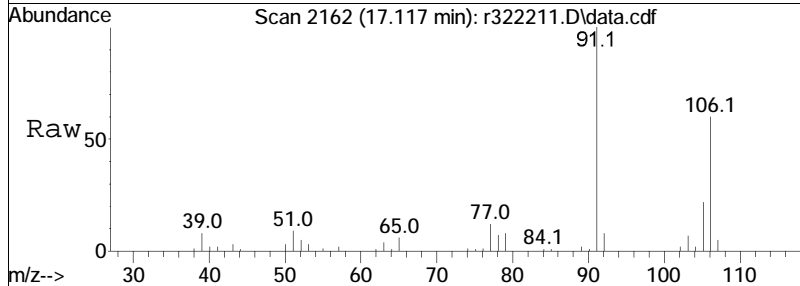
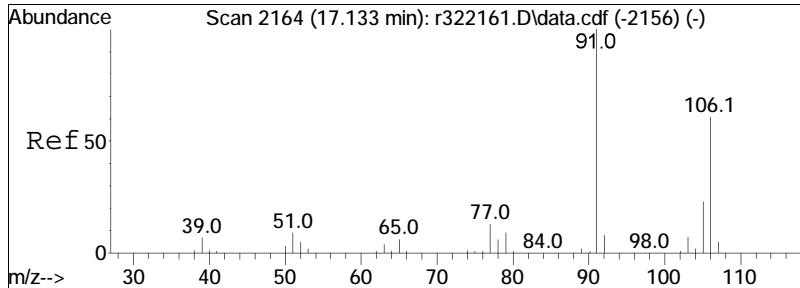




#81  
 ethylbenzene  
 Concen: 0.18 ppbV  
 RT: 16.958 min Scan# 2143  
 Delta R.T. -0.017 min  
 Lab File: r322211.D  
 Acq: 19 May 2022 3:06 AM

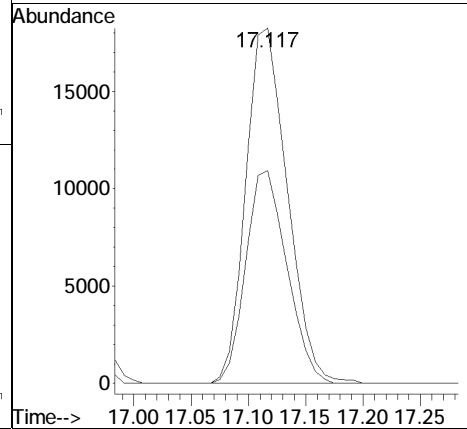
Tgt Ion	Resp	Lower	Upper
91	100		
106	39.0	32.4	48.6

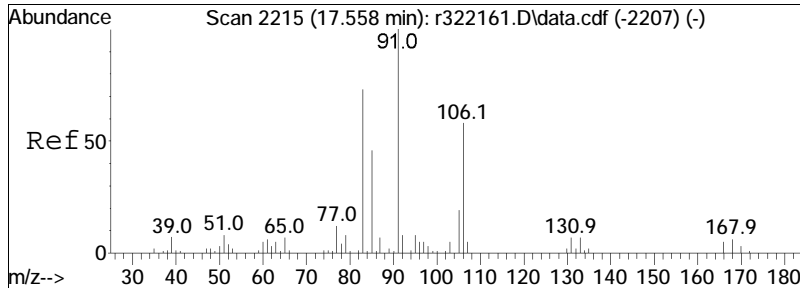




#83  
 m+p-xylene  
 Concen: 0.62 ppbV  
 RT: 17.117 min Scan# 2162  
 Delta R.T. -0.017 min  
 Lab File: r322211.D  
 Acq: 19 May 2022 3:06 AM

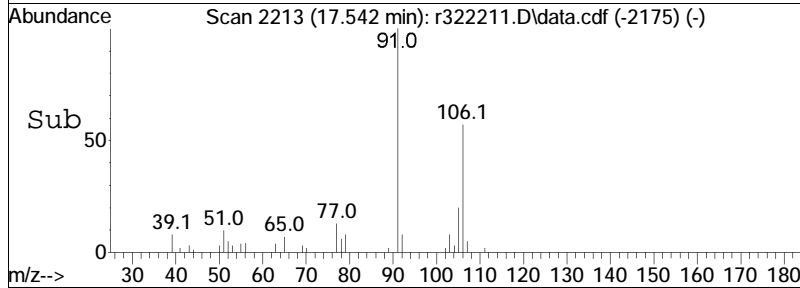
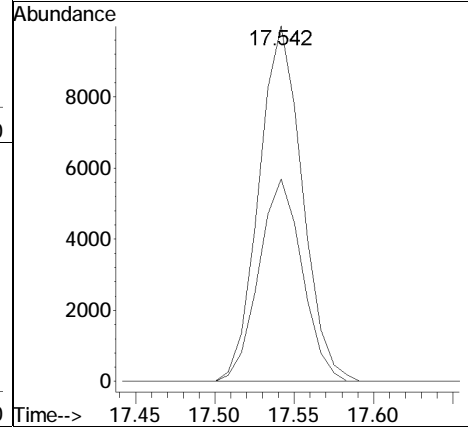
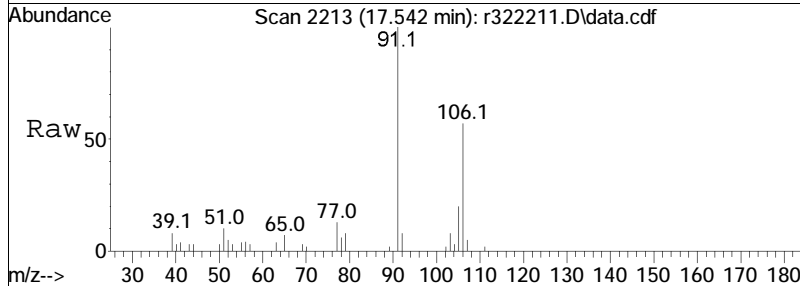
Tgt Ion: 91 Resp: 46091  
 Ion Ratio Lower Upper  
 91 100  
 106 59.9 48.4 72.6

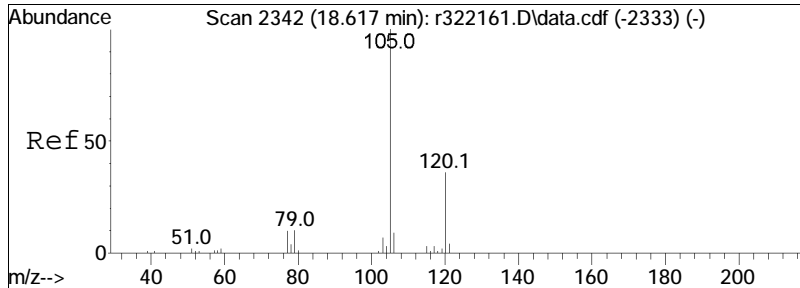




#87  
 o-xylene  
 Concen: 0.26 ppbV  
 RT: 17.542 min Scan# 2213  
 Delta R.T. -0.017 min  
 Lab File: r322211.D  
 Acq: 19 May 2022 3:06 AM

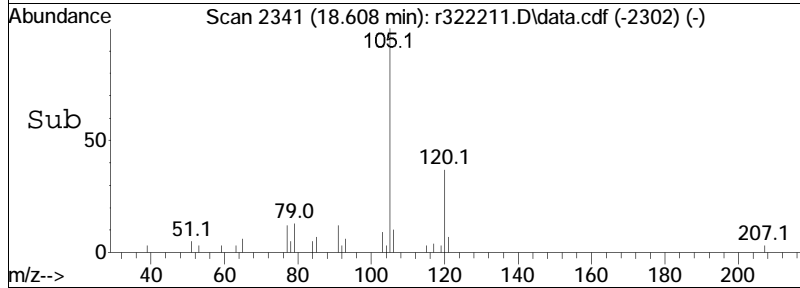
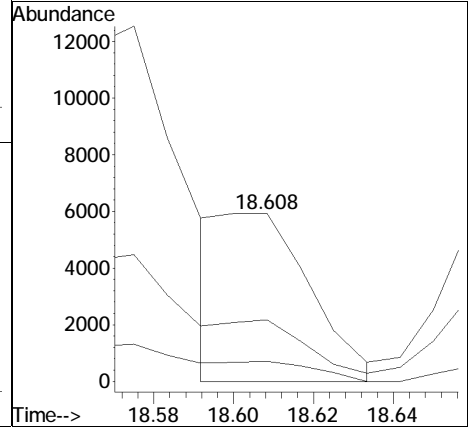
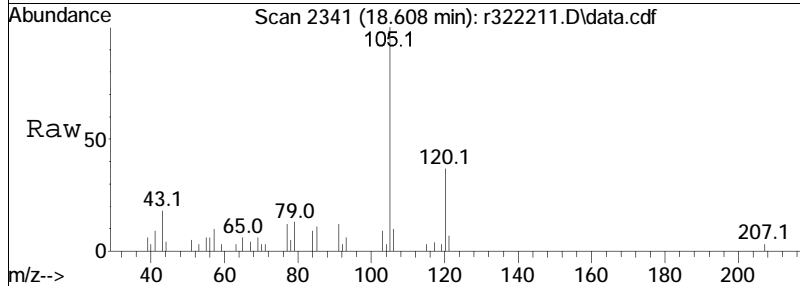
Tgt Ion: 91 Resp: 18979  
 Ion Ratio Lower Upper  
 91 100  
 106 57.0 46.4 69.6

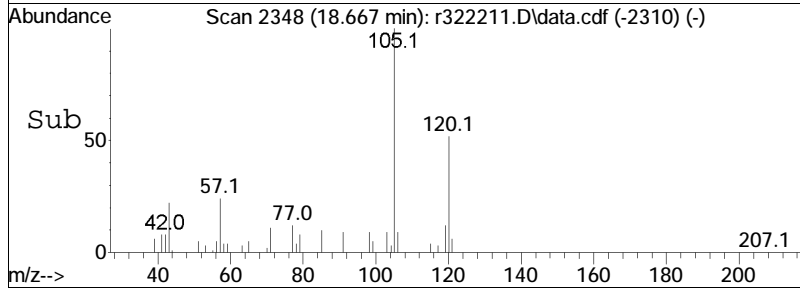
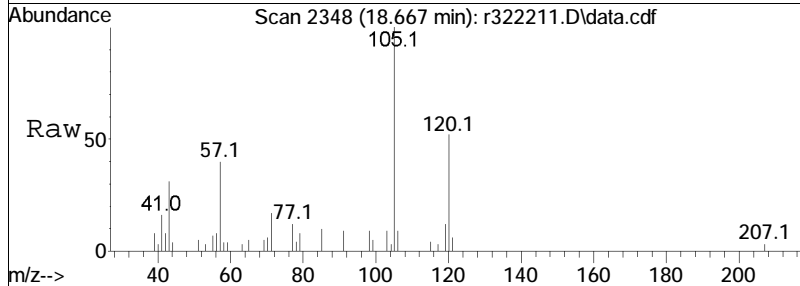
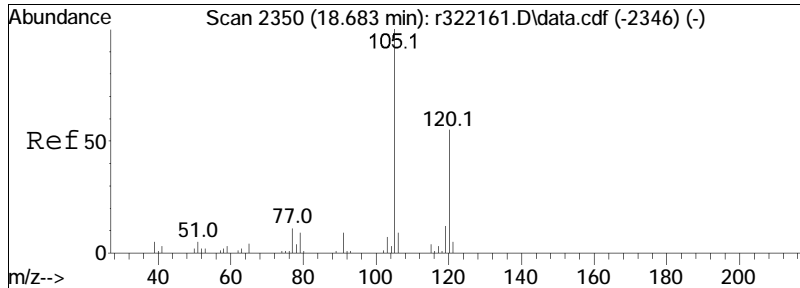




#96  
 4-ethyl toluene  
 Concen: 0.08 ppbV m  
 RT: 18.608 min Scan# 2341  
 Delta R.T. -0.008 min  
 Lab File: r322211.D  
 Acq: 19 May 2022 3:06 AM

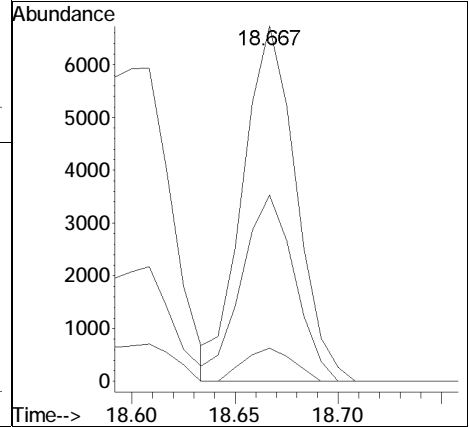
Tgt Ion	Resp	Lower	Upper
105	100		
120	36.6	28.6	42.8
91	11.9	7.4	11.2#

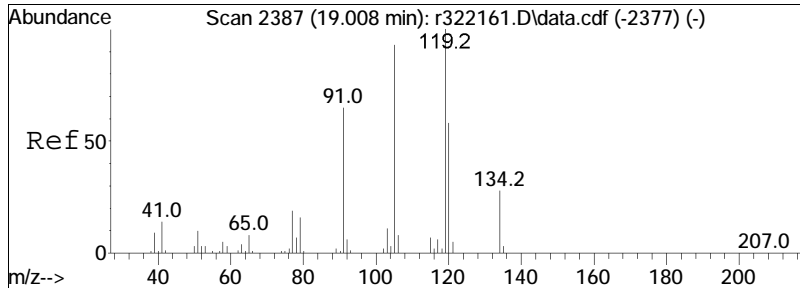




#97  
 1,3,5-trimethylbenzene  
 Concen: 0.12 ppbV  
 RT: 18.667 min Scan# 2348  
 Delta R.T. -0.017 min  
 Lab File: r322211.D  
 Acq: 19 May 2022 3:06 AM

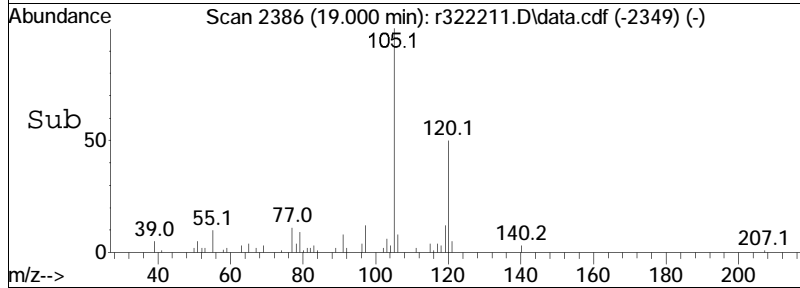
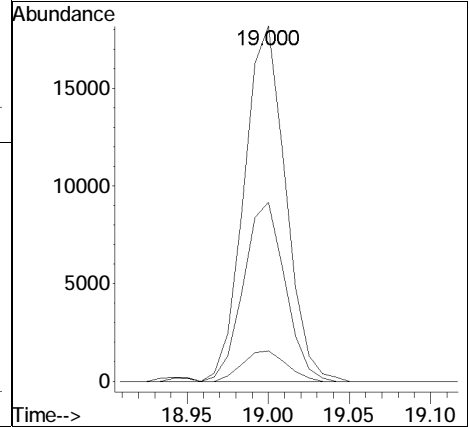
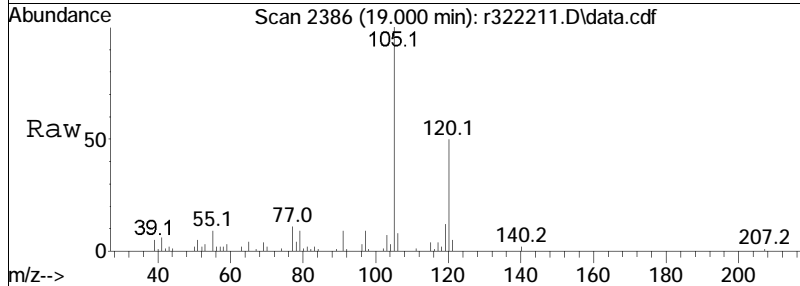
Tgt Ion	Ratio	Lower	Upper
105	100		
120	52.4	43.7	65.5
91	9.4	7.0	10.4





#99  
 1,2,4-trimethylbenzene  
 Concen: 0.36 ppbV m  
 RT: 19.000 min Scan# 2386  
 Delta R.T. -0.008 min  
 Lab File: r322211.D  
 Acq: 19 May 2022 3:06 AM

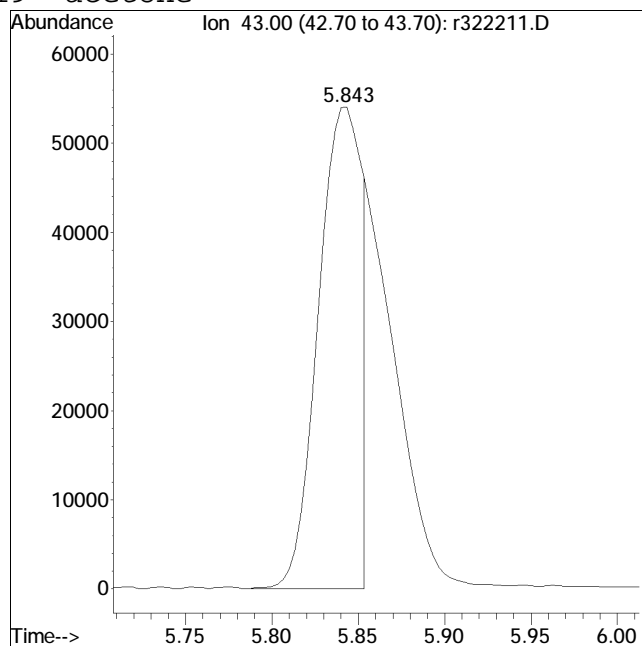
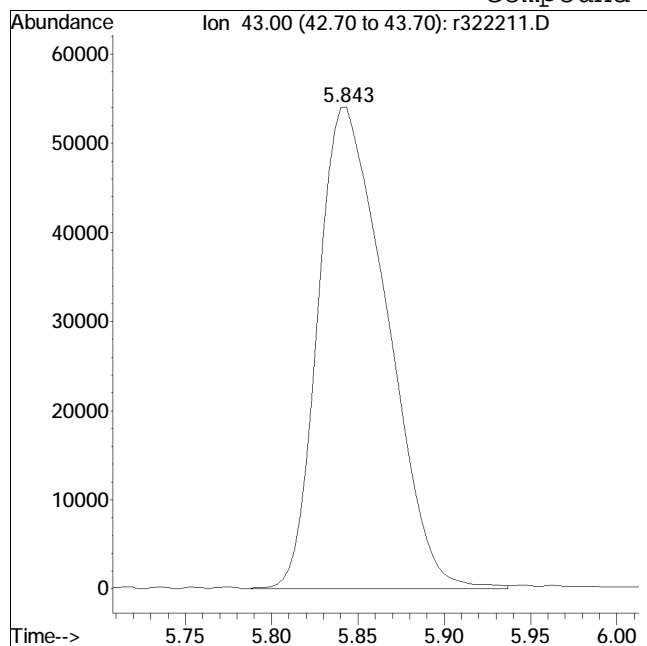
Tgt Ion	Ratio	Lower	Upper
105	100		
120	50.4	49.4	74.2
91	8.6	55.8	83.8#



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322211.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:3: 6 Instrument :  
Sample : L2225590-06,3,250,250 Quant Date : 5/19/2022 8:52 am

Compound #19: acetone



Original Peak Response = 149621

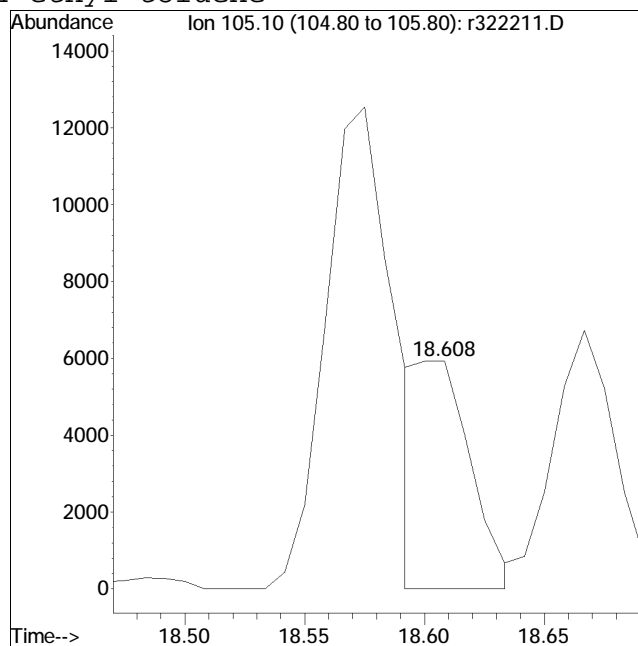
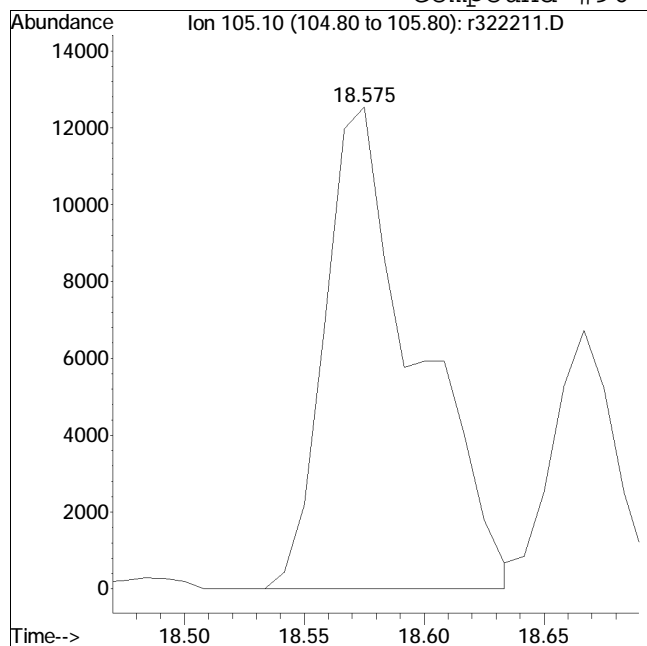
Manual Peak Response = 95448 M6

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

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322211.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:3: 6 Instrument :  
Sample : L2225590-06,3,250,250 Quant Date : 5/19/2022 8:52 am

Compound #96: 4-ethyl toluene



Original Peak Response = 33339

Manual Peak Response = 9182 M6

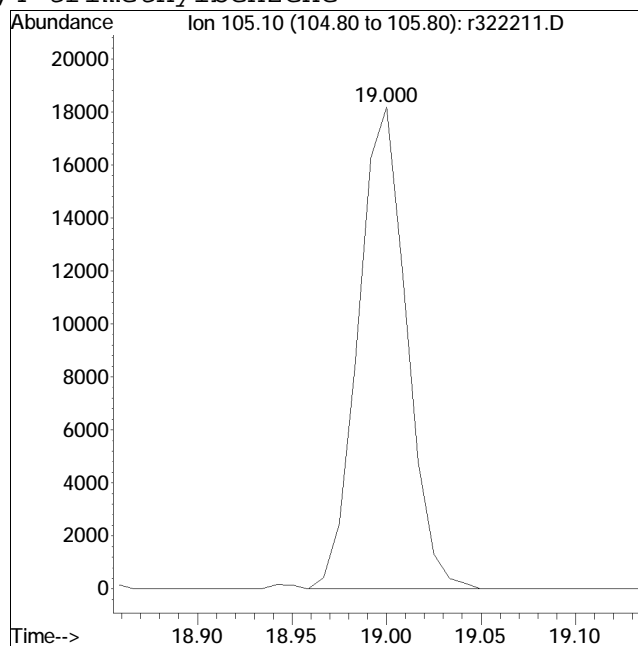
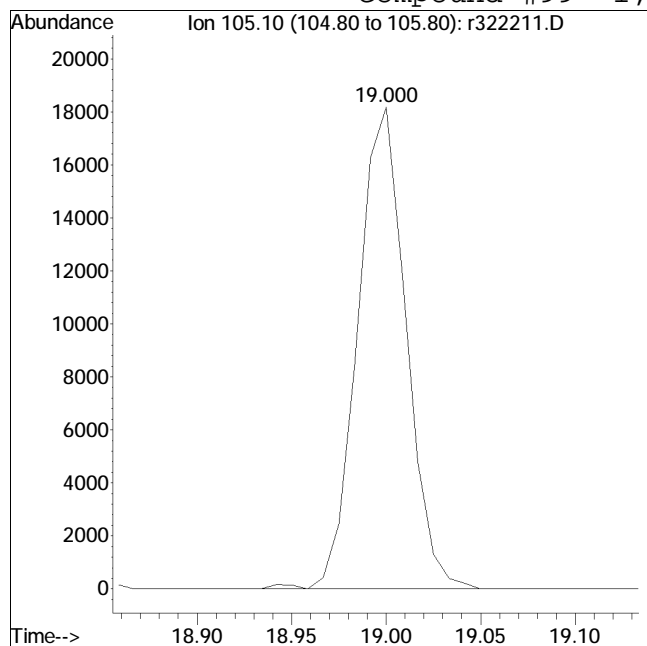
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322211.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:3: 6 Instrument :  
Sample : L2225590-06,3,250,250 Quant Date : 5/19/2022 8:52 am

Compound #99: 1,2,4-trimethylbenzene



Original Peak Response = 32435

Manual Peak Response = 32277 M6

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
 Data File : r322229.D  
 Acq On : 19 May 2022 6:57 PM  
 Operator : AIRPIANO3:TS  
 Sample : L2225590-01,3,250,250  
 Misc : WG1640711,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 20 13:20:31 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0519T\r322225.D  
 Sub List : TO15-NY - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) bromochloromethane	9.550	49	433447	10.000	ppbV	-0.02
Standard Area =	440035		Recovery =	98.50%		
43) 1,4-difluorobenzene	11.827	114	1312934	10.000	ppbV	-0.01
Standard Area =	1334123		Recovery =	98.41%		
67) chlorobenzene-D5	16.575	54	219560	10.000	ppbV	0.00
Standard Area =	210666		Recovery =	104.22%		

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) dichlorodifluoromethane	3.952	85	49443	1.450	ppbV	100
6) chloromethane	4.132	50	2097	0.128	ppbV	98
7) Freon-114	0.000		0	N.D.		
9) vinyl chloride	4.390	62	2141	0.101	ppbV	99
10) 1,3-butadiene	4.558	54	5320	0.311	ppbV	98
13) bromomethane	0.000		0	N.D.		
14) chloroethane	5.098		0	N.D.		
15) ethanol	5.270	31	1885956	113.252	ppbV	96
17) vinyl bromide	0.000		0	N.D.		
19) acetone	5.830	43	8576261	361.175	ppbV	98
21) trichlorofluoromethane	6.047	101	10783	0.348	ppbV	98
22) isopropyl alcohol	6.167	45	2669206	93.417	ppbV	100
26) 1,1-dichloroethene	0.000		0	N.D.	d	
27) tertiary butyl alcohol	6.896	59	720331	20.262	ppbV	98
28) methylene chloride	6.992	49	3234	0.120	ppbV	99
29) 3-chloropropene	0.000		0	N.D.		
30) carbon disulfide	7.280	76	66904	1.080	ppbV #	29
31) Freon 113	7.328	101	2317	0.067	ppbV	98
32) trans-1,2-dichloroethene	0.000		0	N.D.		
33) 1,1-dichloroethane	8.442		0	N.D.		
34) MTBE	0.000		0	N.D.	d	
36) 2-butanone	8.833	43	2017614	46.730	ppbV	100
37) cis-1,2-dichloroethene	9.267		0	N.D.		
38) Ethyl Acetate	9.675	61	525	0.075	ppbV	68
39) chloroform	9.717		0	N.D.		
40) Tetrahydrofuran	10.158	42	5331M6	0.214	ppbV	
42) 1,2-dichloroethane	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
 Data File : r322229.D  
 Acq On : 19 May 2022 6:57 PM  
 Operator : AIRPIANO3:TS  
 Sample : L2225590-01,3,250,250  
 Misc : WG1640711,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 20 13:20:31 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0519T\r322225.D  
 Sub List : TO15-NY - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
44) hexane	9.625	57	79896	2.135	ppbV	#	43
48) 1,1,1-trichloroethane	10.858	97	16627	0.587	ppbV		99
50) benzene	11.387	78	460800	5.995	ppbV		100
52) carbon tetrachloride	11.567		0	N.D.			
53) cyclohexane	11.707	56	116614	2.996	ppbV		95
56) 1,2-dichloropropane	0.000		0	N.D.			
57) bromodichloromethane	0.000		0	N.D.	d		
58) 1,4-dioxane	12.633	88	15224	0.970	ppbV		100
59) trichloroethene	12.627	130	3627	0.123	ppbV		98
60) 2,2,4-trimethylpentane	12.673	57	81214	0.702	ppbV	#	78
62) heptane	13.000	43	72388	1.678	ppbV		97
63) cis-1,3-dichloropropene	13.783		0	N.D.			
64) 4-methyl-2-pentanone	13.683	43	135810M6	2.748	ppbV		
65) trans-1,3-dichloropropene	14.425		0	N.D.			
66) 1,1,2-trichloroethane	14.558		0	N.D.			
68) toluene	14.783	91	333546	4.044	ppbV		99
72) 2-hexanone	15.067	43	132181	2.663	ppbV		90
74) dibromochloromethane	0.000		0	N.D.			
75) 1,2-dibromoethane	0.000		0	N.D.			
78) tetrachloroethene	15.950	166	90277	2.259	ppbV		98
80) chlorobenzene	0.000		0	N.D.	d		
81) ethylbenzene	16.967	91	85728	0.866	ppbV		100
83) m+p-xylene	17.117	91	255708	3.163	ppbV		100
84) bromoform	0.000		0	N.D.			
85) styrene	17.458	104	16798	0.234	ppbV		99
86) 1,1,2,2-tetrachloroethane	0.000		0	N.D.	d		
87) o-xylene	17.550	91	94982	1.179	ppbV		99
96) 4-ethyl toluene	18.608	105	33060M6	0.270	ppbV		
97) 1,3,5-trimethylbenzene	18.675	105	36373	0.324	ppbV		99
99) 1,2,4-trimethylbenzene	19.000	105	117061M6	1.190	ppbV		
101) Benzyl Chloride	0.000		0	N.D.	d		
102) 1,3-dichlorobenzene	19.133	146	4458	0.060	ppbV	#	61
103) 1,4-dichlorobenzene	19.183		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 : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
Data File : r322229.D  
Acq On : 19 May 2022 6:57 PM  
Operator : AIRPIANO3:TS  
Sample : L2225590-01,3,250,250  
Misc : WG1640711,ICAL19030  
ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 20 13:20:31 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 15:52:12 2022  
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0519T\r322225.D  
Sub List : TO15-NY - .

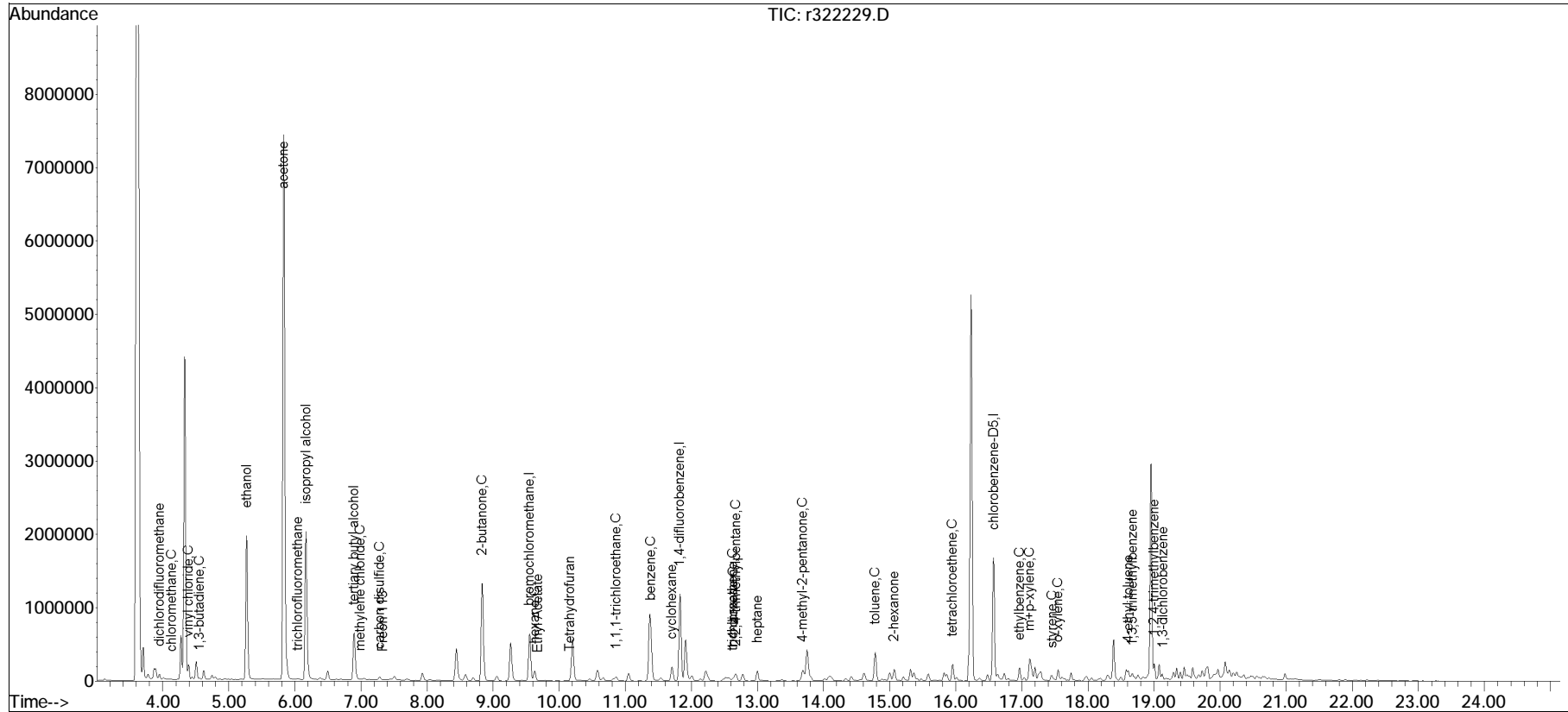
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
----------	------	------	----------	------	-------	----------

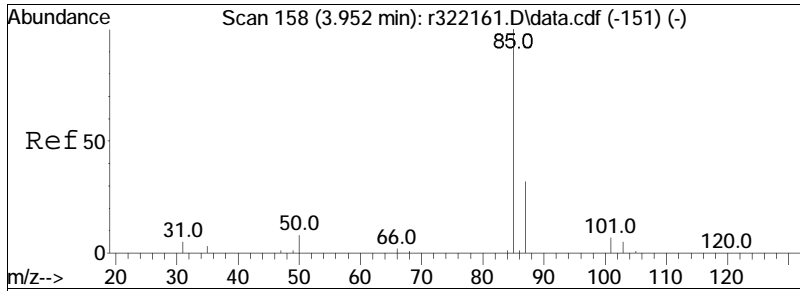
-----

Sub List : TO15-NY - .s\Data\Airpiano3\2022\05\0519T\r322225.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
Data File : r322229.D  
Acq On : 19 May 2022 6:57 PM  
Operator : AIRPIANO3:TS  
Sample : L2225590-01,3,250,250  
Misc : WG1640711,ICAL19030  
ALS Vial : 0 Sample Multiplier: 1

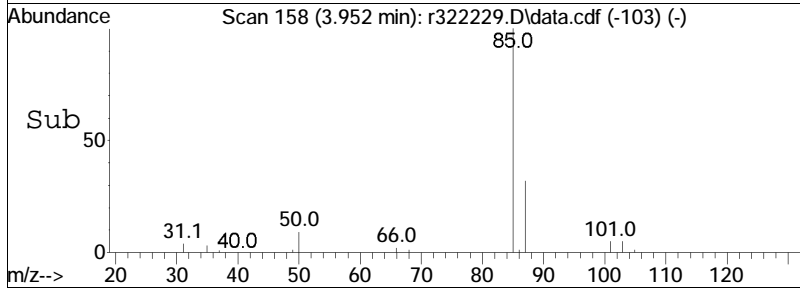
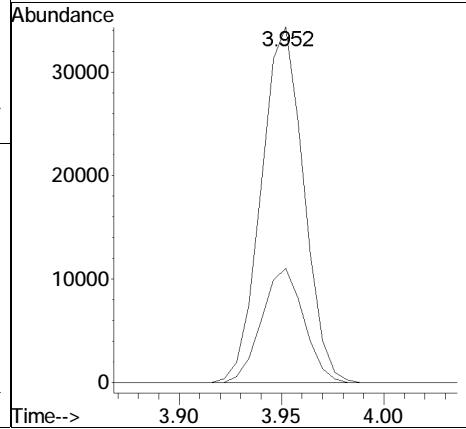
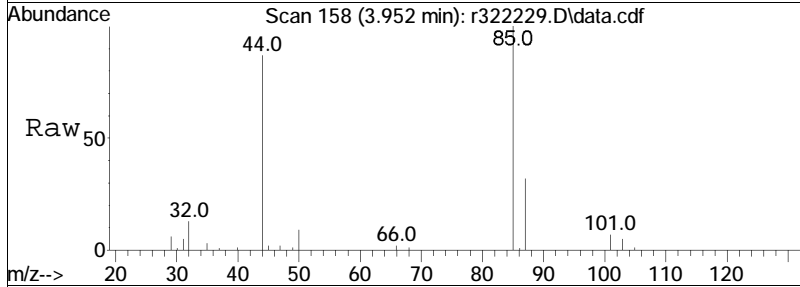
Quant Time: May 20 13:20:31 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 15:52:12 2022  
Response via : Initial Calibration

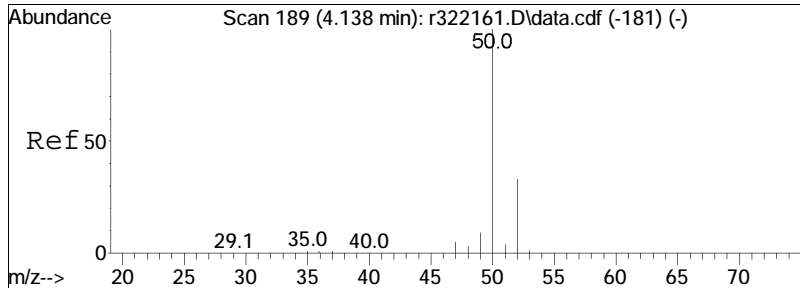




#5  
 dichlorodifluoromethane  
 Concen: 1.45 ppbV  
 RT: 3.952 min Scan# 158  
 Delta R.T. 0.000 min  
 Lab File: r322229.D  
 Acq: 19 May 2022 6:57 PM

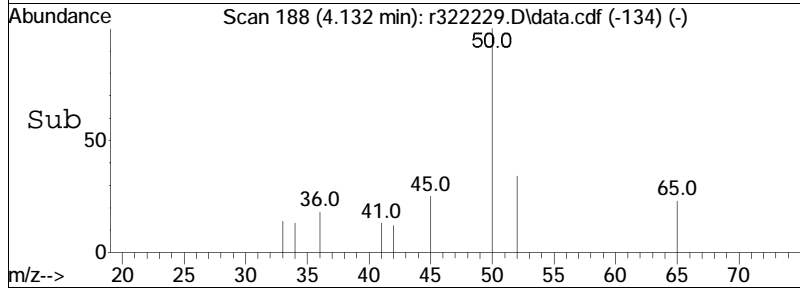
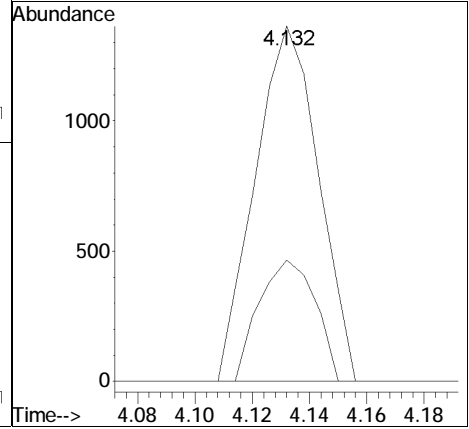
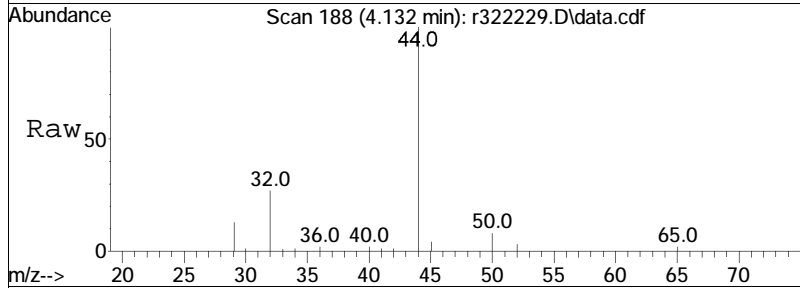
Tgt Ion: 85 Resp: 49443  
 Ion Ratio Lower Upper  
 85 100  
 87 32.1 25.8 38.6

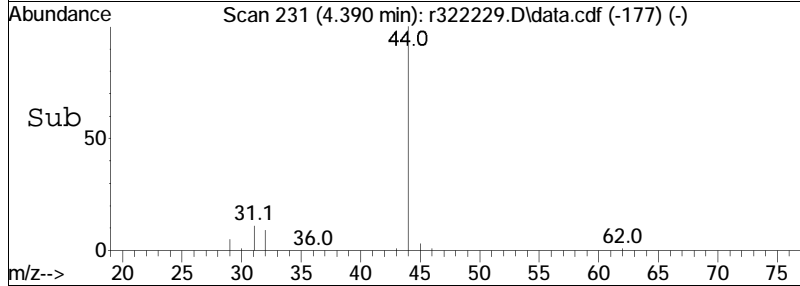
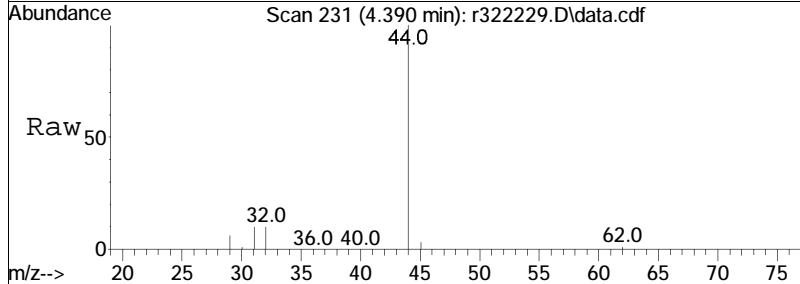
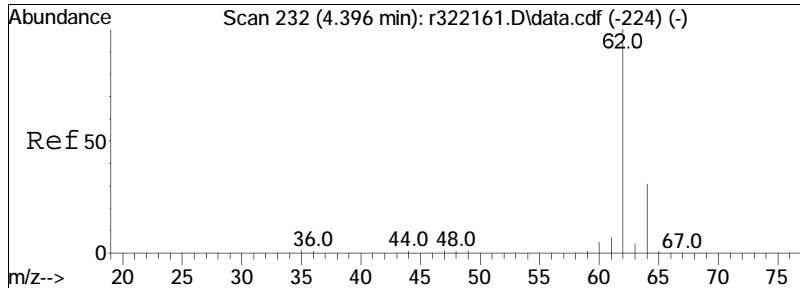




#6  
 chloromethane  
 Concen: 0.13 ppbV  
 RT: 4.132 min Scan# 188  
 Delta R.T. -0.006 min  
 Lab File: r322229.D  
 Acq: 19 May 2022 6:57 PM

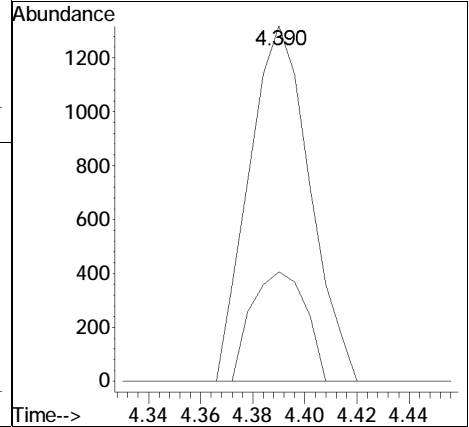
Tgt Ion: 50 Resp: 2097  
 Ion Ratio Lower Upper  
 50 100  
 52 34.2 26.3 39.5



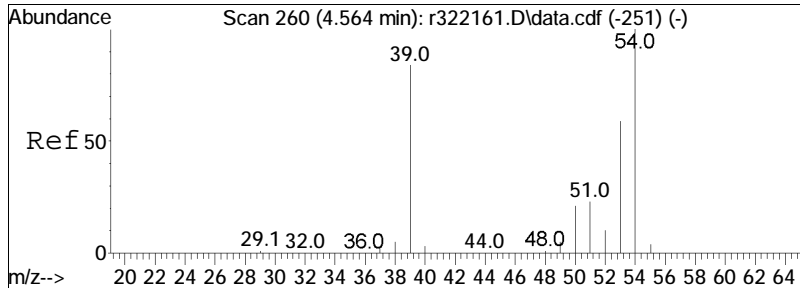


#9  
 vinyl chloride  
 Concen: 0.10 ppbV  
 RT: 4.390 min Scan# 231  
 Delta R.T. -0.006 min  
 Lab File: r322229.D  
 Acq: 19 May 2022 6:57 PM

Tgt Ion:	62	64	Resp:	2141
Ion Ratio	100	30.8	Lower	Upper
			24.4	36.6

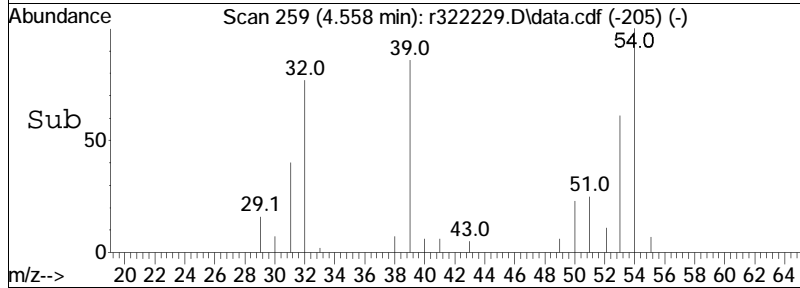
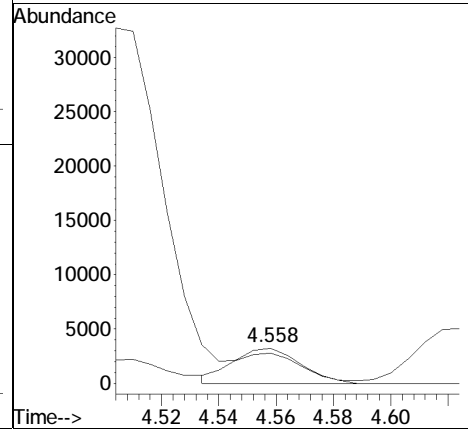
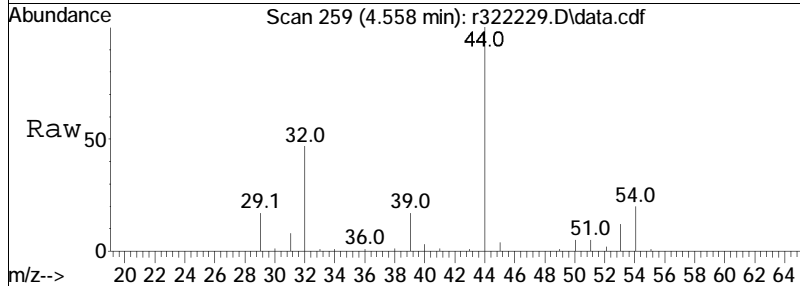


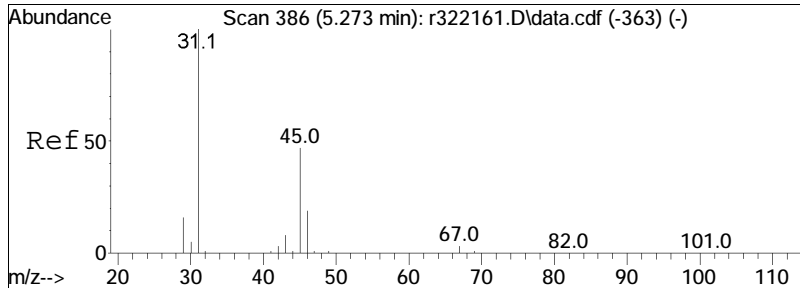




#10  
 1,3-butadiene  
 Concen: 0.31 ppbV  
 RT: 4.558 min Scan# 259  
 Delta R.T. -0.006 min  
 Lab File: r322229.D  
 Acq: 19 May 2022 6:57 PM

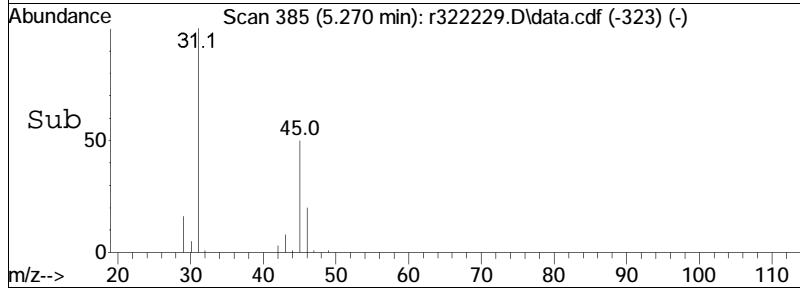
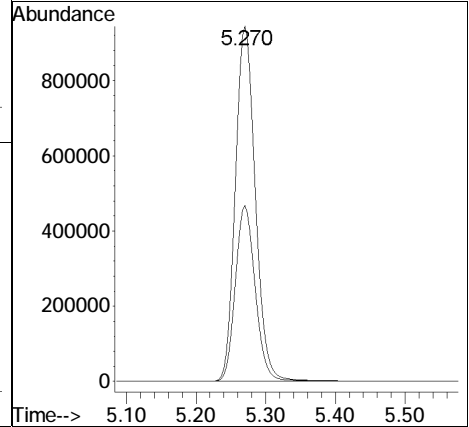
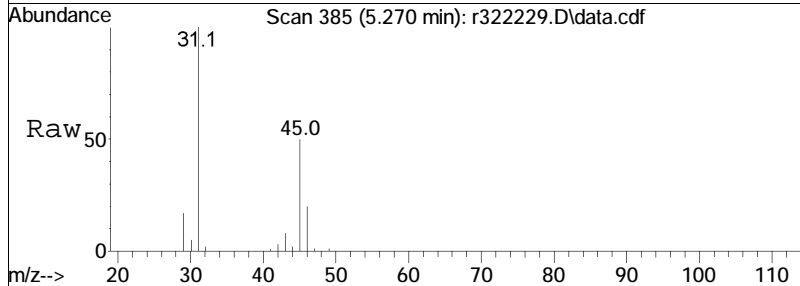
Tgt Ion: 54 Resp: 5320  
 Ion Ratio Lower Upper  
 54 100  
 39 86.3 67.8 101.8

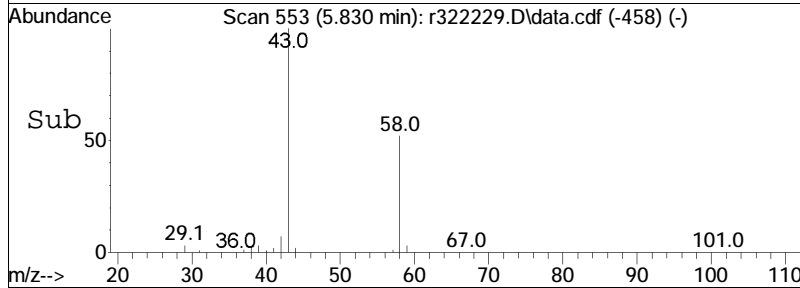
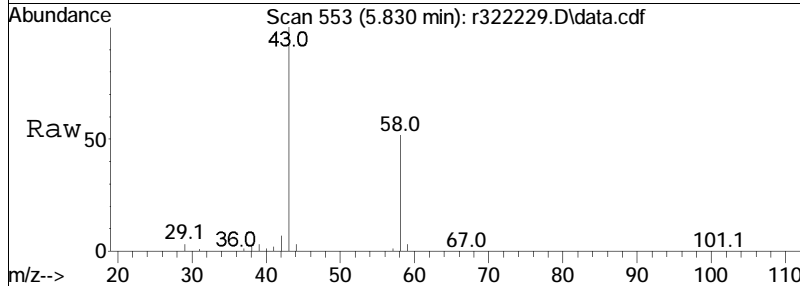
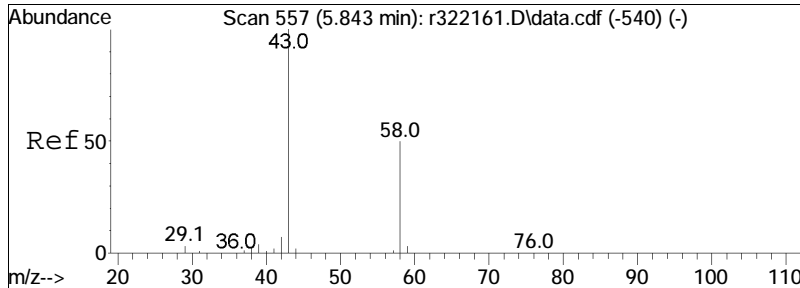




#15  
 ethanol  
 Concen: 113.25 ppbV  
 RT: 5.270 min Scan# 385  
 Delta R.T. -0.003 min  
 Lab File: r322229.D  
 Acq: 19 May 2022 6:57 PM

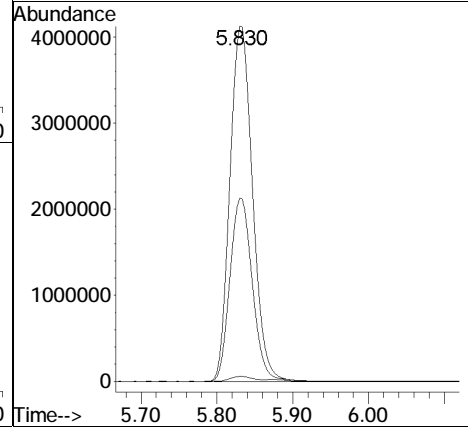
Tgt Ion: 31 Resp: 1885956  
 Ion Ratio Lower Upper  
 31 100  
 45 49.6 37.6 56.4

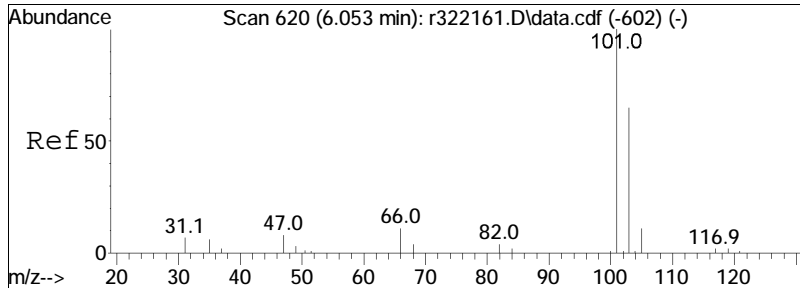




#19  
 acetone  
 Concen: 361.17 ppbV  
 RT: 5.830 min Scan# 553  
 Delta R.T. -0.013 min  
 Lab File: r322229.D  
 Acq: 19 May 2022 6:57 PM

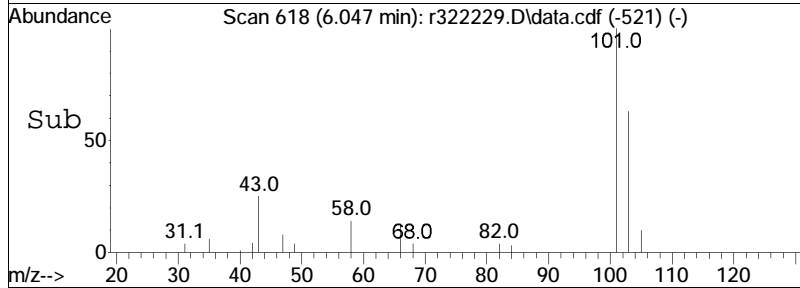
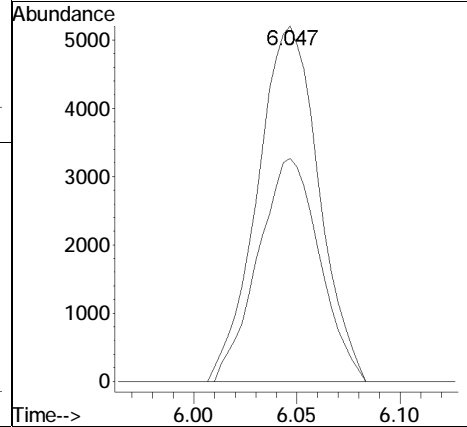
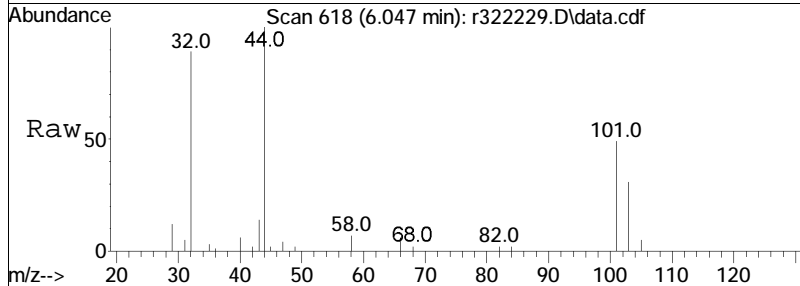
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
43	100		
58	51.6	39.8	59.8
57	1.4	1.0	1.6

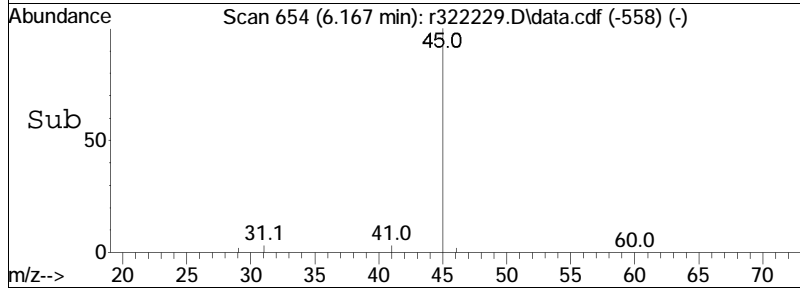
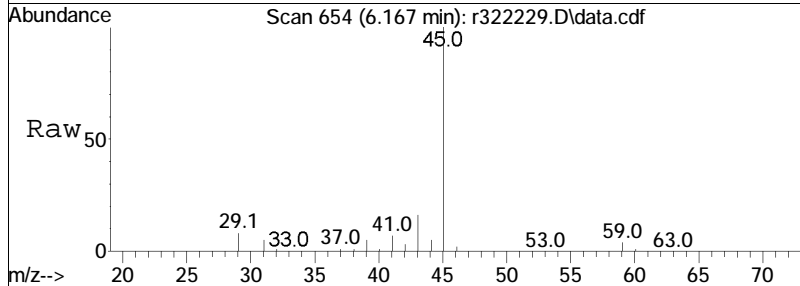
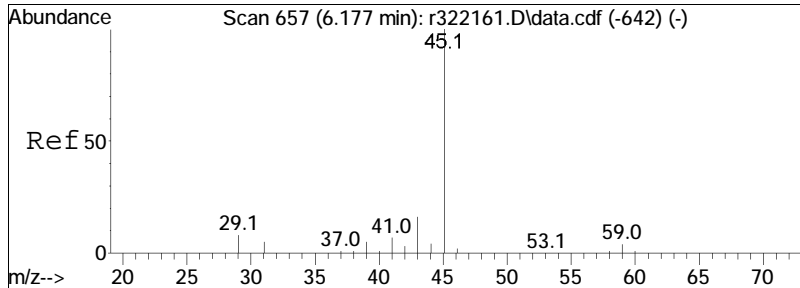




#21  
 trichlorofluoromethane  
 Concen: 0.35 ppbV  
 RT: 6.047 min Scan# 618  
 Delta R.T. -0.007 min  
 Lab File: r322229.D  
 Acq: 19 May 2022 6:57 PM

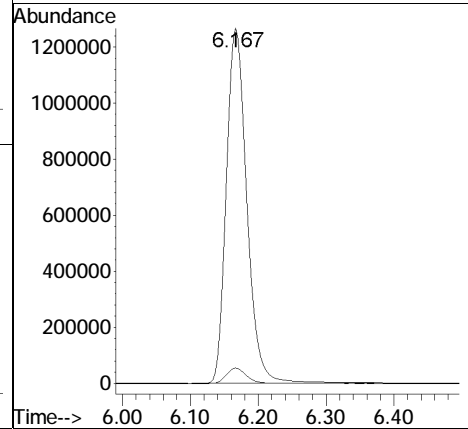
Tgt Ion	Ratio	Lower	Upper
101	100		
103	62.8	51.8	77.6

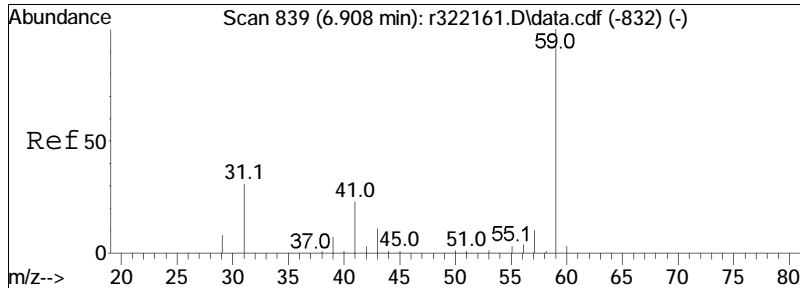




#22  
 isopropyl alcohol  
 Concen: 93.42 ppbV  
 RT: 6.167 min Scan# 654  
 Delta R.T. -0.010 min  
 Lab File: r322229.D  
 Acq: 19 May 2022 6:57 PM

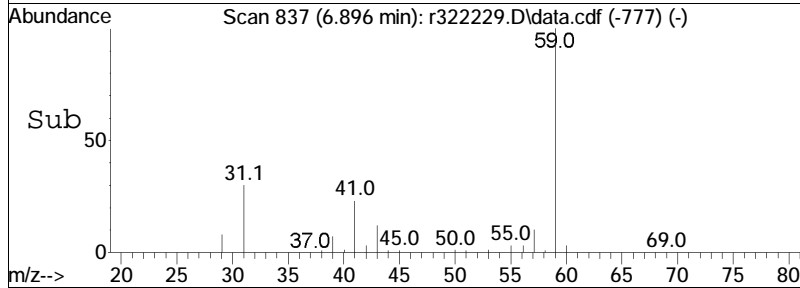
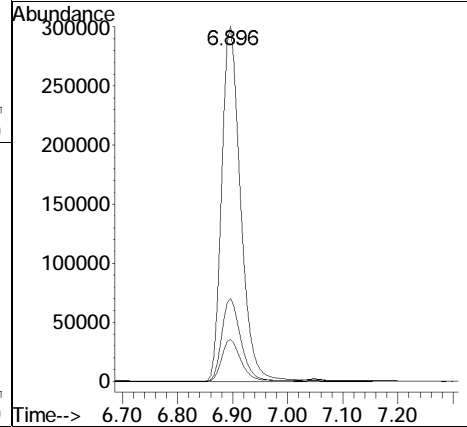
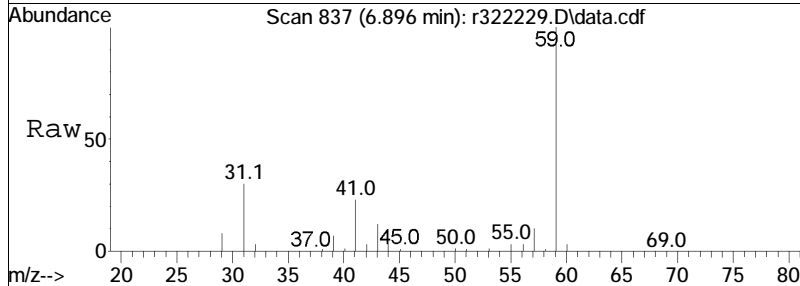
Tgt Ion:	45	59	Resp:	2669206
Ion Ratio	100	4.3	Lower	Upper
			3.5	5.3

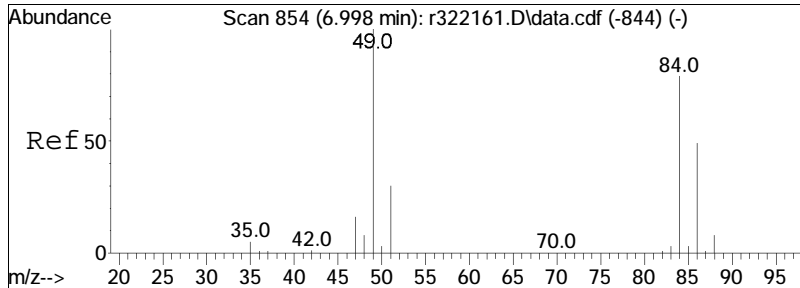




#27  
 tertiary butyl alcohol  
 Concen: 20.26 ppbV  
 RT: 6.896 min Scan# 837  
 Delta R.T. -0.012 min  
 Lab File: r322229.D  
 Acq: 19 May 2022 6:57 PM

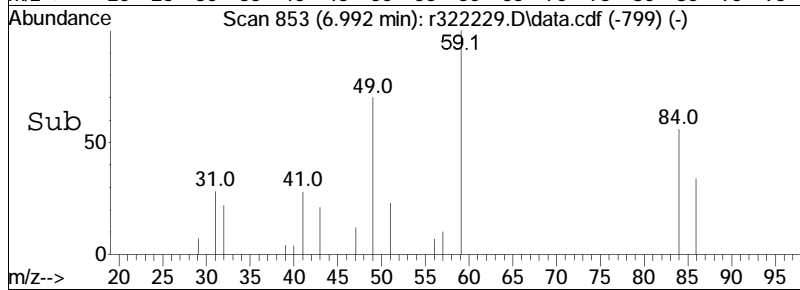
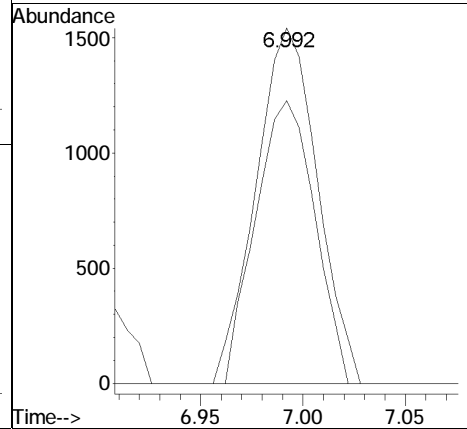
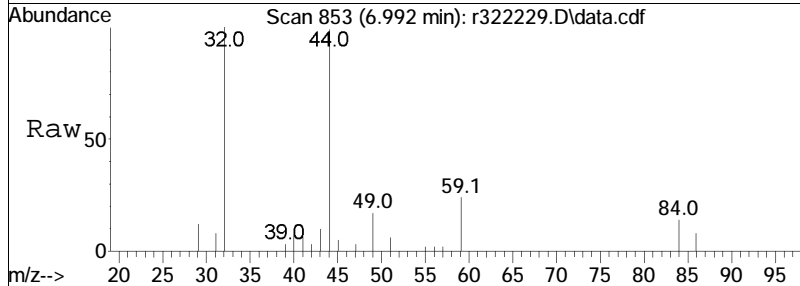
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
59	100		
41	23.4	18.2	27.2
43	11.8	8.9	13.3

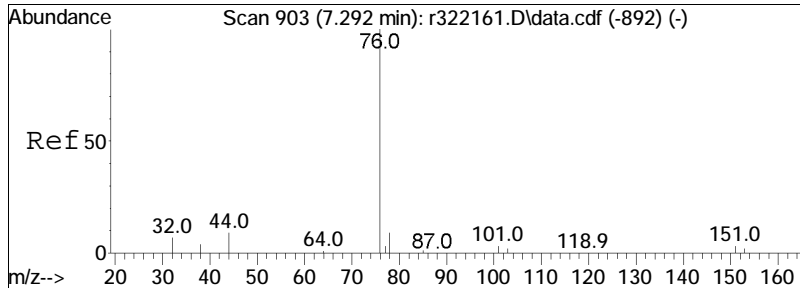




#28  
 methylene chloride  
 Concen: 0.12 ppbV  
 RT: 6.992 min Scan# 853  
 Delta R.T. -0.006 min  
 Lab File: r322229.D  
 Acq: 19 May 2022 6:57 PM

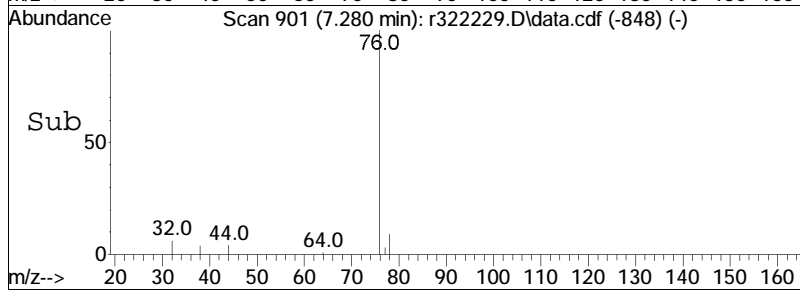
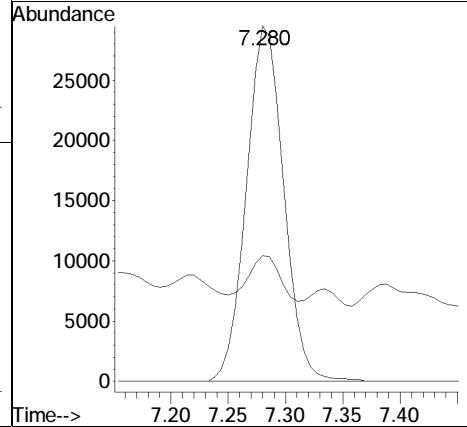
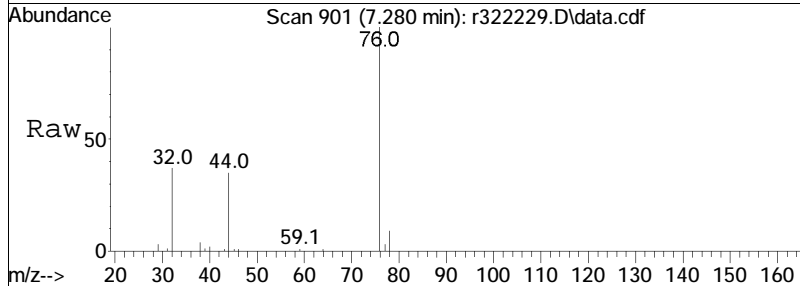
Tgt Ion:	49	84	Resp:	3234
Ion Ratio	100	79.6	Lower	Upper
			63.0	94.6



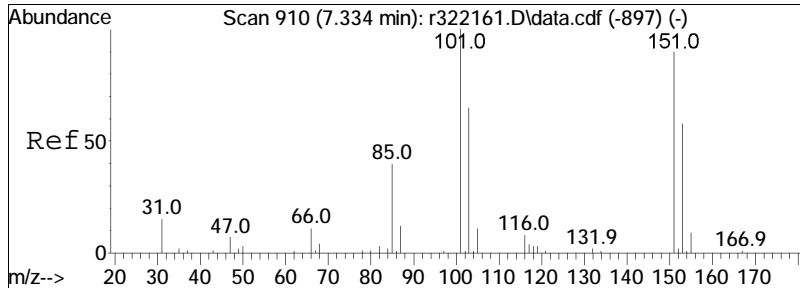


#30  
 carbon disulfide  
 Concen: 1.08 ppbV  
 RT: 7.280 min Scan# 901  
 Delta R.T. -0.012 min  
 Lab File: r322229.D  
 Acq: 19 May 2022 6:57 PM

Tgt Ion: 76 Resp: 66904  
 Ion Ratio Lower Upper  
 76 100  
 44 35.4 7.6 11.4#

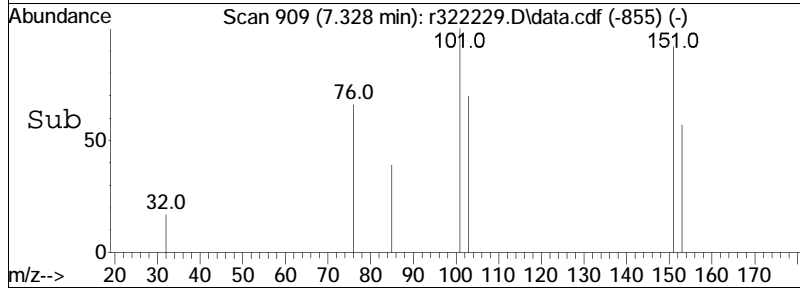
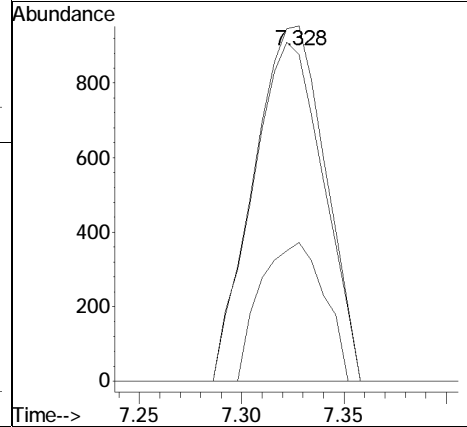
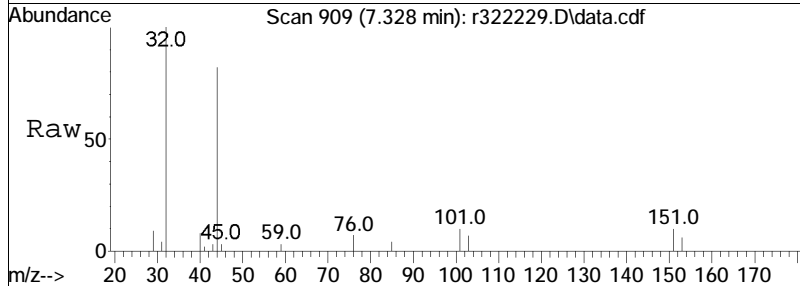


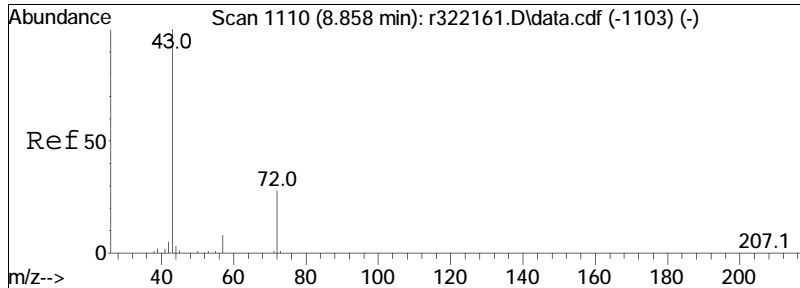




#31  
 Freon 113  
 Concen: 0.07 ppbV  
 RT: 7.328 min Scan# 909  
 Delta R.T. -0.006 min  
 Lab File: r322229.D  
 Acq: 19 May 2022 6:57 PM

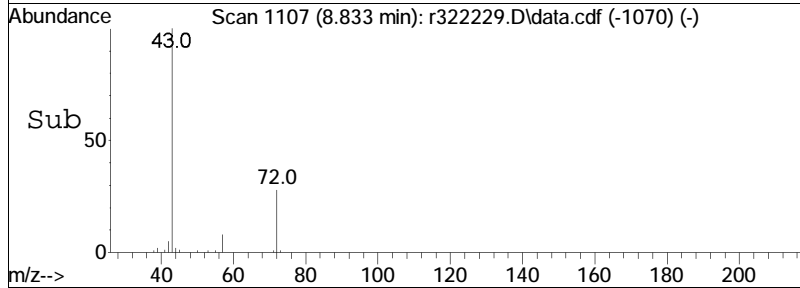
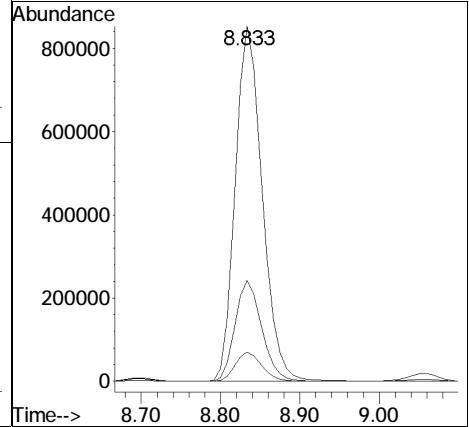
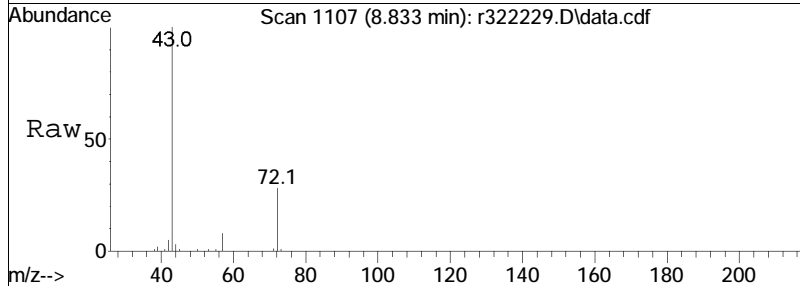
Tgt Ion	Ratio	Lower	Upper
101	100		
85	39.0	31.8	47.8
151	91.9	72.2	108.4

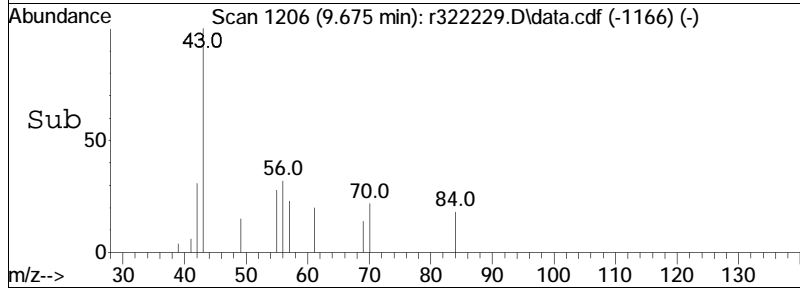
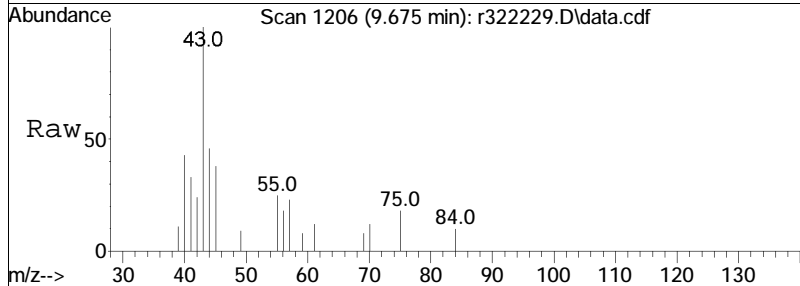
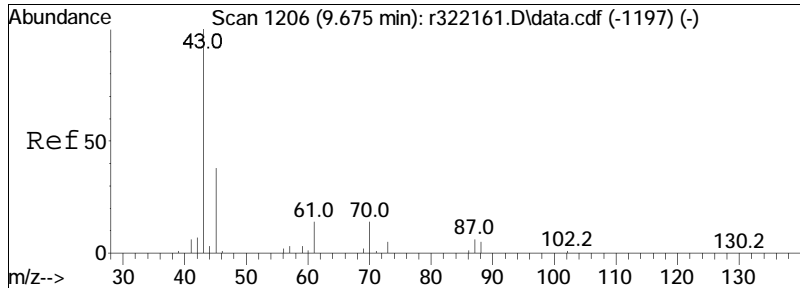




#36  
 2-butanone  
 Concen: 46.73 ppbV  
 RT: 8.833 min Scan# 1107  
 Delta R.T. -0.025 min  
 Lab File: r322229.D  
 Acq: 19 May 2022 6:57 PM

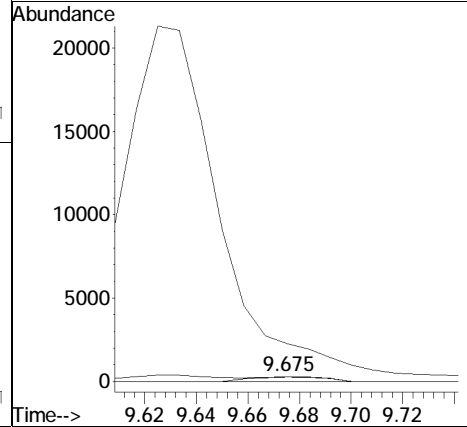
Tgt Ion	Resp	Lower	Upper
43	100		
72	28.4	22.6	33.8
57	8.3	6.6	10.0

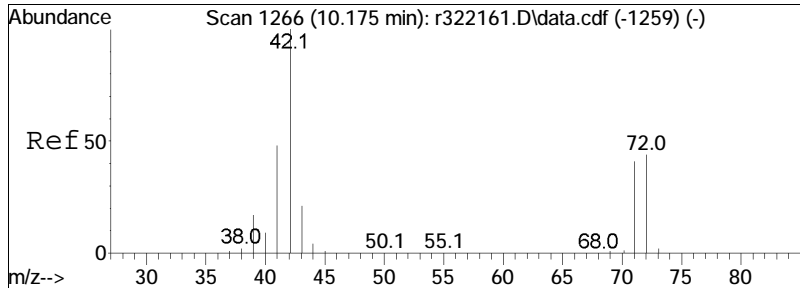




#38  
 Ethyl Acetate  
 Concen: 0.07 ppbV  
 RT: 9.675 min Scan# 1206  
 Delta R.T. 0.000 min  
 Lab File: r322229.D  
 Acq: 19 May 2022 6:57 PM

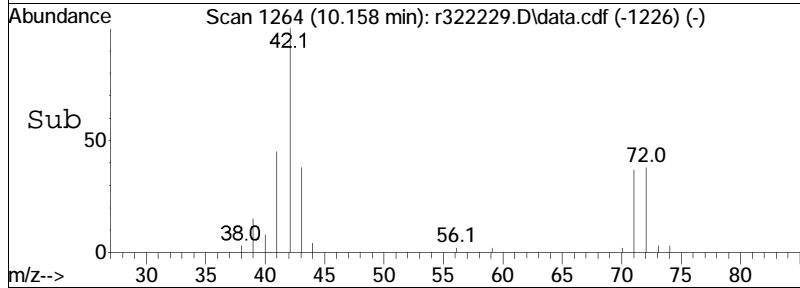
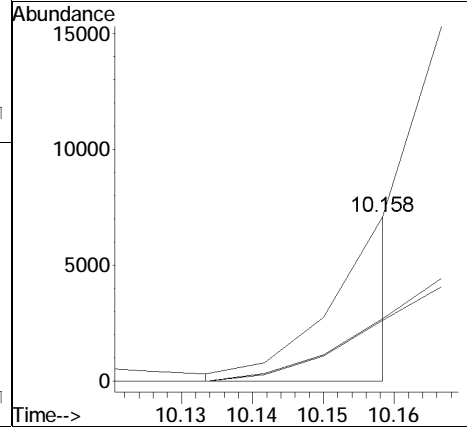
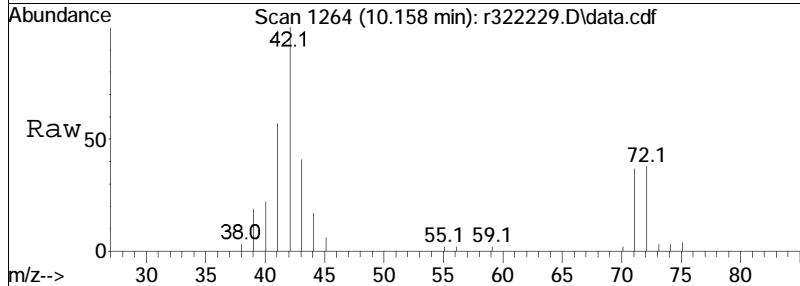
Tgt Ion:	Resp:	Lower	Upper
61	100		
70	106.5	78.8	118.2
43	868.3	593.4	890.0

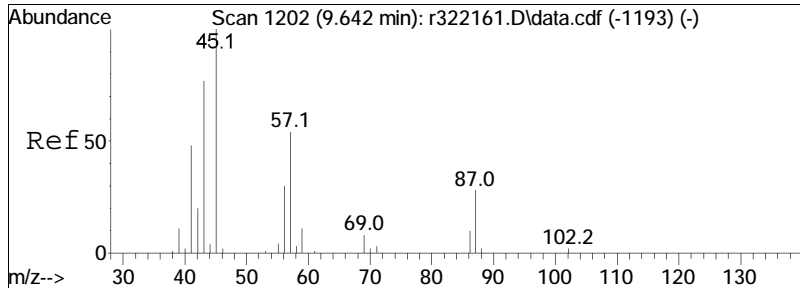




#40  
 Tetrahydrofuran  
 Concen: 0.21 ppbV m  
 RT: 10.158 min Scan# 1264  
 Delta R.T. -0.017 min  
 Lab File: r322229.D  
 Acq: 19 May 2022 6:57 PM

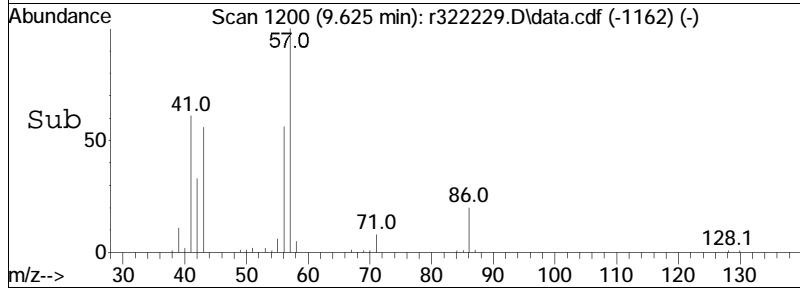
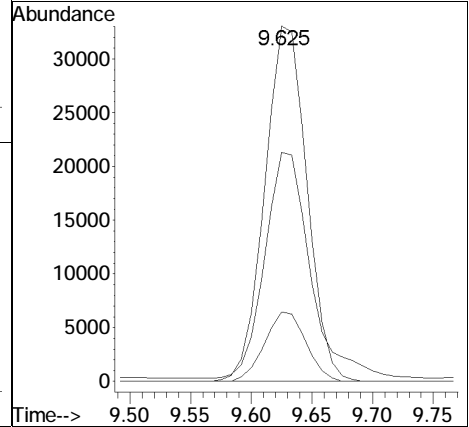
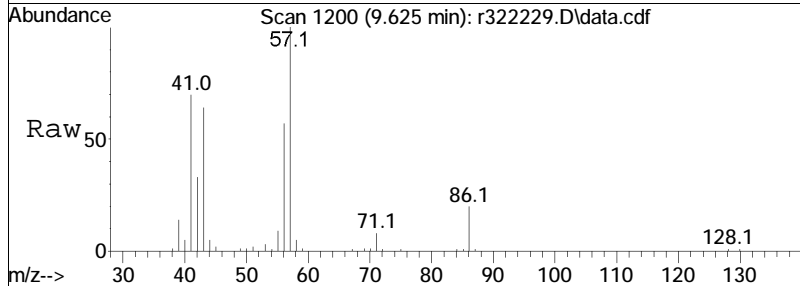
Tgt Ion	Resp	Lower	Upper
42	100		
71	37.1	32.4	48.6
72	38.1	35.2	52.8

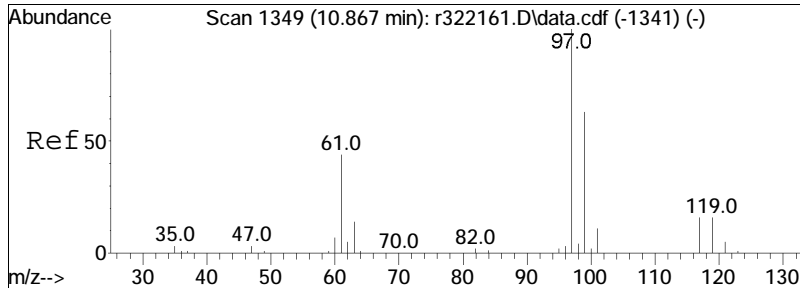




#44  
 hexane  
 Concen: 2.13 ppbV  
 RT: 9.625 min Scan# 1200  
 Delta R.T. -0.017 min  
 Lab File: r322229.D  
 Acq: 19 May 2022 6:57 PM

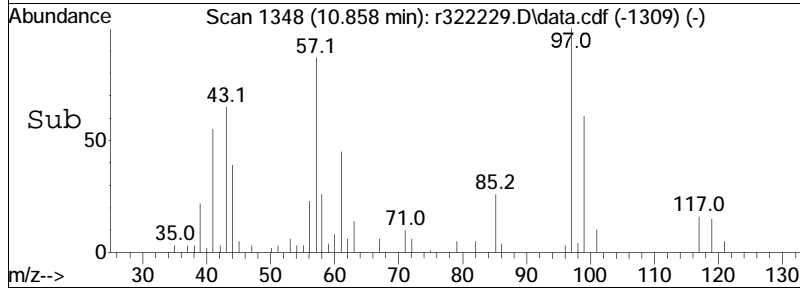
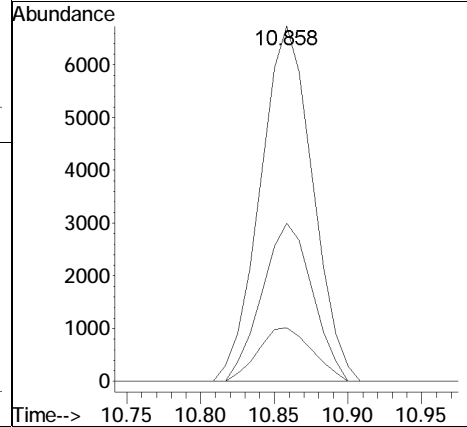
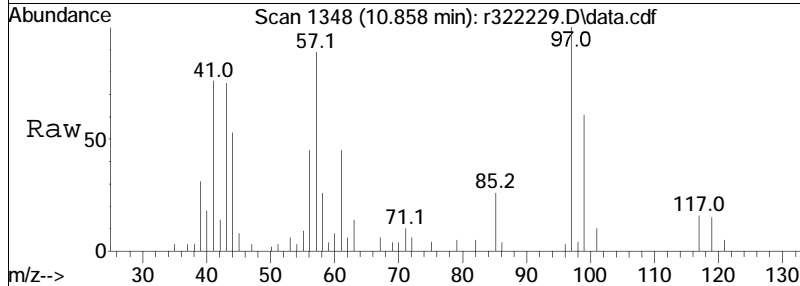
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
57	100		
43	64.5	115.0	172.6#
86	19.6	15.5	23.3

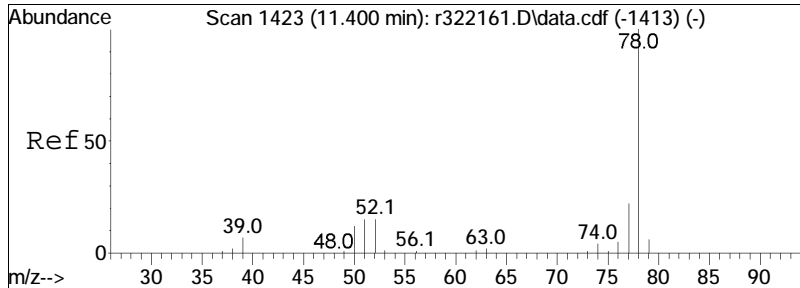




#48  
 1,1,1-trichloroethane  
 Concen: 0.59 ppbV  
 RT: 10.858 min Scan# 1348  
 Delta R.T. -0.008 min  
 Lab File: r322229.D  
 Acq: 19 May 2022 6:57 PM

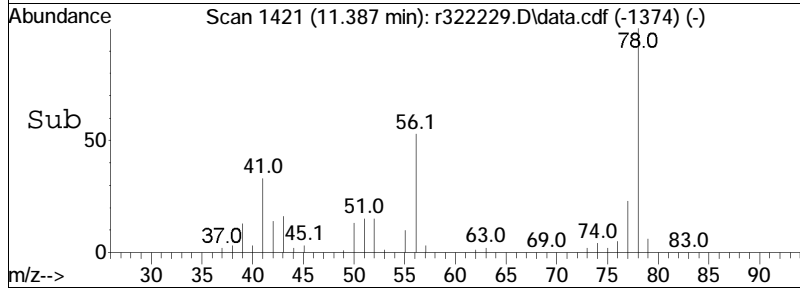
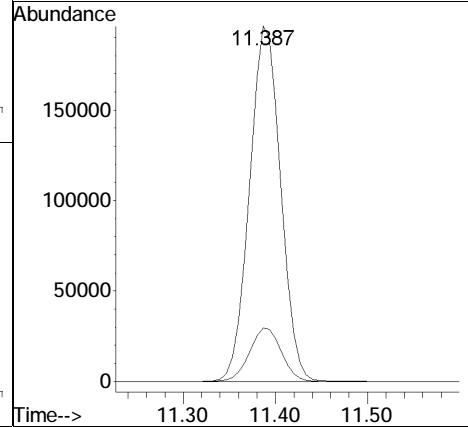
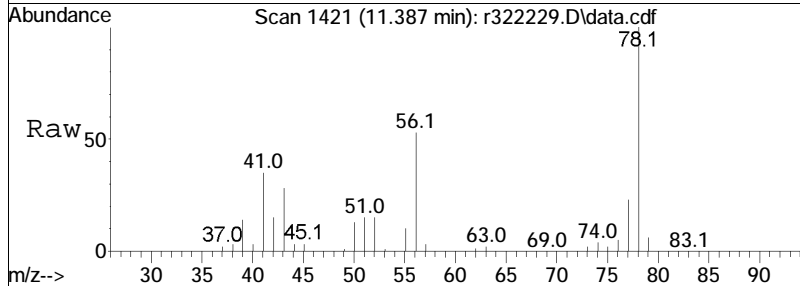
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
97	100		
61	44.5	35.1	52.7
119	15.1	12.5	18.7

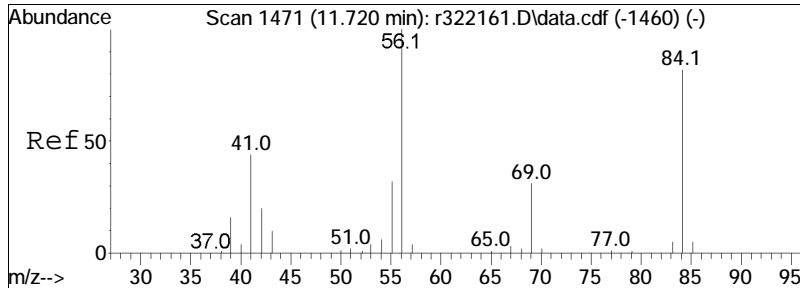




#50  
 benzene  
 Concen: 6.00 ppbV  
 RT: 11.387 min Scan# 1421  
 Delta R.T. -0.013 min  
 Lab File: r322229.D  
 Acq: 19 May 2022 6:57 PM

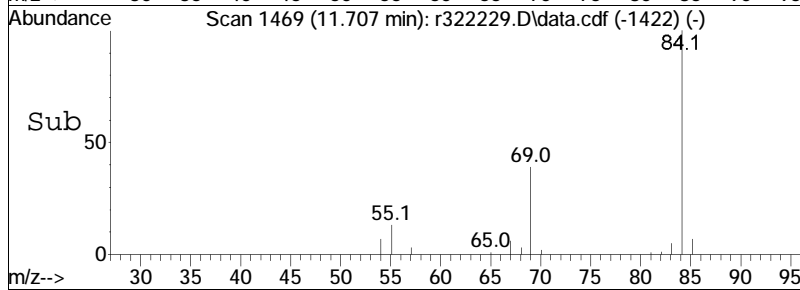
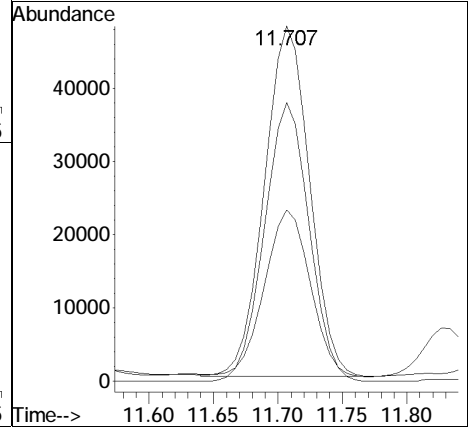
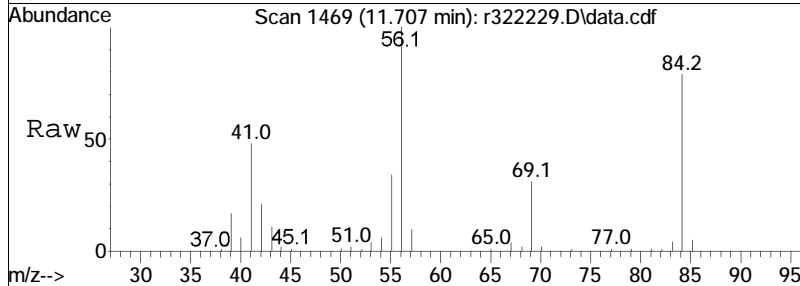
Tgt Ion: 78 Resp: 460800  
 Ion Ratio Lower Upper  
 78 100  
 52 15.0 12.2 18.2



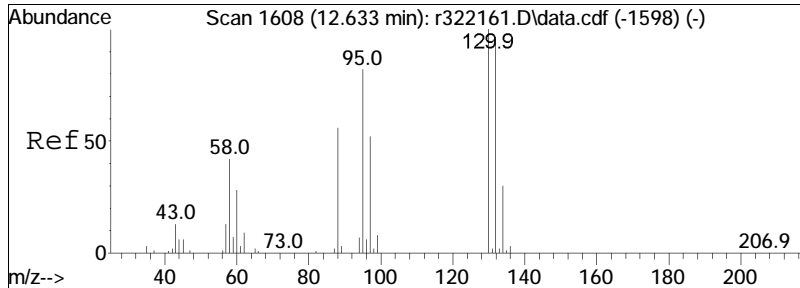


#53  
 cyclohexane  
 Concen: 3.00 ppbV  
 RT: 11.707 min Scan# 1469  
 Delta R.T. -0.013 min  
 Lab File: r322229.D  
 Acq: 19 May 2022 6:57 PM

Tgt Ion	Resp	Lower	Upper
56	100		
84	78.5	65.4	98.0
41	48.3	35.4	53.2

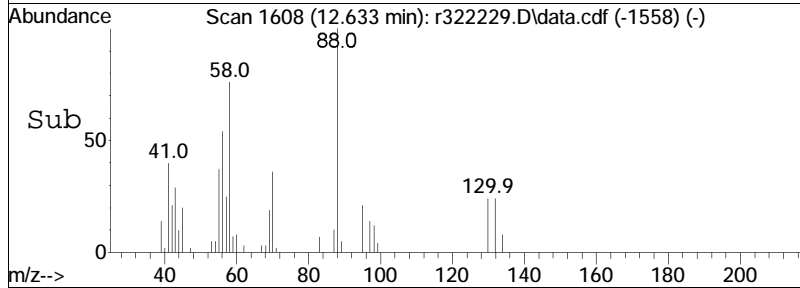
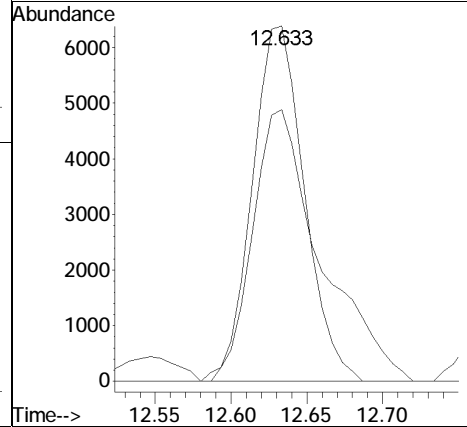
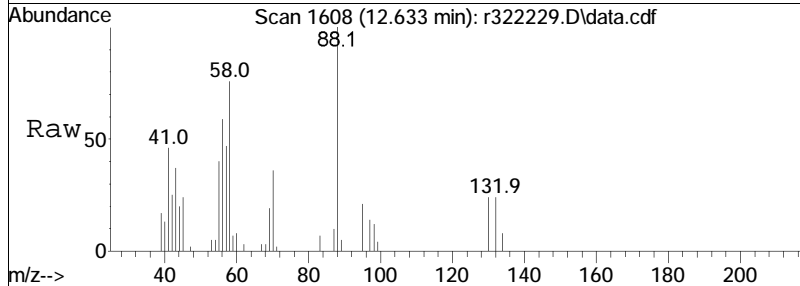


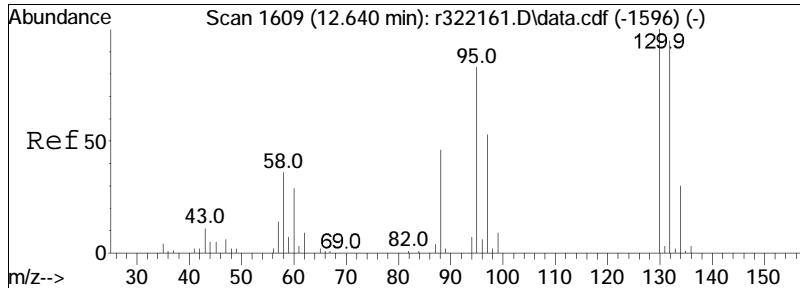




#58  
 1,4-dioxane  
 Concen: 0.97 ppbV  
 RT: 12.633 min Scan# 1608  
 Delta R.T. 0.000 min  
 Lab File: r322229.D  
 Acq: 19 May 2022 6:57 PM

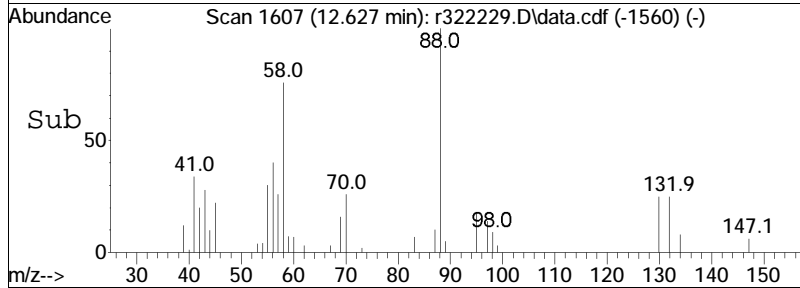
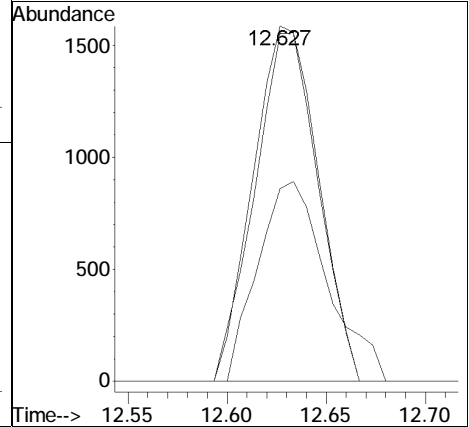
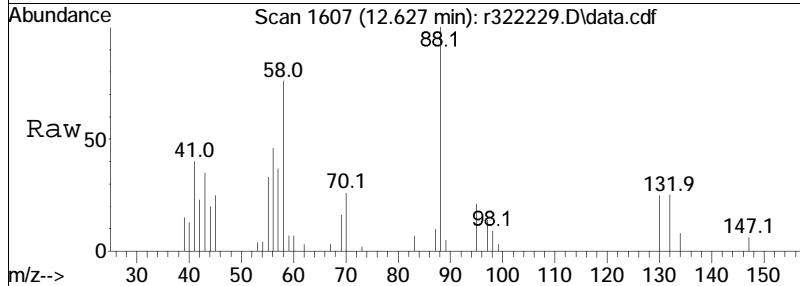
Tgt Ion	Resp	Lower	Upper
88	15224		
88	100		
58	76.5	61.2	91.8

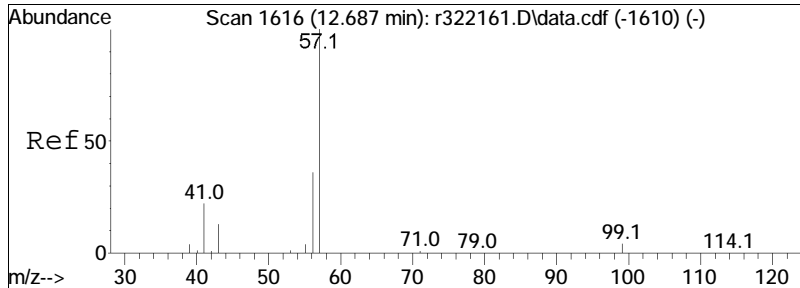




#59  
 trichloroethene  
 Concen: 0.12 ppbV  
 RT: 12.627 min Scan# 1607  
 Delta R.T. -0.013 min  
 Lab File: r322229.D  
 Acq: 19 May 2022 6:57 PM

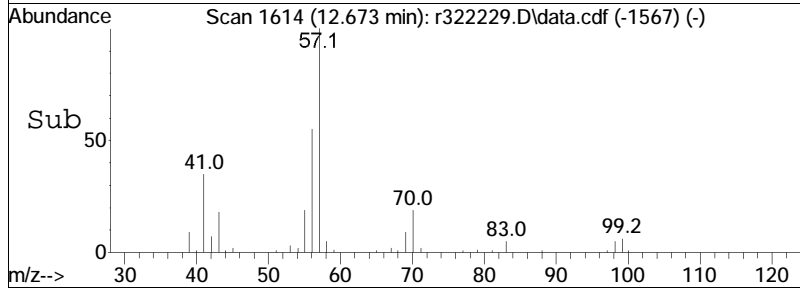
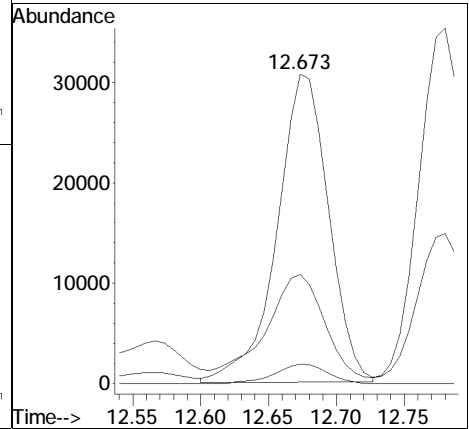
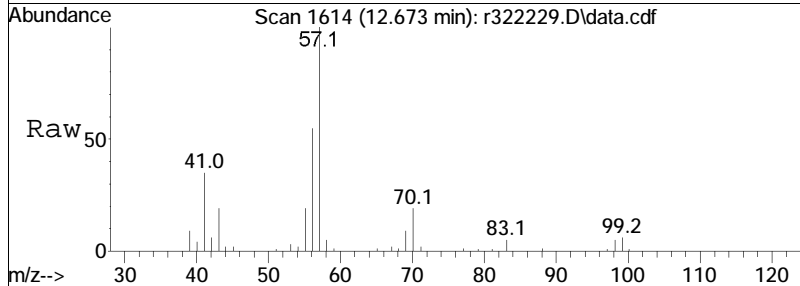
Tgt Ion	Resp	Lower	Upper
130	3627		
130	100		
132	97.9	76.2	114.2
97	54.2	42.6	63.8

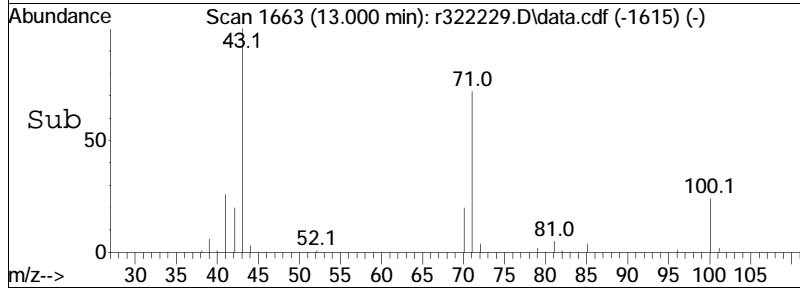
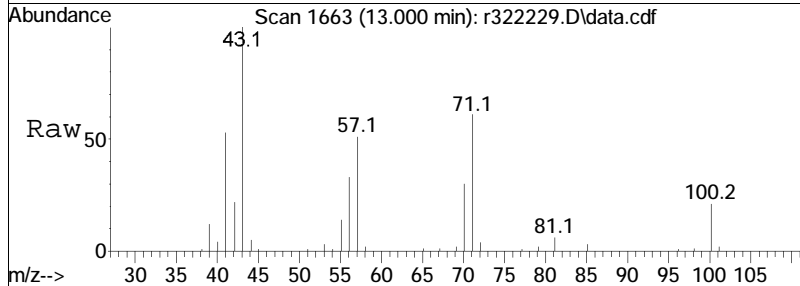
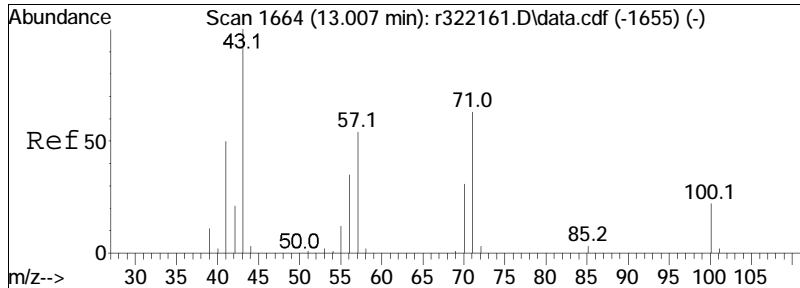




#60  
 2,2,4-trimethylpentane  
 Concen: 0.70 ppbV  
 RT: 12.673 min Scan# 1614  
 Delta R.T. -0.013 min  
 Lab File: r322229.D  
 Acq: 19 May 2022 6:57 PM

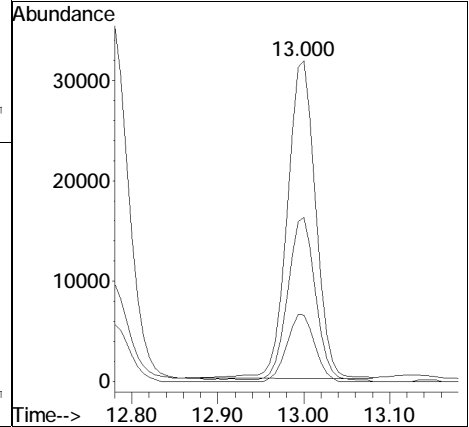
Tgt Ion	Resp	Lower	Upper
57	100		
99	6.2	5.0	7.4
41	35.2	17.4	26.2#

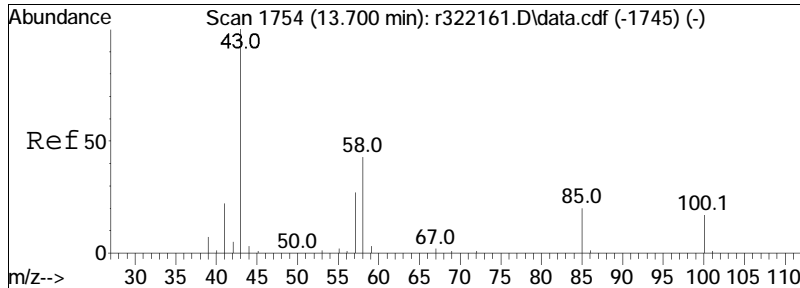




#62  
 heptane  
 Concen: 1.68 ppbV  
 RT: 13.000 min Scan# 1663  
 Delta R.T. -0.007 min  
 Lab File: r322229.D  
 Acq: 19 May 2022 6:57 PM

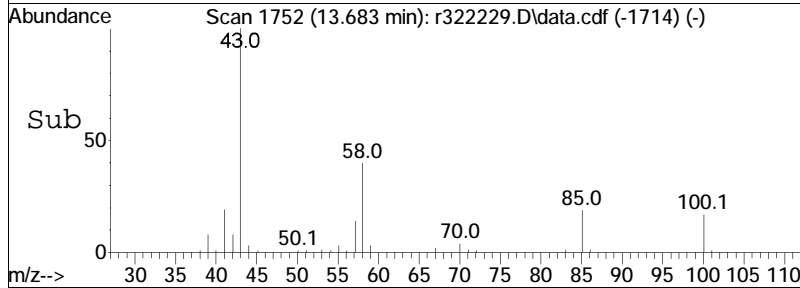
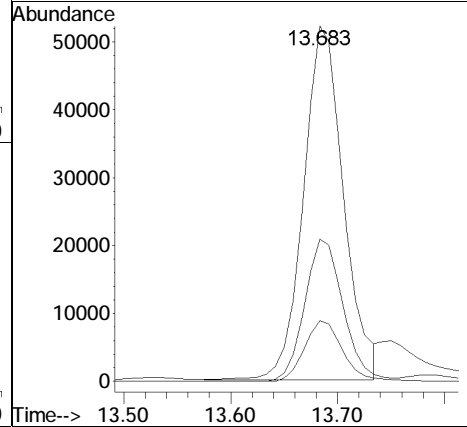
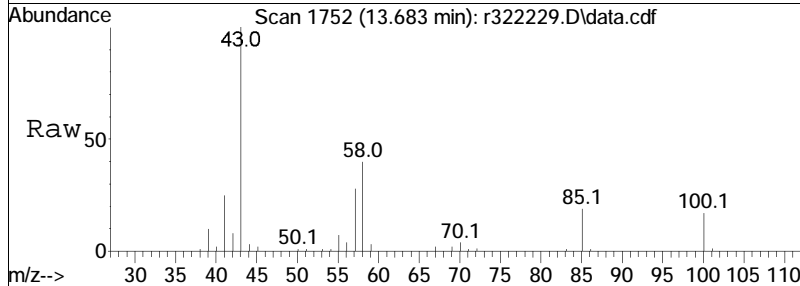
Tgt Ion:	43	Resp:	72388
Ion Ratio	100	Lower	Upper
43	100		
57	51.1	43.0	64.4
100	20.7	17.6	26.4

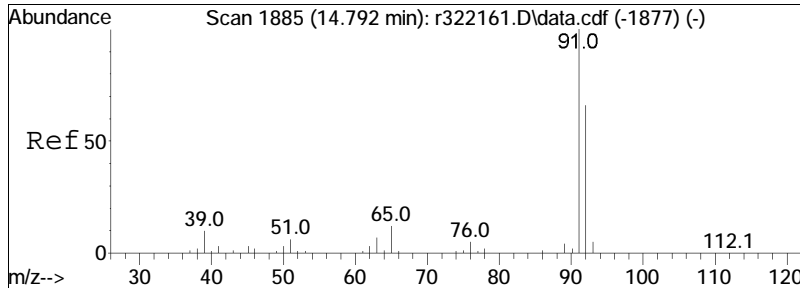




#64  
 4-methyl-2-pentanone  
 Concen: 2.75 ppbV m  
 RT: 13.683 min Scan# 1752  
 Delta R.T. -0.017 min  
 Lab File: r322229.D  
 Acq: 19 May 2022 6:57 PM

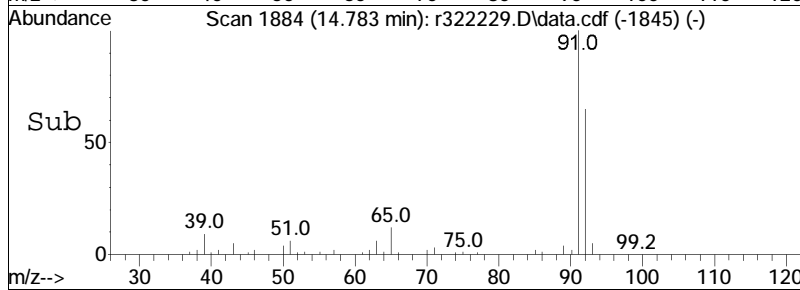
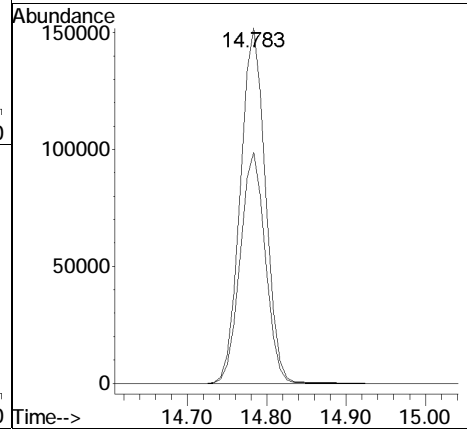
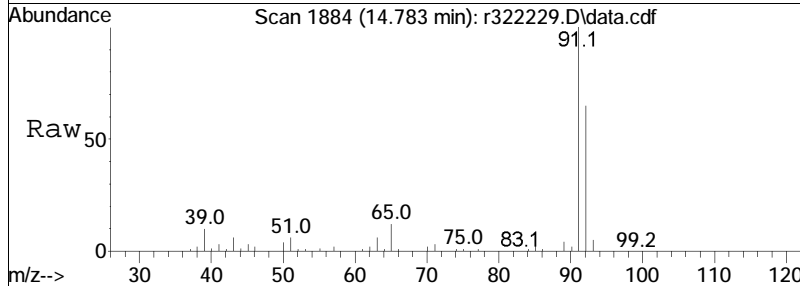
Tgt Ion:	43	Resp:	135810
Ion Ratio	Lower	Upper	
43	100		
58	40.1	34.3	51.5
100	17.1	13.8	20.6

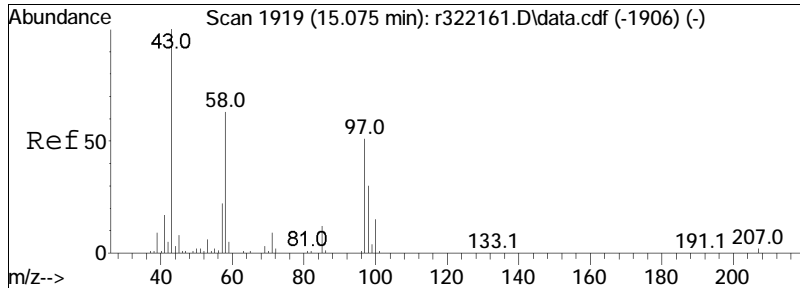




#68  
 toluene  
 Concen: 4.04 ppbV  
 RT: 14.783 min Scan# 1884  
 Delta R.T. -0.008 min  
 Lab File: r322229.D  
 Acq: 19 May 2022 6:57 PM

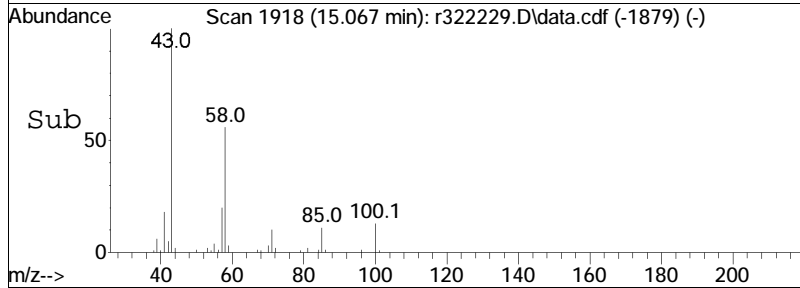
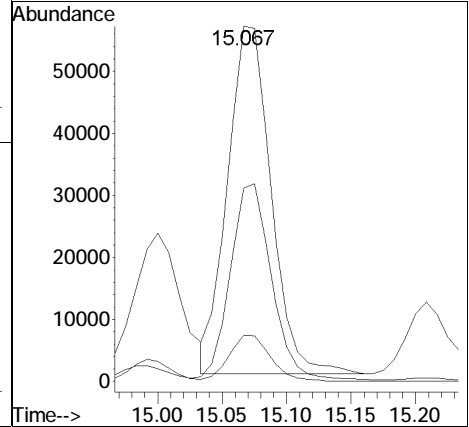
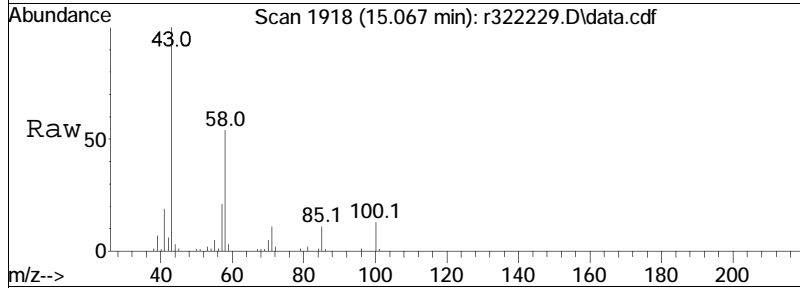
Tgt Ion:	91	92	Resp:	333546
Ion Ratio	100	65.1	Lower	Upper
			52.7	79.1

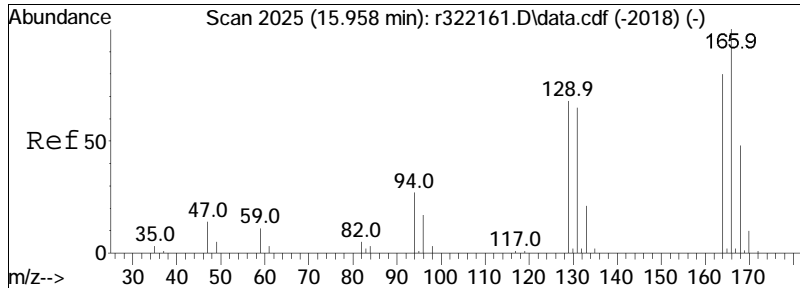




#72  
 2-hexanone  
 Concen: 2.66 ppbV  
 RT: 15.067 min Scan# 1918  
 Delta R.T. -0.008 min  
 Lab File: r322229.D  
 Acq: 19 May 2022 6:57 PM

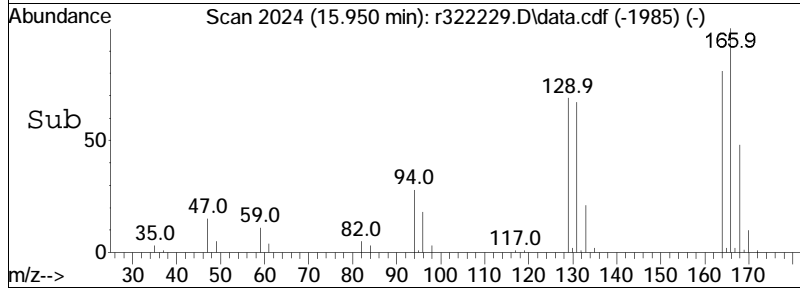
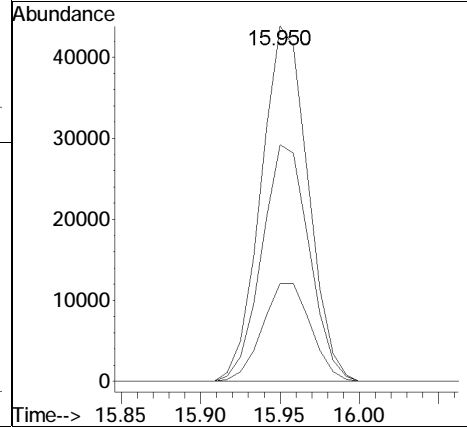
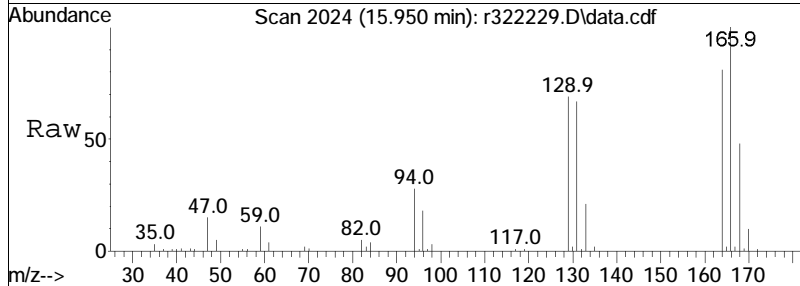
Tgt Ion	Ratio	Lower	Upper
43	100		
58	54.4	50.5	75.7
100	13.0	12.2	18.2



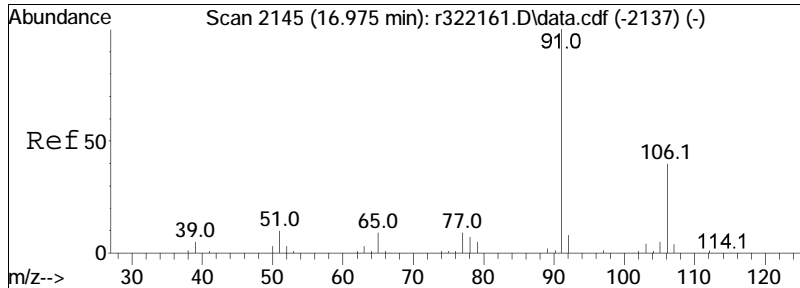


#78  
 tetrachloroethene  
 Concen: 2.26 ppbV  
 RT: 15.950 min Scan# 2024  
 Delta R.T. -0.008 min  
 Lab File: r322229.D  
 Acq: 19 May 2022 6:57 PM

Tgt Ion	Ratio	Lower	Upper
166	100		
131	66.6	51.8	77.6
94	27.6	21.8	32.8

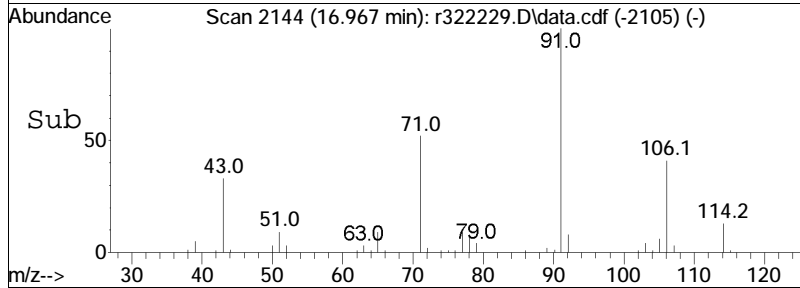
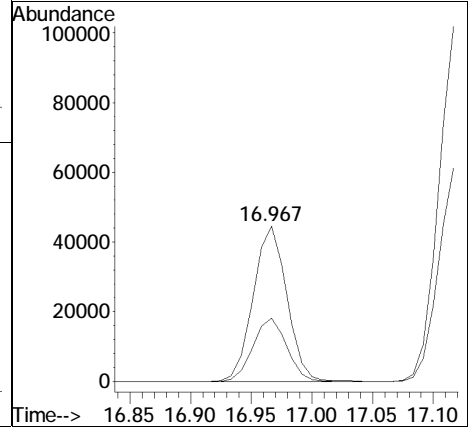
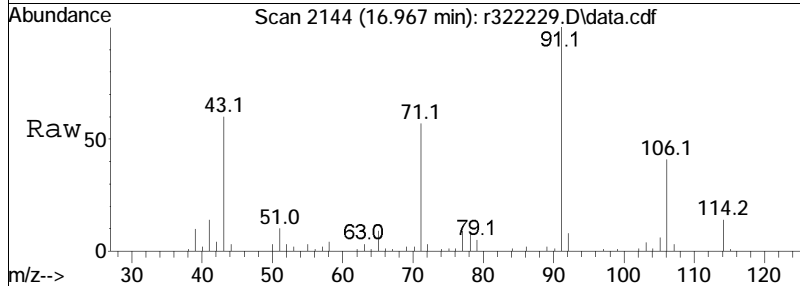


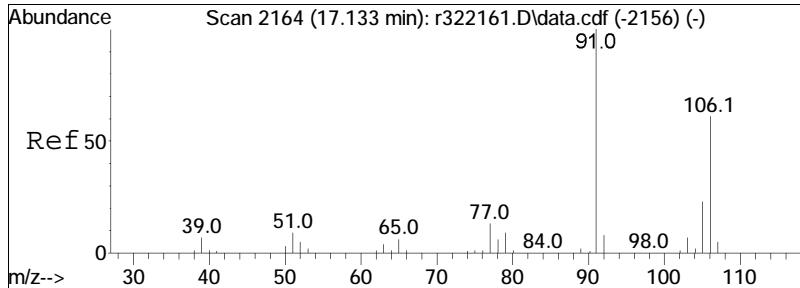




#81  
ethylbenzene  
Concen: 0.87 ppbV  
RT: 16.967 min Scan# 2144  
Delta R.T. -0.008 min  
Lab File: r322229.D  
Acq: 19 May 2022 6:57 PM

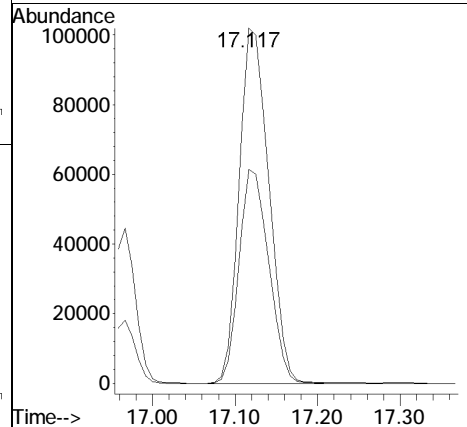
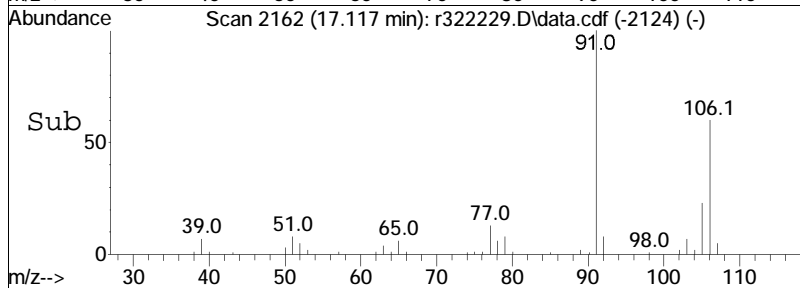
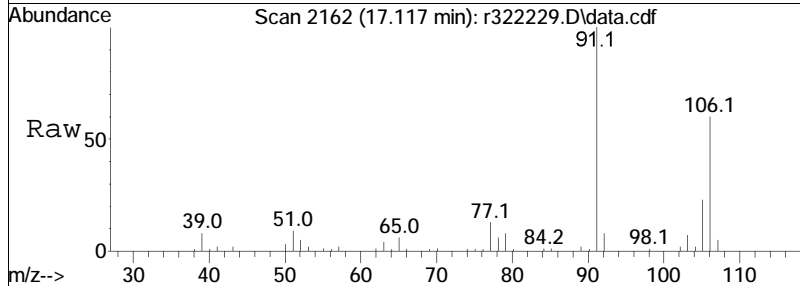
Tgt Ion: 91 Resp: 85728  
Ion Ratio Lower Upper  
91 100  
106 40.7 32.4 48.6

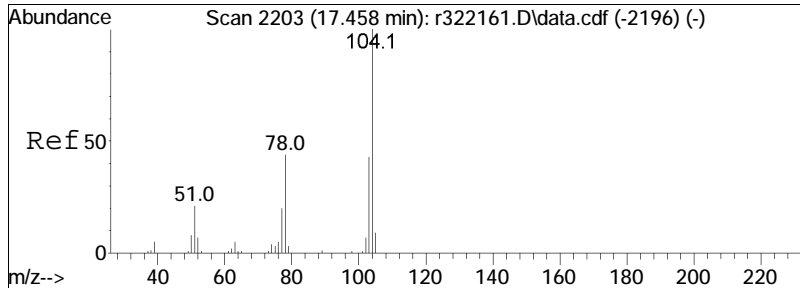




#83  
 m+p-xylene  
 Concen: 3.16 ppbV  
 RT: 17.117 min Scan# 2162  
 Delta R.T. -0.017 min  
 Lab File: r322229.D  
 Acq: 19 May 2022 6:57 PM

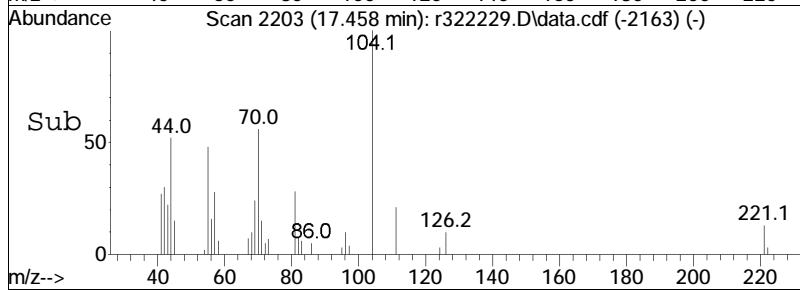
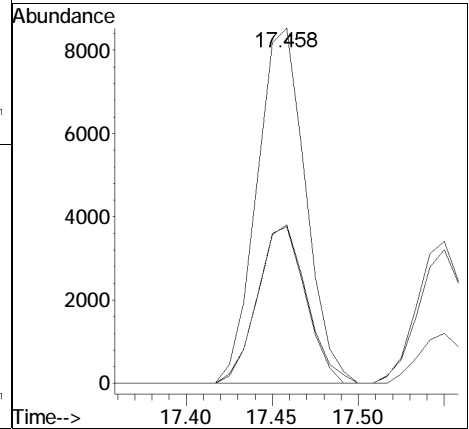
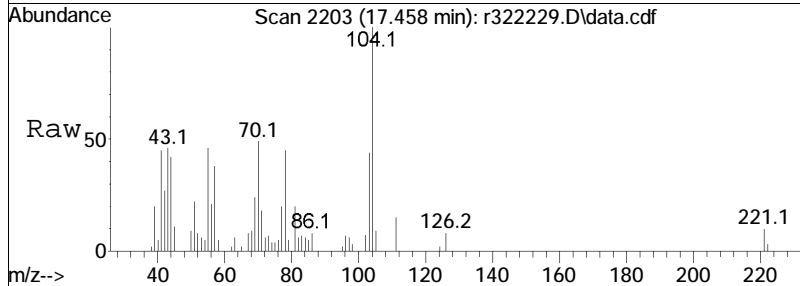
Tgt Ion: 91 Resp: 255708  
 Ion Ratio Lower Upper  
 91 100  
 106 60.2 48.4 72.6

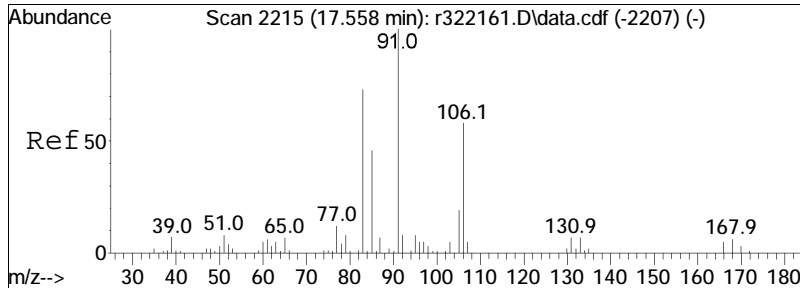




#85  
 styrene  
 Concen: 0.23 ppbV  
 RT: 17.458 min Scan# 2203  
 Delta R.T. 0.000 min  
 Lab File: r322229.D  
 Acq: 19 May 2022 6:57 PM

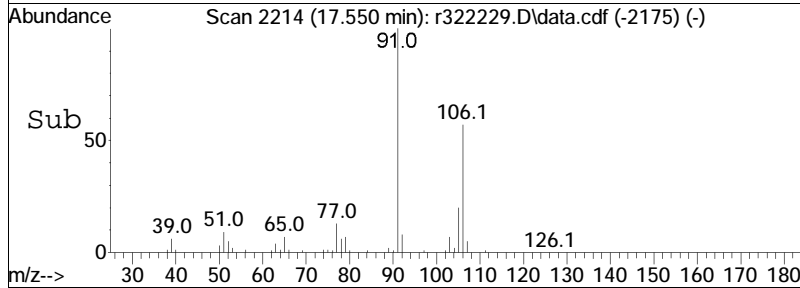
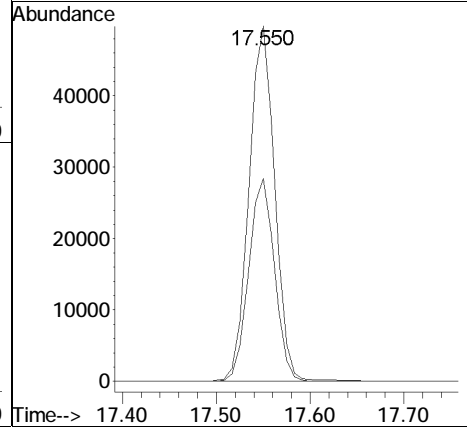
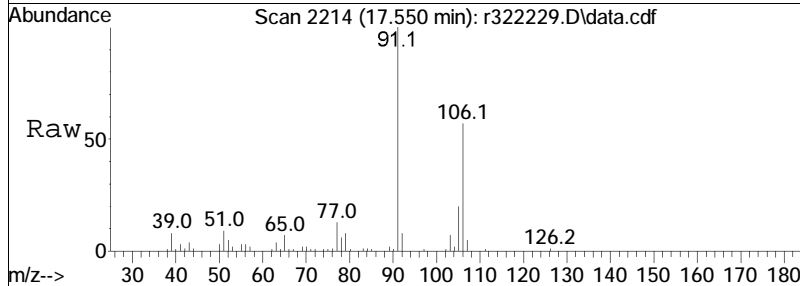
Tgt Ion	Resp	Lower	Upper
104	16798		
103	44.2	34.4	51.6
78	44.7	35.1	52.7

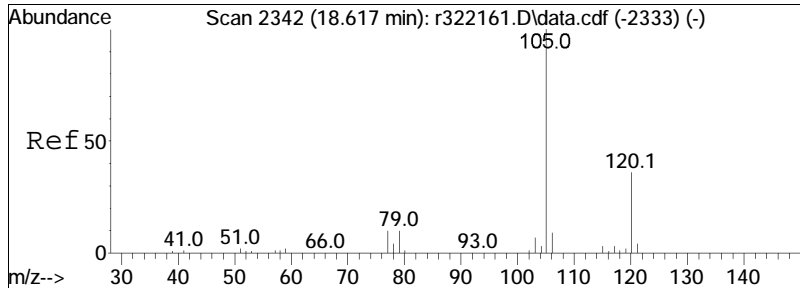




#87  
 o-xylene  
 Concen: 1.18 ppbV  
 RT: 17.550 min Scan# 2214  
 Delta R.T. -0.008 min  
 Lab File: r322229.D  
 Acq: 19 May 2022 6:57 PM

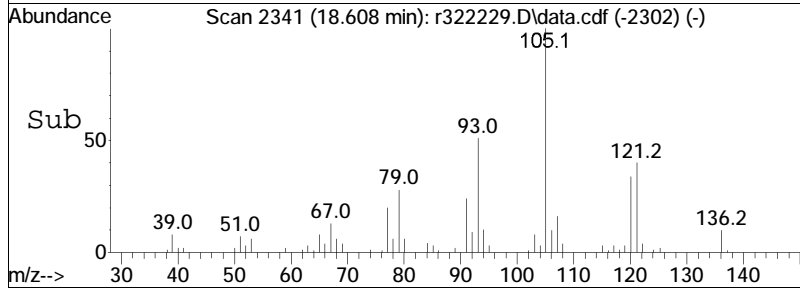
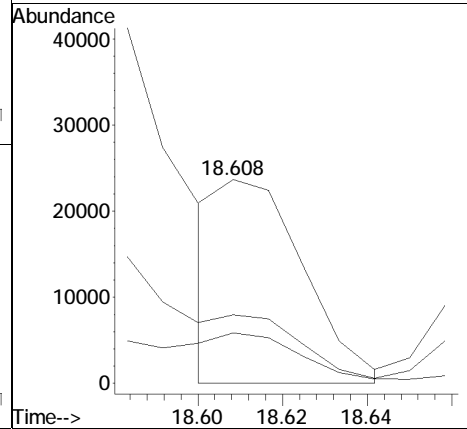
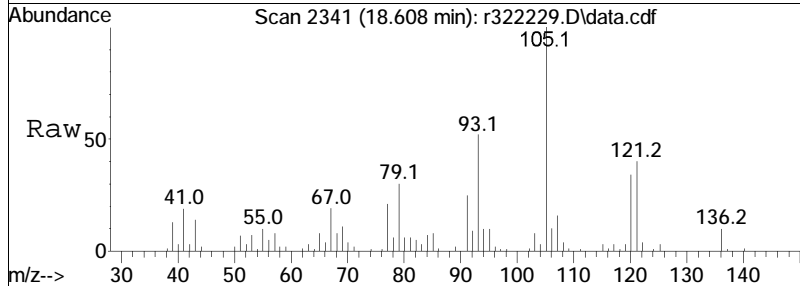
Tgt Ion: 91 Resp: 94982  
 Ion Ratio Lower Upper  
 91 100  
 106 57.1 46.4 69.6

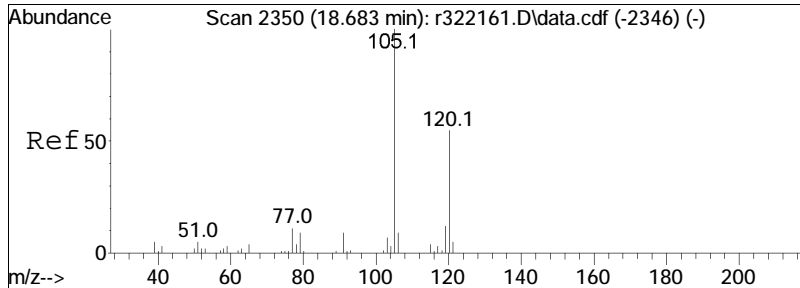




#96  
 4-ethyl toluene  
 Concen: 0.27 ppbV m  
 RT: 18.608 min Scan# 2341  
 Delta R.T. -0.008 min  
 Lab File: r322229.D  
 Acq: 19 May 2022 6:57 PM

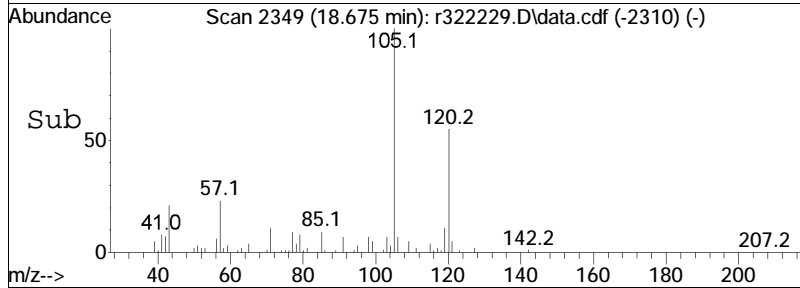
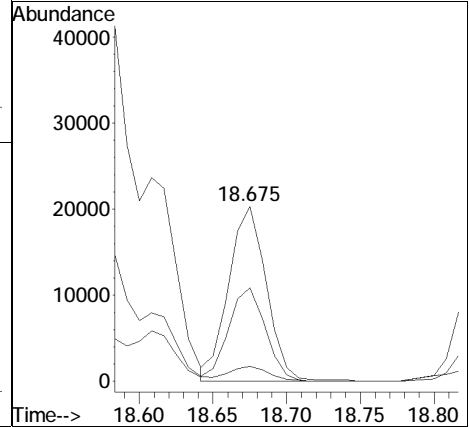
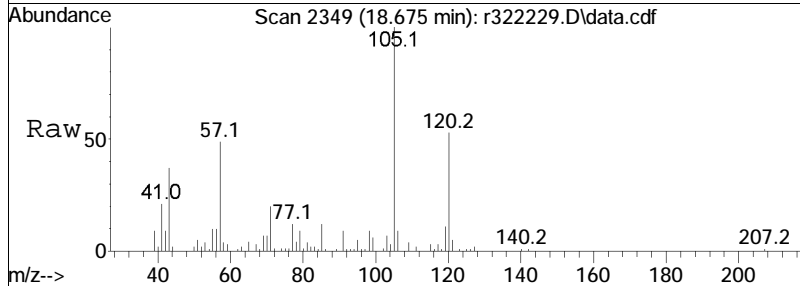
Tgt Ion	Ratio	Lower	Upper
105	100		
120	33.6	28.6	42.8
91	24.8	7.4	11.2#

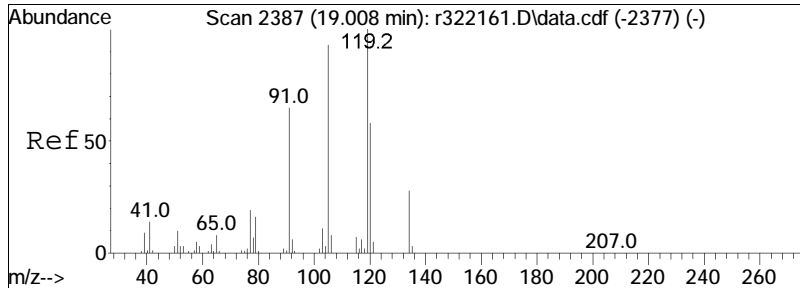




#97  
 1,3,5-trimethylbenzene  
 Concen: 0.32 ppbV  
 RT: 18.675 min Scan# 2349  
 Delta R.T. -0.008 min  
 Lab File: r322229.D  
 Acq: 19 May 2022 6:57 PM

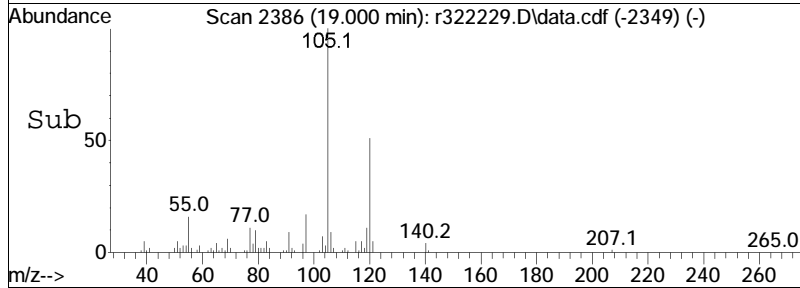
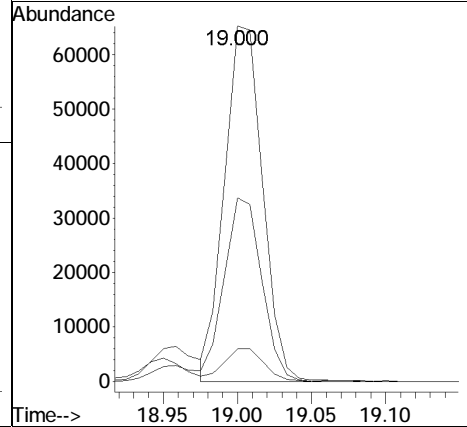
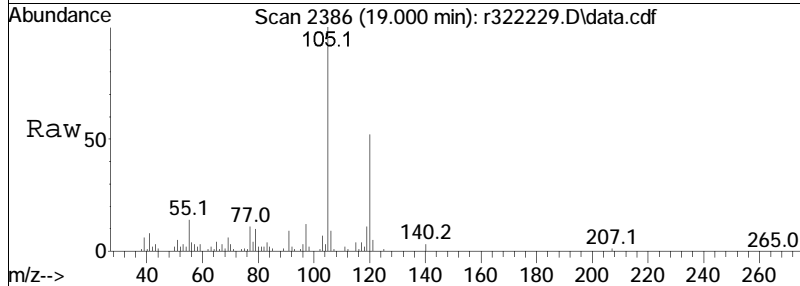
Tgt Ion	Ratio	Lower	Upper
105	100		
120	53.5	43.7	65.5
91	8.6	7.0	10.4

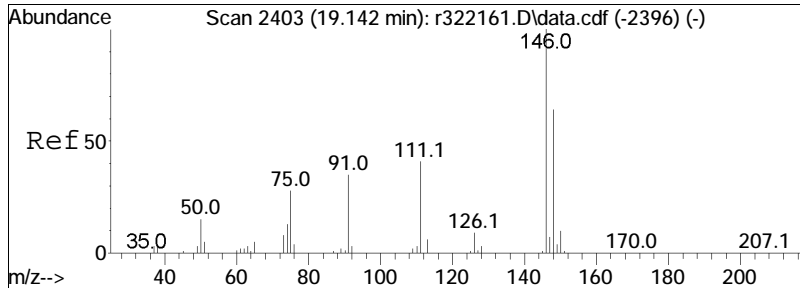




#99  
 1,2,4-trimethylbenzene  
 Concen: 1.19 ppbV m  
 RT: 19.000 min Scan# 2386  
 Delta R.T. -0.008 min  
 Lab File: r322229.D  
 Acq: 19 May 2022 6:57 PM

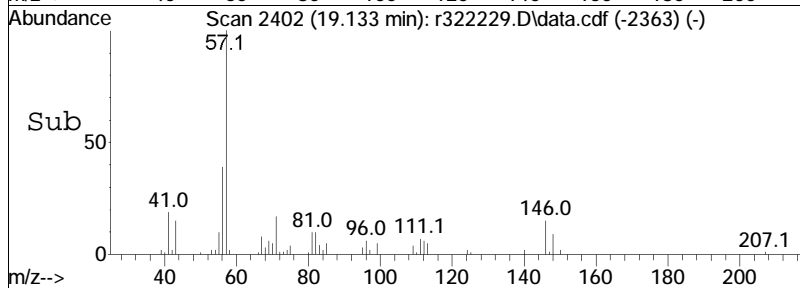
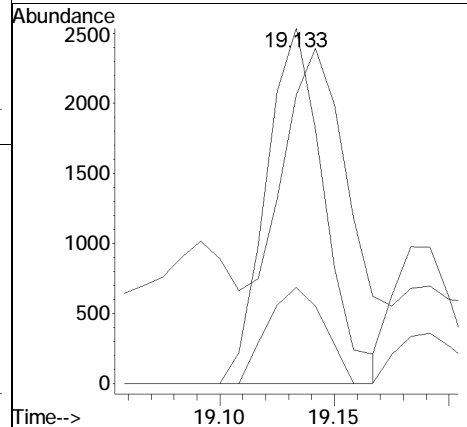
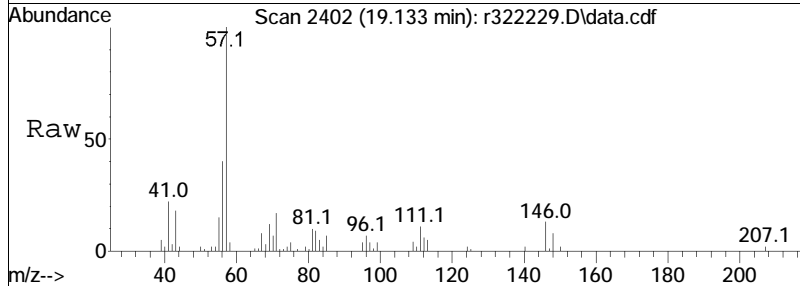
Tgt Ion	Ratio	Lower	Upper
105	100		
120	51.6	49.4	74.2
91	9.2	55.8	83.8#





#102  
 1,3-dichlorobenzene  
 Concen: 0.06 ppbV  
 RT: 19.133 min Scan# 2402  
 Delta R.T. -0.008 min  
 Lab File: r322229.D  
 Acq: 19 May 2022 6:57 PM

Tgt Ion	Ratio	Lower	Upper
146	100		
111	81.2	32.8	49.2#
75	27.0	22.2	33.2

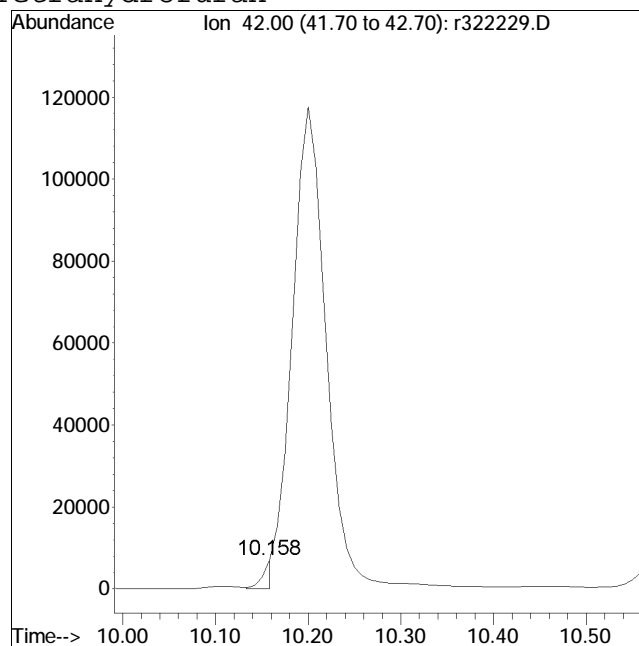
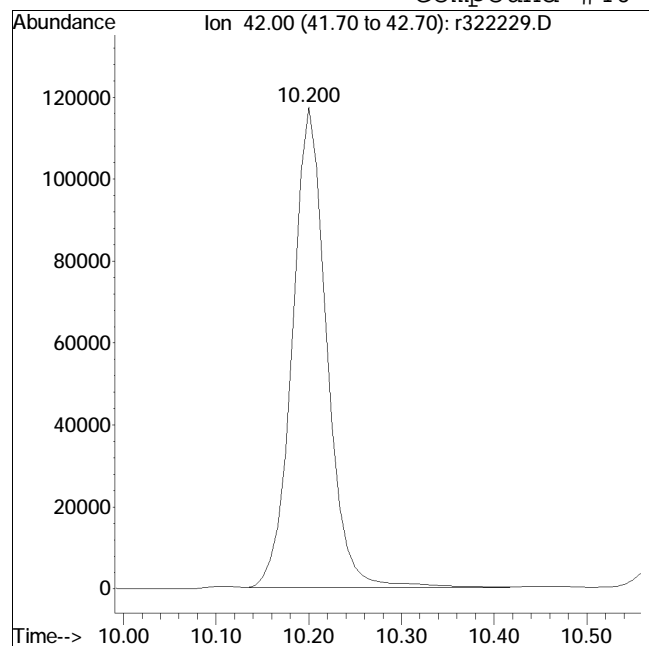




# Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322229.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:6: 7 Instrument :  
Sample : L2225590-01,3,250,250 Quant Date : 5/19/2022 10:14 pm

## Compound #40: Tetrahydrofuran



Original Peak Response = 302215

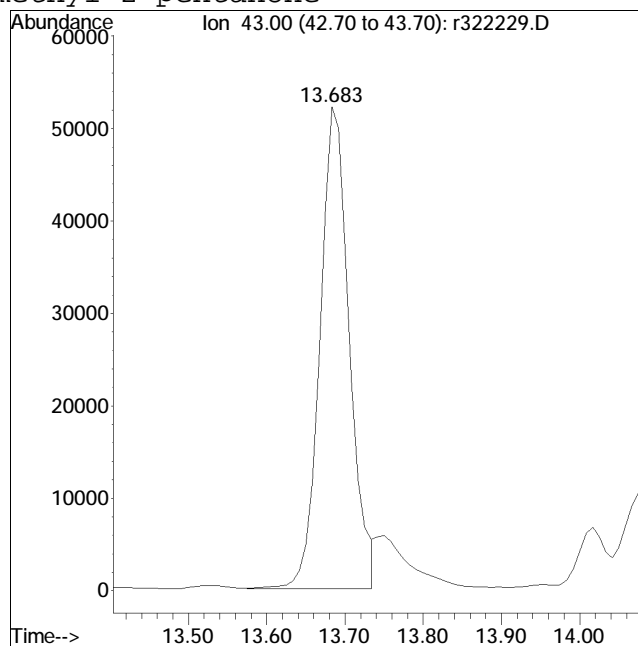
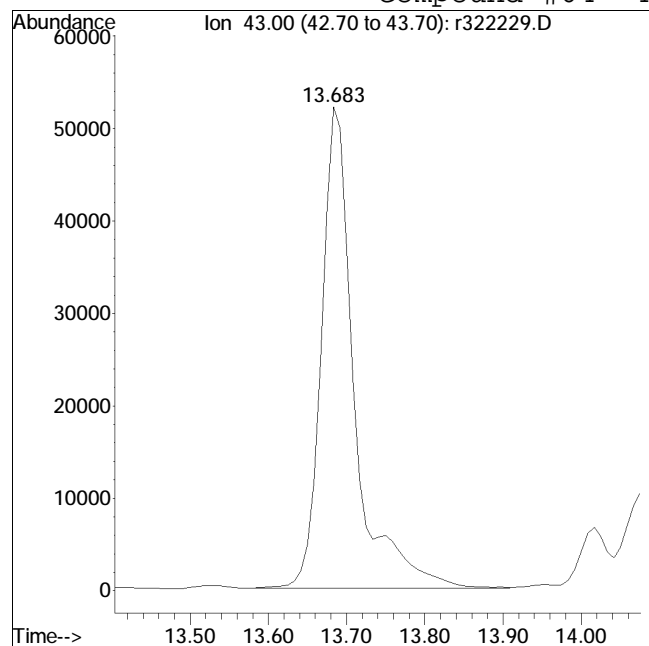
Manual Peak Response = 5331 M6

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

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322229.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:6: 7 Instrument :  
Sample : L2225590-01,3,250,250 Quant Date : 5/19/2022 10:14 pm

Compound #64: 4-methyl-2-pentanone



Original Peak Response = 152405

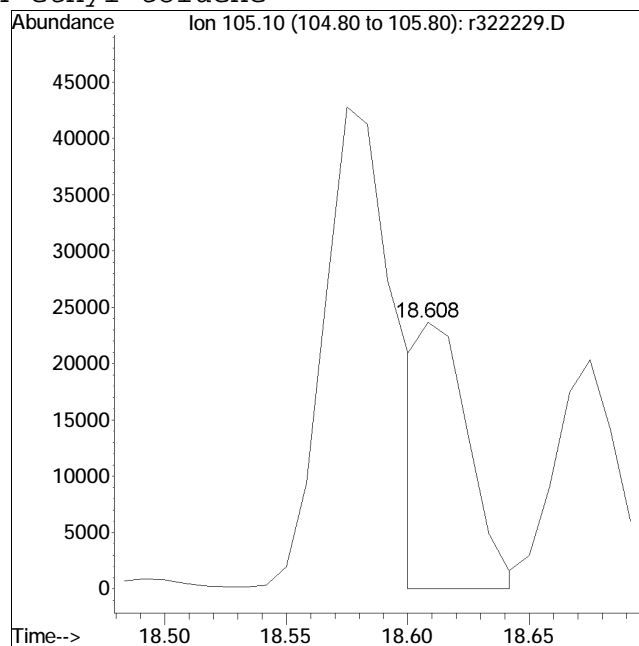
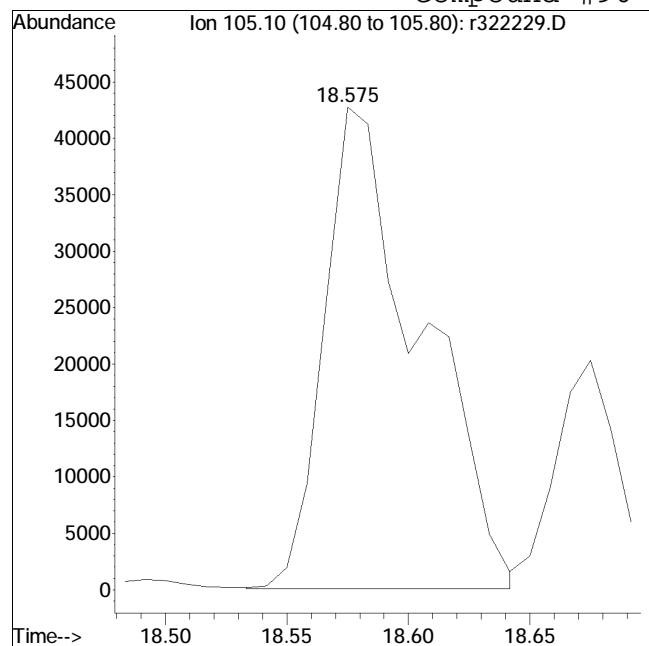
Manual Peak Response = 135810 M6

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

# Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322229.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:6: 7 Instrument :  
Sample : L2225590-01,3,250,250 Quant Date : 5/19/2022 10:14 pm

## Compound #96: 4-ethyl toluene



Original Peak Response = 117844

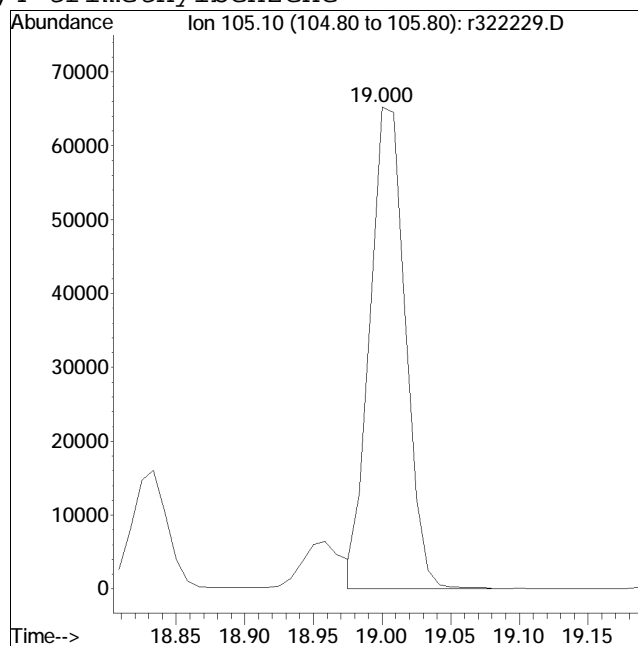
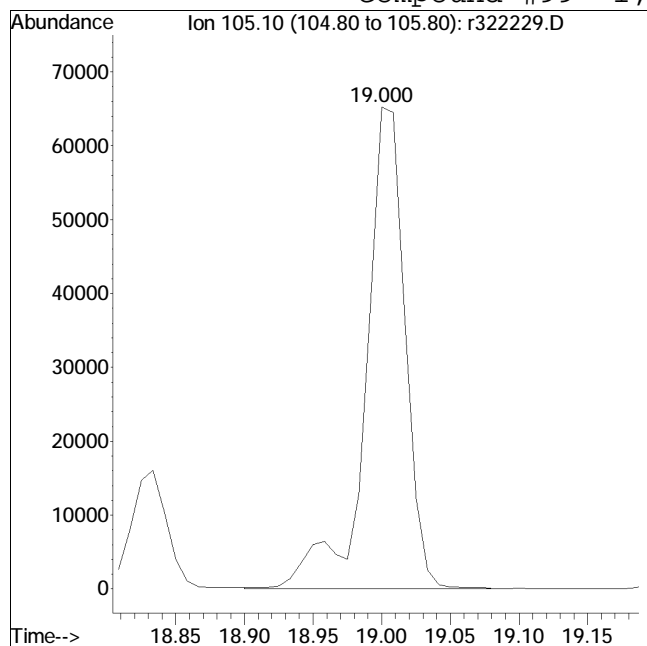
Manual Peak Response = 33060 M6

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

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322229.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:6: 7 Instrument :  
Sample : L2225590-01,3,250,250 Quant Date : 5/19/2022 10:14 pm

Compound #99: 1,2,4-trimethylbenzene



Original Peak Response = 130593

Manual Peak Response = 117061 M6

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
 Data File : r322230.D  
 Acq On : 19 May 2022 7:37 PM  
 Operator : AIRPIANO3:TS  
 Sample : L2225590-02,3,250,250  
 Misc : WG1640711,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 20 13:23:47 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0519T\r322225.D  
 Sub List : TO15-NY - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) bromochloromethane	9.550	49	445150	10.000	ppbV	-0.02
Standard Area = 440035			Recovery = 101.16%			
43) 1,4-difluorobenzene	11.827	114	1384317	10.000	ppbV	-0.01
Standard Area = 1334123			Recovery = 103.76%			
67) chlorobenzene-D5	16.567	54	225028	10.000	ppbV	-0.02
Standard Area = 210666			Recovery = 106.82%			

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) dichlorodifluoromethane	3.946	85	24624	0.703	ppbV	100
6) chloromethane	4.126	50	2553	0.152	ppbV	96
7) Freon-114	4.258		0	N.D.		
9) vinyl chloride	4.390	62	2370	0.109	ppbV	94
10) 1,3-butadiene	4.552	54	2144	0.122	ppbV	89
13) bromomethane	0.000		0	N.D.		
14) chloroethane	5.092		0	N.D.		
15) ethanol	5.267	31	2781065	162.612	ppbV	96
17) vinyl bromide	0.000		0	N.D.		
19) acetone	5.827	43	3412852M6	139.948	ppbV	
21) trichlorofluoromethane	6.043	101	14954	0.470	ppbV	100
22) isopropyl alcohol	6.163	45	1259372	42.917	ppbV	99
26) 1,1-dichloroethene	0.000		0	N.D.	d	
27) tertiary butyl alcohol	6.896	59	409627	11.219	ppbV	99
28) methylene chloride	6.986	49	2418	0.087	ppbV	98
29) 3-chloropropene	0.000		0	N.D.	d	
30) carbon disulfide	7.280	76	66473	1.044	ppbV #	83
31) Freon 113	7.322	101	3167	0.089	ppbV	95
32) trans-1,2-dichloroethene	0.000		0	N.D.		
33) 1,1-dichloroethane	8.433		0	N.D.		
34) MTBE	0.000		0	N.D.	d	
36) 2-butanone	8.833	43	909944	20.521	ppbV	100
37) cis-1,2-dichloroethene	9.358		0	N.D.		
38) Ethyl Acetate	9.675	61	765	0.106	ppbV	91
39) chloroform	9.717	83	2098	0.060	ppbV #	89
40) Tetrahydrofuran	10.158	42	3634M6	0.142	ppbV	
42) 1,2-dichloroethane	10.567		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
 Data File : r322230.D  
 Acq On : 19 May 2022 7:37 PM  
 Operator : AIRPIANO3:TS  
 Sample : L2225590-02,3,250,250  
 Misc : WG1640711,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 20 13:23:47 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0519T\r322225.D  
 Sub List : TO15-NY - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
44) hexane	9.625	57	312856	7.928	ppbV	#	42
48) 1,1,1-trichloroethane	10.858		0	N.D.			
50) benzene	11.387	78	1343506	16.579	ppbV		100
52) carbon tetrachloride	11.560	117	1426	0.051	ppbV		96
53) cyclohexane	11.707	56	176759	4.307	ppbV		97
56) 1,2-dichloropropane	12.473		0	N.D.			
57) bromodichloromethane	0.000		0	N.D.	d		
58) 1,4-dioxane	12.640	88	2820	0.170	ppbV	#	63
59) trichloroethene	12.627	130	330773	10.601	ppbV		99
60) 2,2,4-trimethylpentane	0.000		0	N.D.	d		
62) heptane	12.993	43	272143	5.984	ppbV		98
63) cis-1,3-dichloropropene	13.742		0	N.D.			
64) 4-methyl-2-pentanone	13.683	43	138447M6	2.657	ppbV		
65) trans-1,3-dichloropropene	0.000		0	N.D.			
66) 1,1,2-trichloroethane	0.000		0	N.D.	d		
68) toluene	14.783	91	845612	10.003	ppbV		100
72) 2-hexanone	15.067	43	154383M6	3.035	ppbV		
74) dibromochloromethane	0.000		0	N.D.			
75) 1,2-dibromoethane	0.000		0	N.D.			
78) tetrachloroethene	15.950	166	2927542	71.484	ppbV		97
80) chlorobenzene	0.000		0	N.D.	d		
81) ethylbenzene	16.967	91	143102	1.411	ppbV		100
83) m+p-xylene	17.117	91	399725	4.824	ppbV		99
84) bromoform	0.000		0	N.D.			
85) styrene	17.450	104	14047	0.191	ppbV		98
86) 1,1,2,2-tetrachloroethane	0.000		0	N.D.	d		
87) o-xylene	17.550	91	147897	1.791	ppbV		100
96) 4-ethyl toluene	18.608	105	32863M6	0.261	ppbV		
97) 1,3,5-trimethylbenzene	18.675	105	52715	0.458	ppbV		98
99) 1,2,4-trimethylbenzene	19.000	105	127606M6	1.265	ppbV		
101) Benzyl Chloride	0.000		0	N.D.	d		
102) 1,3-dichlorobenzene	19.133		0	N.D.			
103) 1,4-dichlorobenzene	19.183		0	N.D.			
107) 1,2-dichlorobenzene	0.000		0	N.D.			
115) 1,2,4-trichlorobenzene	20.942		0	N.D.			
119) hexachlorobutadiene	0.000		0	N.D.			

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
Data File : r322230.D  
Acq On : 19 May 2022 7:37 PM  
Operator : AIRPIANO3:TS  
Sample : L2225590-02,3,250,250  
Misc : WG1640711,ICAL19030  
ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 20 13:23:47 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 15:52:12 2022  
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0519T\r322225.D  
Sub List : TO15-NY - .

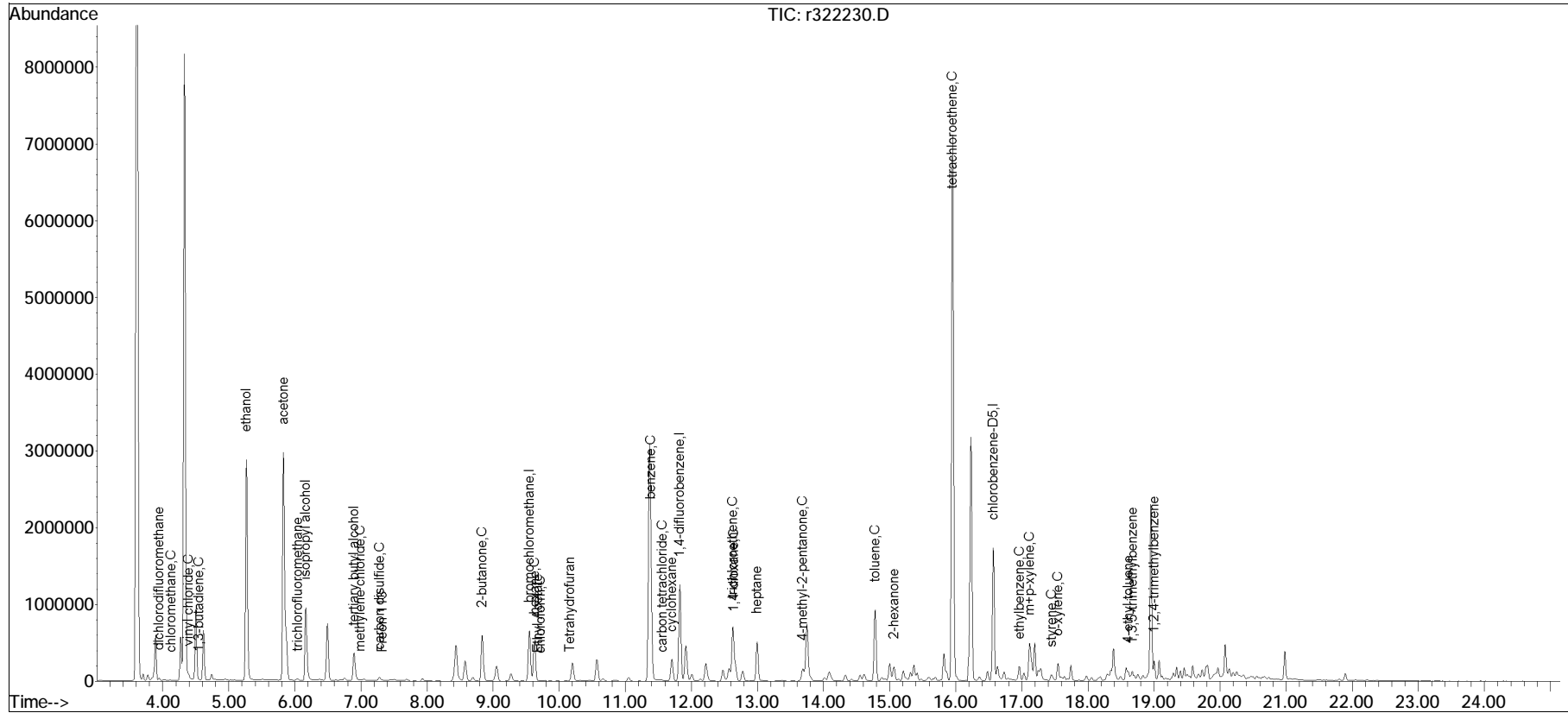
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
----------	------	------	----------	------	-------	----------

-----

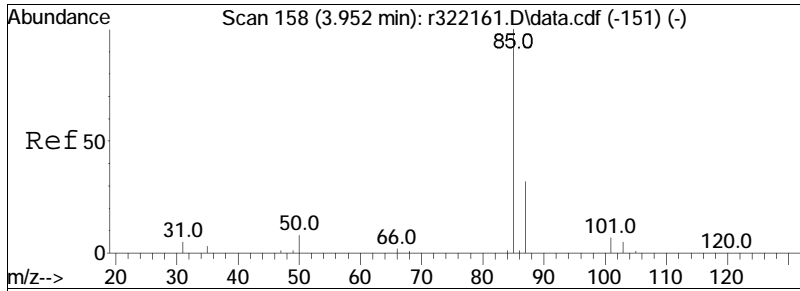
Sub List : TO15-NY - .s\Data\Airpiano3\2022\05\0519T\r322225.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
Data File : r322230.D  
Acq On : 19 May 2022 7:37 PM  
Operator : AIRPIANO3:TS  
Sample : L2225590-02,3,250,250  
Misc : WG1640711,ICAL19030  
ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 20 13:23:47 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 15:52:12 2022  
Response via : Initial Calibration

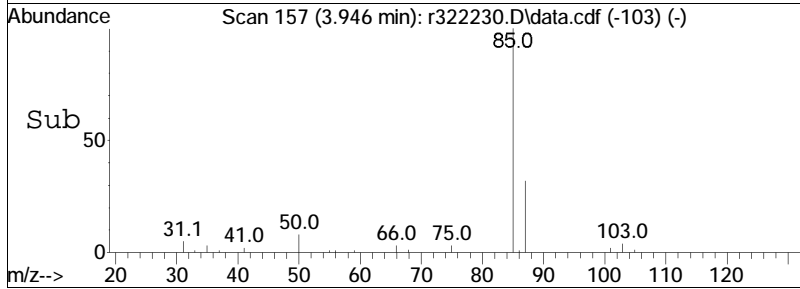
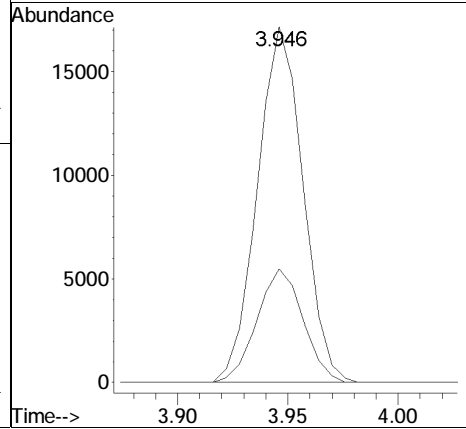
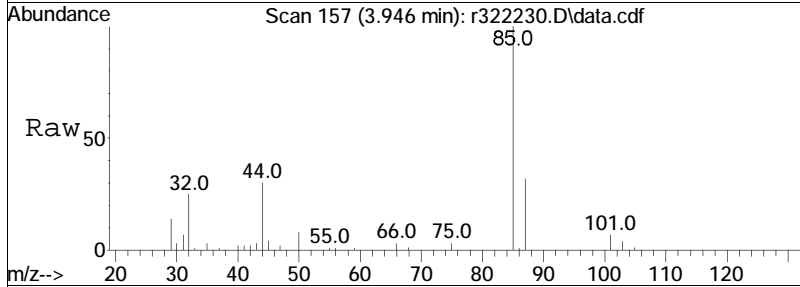


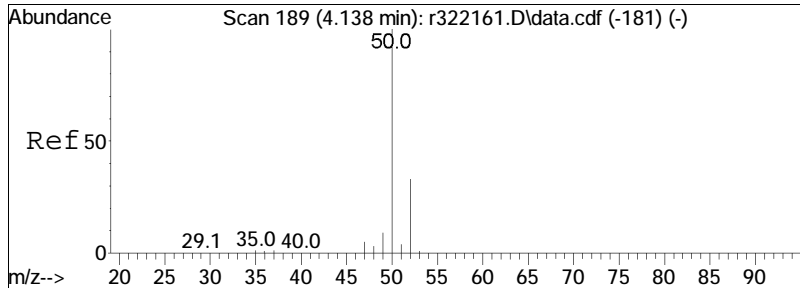




#5  
 dichlorodifluoromethane  
 Concen: 0.70 ppbV  
 RT: 3.946 min Scan# 157  
 Delta R.T. -0.006 min  
 Lab File: r322230.D  
 Acq: 19 May 2022 7:37 PM

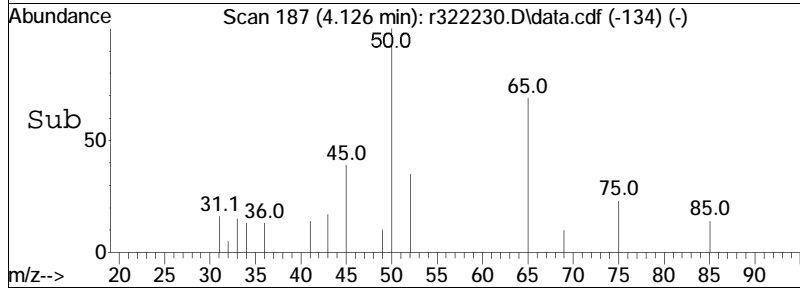
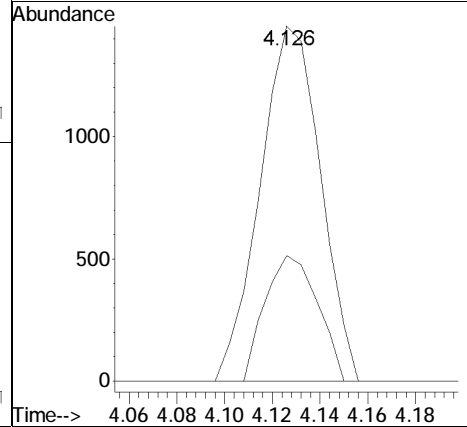
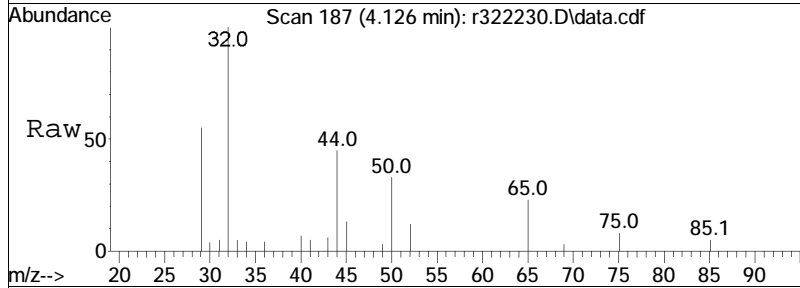
Tgt Ion:	85	Resp:	24624
Ion Ratio	Lower	Upper	
85	100		
87	32.0	25.8	38.6

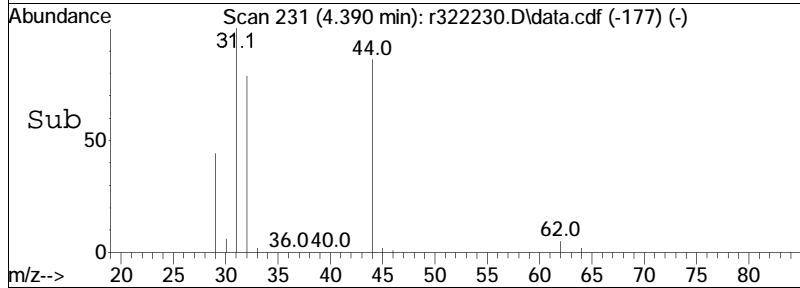
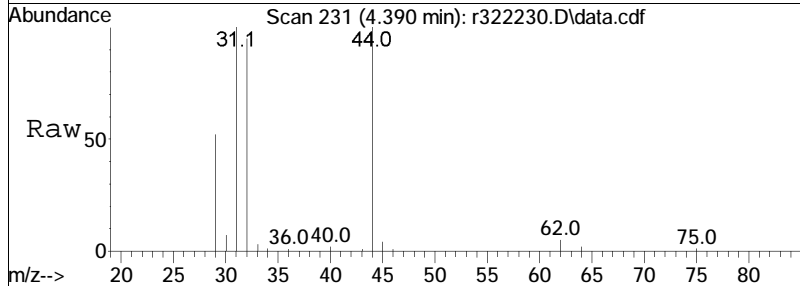
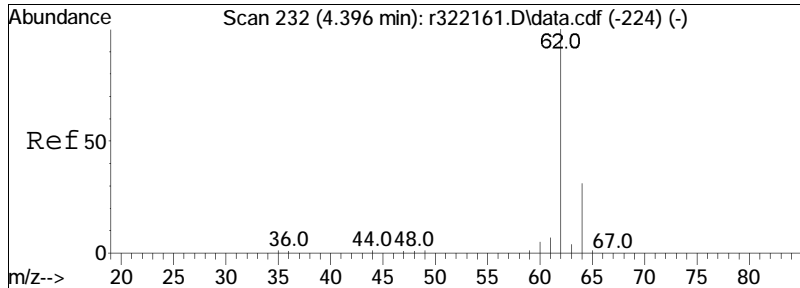




#6  
 chloromethane  
 Concen: 0.15 ppbV  
 RT: 4.126 min Scan# 187  
 Delta R.T. -0.012 min  
 Lab File: r322230.D  
 Acq: 19 May 2022 7:37 PM

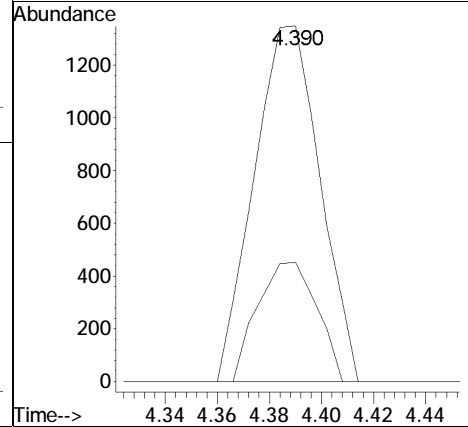
Tgt Ion:	50	Resp:	2553
Ion Ratio	Lower	Upper	
50	100		
52	35.4	26.3	39.5

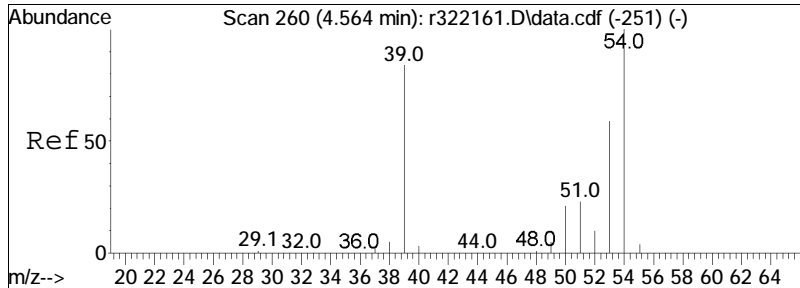




#9  
 vinyl chloride  
 Concen: 0.11 ppbV  
 RT: 4.390 min Scan# 231  
 Delta R.T. -0.006 min  
 Lab File: r322230.D  
 Acq: 19 May 2022 7:37 PM

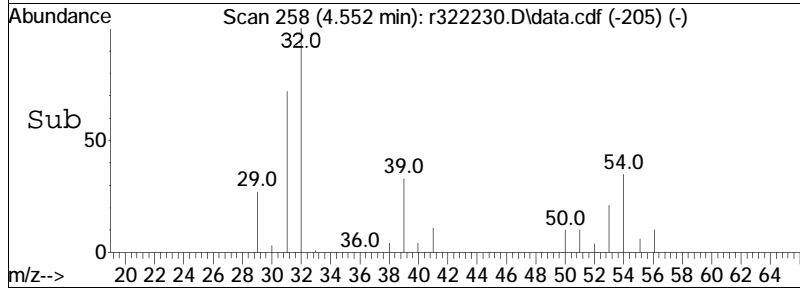
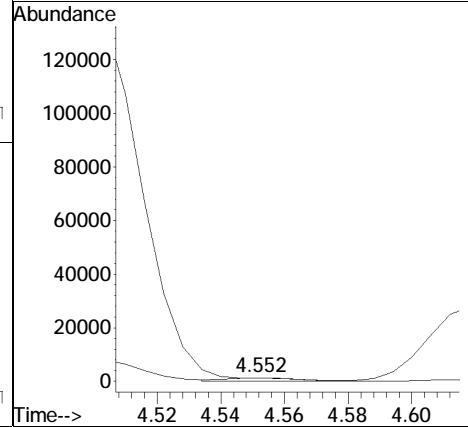
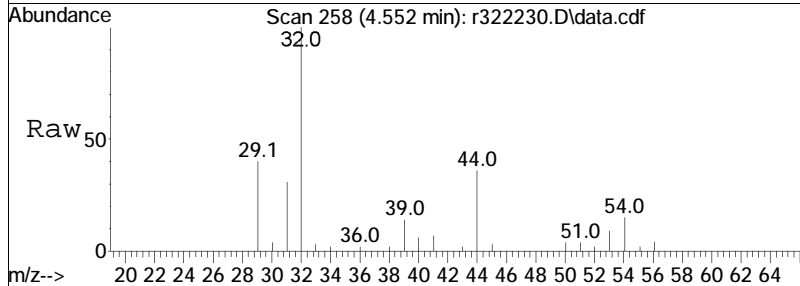
Tgt Ion:	62	64	Resp:	2370	33.5	Lower	Upper
Ion Ratio	100						
					24.4		36.6

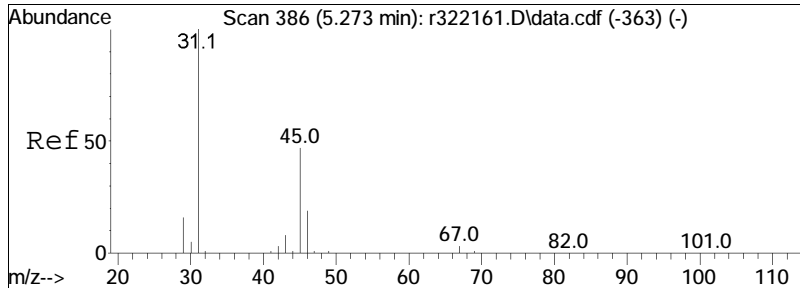




#10  
 1,3-butadiene  
 Concen: 0.12 ppbV  
 RT: 4.552 min Scan# 258  
 Delta R.T. -0.012 min  
 Lab File: r322230.D  
 Acq: 19 May 2022 7:37 PM

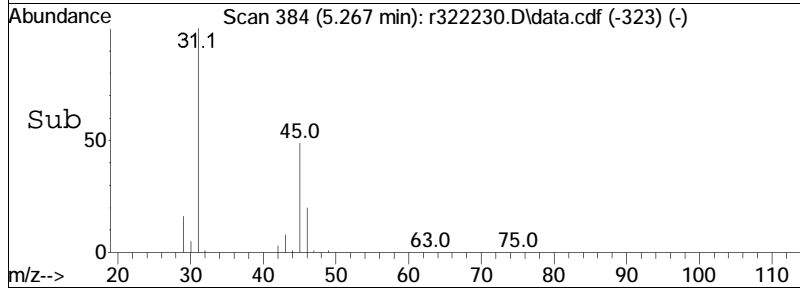
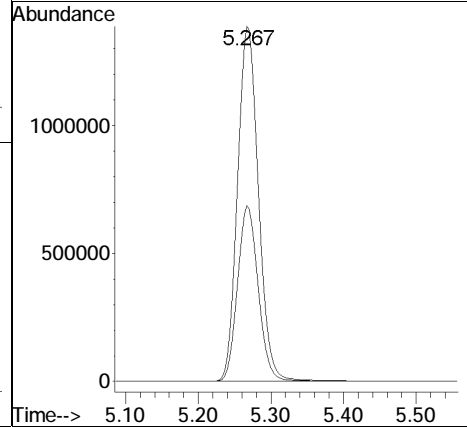
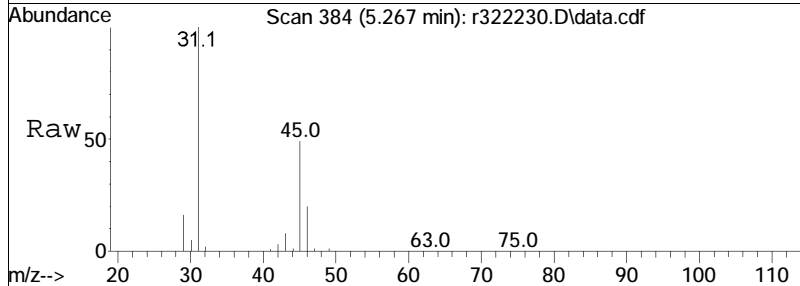
Tgt Ion	Resp	Lower	Upper
54	100		
39	94.4	67.8	101.8

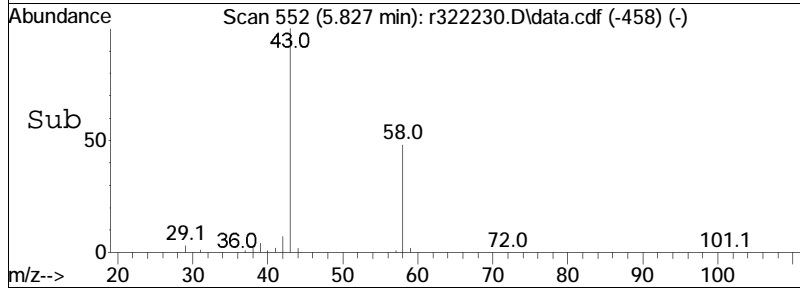
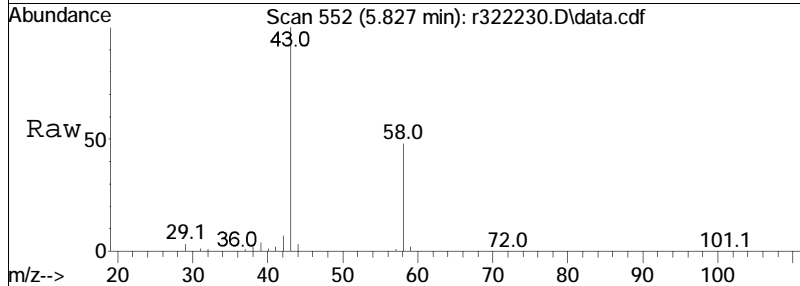
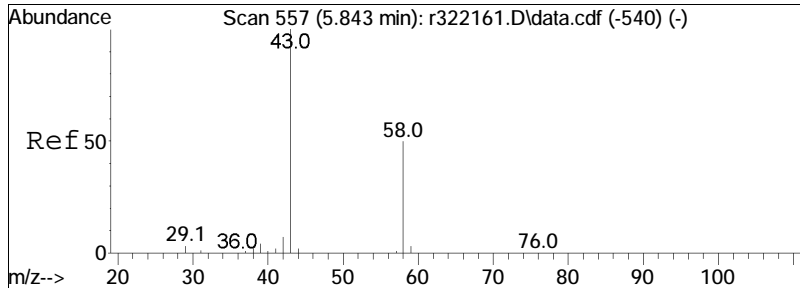




#15  
 ethanol  
 Concen: 162.61 ppbV  
 RT: 5.267 min Scan# 384  
 Delta R.T. -0.007 min  
 Lab File: r322230.D  
 Acq: 19 May 2022 7:37 PM

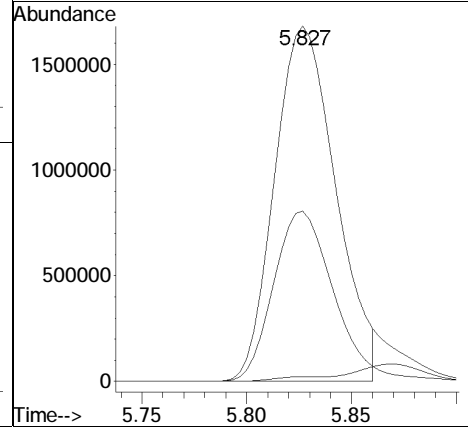
Tgt Ion: 31 Resp: 2781065  
 Ion Ratio Lower Upper  
 31 100  
 45 49.5 37.6 56.4

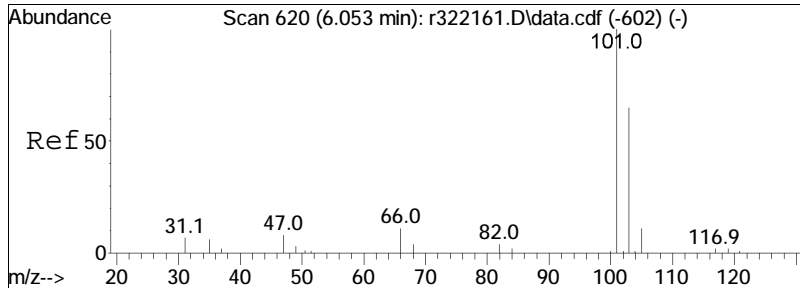




#19  
 acetone  
 Concen: 139.95 ppbV m  
 RT: 5.827 min Scan# 552  
 Delta R.T. -0.017 min  
 Lab File: r322230.D  
 Acq: 19 May 2022 7:37 PM

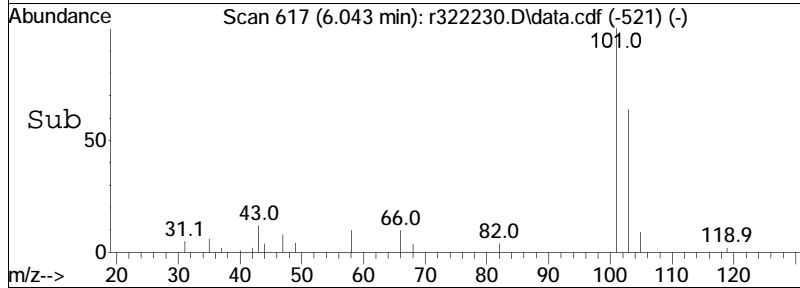
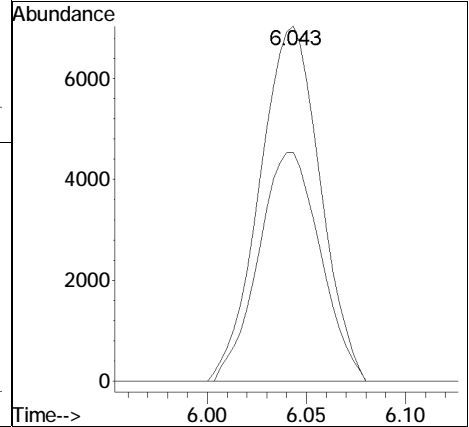
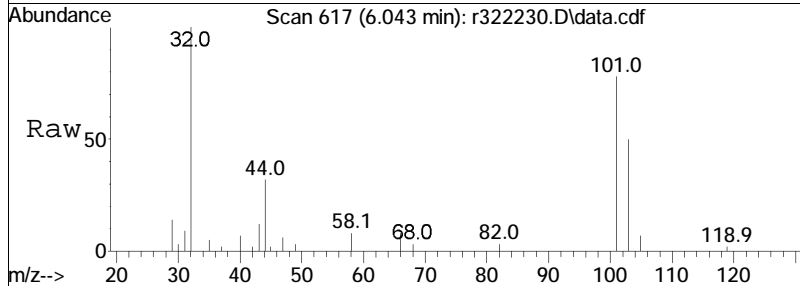
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
43	100		
58	47.9	39.8	59.8
57	1.3	1.0	1.6

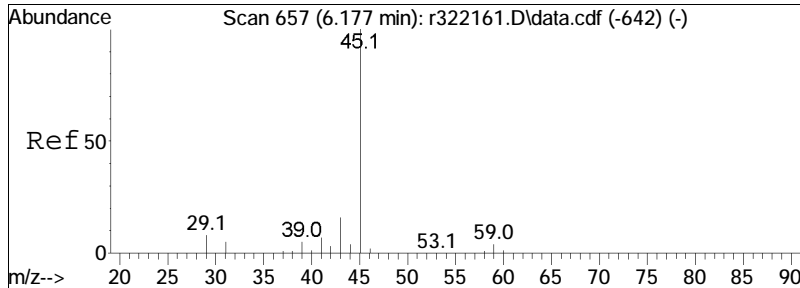




#21  
 trichlorofluoromethane  
 Concen: 0.47 ppbV  
 RT: 6.043 min Scan# 617  
 Delta R.T. -0.010 min  
 Lab File: r322230.D  
 Acq: 19 May 2022 7:37 PM

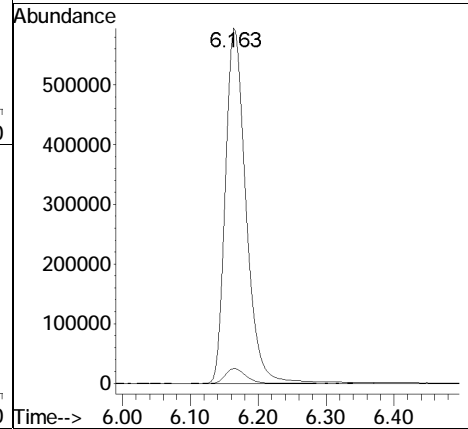
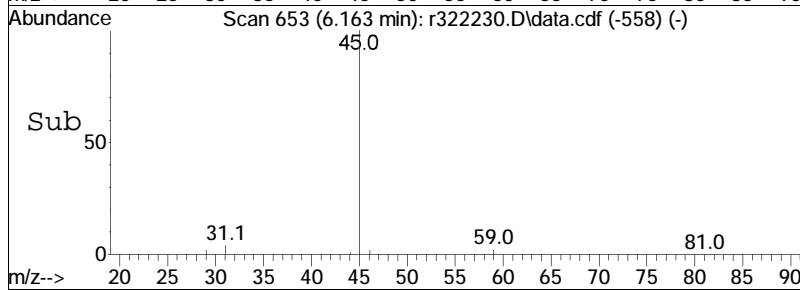
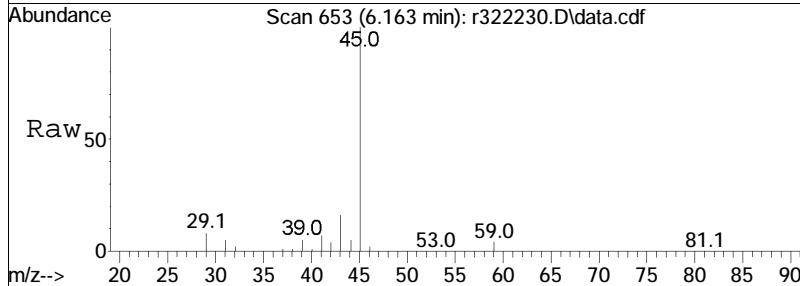
Tgt Ion	Resp	Lower	Upper
101	14954		
103	64.5	51.8	77.6



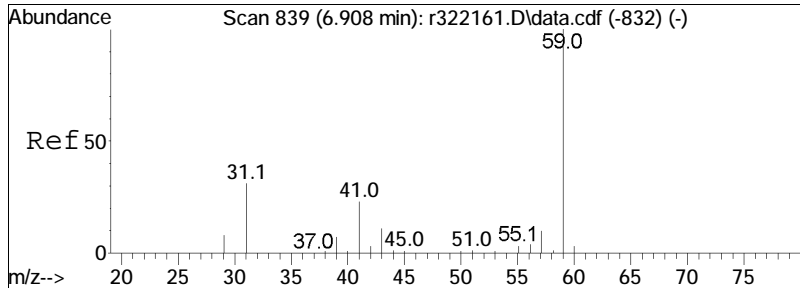


#22  
 isopropyl alcohol  
 Concen: 42.92 ppbV  
 RT: 6.163 min Scan# 653  
 Delta R.T. -0.013 min  
 Lab File: r322230.D  
 Acq: 19 May 2022 7:37 PM

Tgt Ion	Resp	Lower	Upper
45	1259372		
45	100		
59	4.2	3.5	5.3

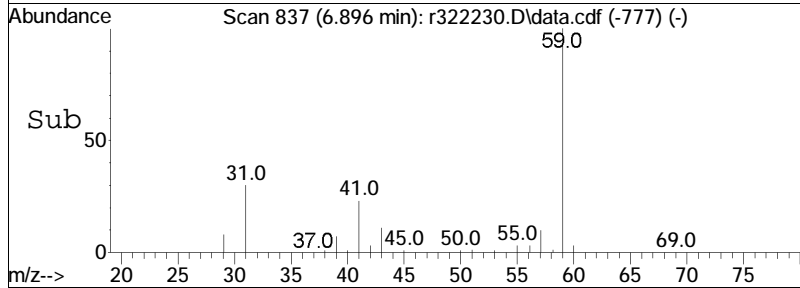
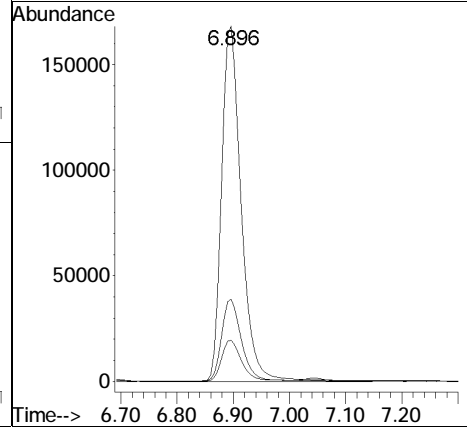
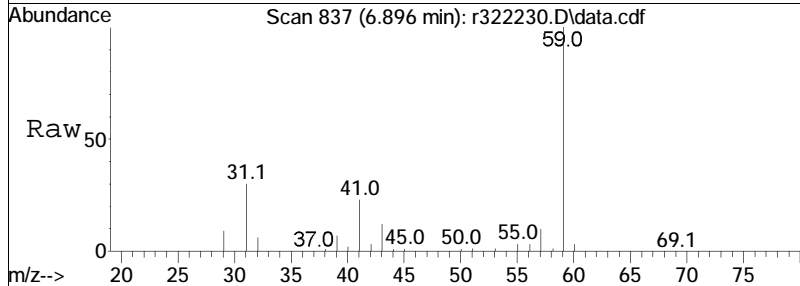


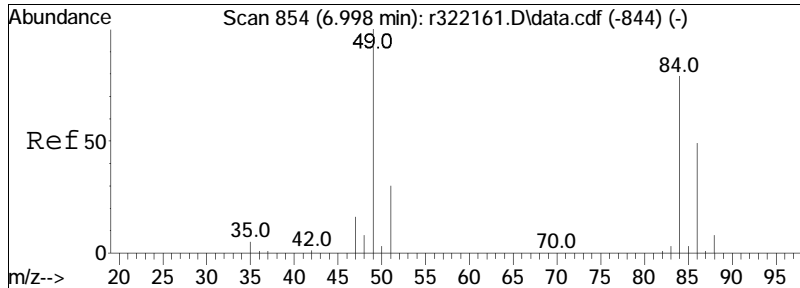




#27  
 tertiary butyl alcohol  
 Concen: 11.22 ppbV  
 RT: 6.896 min Scan# 837  
 Delta R.T. -0.012 min  
 Lab File: r322230.D  
 Acq: 19 May 2022 7:37 PM

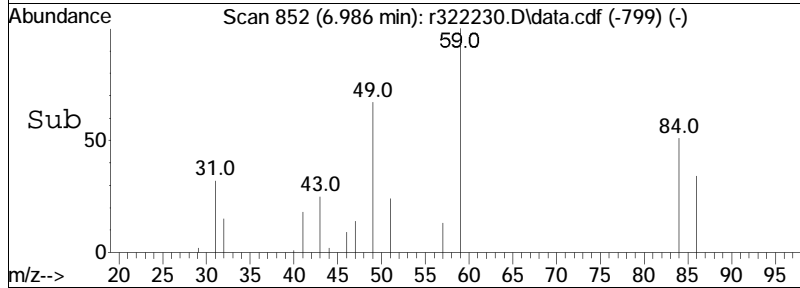
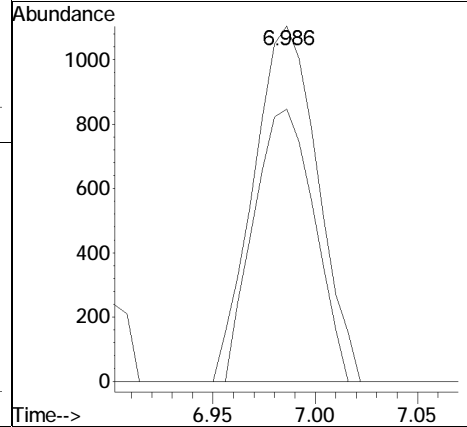
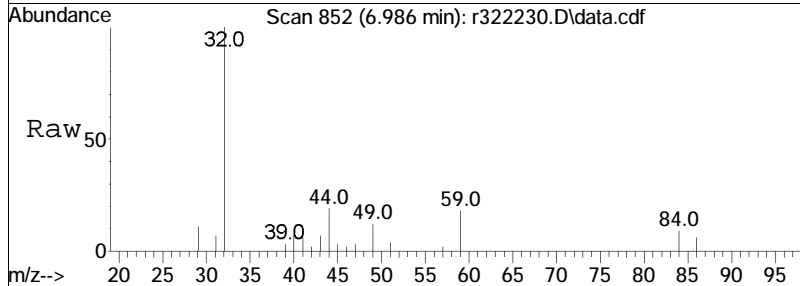
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
59	100		
41	23.2	18.2	27.2
43	11.6	8.9	13.3

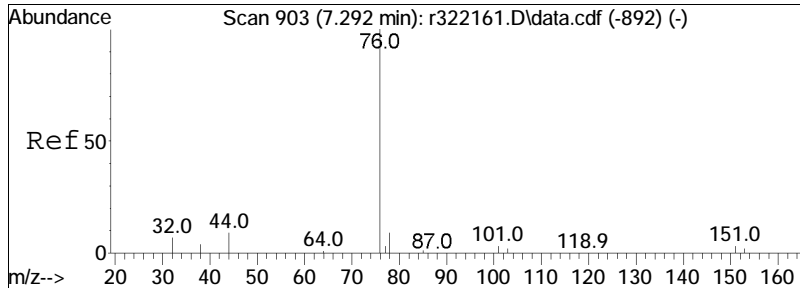




#28  
 methylene chloride  
 Concen: 0.09 ppbV  
 RT: 6.986 min Scan# 852  
 Delta R.T. -0.012 min  
 Lab File: r322230.D  
 Acq: 19 May 2022 7:37 PM

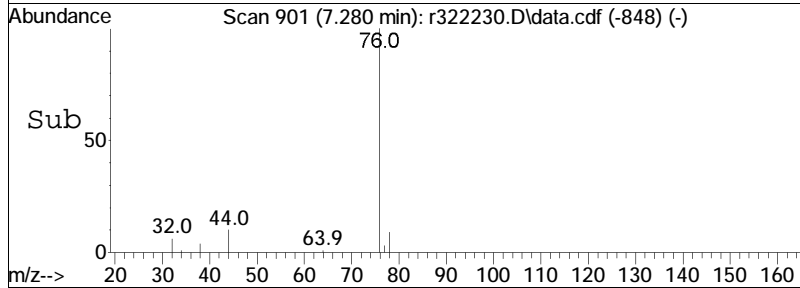
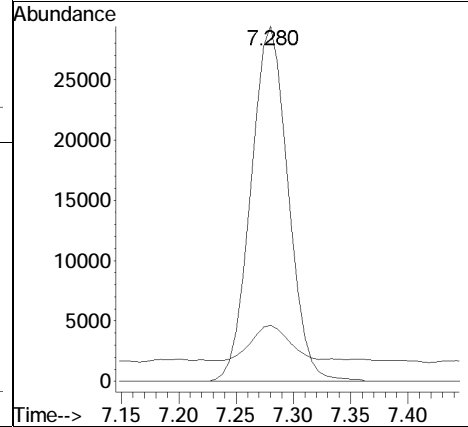
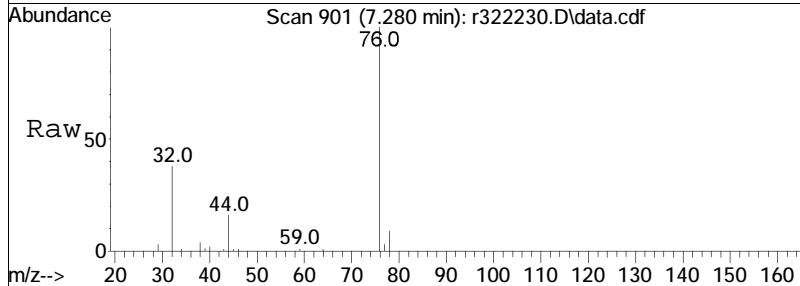
Tgt Ion: 49 Resp: 2418  
 Ion Ratio Lower Upper  
 49 100  
 84 76.7 63.0 94.6

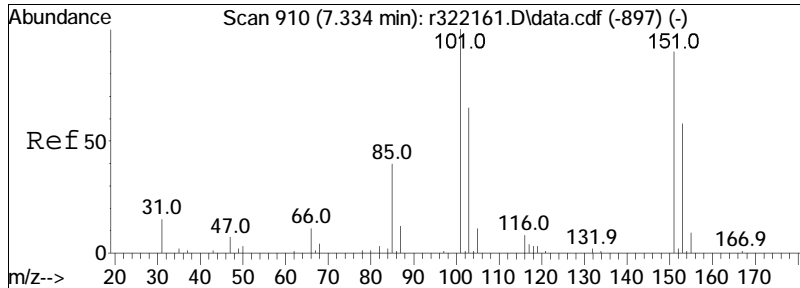




#30  
 carbon disulfide  
 Concen: 1.04 ppbV  
 RT: 7.280 min Scan# 901  
 Delta R.T. -0.012 min  
 Lab File: r322230.D  
 Acq: 19 May 2022 7:37 PM

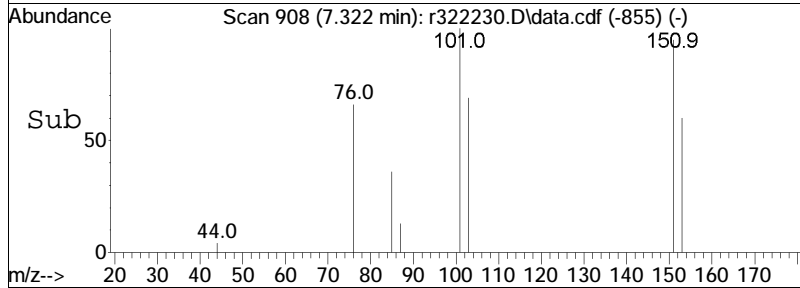
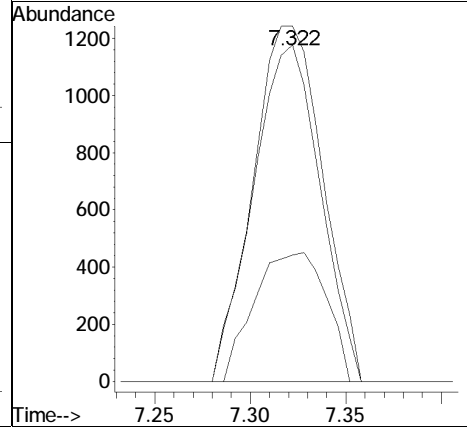
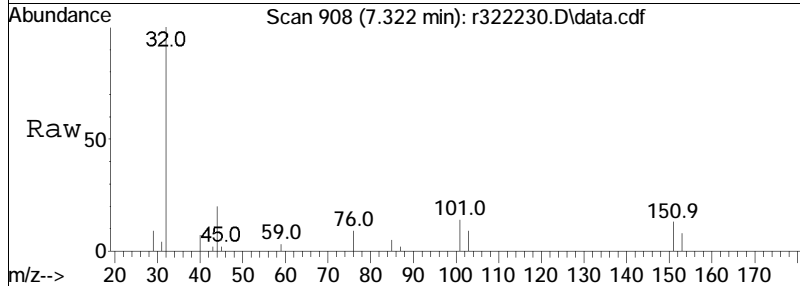
Tgt Ion	Resp	Lower	Upper
76	100		
44	15.8	7.6	11.4#

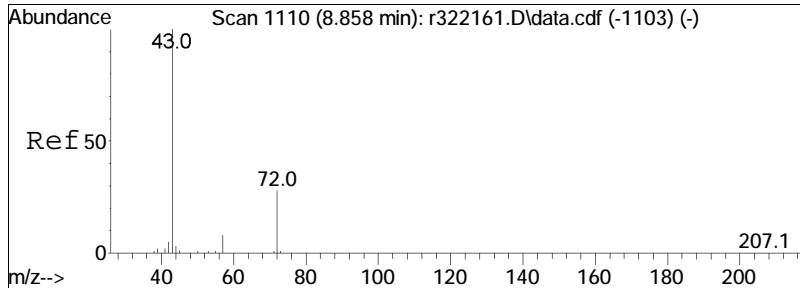




#31  
 Freon 113  
 Concen: 0.09 ppbV  
 RT: 7.322 min Scan# 908  
 Delta R.T. -0.012 min  
 Lab File: r322230.D  
 Acq: 19 May 2022 7:37 PM

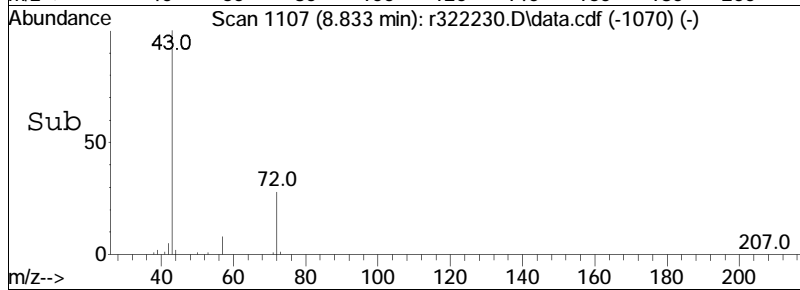
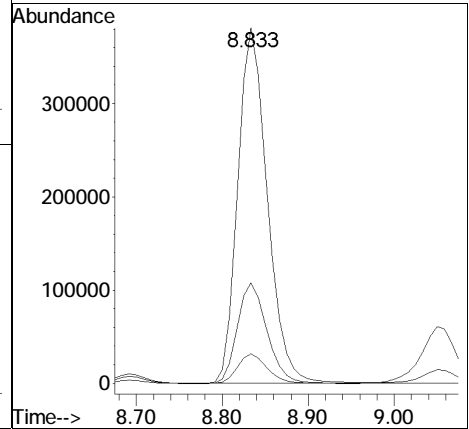
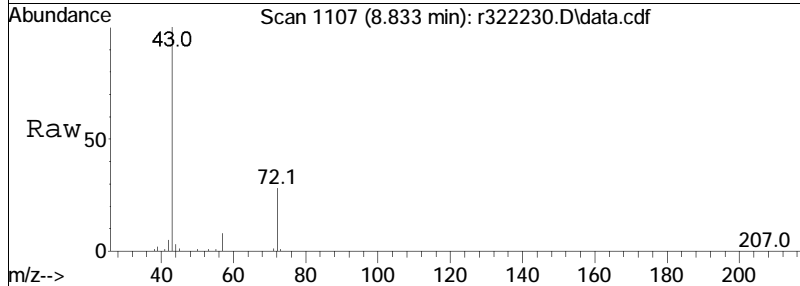
Tgt Ion	Ratio	Lower	Upper
101	100		
85	35.6	31.8	47.8
151	94.7	72.2	108.4

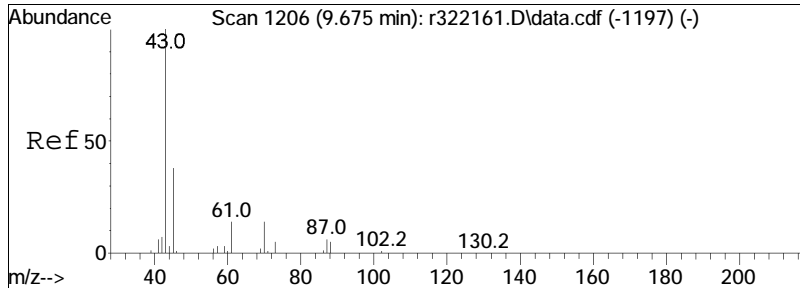




#36  
 2-butanone  
 Concen: 20.52 ppbV  
 RT: 8.833 min Scan# 1107  
 Delta R.T. -0.025 min  
 Lab File: r322230.D  
 Acq: 19 May 2022 7:37 PM

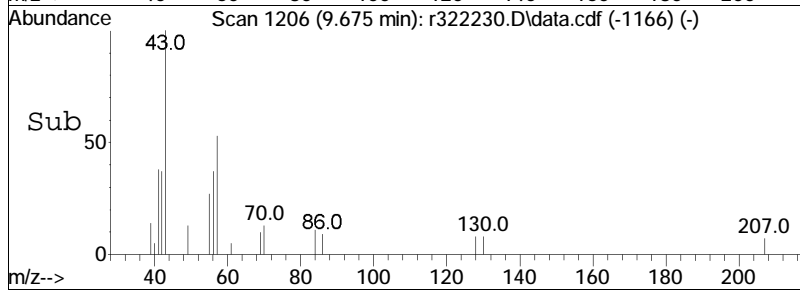
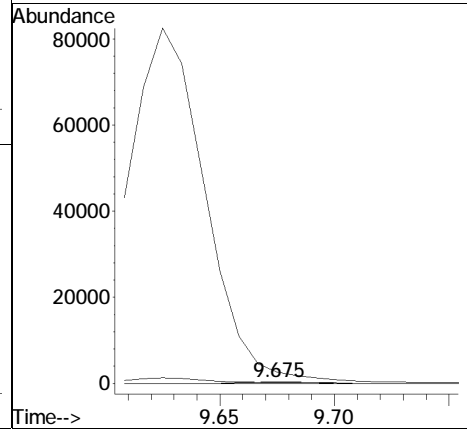
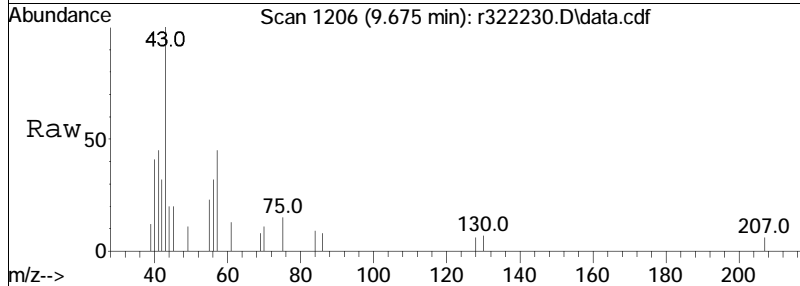
Tgt Ion	Resp	Lower	Upper
43	100		
72	28.3	22.6	33.8
57	8.3	6.6	10.0

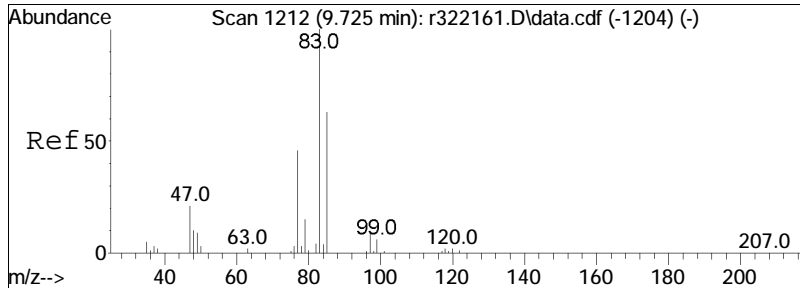




#38  
 Ethyl Acetate  
 Concen: 0.11 ppbV  
 RT: 9.675 min Scan# 1206  
 Delta R.T. 0.000 min  
 Lab File: r322230.D  
 Acq: 19 May 2022 7:37 PM

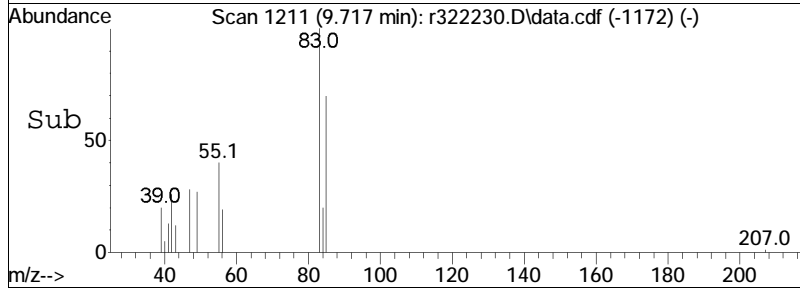
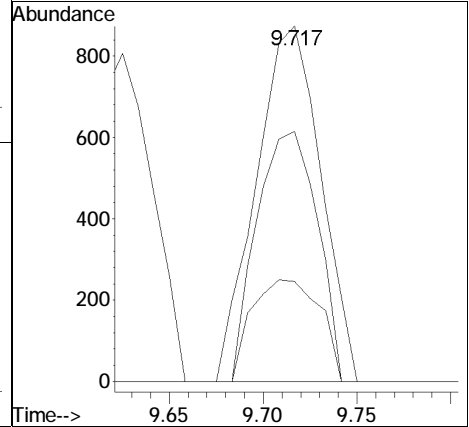
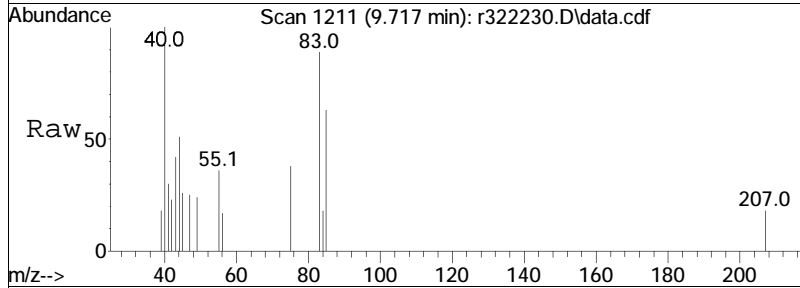
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
61	100		
70	86.4	78.8	118.2
43	774.0	593.4	890.0

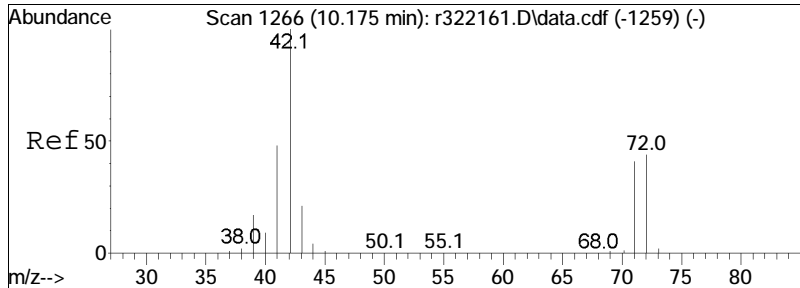




#39  
 chloroform  
 Concen: 0.06 ppbV  
 RT: 9.717 min Scan# 1211  
 Delta R.T. -0.008 min  
 Lab File: r322230.D  
 Acq: 19 May 2022 7:37 PM

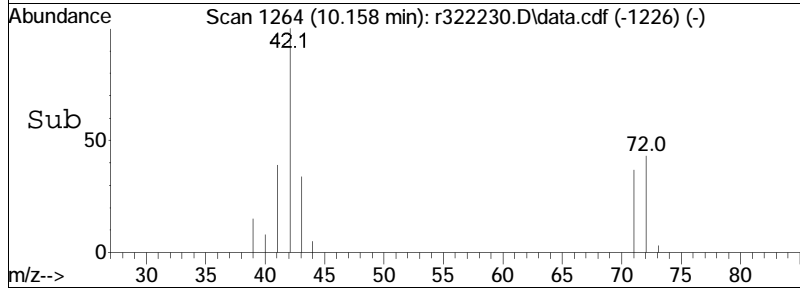
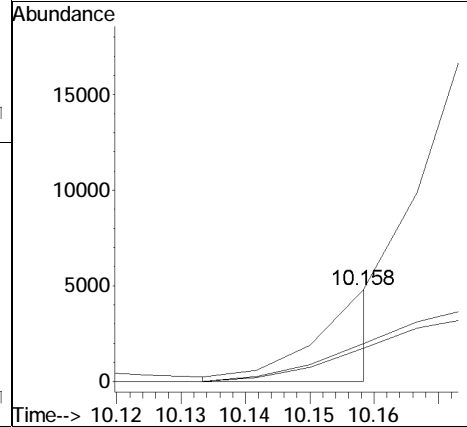
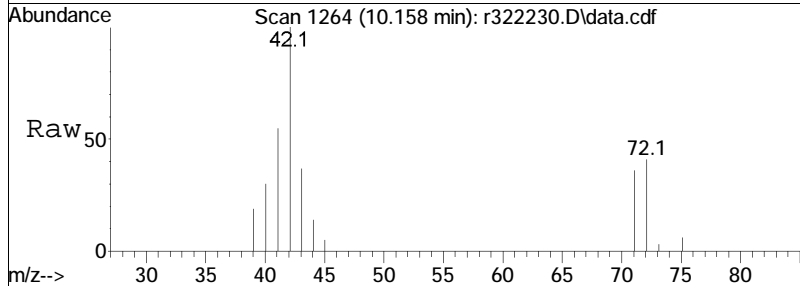
Tgt Ion	Resp	Lower	Upper
83	100		
85	70.4	50.4	75.6
47	28.1	16.9	25.3#



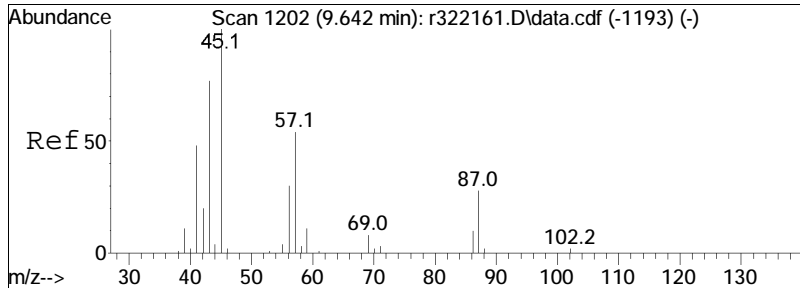


#40  
 Tetrahydrofuran  
 Concen: 0.14 ppbV m  
 RT: 10.158 min Scan# 1264  
 Delta R.T. -0.017 min  
 Lab File: r322230.D  
 Acq: 19 May 2022 7:37 PM

Tgt Ion	Resp	Lower	Upper
42	100		
71	36.2	32.4	48.6
72	41.2	35.2	52.8

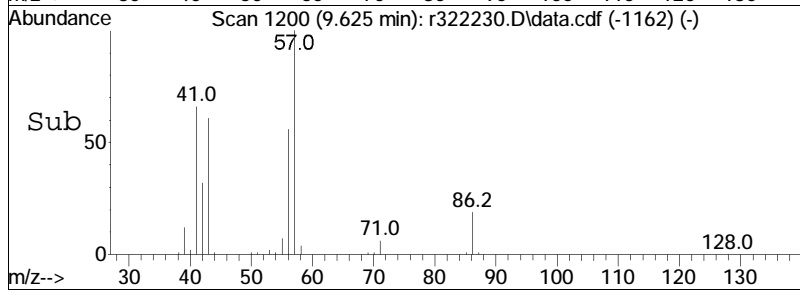
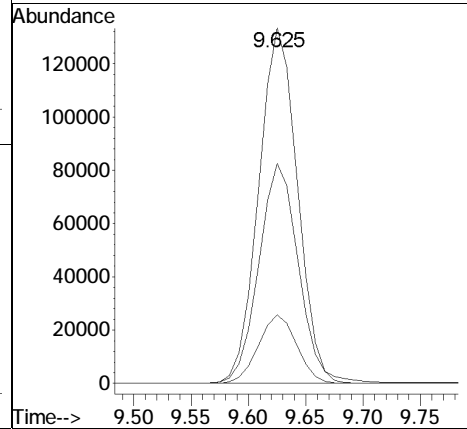
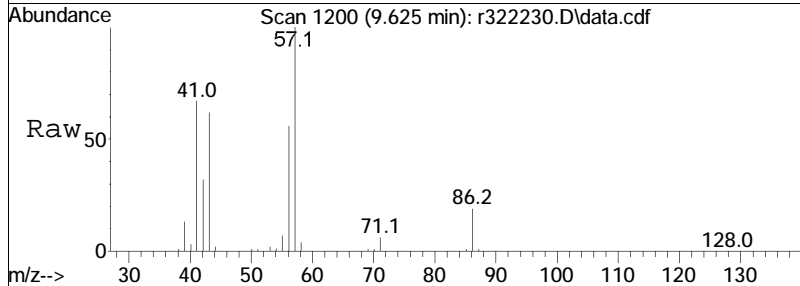


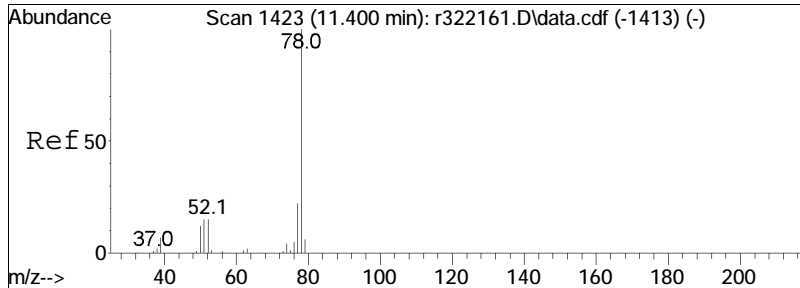




#44  
 hexane  
 Concen: 7.93 ppbV  
 RT: 9.625 min Scan# 1200  
 Delta R.T. -0.017 min  
 Lab File: r322230.D  
 Acq: 19 May 2022 7:37 PM

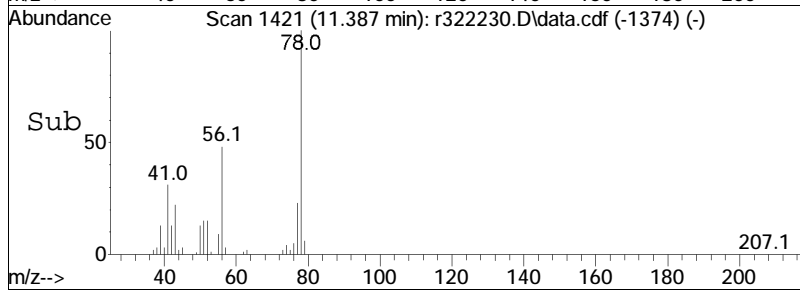
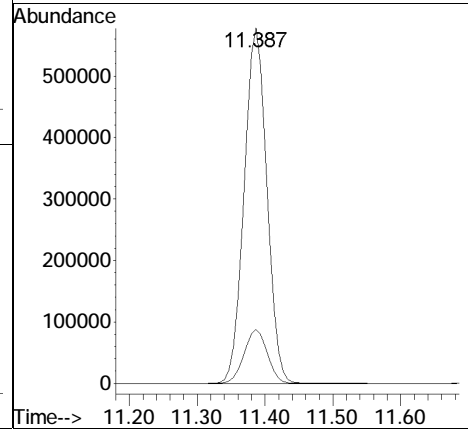
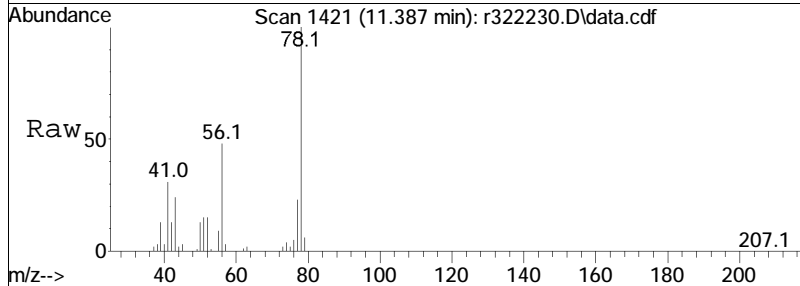
Tgt Ion:	Resp:		
Ion Ratio	Lower	Upper	
57	100		
43	61.9	115.0	172.6#
86	19.3	15.5	23.3

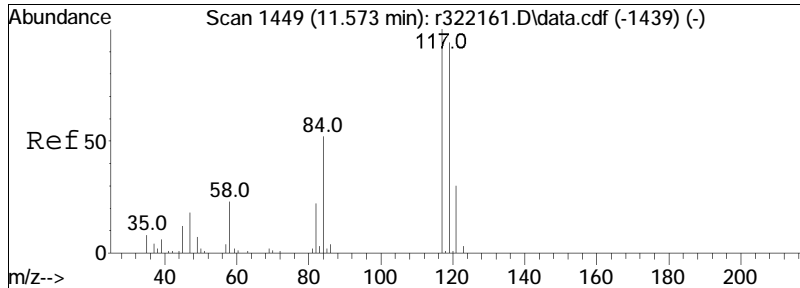




#50  
 benzene  
 Concen: 16.58 ppbV  
 RT: 11.387 min Scan# 1421  
 Delta R.T. -0.013 min  
 Lab File: r322230.D  
 Acq: 19 May 2022 7:37 PM

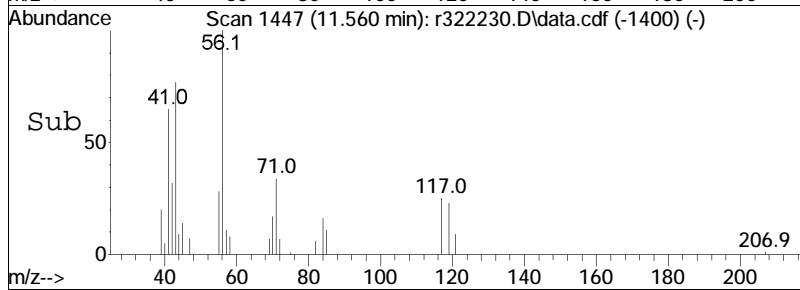
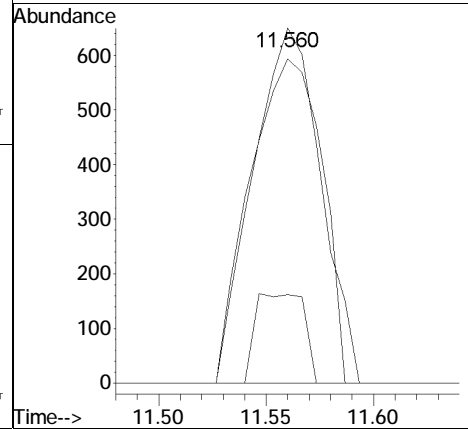
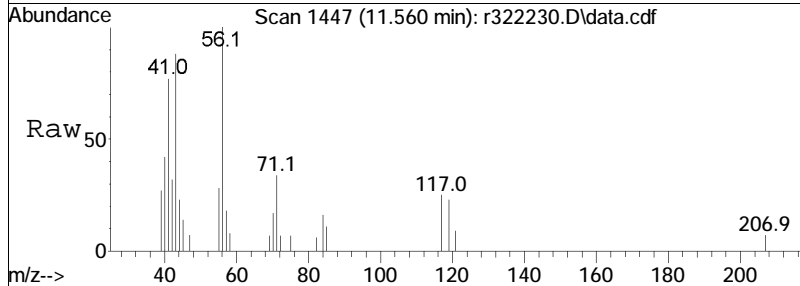
Tgt Ion: 78 Resp: 1343506  
 Ion Ratio Lower Upper  
 78 100  
 52 15.2 12.2 18.2

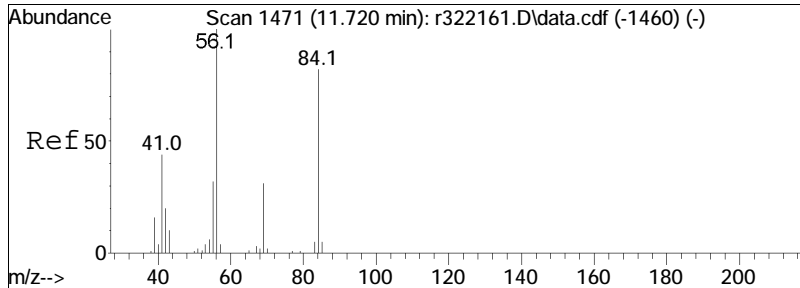




#52  
 carbon tetrachloride  
 Concen: 0.05 ppbV  
 RT: 11.560 min Scan# 1447  
 Delta R.T. -0.013 min  
 Lab File: r322230.D  
 Acq: 19 May 2022 7:37 PM

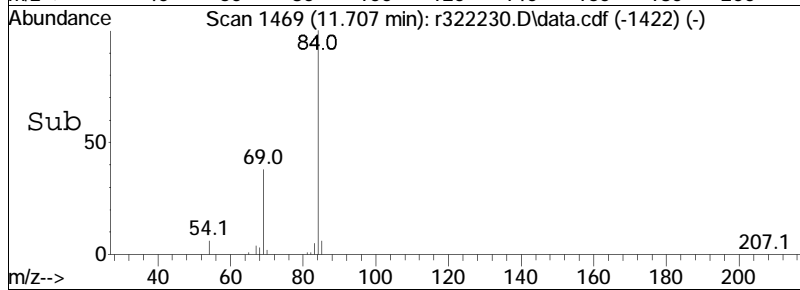
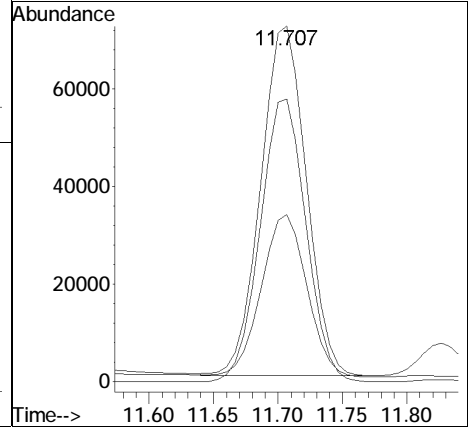
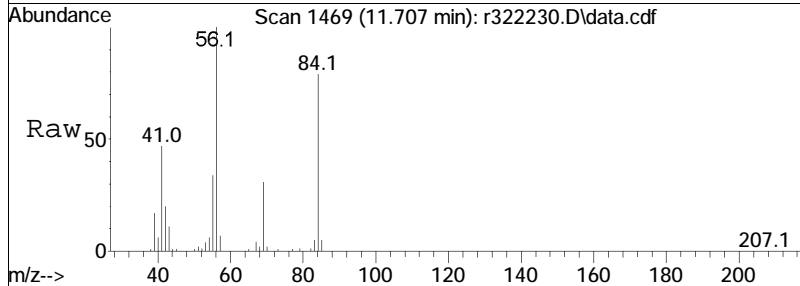
Tgt Ion	Resp	Lower	Upper
117	100		
119	91.4	75.6	113.4
82	24.9	17.8	26.6

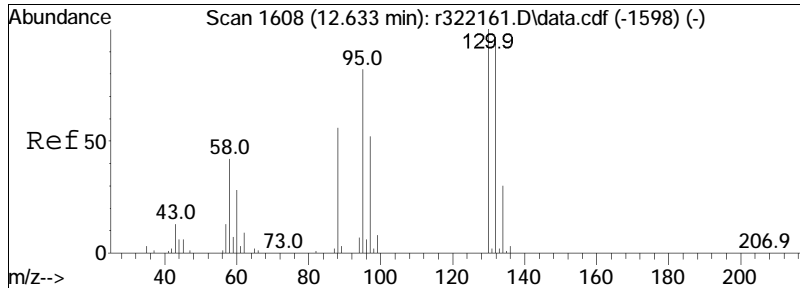




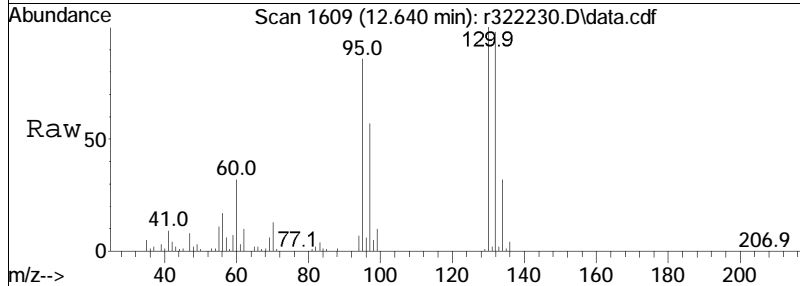
#53  
 cyclohexane  
 Concen: 4.31 ppbV  
 RT: 11.707 min Scan# 1469  
 Delta R.T. -0.013 min  
 Lab File: r322230.D  
 Acq: 19 May 2022 7:37 PM

Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
56	100		
84	79.5	65.4	98.0
41	47.0	35.4	53.2

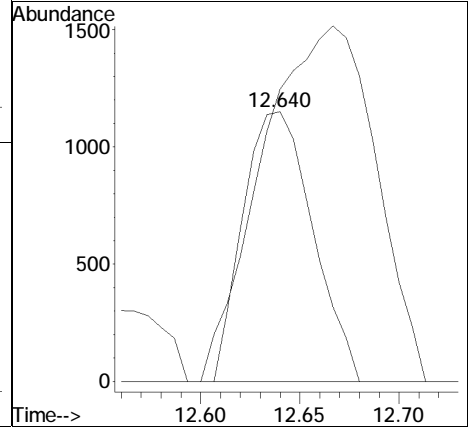
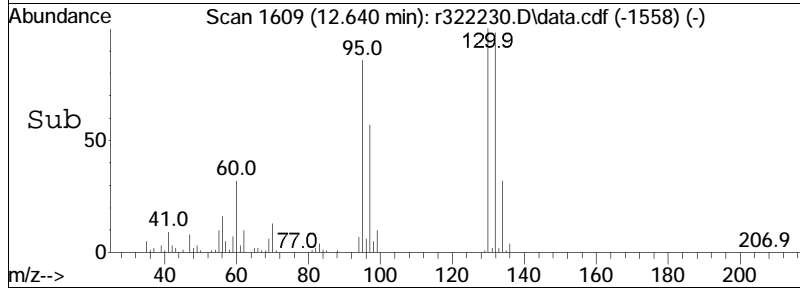


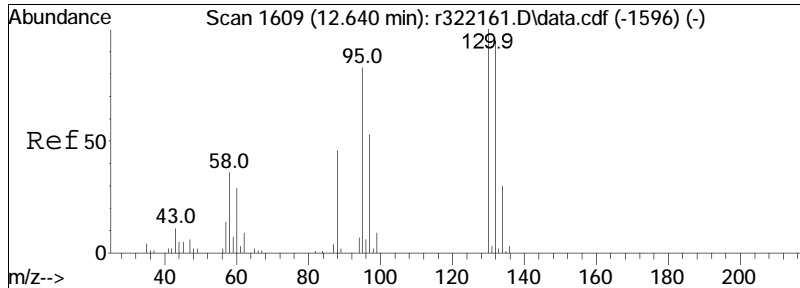


#58  
 1,4-dioxane  
 Concen: 0.17 ppbV  
 RT: 12.640 min Scan# 1609  
 Delta R.T. 0.007 min  
 Lab File: r322230.D  
 Acq: 19 May 2022 7:37 PM



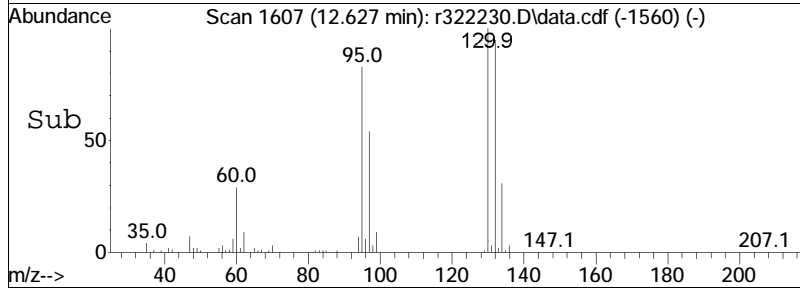
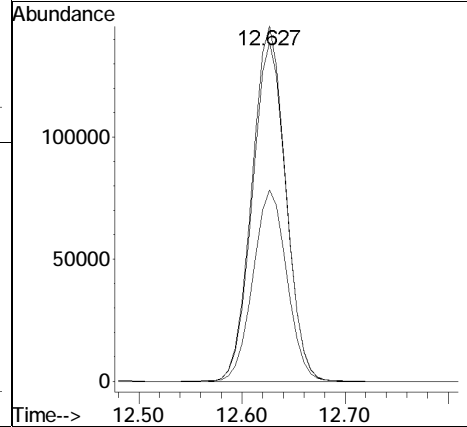
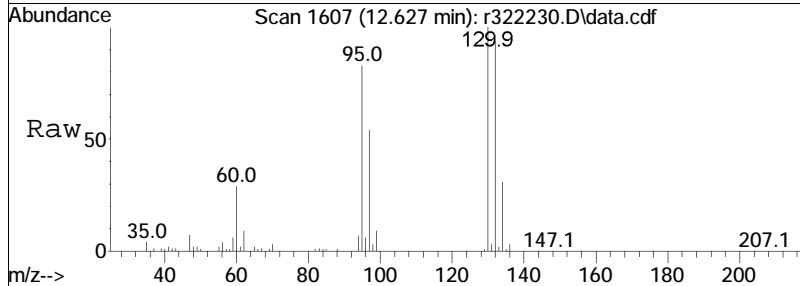
Tgt Ion:	88	Resp:	2820
Ion Ratio	Lower	Upper	
88	100		
58	108.3	61.2	91.8#

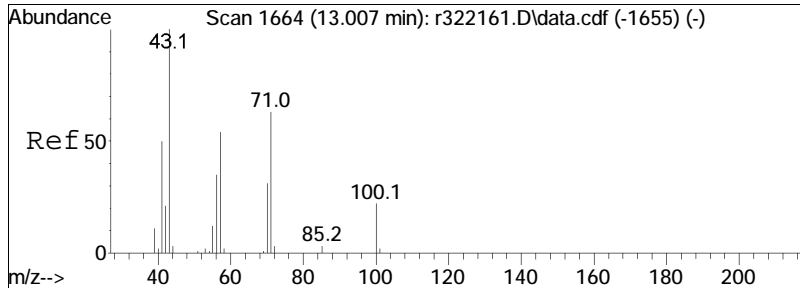




#59  
 trichloroethene  
 Concen: 10.60 ppbV  
 RT: 12.627 min Scan# 1607  
 Delta R.T. -0.013 min  
 Lab File: r322230.D  
 Acq: 19 May 2022 7:37 PM

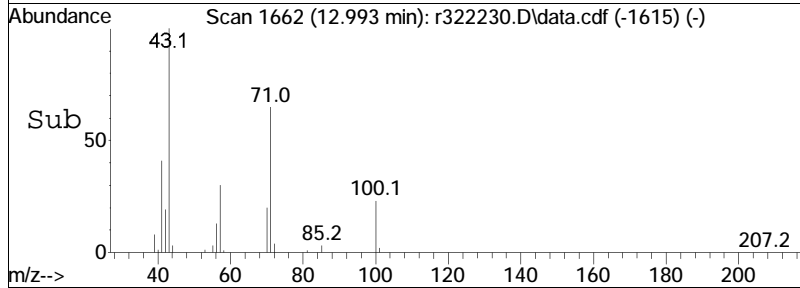
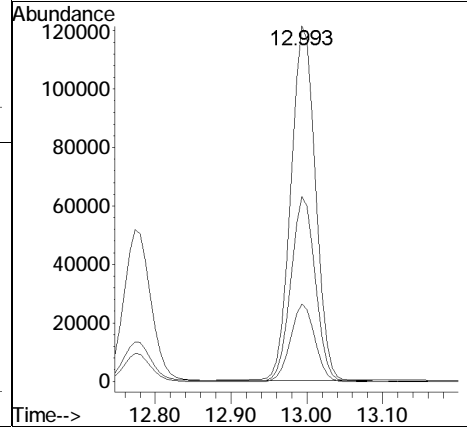
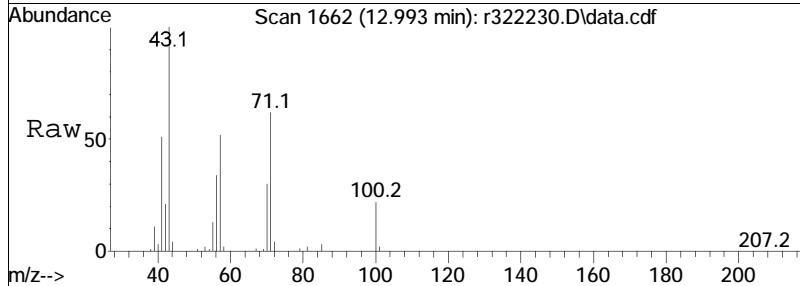
Tgt Ion	Ratio	Lower	Upper
130	100		
132	95.5	76.2	114.2
97	53.9	42.6	63.8

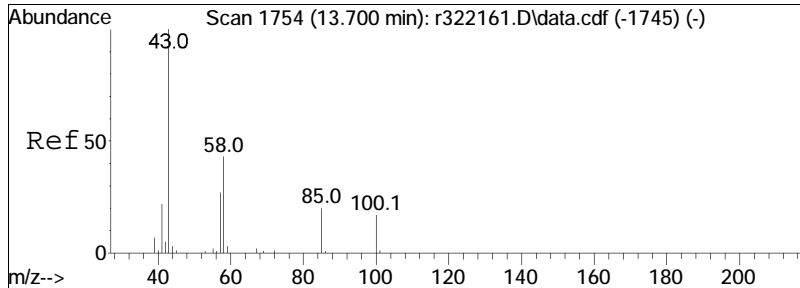




#62  
 heptane  
 Concen: 5.98 ppbV  
 RT: 12.993 min Scan# 1662  
 Delta R.T. -0.013 min  
 Lab File: r322230.D  
 Acq: 19 May 2022 7:37 PM

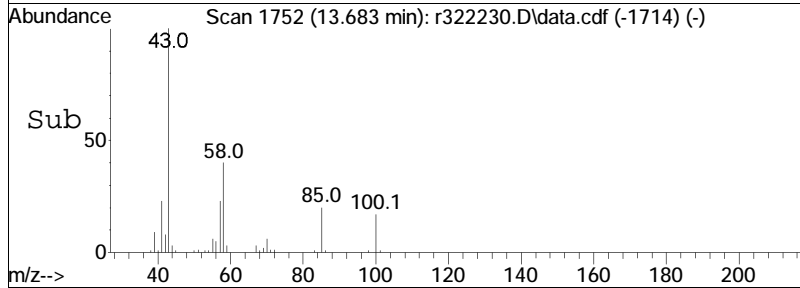
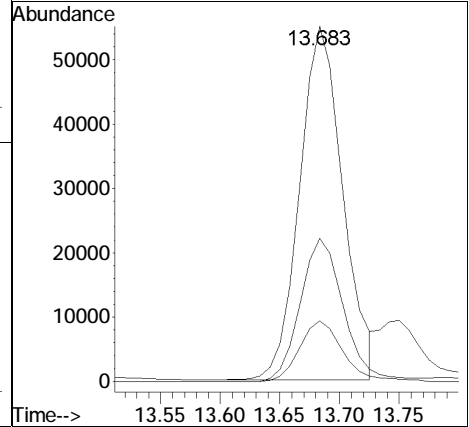
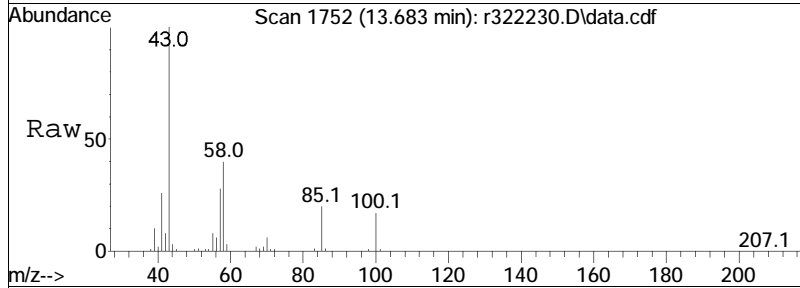
Tgt Ion:	43	Resp:	272143
Ion Ratio	Lower	Upper	
43	100		
57	52.0	43.0	64.4
100	21.8	17.6	26.4



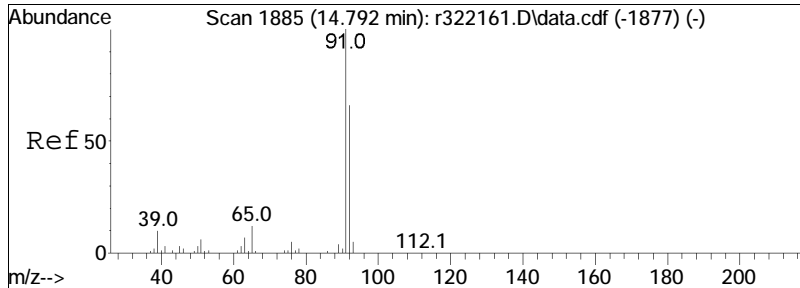


#64  
 4-methyl-2-pentanone  
 Concen: 2.66 ppbV m  
 RT: 13.683 min Scan# 1752  
 Delta R.T. -0.017 min  
 Lab File: r322230.D  
 Acq: 19 May 2022 7:37 PM

Tgt Ion:	43	58	100	Resp:	138447	Lower	Upper
Ion Ratio	100	40.3	17.1				
		34.3	13.8				
		51.5	20.6				

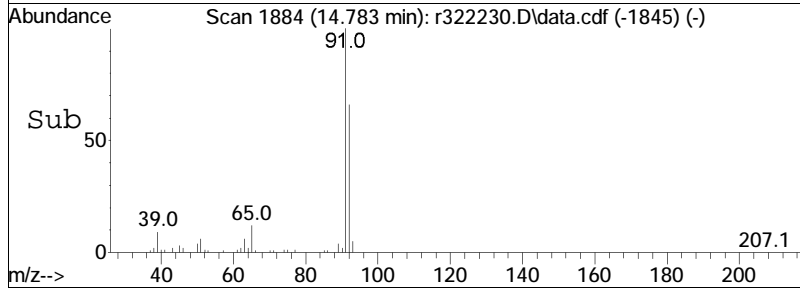
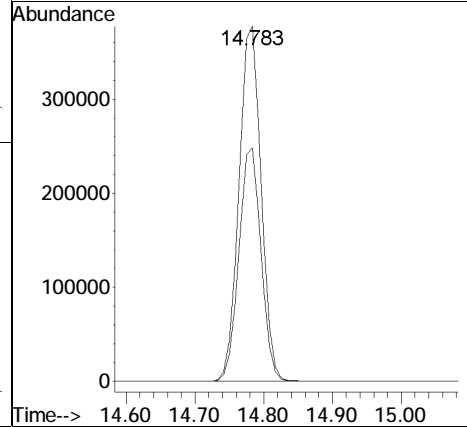
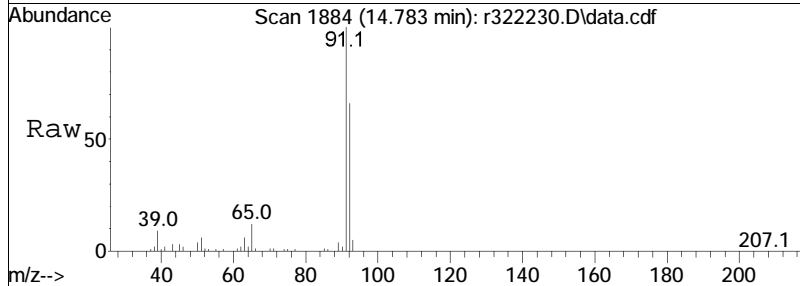


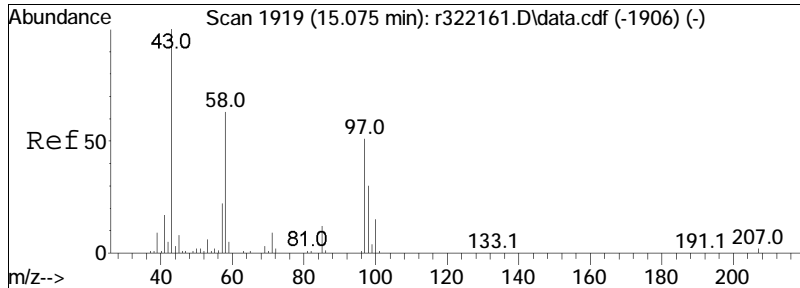




#68  
 toluene  
 Concen: 10.00 ppbV  
 RT: 14.783 min Scan# 1884  
 Delta R.T. -0.008 min  
 Lab File: r322230.D  
 Acq: 19 May 2022 7:37 PM

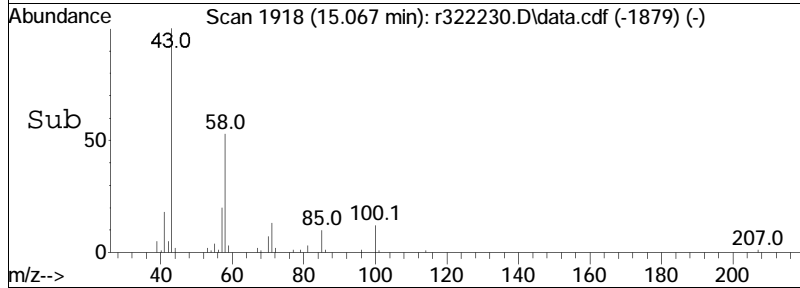
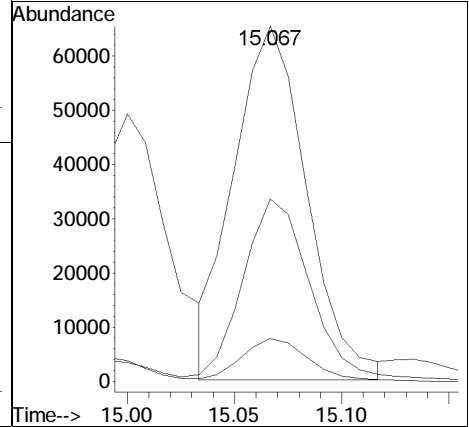
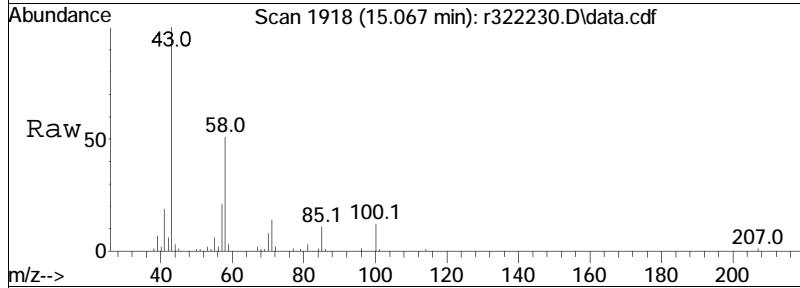
Tgt Ion: 91 Resp: 845612  
 Ion Ratio Lower Upper  
 91 100  
 92 65.7 52.7 79.1

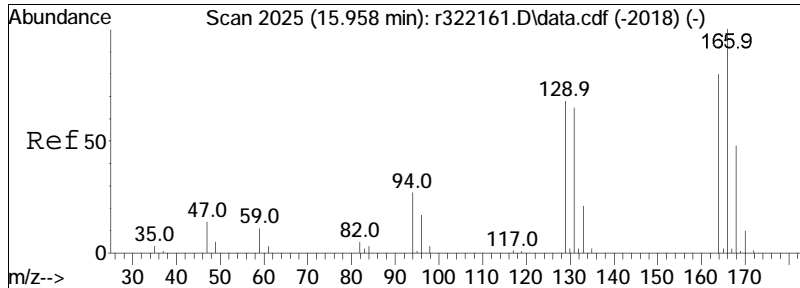




#72  
 2-hexanone  
 Concen: 3.03 ppbV m  
 RT: 15.067 min Scan# 1918  
 Delta R.T. -0.008 min  
 Lab File: r322230.D  
 Acq: 19 May 2022 7:37 PM

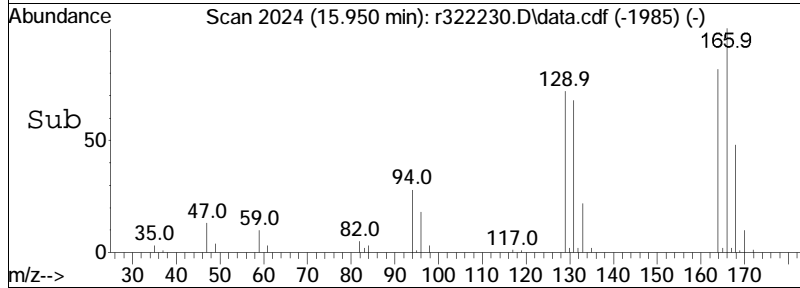
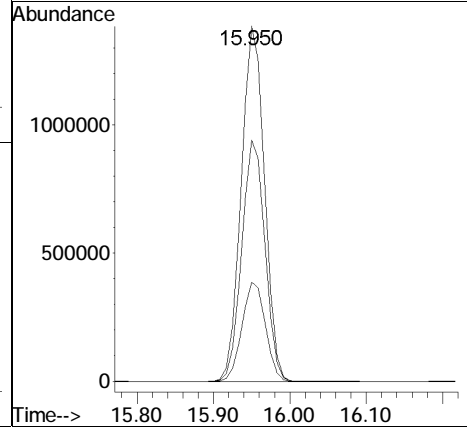
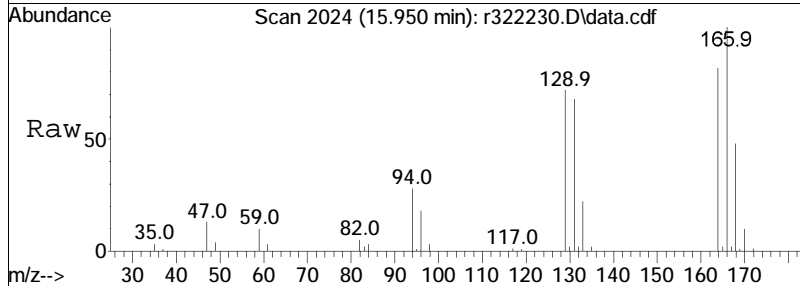
Tgt Ion	Ratio	Lower	Upper
43	100		
58	51.3	50.5	75.7
100	12.1	12.2	18.2#

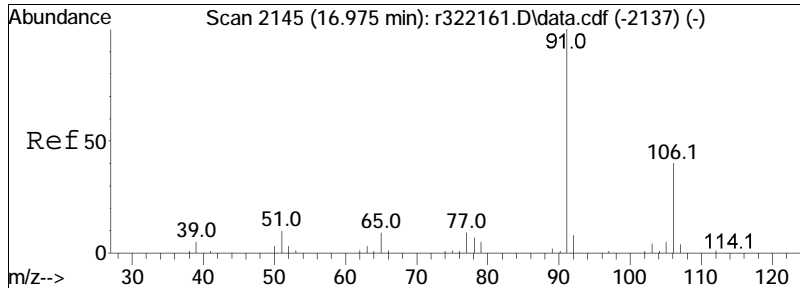




#78  
 tetrachloroethene  
 Concen: 71.48 ppbV  
 RT: 15.950 min Scan# 2024  
 Delta R.T. -0.008 min  
 Lab File: r322230.D  
 Acq: 19 May 2022 7:37 PM

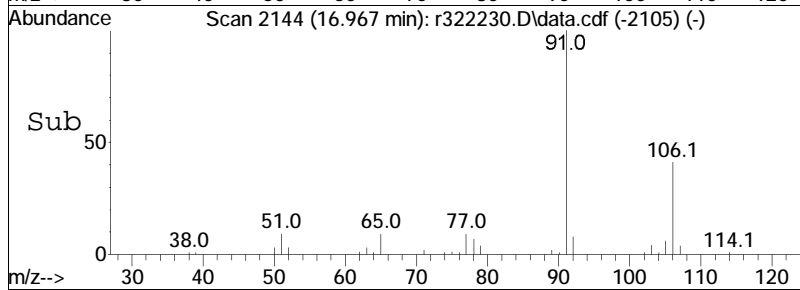
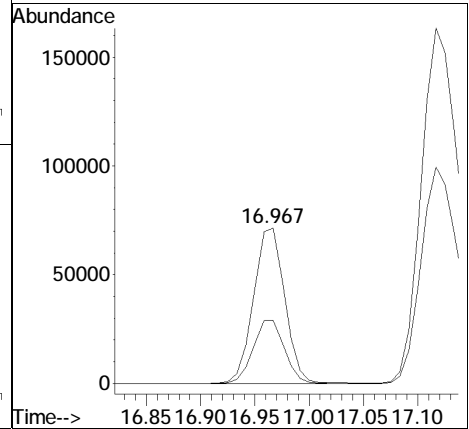
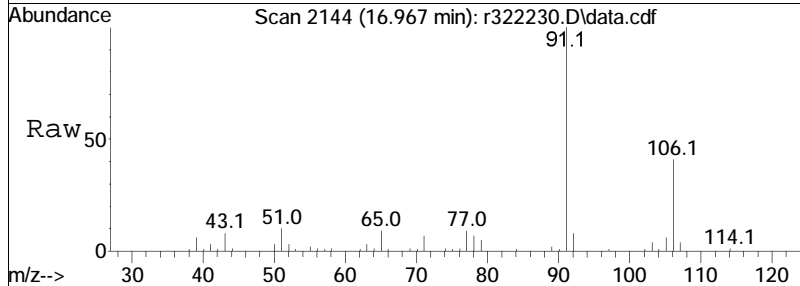
Tgt Ion	Resp	Lower	Upper
166	100		
131	68.0	51.8	77.6
94	28.0	21.8	32.8

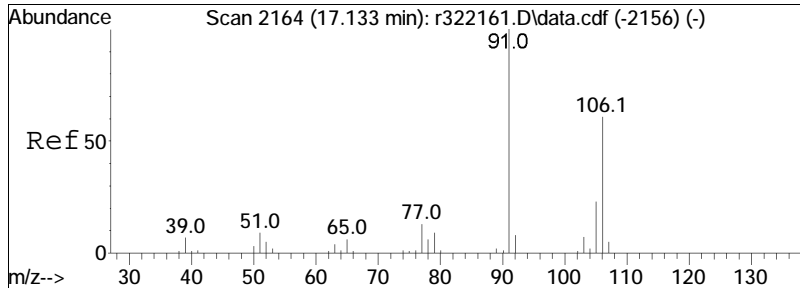




#81  
ethylbenzene  
Concen: 1.41 ppbV  
RT: 16.967 min Scan# 2144  
Delta R.T. -0.008 min  
Lab File: r322230.D  
Acq: 19 May 2022 7:37 PM

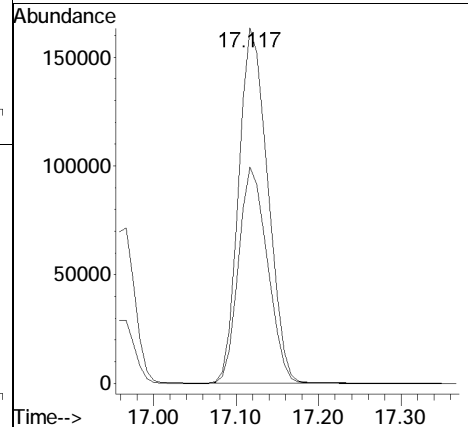
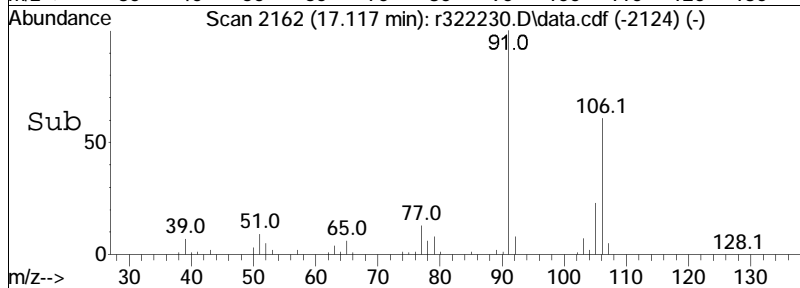
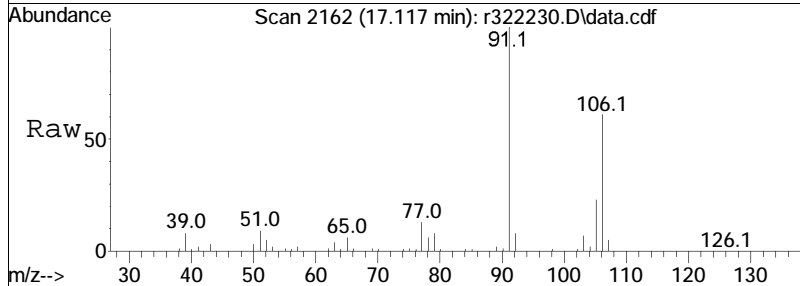
Tgt Ion	Resp	Lower	Upper
91	143102		
106	40.5	32.4	48.6

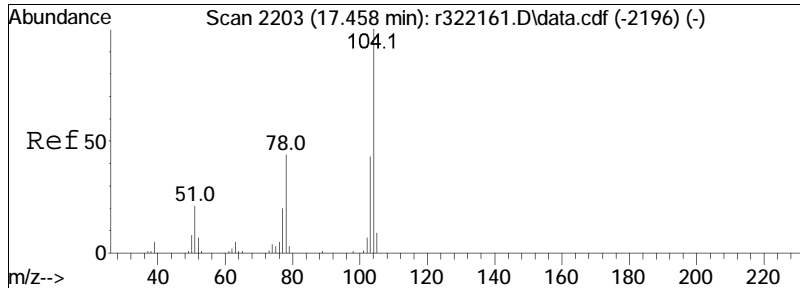




#83  
 m+p-xylene  
 Concen: 4.82 ppbV  
 RT: 17.117 min Scan# 2162  
 Delta R.T. -0.017 min  
 Lab File: r322230.D  
 Acq: 19 May 2022 7:37 PM

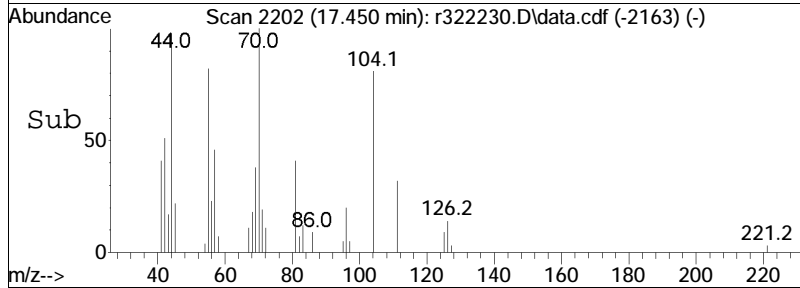
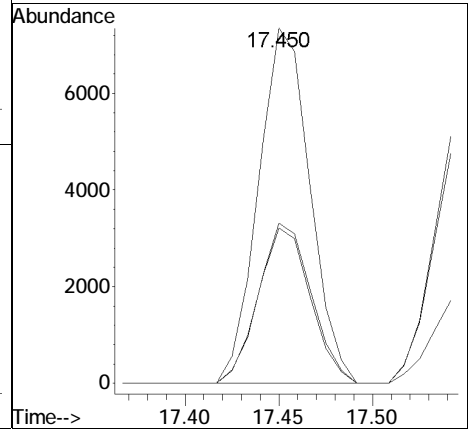
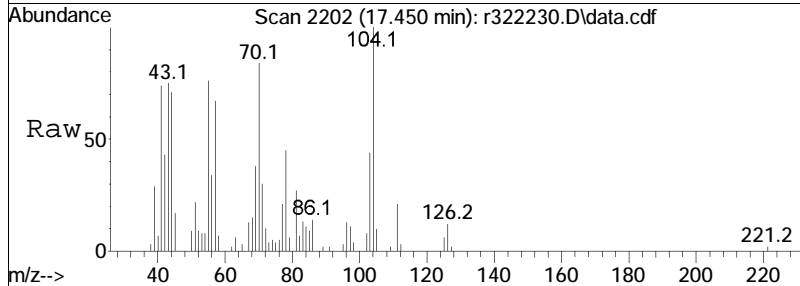
Tgt Ion: 91 Resp: 399725  
 Ion Ratio Lower Upper  
 91 100  
 106 60.9 48.4 72.6

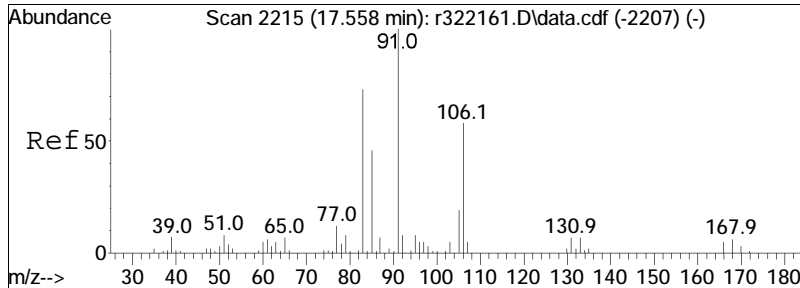




#85  
 styrene  
 Concen: 0.19 ppbV  
 RT: 17.450 min Scan# 2202  
 Delta R.T. -0.008 min  
 Lab File: r322230.D  
 Acq: 19 May 2022 7:37 PM

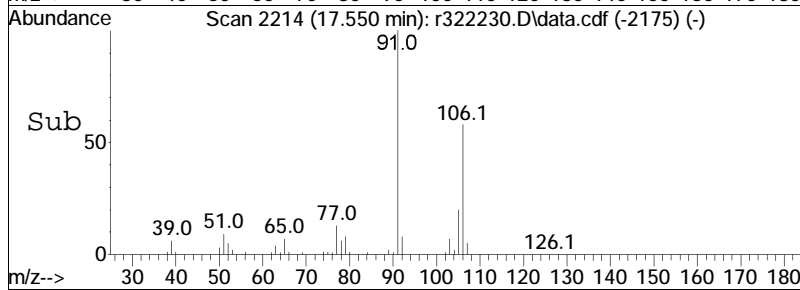
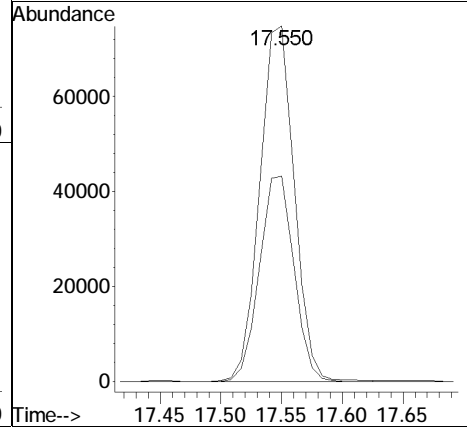
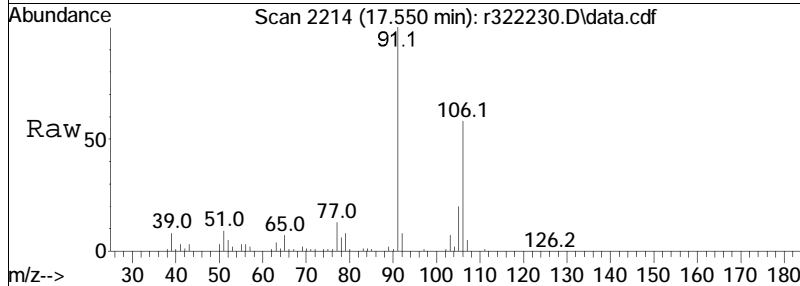
Tgt Ion	Ratio	Lower	Upper
104	100		
103	43.7	34.4	51.6
78	45.1	35.1	52.7

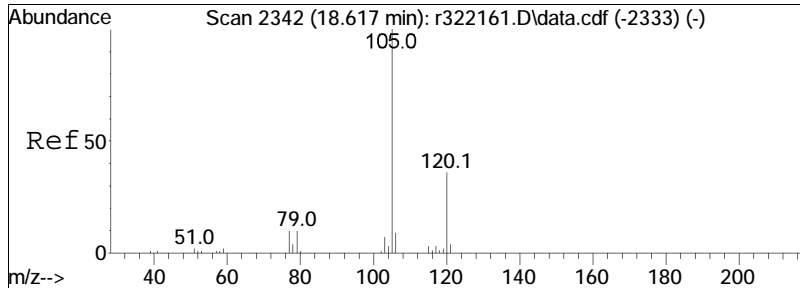




#87  
 o-xylene  
 Concen: 1.79 ppbV  
 RT: 17.550 min Scan# 2214  
 Delta R.T. -0.008 min  
 Lab File: r322230.D  
 Acq: 19 May 2022 7:37 PM

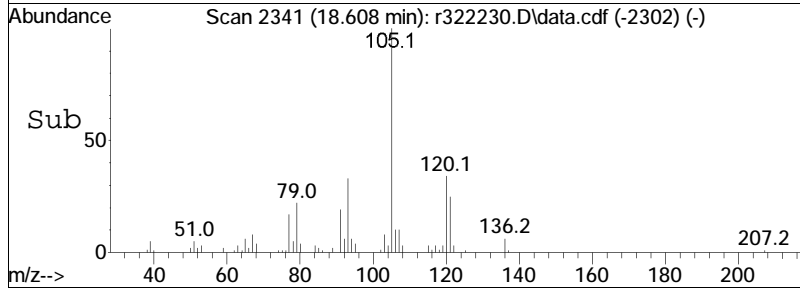
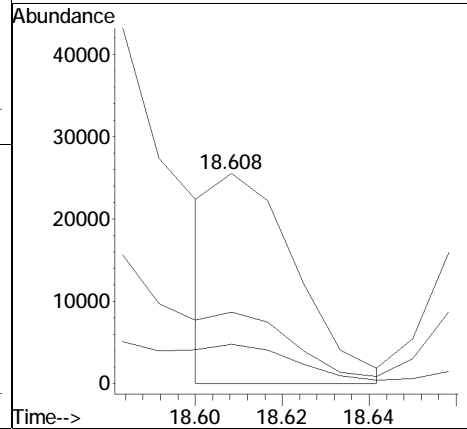
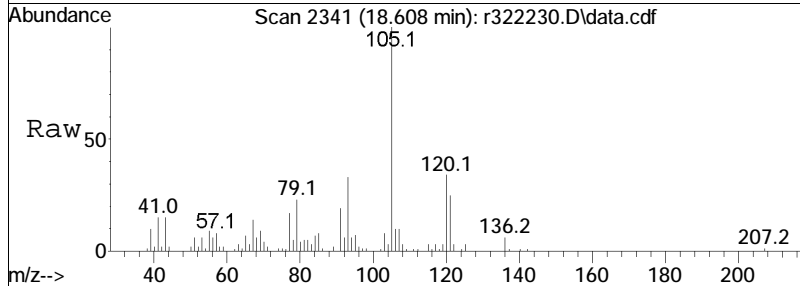
Tgt Ion:	91	Resp:	147897
Ion Ratio	Lower	Upper	
91	100		
106	57.7	46.4	69.6



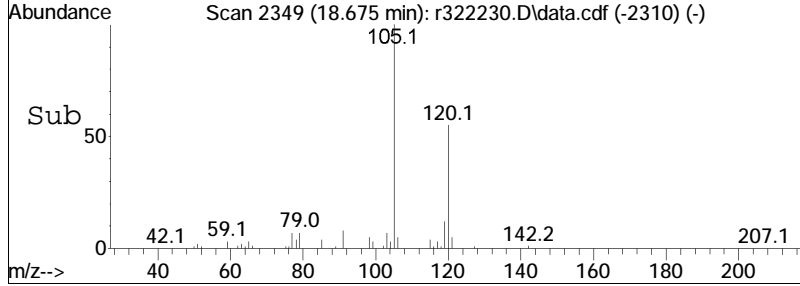
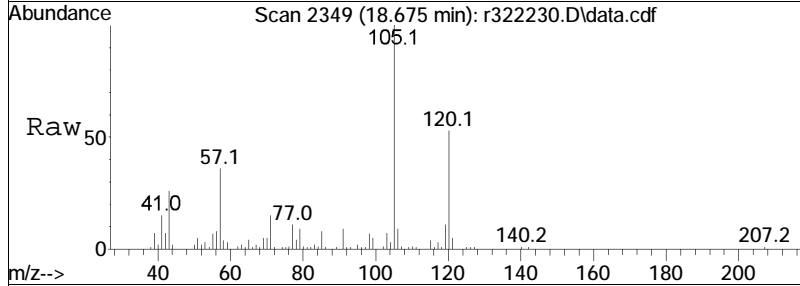
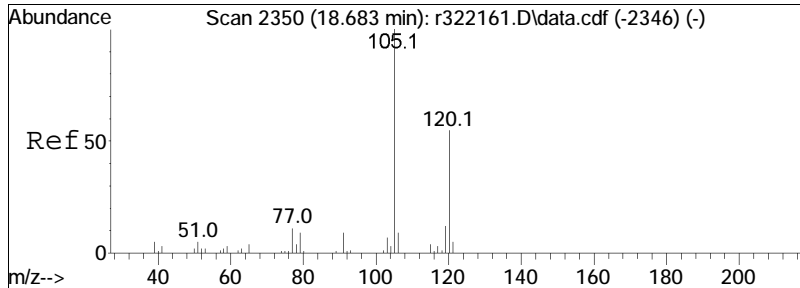


#96  
 4-ethyl toluene  
 Concen: 0.26 ppbV m  
 RT: 18.608 min Scan# 2341  
 Delta R.T. -0.008 min  
 Lab File: r322230.D  
 Acq: 19 May 2022 7:37 PM

Tgt Ion	Ratio	Lower	Upper
105	100		
120	34.0	28.6	42.8
91	18.6	7.4	11.2#

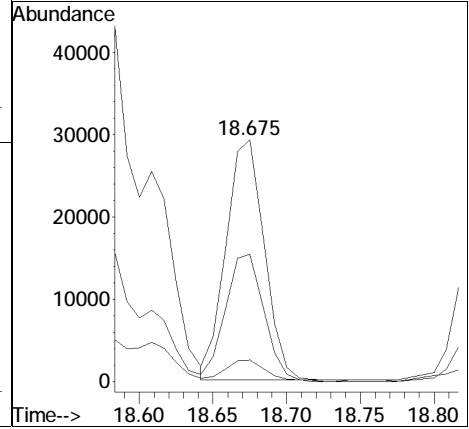


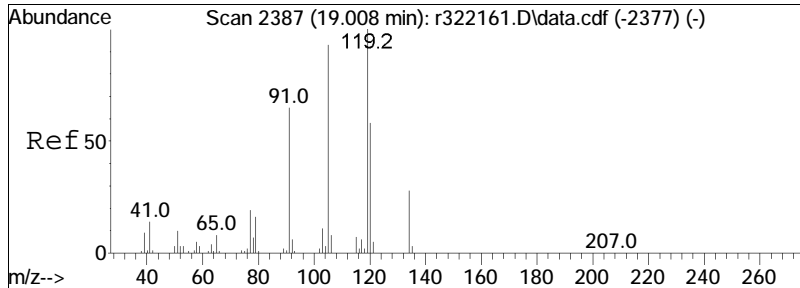




#97  
 1,3,5-trimethylbenzene  
 Concen: 0.46 ppbV  
 RT: 18.675 min Scan# 2349  
 Delta R.T. -0.008 min  
 Lab File: r322230.D  
 Acq: 19 May 2022 7:37 PM

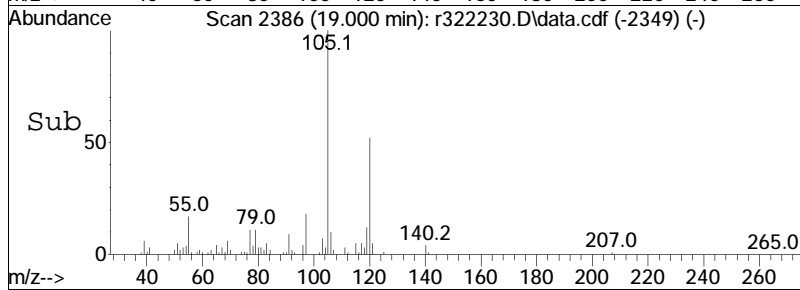
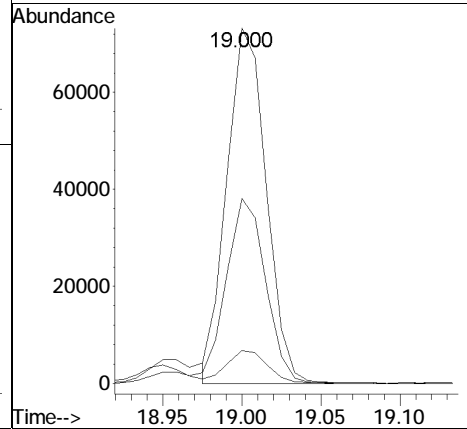
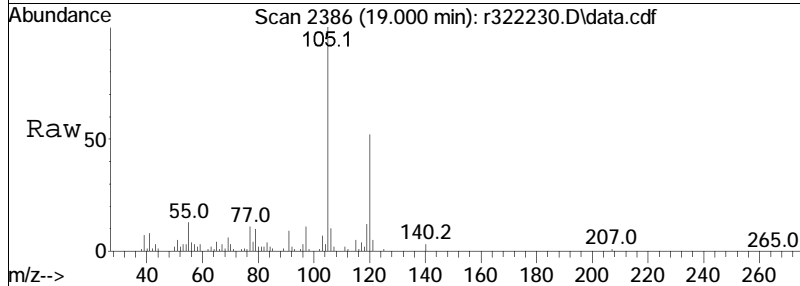
Tgt Ion	Ratio	Lower	Upper
105	100		
120	52.6	43.7	65.5
91	8.9	7.0	10.4





#99  
 1,2,4-trimethylbenzene  
 Concen: 1.27 ppbV m  
 RT: 19.000 min Scan# 2386  
 Delta R.T. -0.008 min  
 Lab File: r322230.D  
 Acq: 19 May 2022 7:37 PM

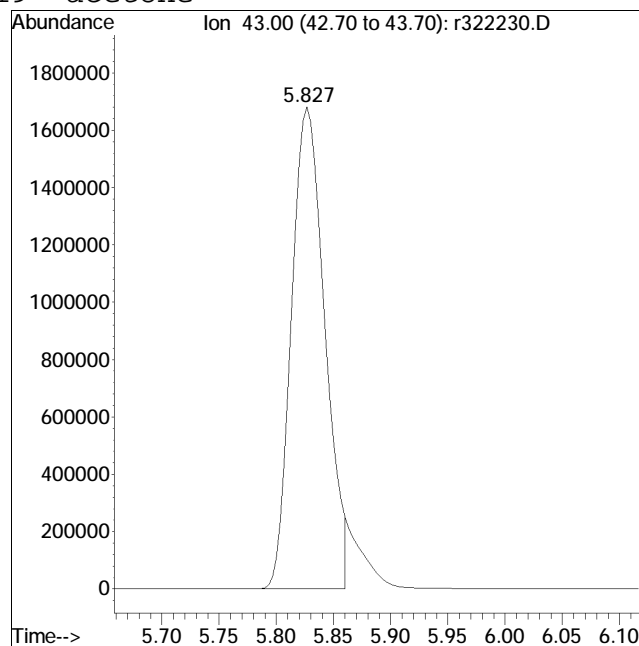
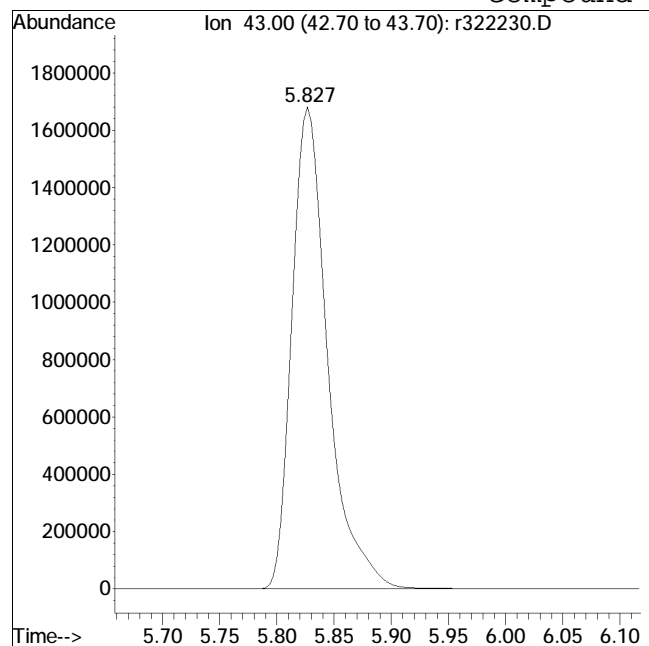
Tgt Ion	Ratio	Lower	Upper
105	100		
120	52.1	49.4	74.2
91	9.2	55.8	83.8#



# Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322230.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:7: 7 Instrument :  
Sample : L2225590-02,3,250,250 Quant Date : 5/20/2022 8:02 am

## Compound #19: acetone



Original Peak Response = 3660549

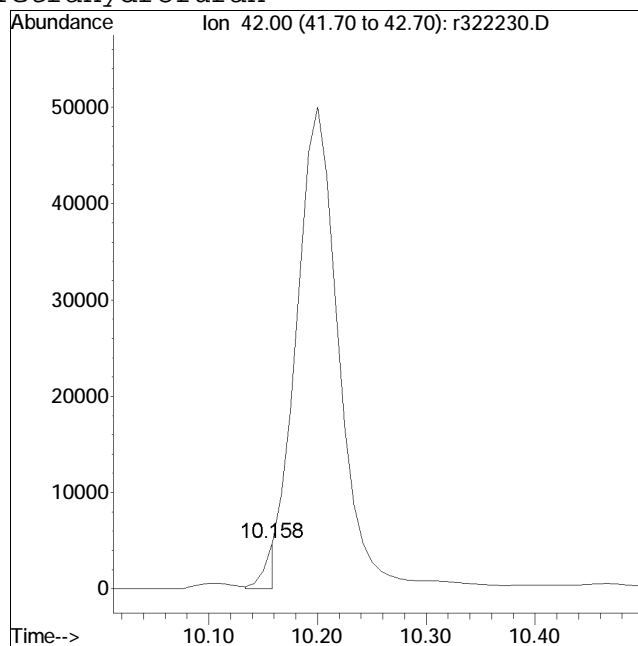
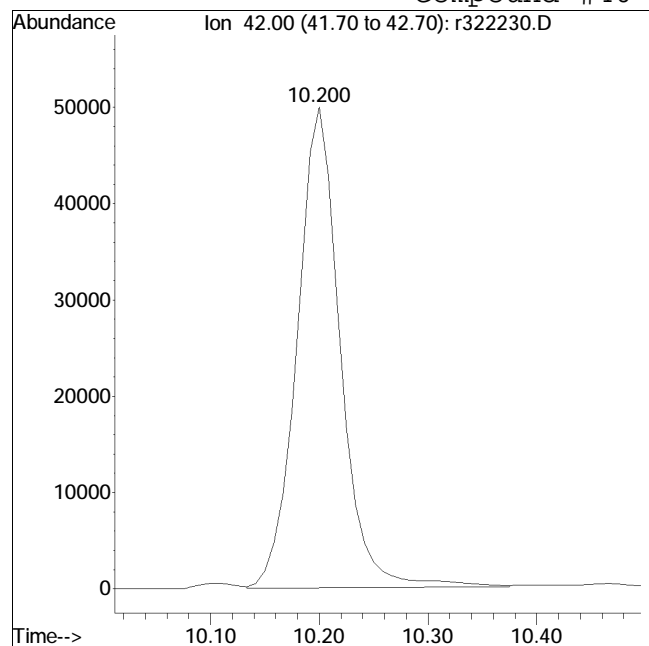
Manual Peak Response = 3412852 M6

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

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322230.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:7: 7 Instrument :  
Sample : L2225590-02,3,250,250 Quant Date : 5/20/2022 8:02 am

Compound #40: Tetrahydrofuran



Original Peak Response = 137817

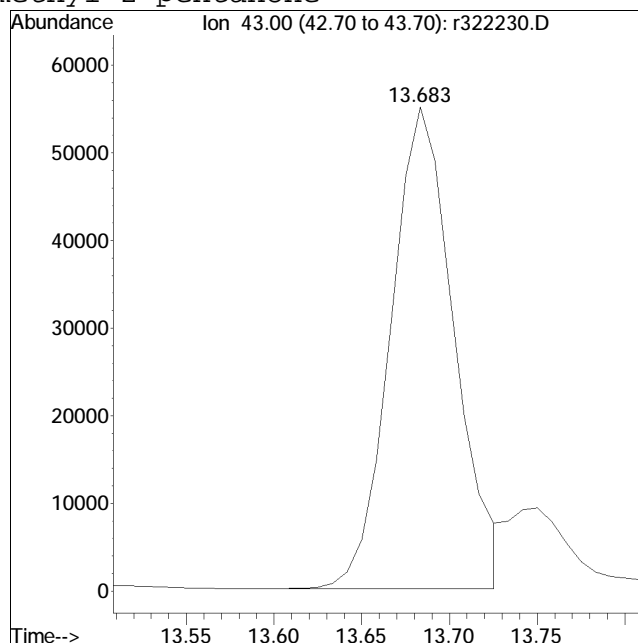
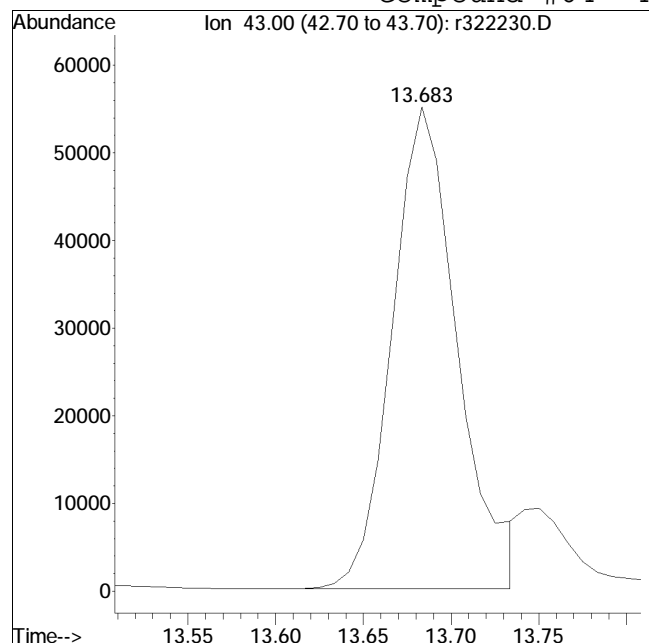
Manual Peak Response = 3634 M6

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

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322230.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:7: 7 Instrument :  
Sample : L2225590-02,3,250,250 Quant Date : 5/20/2022 8:02 am

Compound #64: 4-methyl-2-pentanone



Original Peak Response = 142170

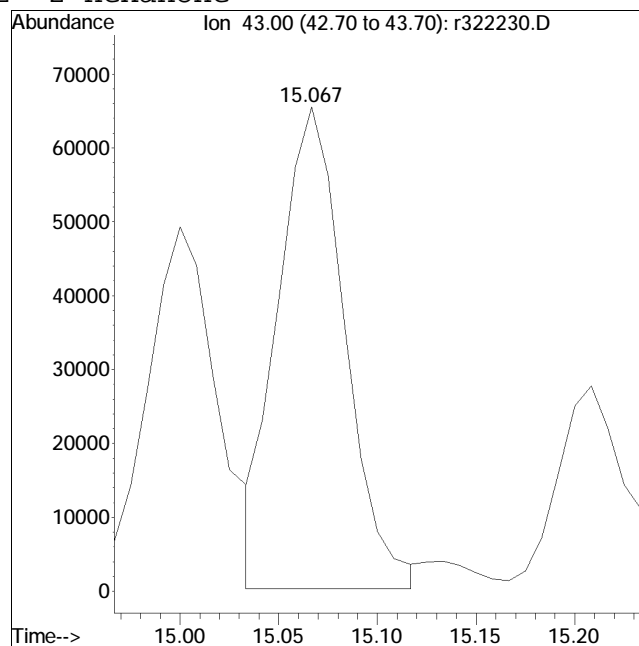
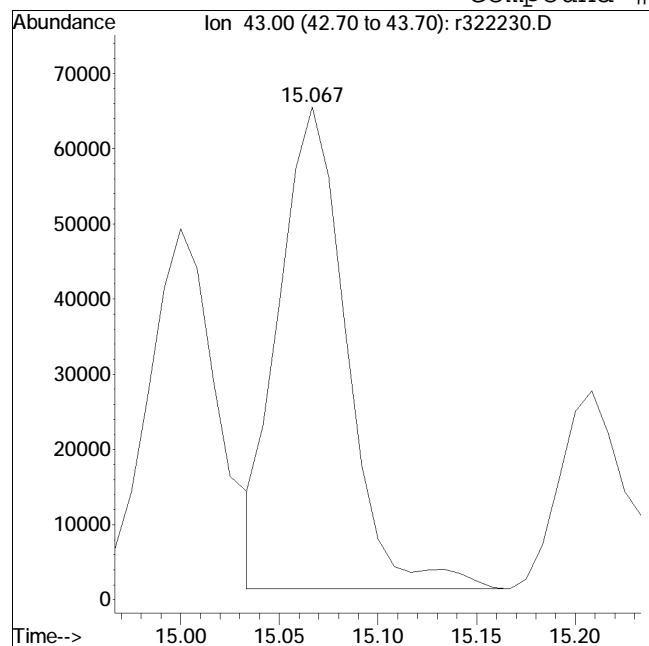
Manual Peak Response = 138447 M6

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

# Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322230.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:7: 7 Instrument :  
Sample : L2225590-02,3,250,250 Quant Date : 5/20/2022 8:02 am

## Compound #72: 2-hexanone



Original Peak Response = 152929

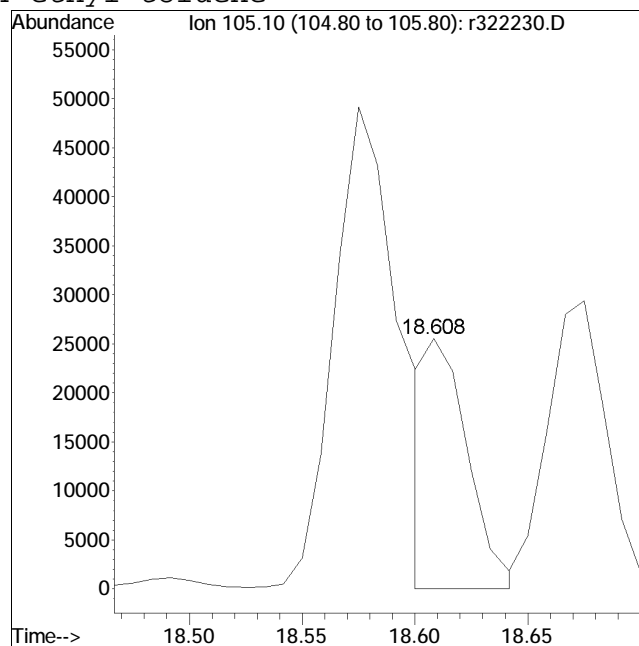
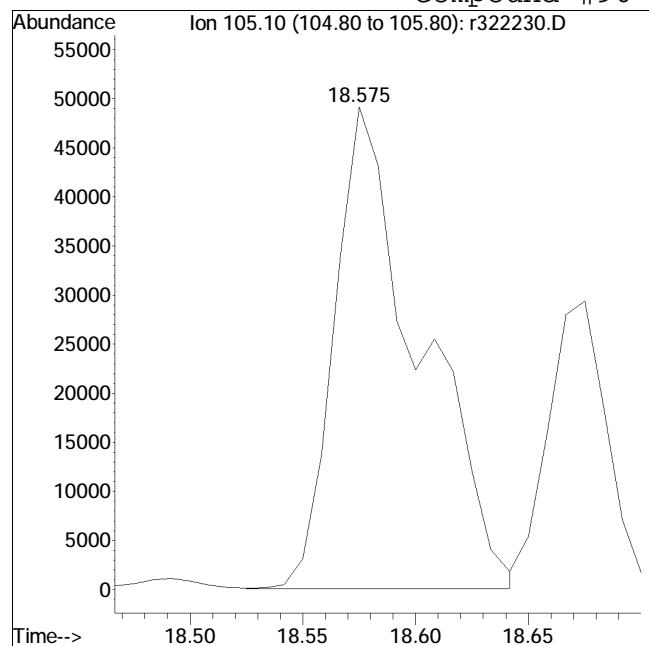
Manual Peak Response = 154383 M6

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

# Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322230.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:7: 7 Instrument :  
Sample : L2225590-02,3,250,250 Quant Date : 5/20/2022 8:02 am

## Compound #96: 4-ethyl toluene



Original Peak Response = 129177

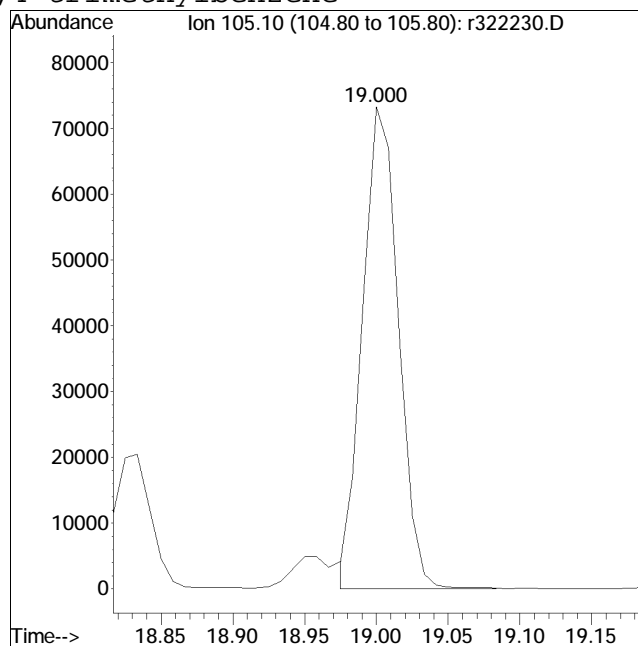
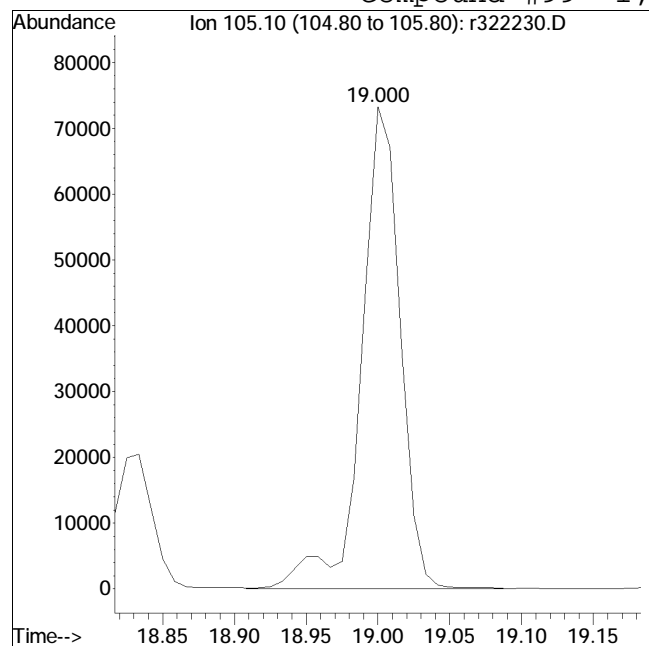
Manual Peak Response = 32863 M6

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

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322230.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:7: 7 Instrument :  
Sample : L2225590-02,3,250,250 Quant Date : 5/20/2022 8:02 am

Compound #99: 1,2,4-trimethylbenzene



Original Peak Response = 138625

Manual Peak Response = 127606 M6

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



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
 Data File : r322231.D  
 Acq On : 19 May 2022 8:14 PM  
 Operator : AIRPIANO3:TS  
 Sample : L2225590-03D,3,3.21,250  
 Misc : WG1640711,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 20 13:25:02 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0519T\r322225.D  
 Sub List : TO15-NY - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) bromochloromethane	9.550	49	452477	10.000	ppbV	-0.02
Standard Area =	440035		Recovery =	102.83%		
43) 1,4-difluorobenzene	11.820	114	1393047	10.000	ppbV	-0.02
Standard Area =	1334123		Recovery =	104.42%		
67) chlorobenzene-D5	16.567	54	233738	10.000	ppbV	-0.02
Standard Area =	210666		Recovery =	110.95%		

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) dichlorodifluoromethane	3.946		0	N.D.		
6) chloromethane	0.000		0	N.D.	d	
7) Freon-114	0.000		0	N.D.		
9) vinyl chloride	4.384	62	55636	2.515	ppbV	99
10) 1,3-butadiene	0.000		0	N.D.	d	
13) bromomethane	0.000		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	5.267	31	228834	13.164	ppbV	98
17) vinyl bromide	0.000		0	N.D.		
19) acetone	5.840	43	68041M6	2.745	ppbV	
21) trichlorofluoromethane	0.000		0	N.D.		
22) isopropyl alcohol	6.187	45	19068	0.639	ppbV	100
26) 1,1-dichloroethene	6.692		0	N.D.		
27) tertiary butyl alcohol	0.000		0	N.D.	d	
28) methylene chloride	6.986	49	2133	0.076	ppbV	99
29) 3-chloropropene	0.000		0	N.D.	d	
30) carbon disulfide	7.280	76	10434	0.161	ppbV #	1
31) Freon 113	0.000		0	N.D.		
32) trans-1,2-dichloroethene	8.125		0	N.D.		
33) 1,1-dichloroethane	0.000		0	N.D.	d	
34) MTBE	0.000		0	N.D.	d	
36) 2-butanone	0.000		0	N.D.		
37) cis-1,2-dichloroethene	9.358	61	2169	0.083	ppbV	95
38) Ethyl Acetate	0.000		0	N.D.		
39) chloroform	0.000		0	N.D.	d	
40) Tetrahydrofuran	0.000		0	N.D.	d	
42) 1,2-dichloroethane	10.567		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
 Data File : r322231.D  
 Acq On : 19 May 2022 8:14 PM  
 Operator : AIRPIANO3:TS  
 Sample : L2225590-03D,3,3.21,250  
 Misc : WG1640711,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 20 13:25:02 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0519T\r322225.D  
 Sub List : TO15-NY - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
44) hexane	9.625	57	430764	10.848	ppbV	#	41
48) 1,1,1-trichloroethane	0.000		0	N.D.			
50) benzene	11.387	78	173478	2.127	ppbV		99
52) carbon tetrachloride	0.000		0	N.D.			
53) cyclohexane	11.700	56	158639	3.841	ppbV		99
56) 1,2-dichloropropane	12.480		0	N.D.			
57) bromodichloromethane	0.000		0	N.D.	d		
58) 1,4-dioxane	12.660		0	N.D.			
59) trichloroethene	12.620		0	N.D.			
60) 2,2,4-trimethylpentane	12.673	57	10978364	89.454	ppbV		98
62) heptane	12.993	43	273079	5.967	ppbV		100
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.	d		
68) toluene	14.783	91	36422	0.415	ppbV		97
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	15.950		0	N.D.			
80) chlorobenzene	0.000		0	N.D.	d		
81) ethylbenzene	16.967	91	20037	0.190	ppbV		97
83) m+p-xylene	17.117	91	34703	0.403	ppbV		98
84) bromoform	0.000		0	N.D.			
85) styrene	17.542		0	N.D.			
86) 1,1,2,2-tetrachloroethane	0.000		0	N.D.	d		
87) o-xylene	17.550	91	34969	0.408	ppbV		97
96) 4-ethyl toluene	18.608		0	N.D.			
97) 1,3,5-trimethylbenzene	18.667	105	10330	0.086	ppbV	#	95
99) 1,2,4-trimethylbenzene	19.000	105	15861	0.151	ppbV	#	75
101) Benzyl Chloride	19.125		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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
Data File : r322231.D  
Acq On : 19 May 2022 8:14 PM  
Operator : AIRPIANO3:TS  
Sample : L2225590-03D,3,3.21,250  
Misc : WG1640711,ICAL19030  
ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 20 13:25:02 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 15:52:12 2022  
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0519T\r322225.D  
Sub List : TO15-NY - .

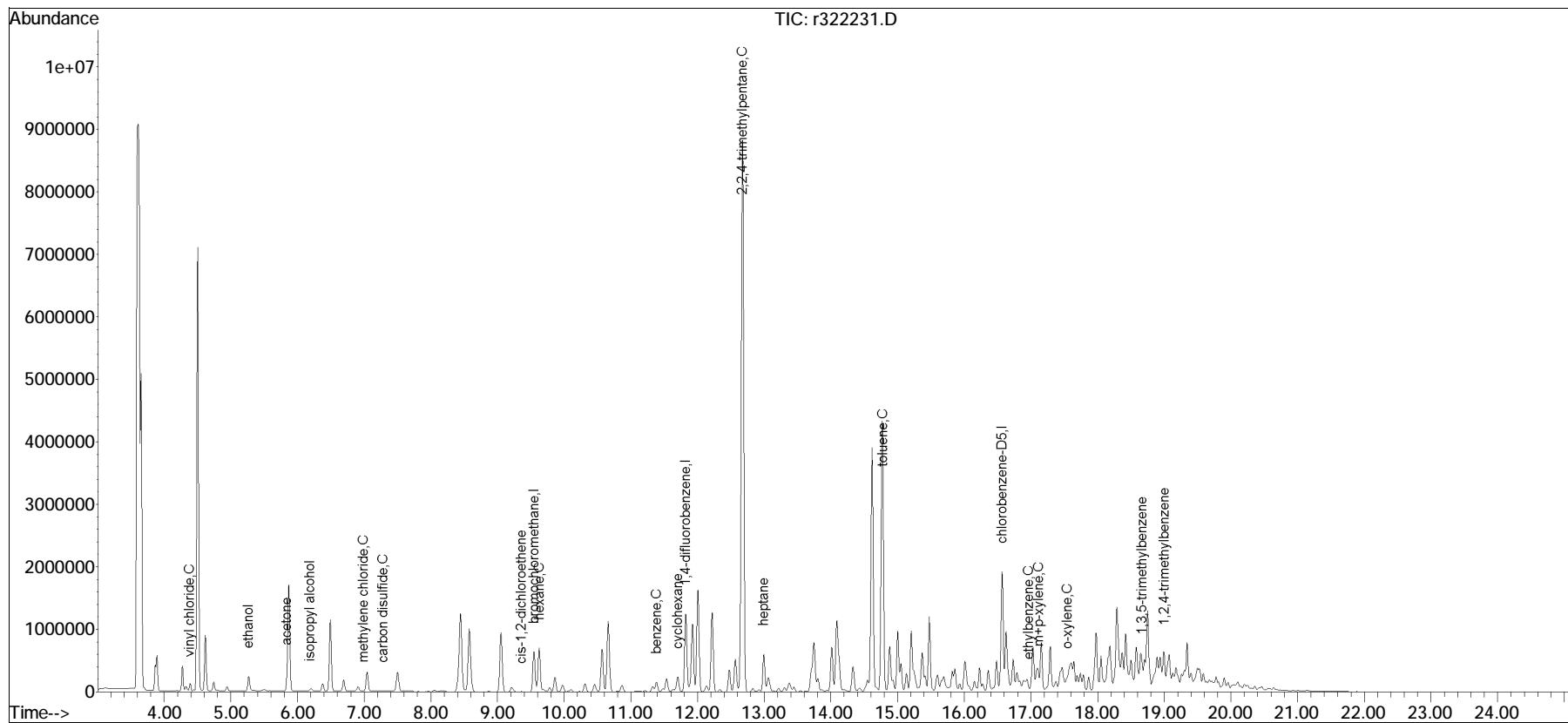
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
----------	------	------	----------	------	-------	----------

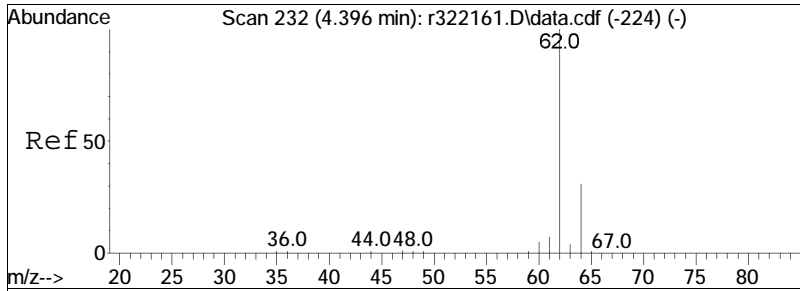
-----

Sub List : TO15-NY - .s\Data\Airpiano3\2022\05\0519T\r322225.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
Data File : r322231.D  
Acq On : 19 May 2022 8:14 PM  
Operator : AIRPIANO3:TS  
Sample : L2225590-03D,3,3.21,250  
Misc : WG1640711,ICAL19030  
ALS Vial : 0 Sample Multiplier: 1

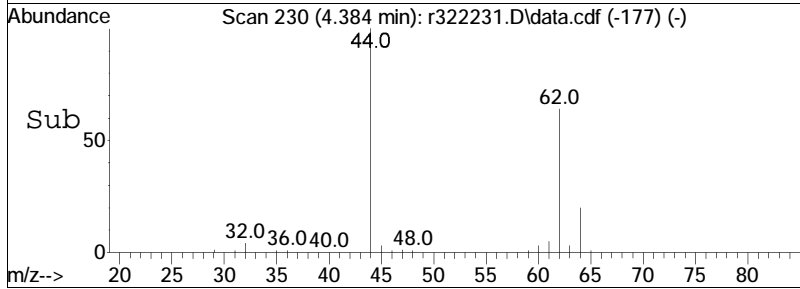
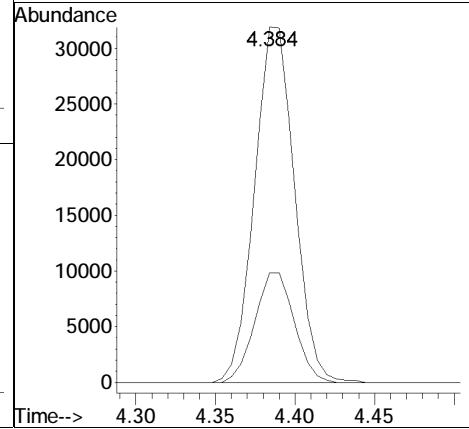
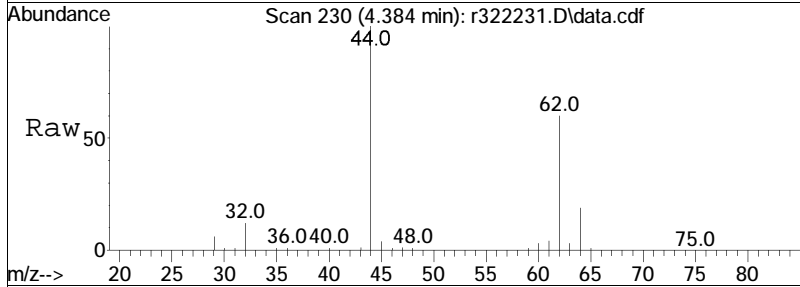
Quant Time: May 20 13:25:02 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 15:52:12 2022  
Response via : Initial Calibration

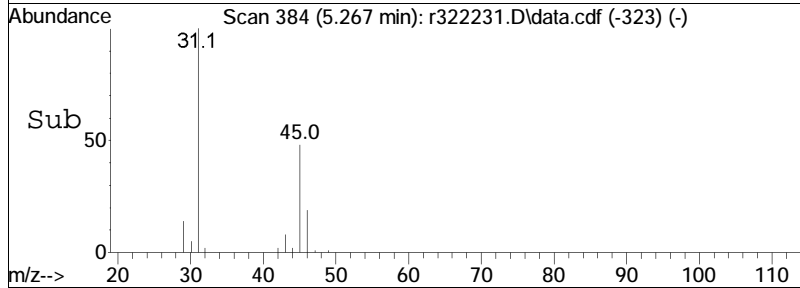
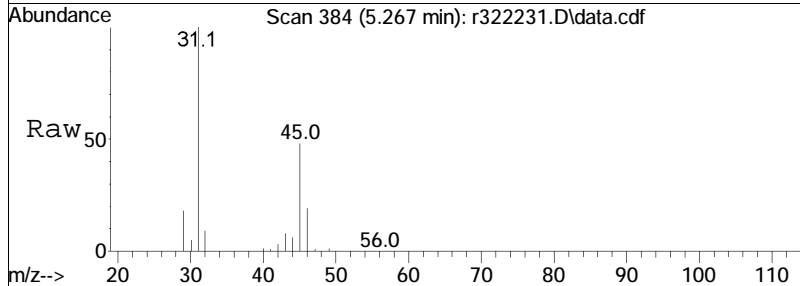
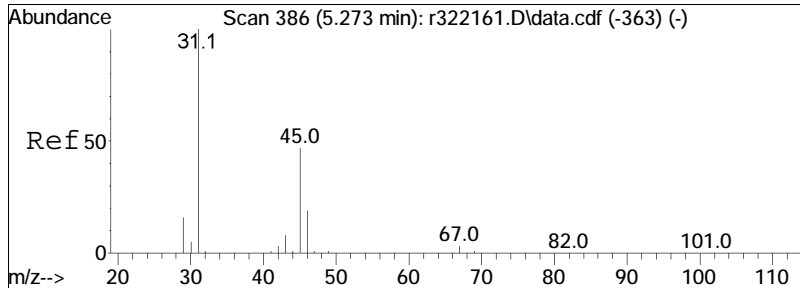




#9  
 vinyl chloride  
 Concen: 2.52 ppbV  
 RT: 4.384 min Scan# 230  
 Delta R.T. -0.012 min  
 Lab File: r322231.D  
 Acq: 19 May 2022 8:14 PM

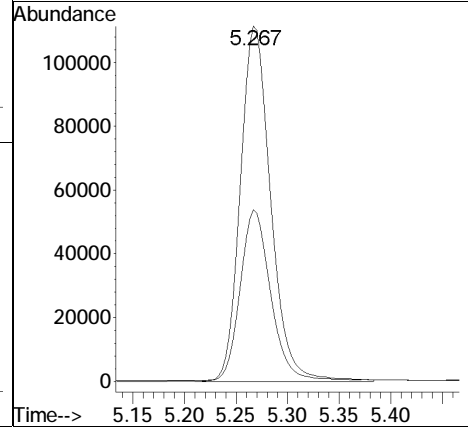
Tgt Ion: 62 Resp: 55636  
 Ion Ratio Lower Upper  
 62 100  
 64 30.8 24.4 36.6

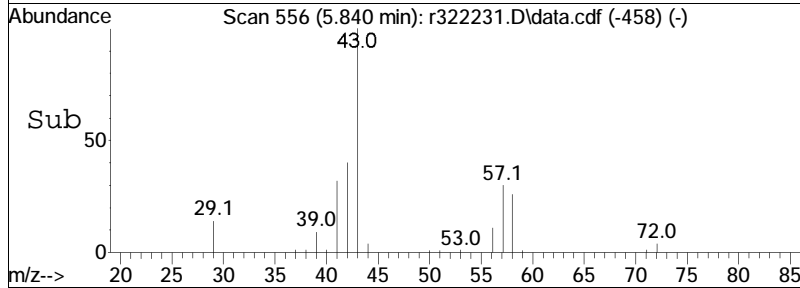
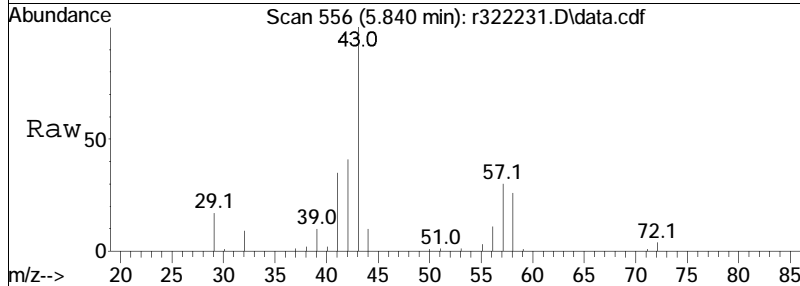
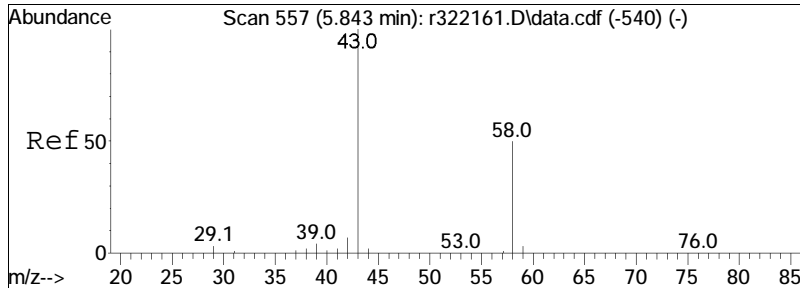




#15  
 ethanol  
 Concen: 13.16 ppbV  
 RT: 5.267 min Scan# 384  
 Delta R.T. -0.007 min  
 Lab File: r322231.D  
 Acq: 19 May 2022 8:14 PM

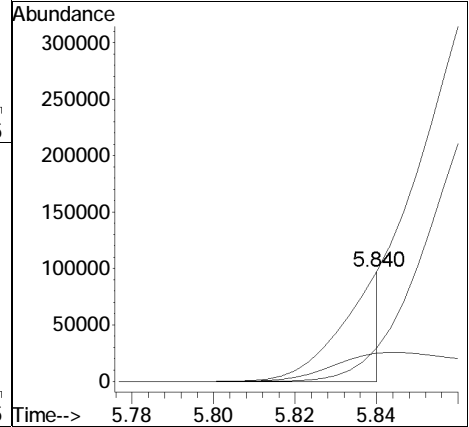
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
31	100		
45	48.3	37.6	56.4

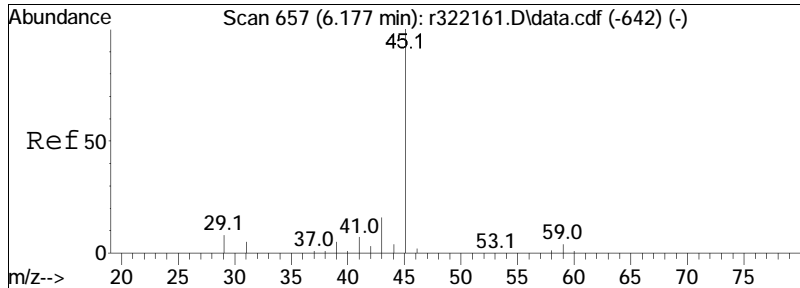




#19  
 acetone  
 Concen: 2.74 ppbV m  
 RT: 5.840 min Scan# 556  
 Delta R.T. -0.003 min  
 Lab File: r322231.D  
 Acq: 19 May 2022 8:14 PM

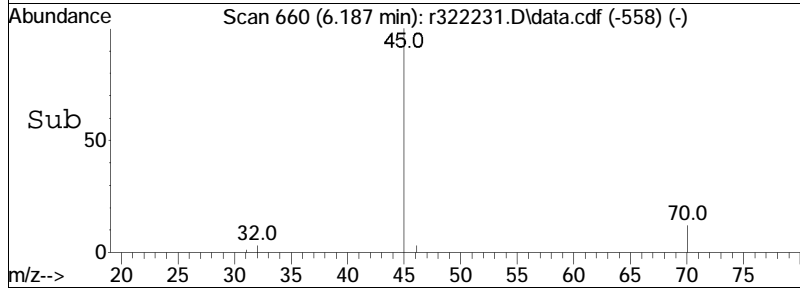
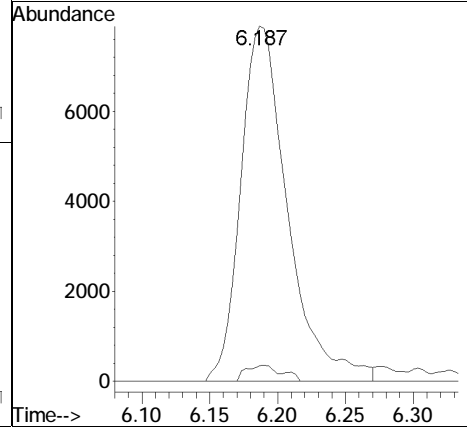
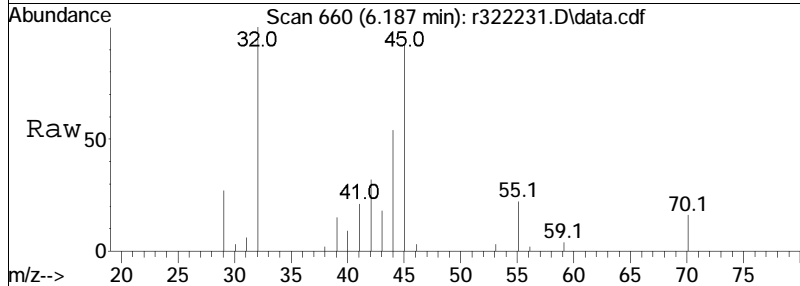
Tgt Ion:	43	Resp:	68041
Ion Ratio	Lower	Upper	
43	100		
58	25.8	39.8	59.8#
57	30.4	1.0	1.6#



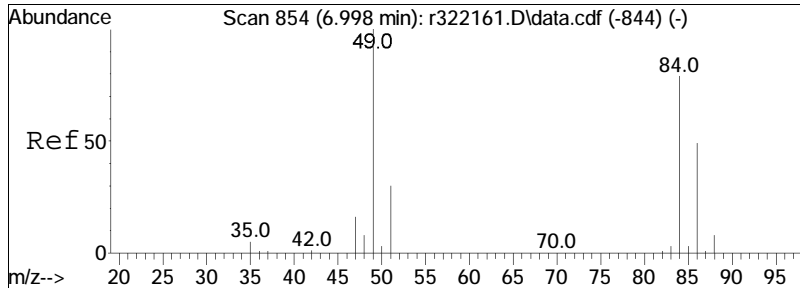


#22  
 isopropyl alcohol  
 Concen: 0.64 ppbV  
 RT: 6.187 min Scan# 660  
 Delta R.T. 0.010 min  
 Lab File: r322231.D  
 Acq: 19 May 2022 8:14 PM

Tgt Ion:	45	Resp:	19068
Ion Ratio	Lower	Upper	
45	100		
59	4.4	3.5	5.3

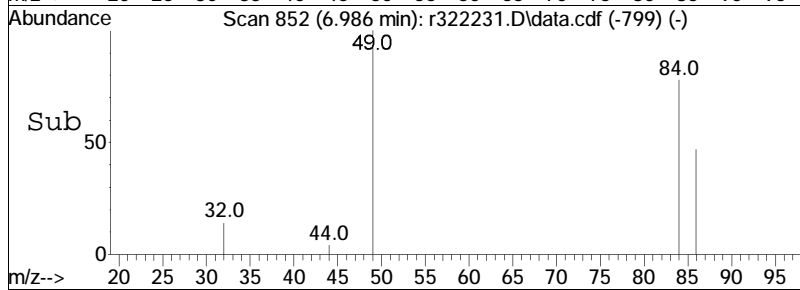
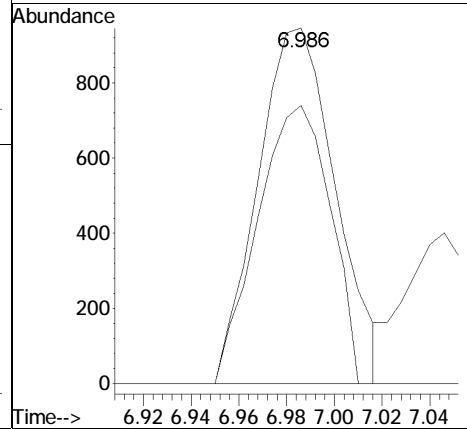
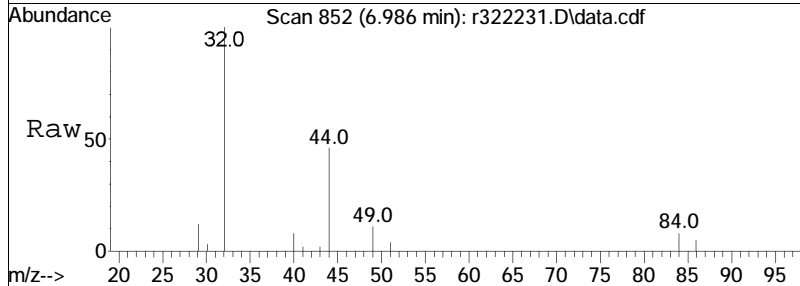


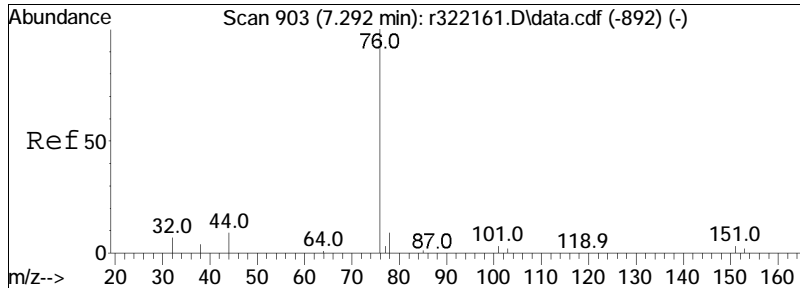




#28  
 methylene chloride  
 Concen: 0.08 ppbV  
 RT: 6.986 min Scan# 852  
 Delta R.T. -0.012 min  
 Lab File: r322231.D  
 Acq: 19 May 2022 8:14 PM

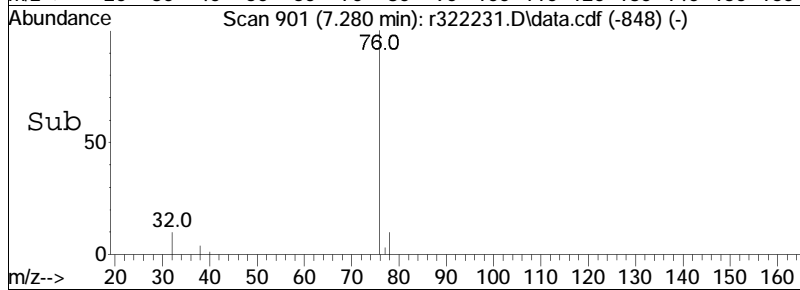
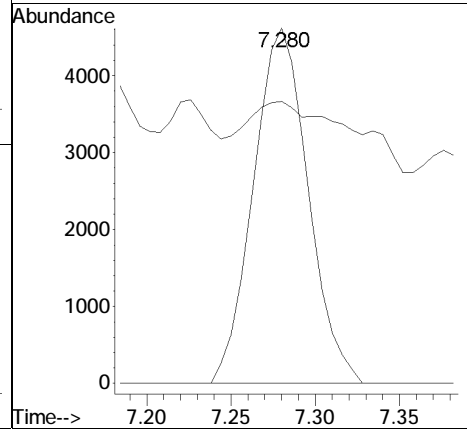
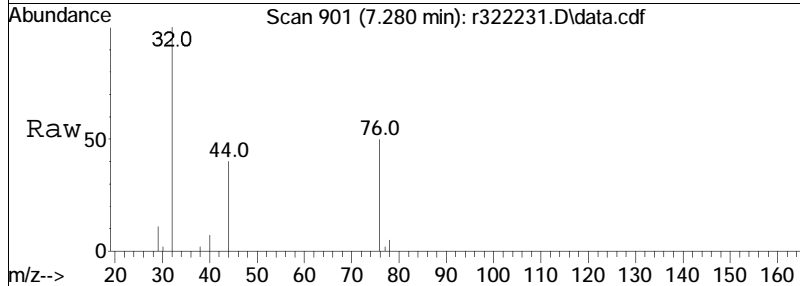
Tgt Ion:	49	84	Resp:	2133
Ion Ratio	100	78.2	Lower	Upper
			63.0	94.6

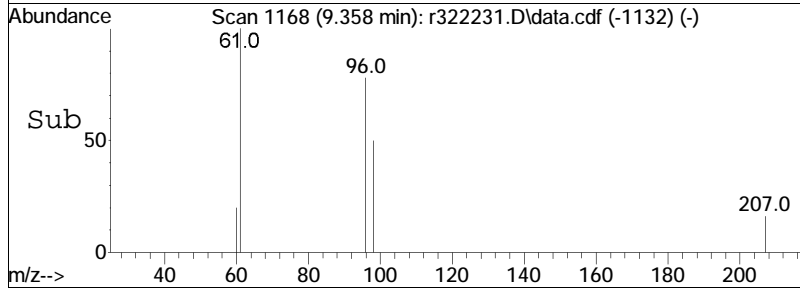
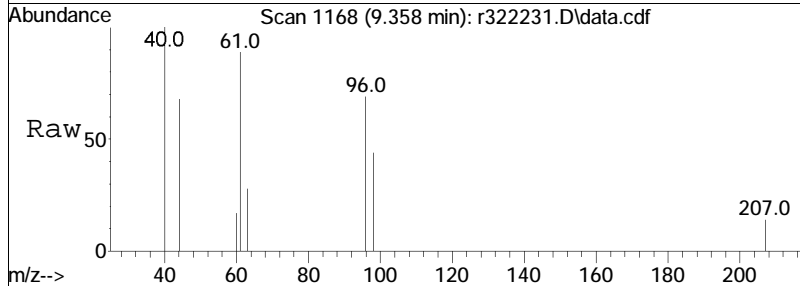
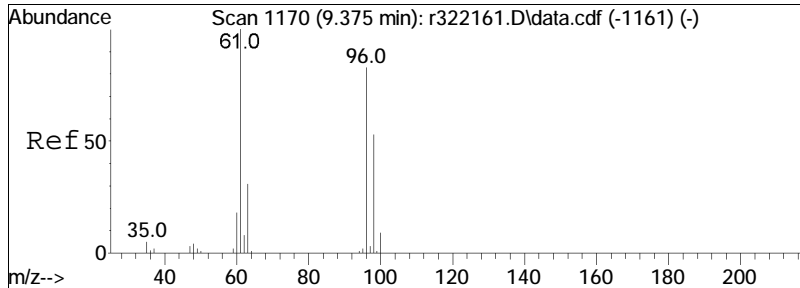




#30  
 carbon disulfide  
 Concen: 0.16 ppbV  
 RT: 7.280 min Scan# 901  
 Delta R.T. -0.012 min  
 Lab File: r322231.D  
 Acq: 19 May 2022 8:14 PM

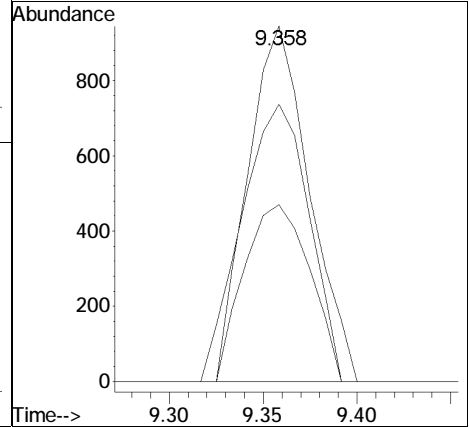
Tgt Ion: 76 Resp: 10434  
 Ion Ratio Lower Upper  
 76 100  
 44 79.4 7.6 11.4#

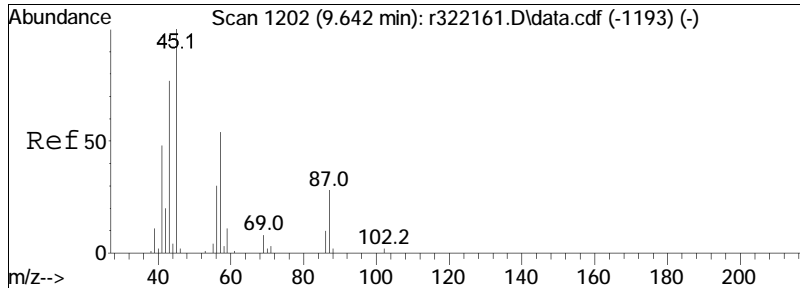




#37  
 cis-1,2-dichloroethene  
 Concen: 0.08 ppbV  
 RT: 9.358 min Scan# 1168  
 Delta R.T. -0.017 min  
 Lab File: r322231.D  
 Acq: 19 May 2022 8:14 PM

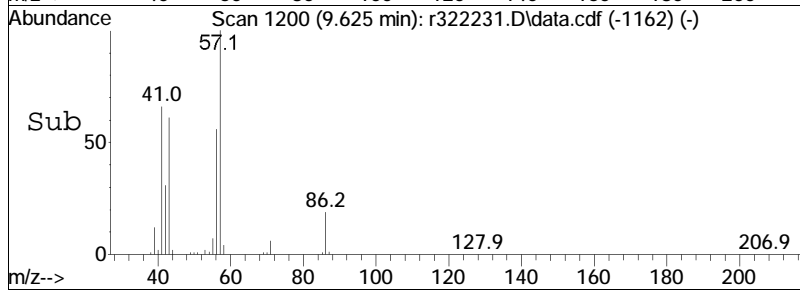
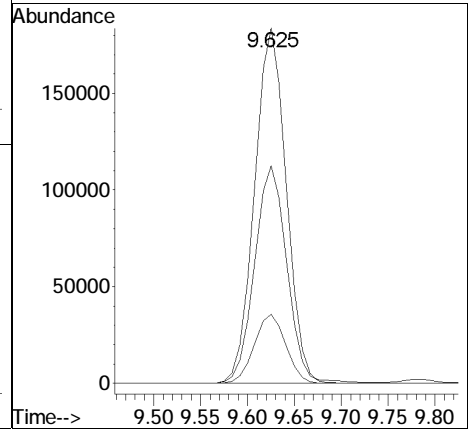
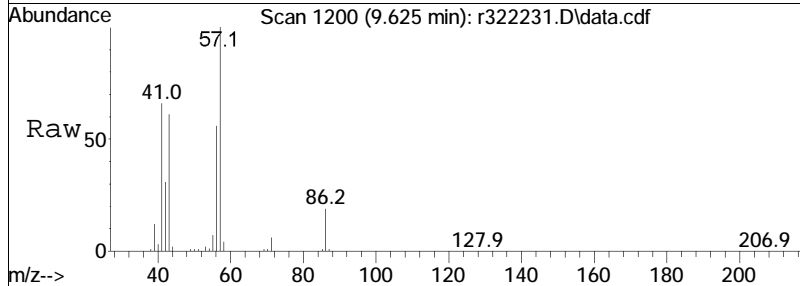
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
61	100		
96	78.0	66.4	99.6
98	49.7	42.5	63.7

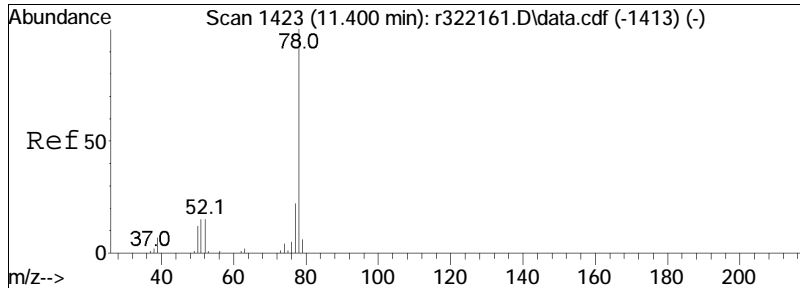




#44  
 hexane  
 Concen: 10.85 ppbV  
 RT: 9.625 min Scan# 1200  
 Delta R.T. -0.017 min  
 Lab File: r322231.D  
 Acq: 19 May 2022 8:14 PM

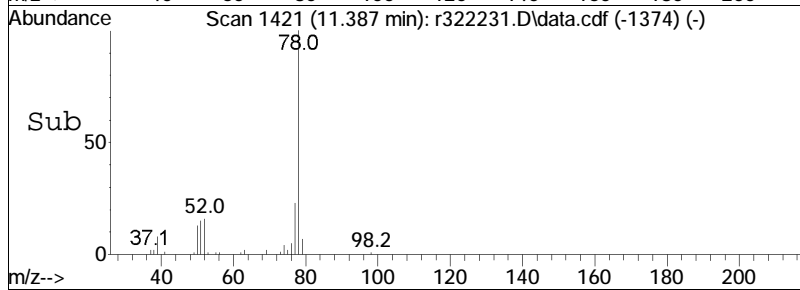
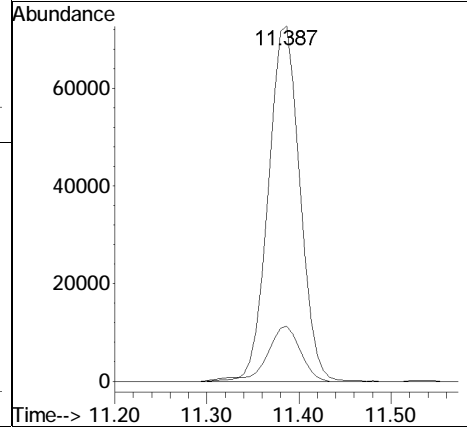
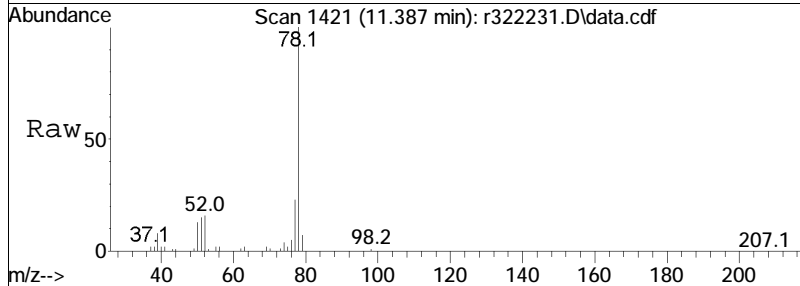
Tgt Ion:	Resp:		
Ion Ratio	Lower	Upper	
57	100		
43	61.2	115.0	172.6#
86	19.4	15.5	23.3

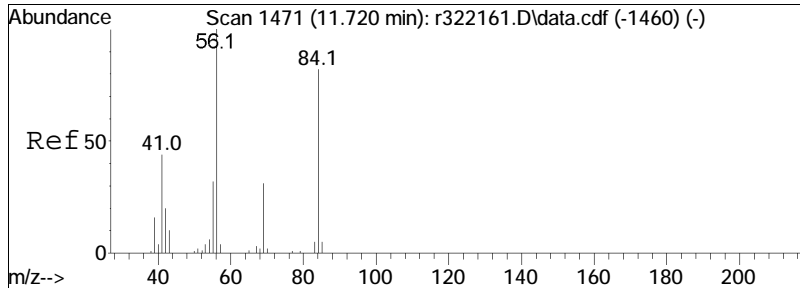




#50  
benzene  
Concen: 2.13 ppbV  
RT: 11.387 min Scan# 1421  
Delta R.T. -0.013 min  
Lab File: r322231.D  
Acq: 19 May 2022 8:14 PM

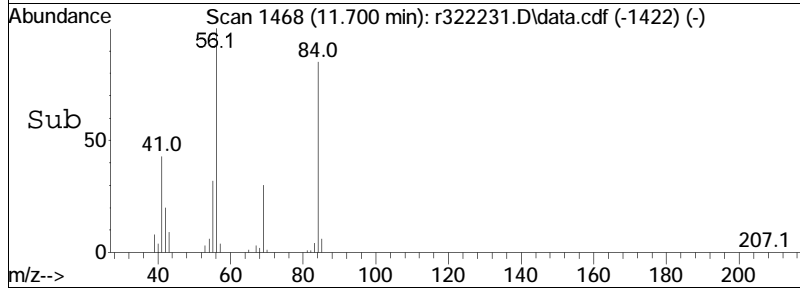
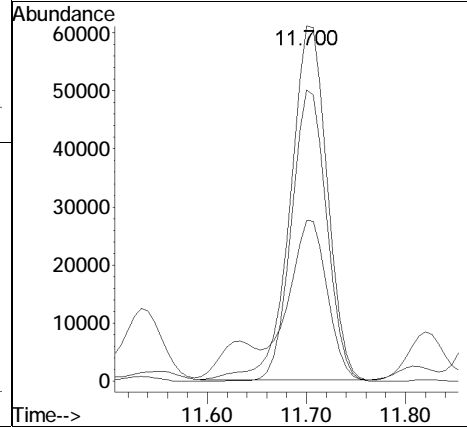
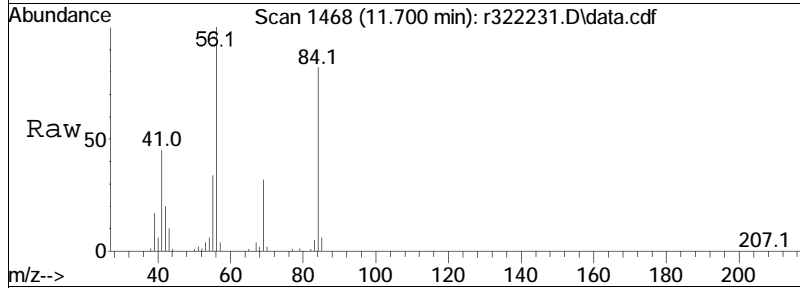
Tgt Ion	Resp	Lower	Upper
78	173478		
52	15.5	12.2	18.2

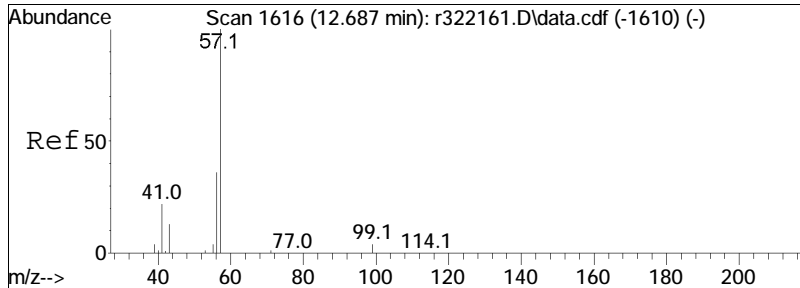




#53  
 cyclohexane  
 Concen: 3.84 ppbV  
 RT: 11.700 min Scan# 1468  
 Delta R.T. -0.020 min  
 Lab File: r322231.D  
 Acq: 19 May 2022 8:14 PM

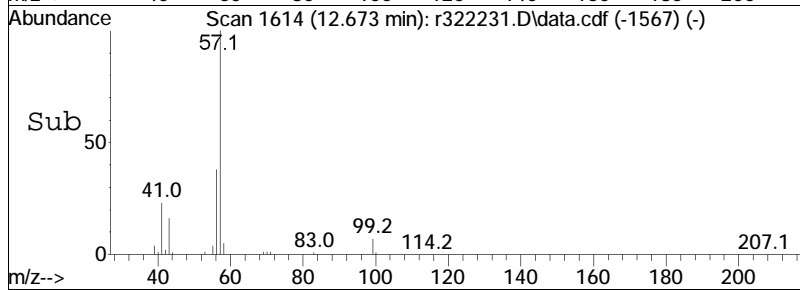
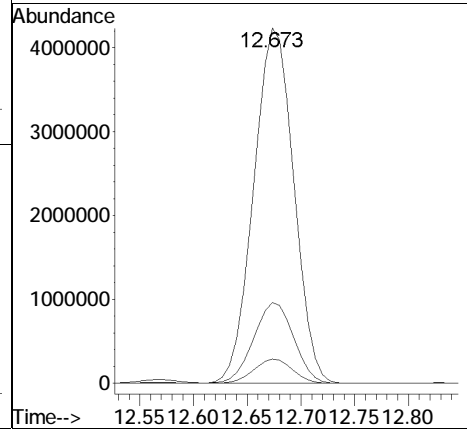
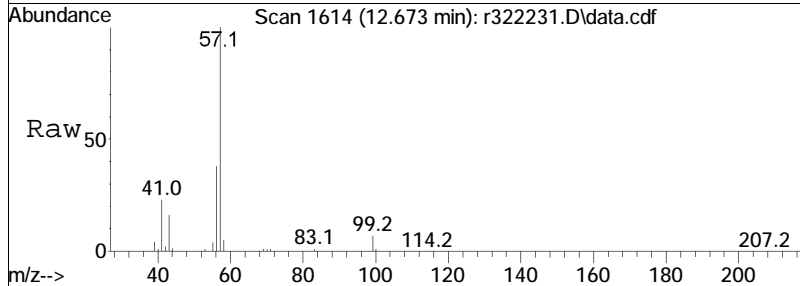
Tgt Ion	Resp	Lower	Upper
56	100		
84	82.0	65.4	98.0
41	45.2	35.4	53.2

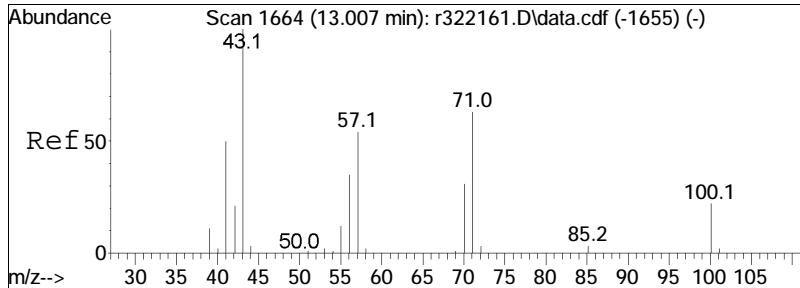




#60  
 2,2,4-trimethylpentane  
 Concen: 89.45 ppbV  
 RT: 12.673 min Scan# 1614  
 Delta R.T. -0.013 min  
 Lab File: r322231.D  
 Acq: 19 May 2022 8:14 PM

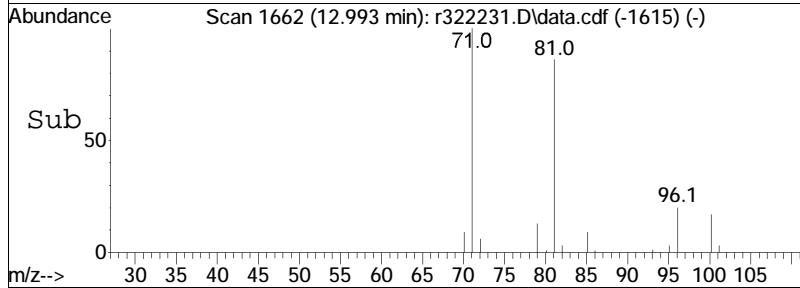
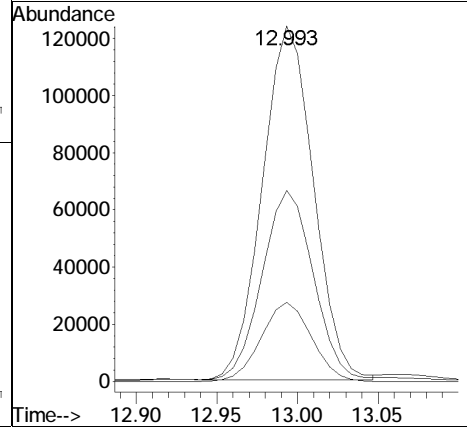
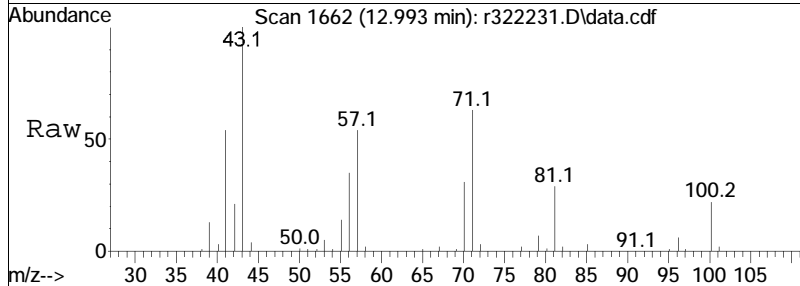
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
57	100		
99	6.9	5.0	7.4
41	22.8	17.4	26.2



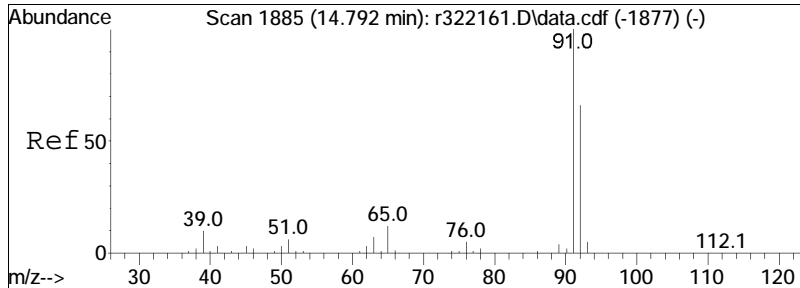


#62  
 heptane  
 Concen: 5.97 ppbV  
 RT: 12.993 min Scan# 1662  
 Delta R.T. -0.013 min  
 Lab File: r322231.D  
 Acq: 19 May 2022 8:14 PM

Tgt Ion	Ratio	Lower	Upper
43	100		
57	53.8	43.0	64.4
100	22.3	17.6	26.4

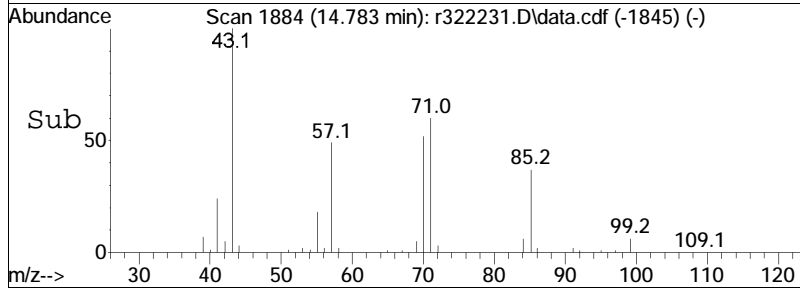
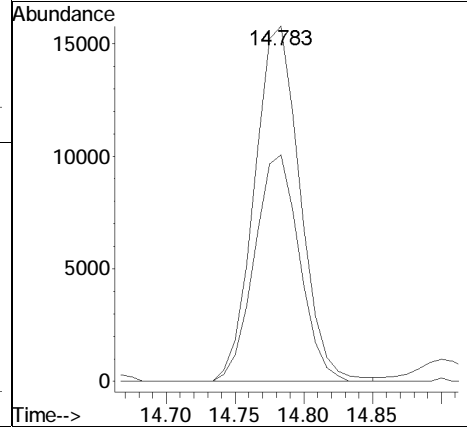
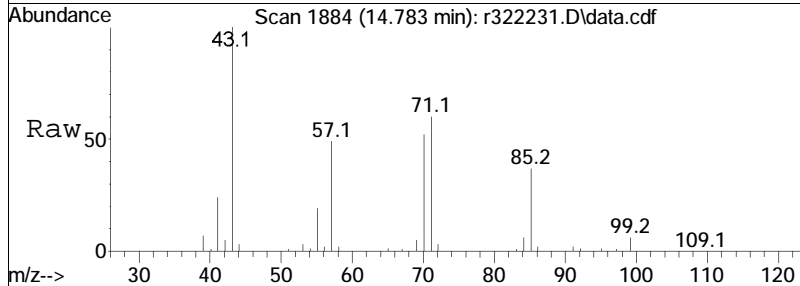


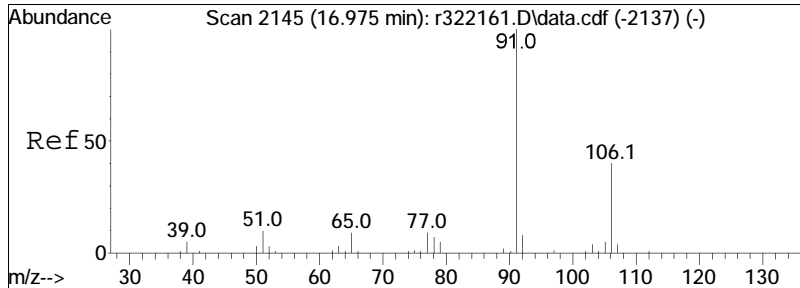




#68  
 toluene  
 Concen: 0.41 ppbV  
 RT: 14.783 min Scan# 1884  
 Delta R.T. -0.008 min  
 Lab File: r322231.D  
 Acq: 19 May 2022 8:14 PM

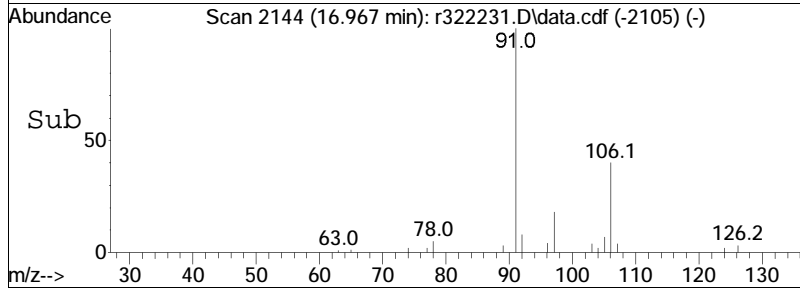
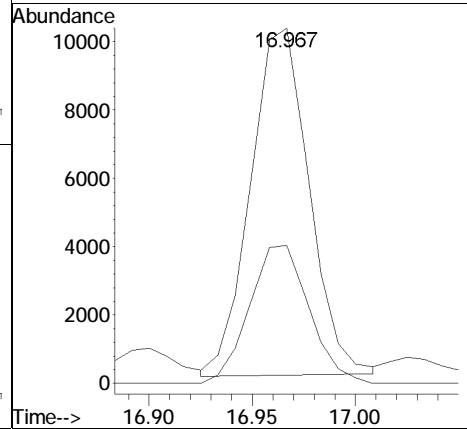
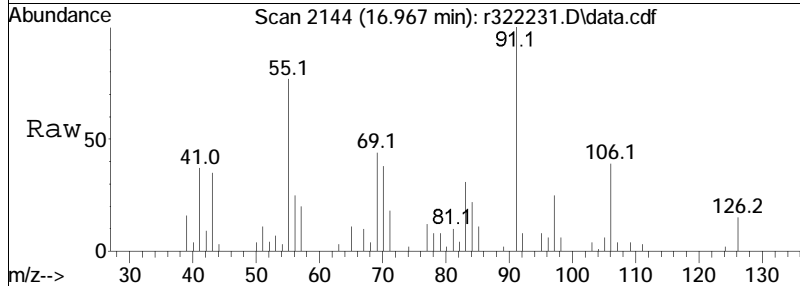
Tgt Ion: 91 Resp: 36422  
 Ion Ratio Lower Upper  
 91 100  
 92 63.7 52.7 79.1

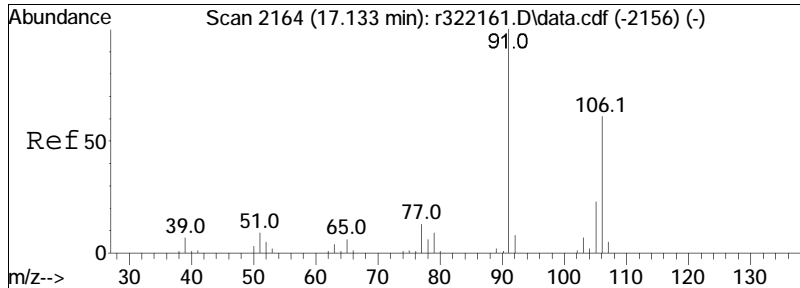




#81  
ethylbenzene  
Concen: 0.19 ppbV  
RT: 16.967 min Scan# 2144  
Delta R.T. -0.008 min  
Lab File: r322231.D  
Acq: 19 May 2022 8:14 PM

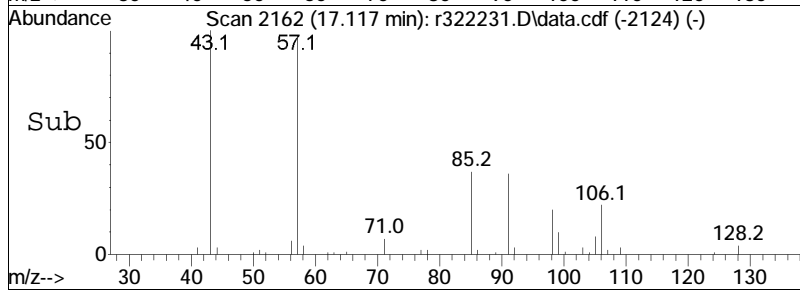
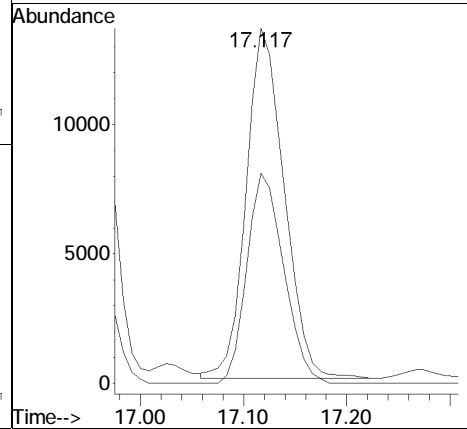
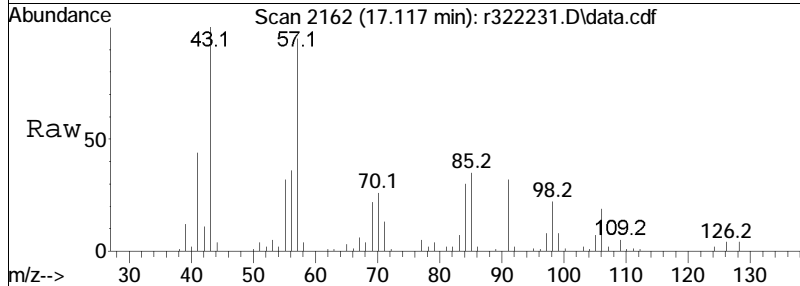
Tgt Ion:	91	Resp:	20037
Ion Ratio	Lower	Upper	
91	100		
106	38.8	32.4	48.6

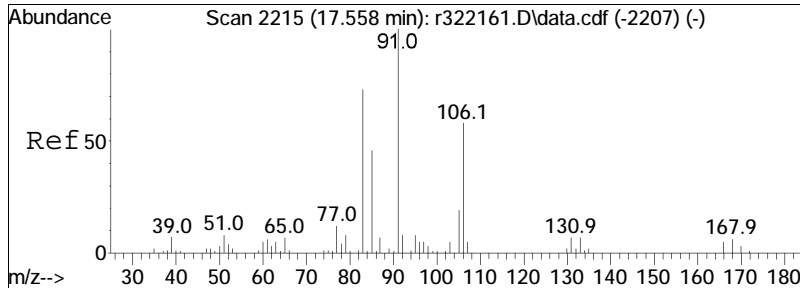




#83  
 m+p-xylene  
 Concen: 0.40 ppbV  
 RT: 17.117 min Scan# 2162  
 Delta R.T. -0.017 min  
 Lab File: r322231.D  
 Acq: 19 May 2022 8:14 PM

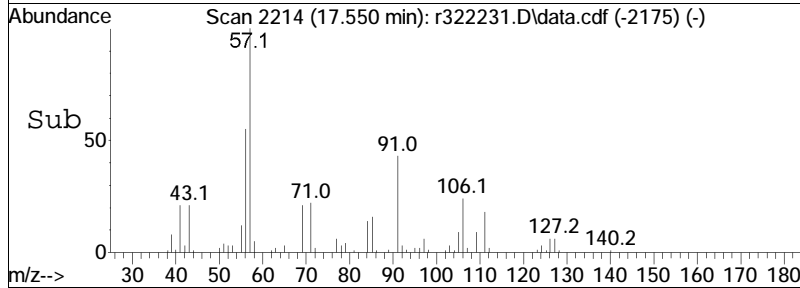
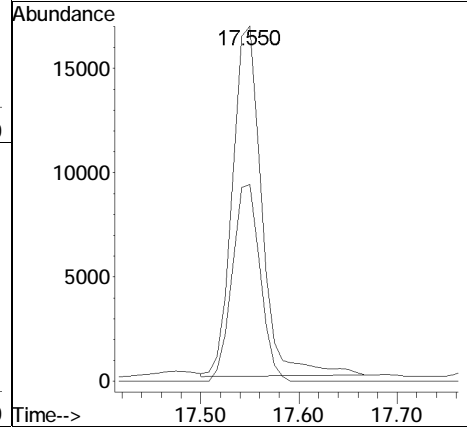
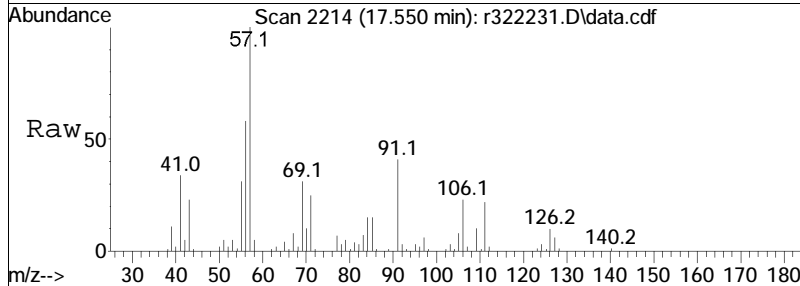
Tgt Ion: 91 Resp: 34703  
 Ion Ratio Lower Upper  
 91 100  
 106 59.1 48.4 72.6

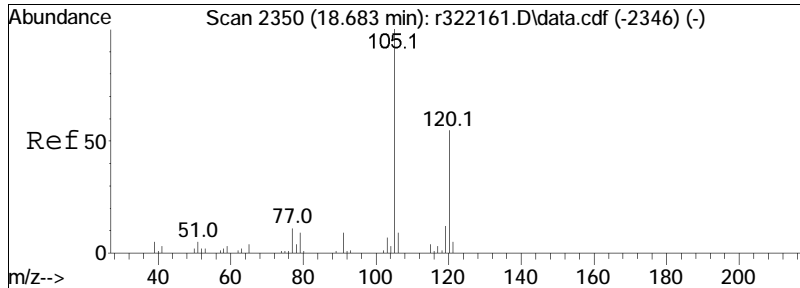




#87  
 o-xylene  
 Concen: 0.41 ppbV  
 RT: 17.550 min Scan# 2214  
 Delta R.T. -0.008 min  
 Lab File: r322231.D  
 Acq: 19 May 2022 8:14 PM

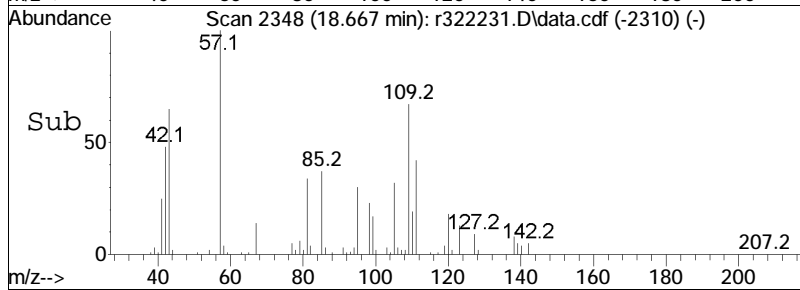
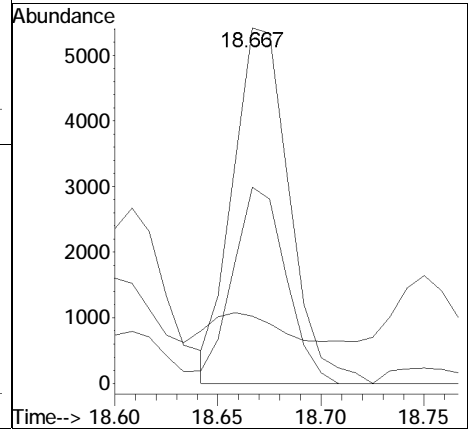
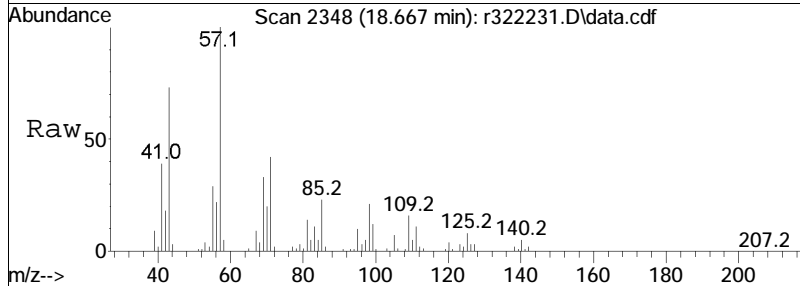
Tgt Ion: 91 Resp: 34969  
 Ion Ratio Lower Upper  
 91 100  
 106 55.4 46.4 69.6

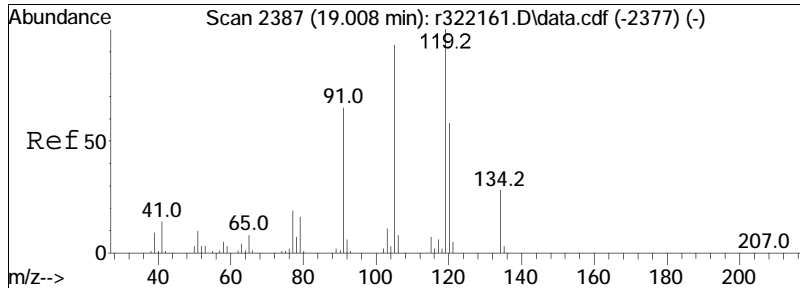




#97  
 1,3,5-trimethylbenzene  
 Concen: 0.09 ppbV  
 RT: 18.667 min Scan# 2348  
 Delta R.T. -0.017 min  
 Lab File: r322231.D  
 Acq: 19 May 2022 8:14 PM

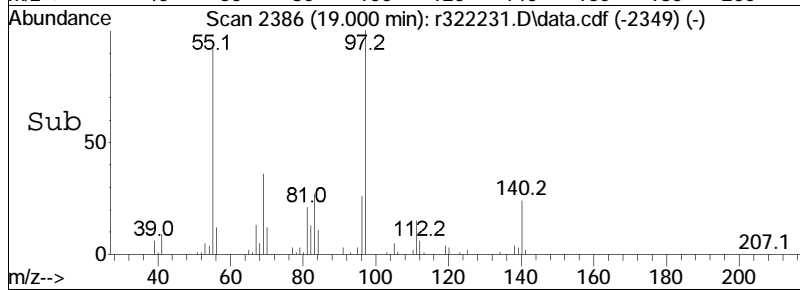
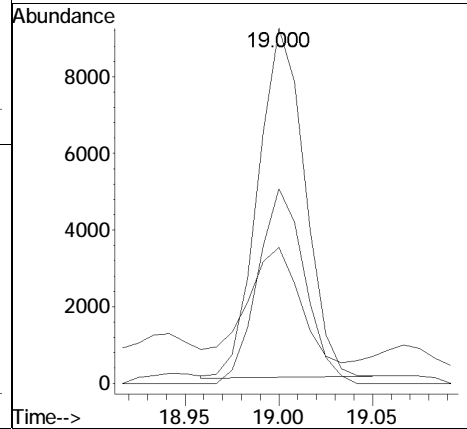
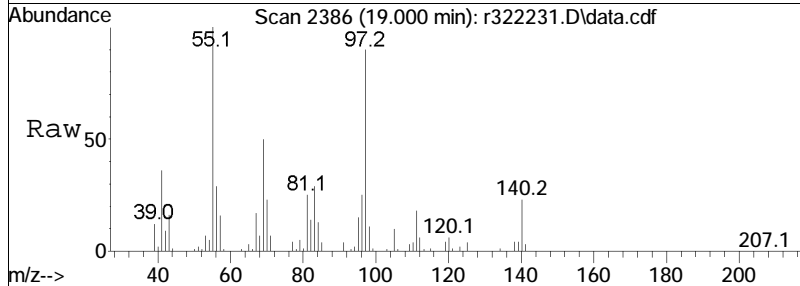
Tgt Ion	105	120	91	Resp:	10330	Lower	Upper
Ion Ratio	100	55.2	18.9			43.7	65.5
						7.0	10.4#





#99  
 1,2,4-trimethylbenzene  
 Concen: 0.15 ppbV  
 RT: 19.000 min Scan# 2386  
 Delta R.T. -0.008 min  
 Lab File: r322231.D  
 Acq: 19 May 2022 8:14 PM

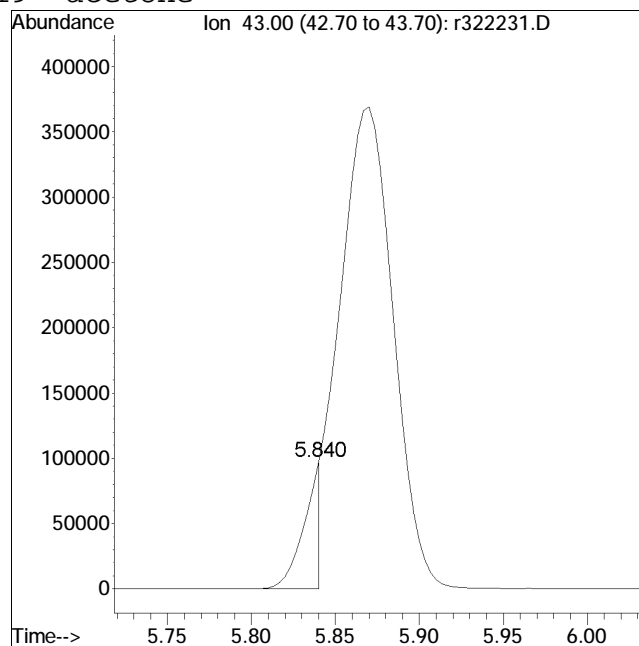
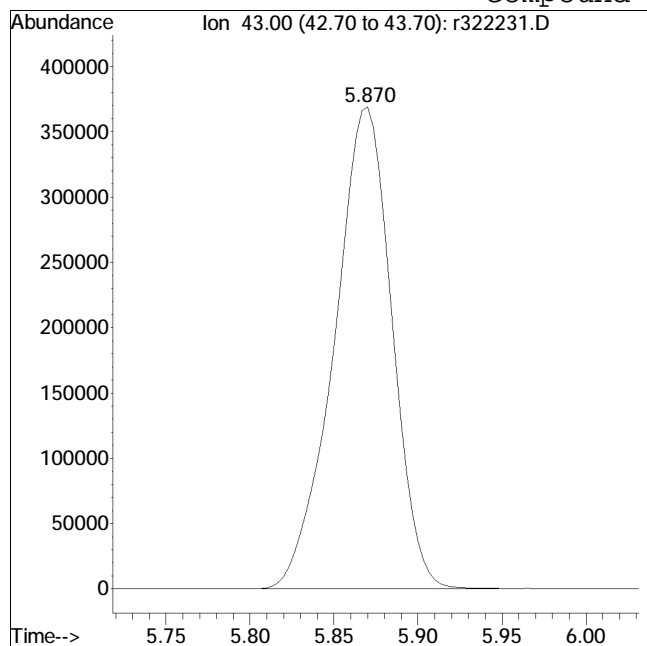
Tgt Ion	105	120	91	Resp:	15861	Lower	Upper
Ion Ratio	100	54.8	38.2				
		49.4	55.8				
		74.2	83.8#				



# Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322231.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:8: 4 Instrument :  
Sample : L2225590-03D,3,3.21,250 Quant Date : 5/20/2022 8:04 am

## Compound #19: acetone



Original Peak Response = 882541

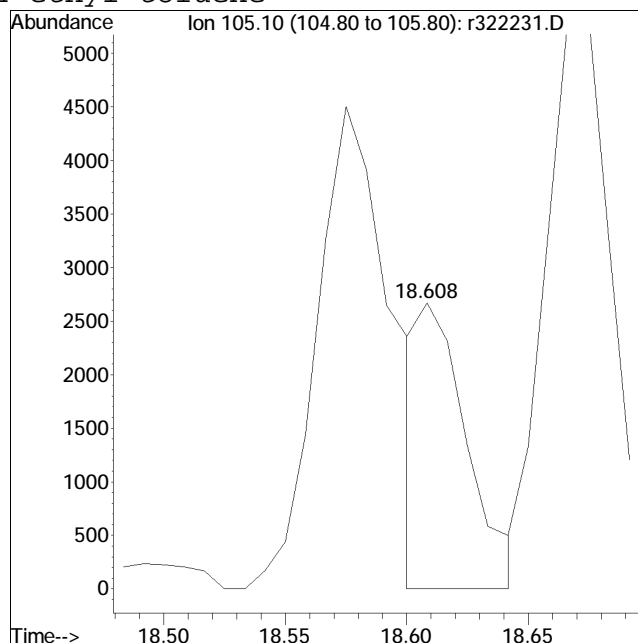
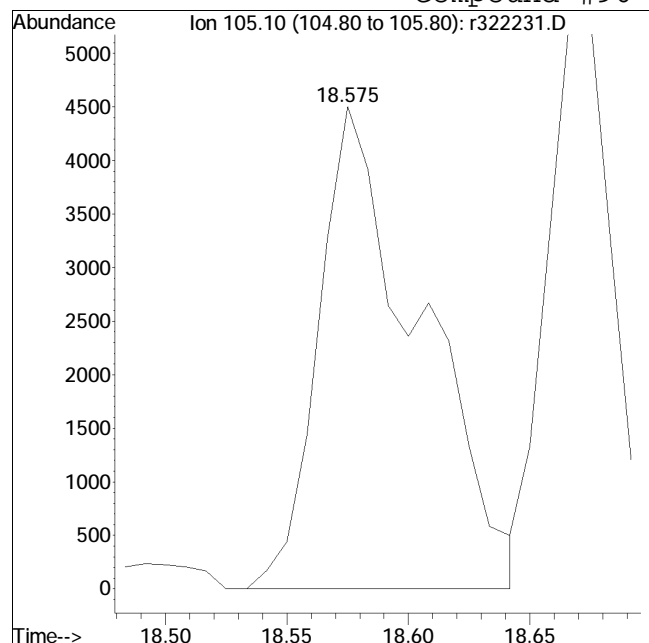
Manual Peak Response = 68041 M6

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

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322231.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:8: 4 Instrument :  
Sample : L2225590-03D,3,3.21,250 Quant Date : 5/20/2022 8:04 am

Compound #96: 4-ethyl toluene



Original Peak Response = 13080

Manual Peak Response = 3700 M6

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



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
 Data File : r322232.D  
 Acq On : 19 May 2022 8:54 PM  
 Operator : AIRPIANO3:TS  
 Sample : L2225590-04,3,250,250  
 Misc : WG1640711,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 20 13:26:15 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0519T\r322225.D  
 Sub List : TO15-NY - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) bromochloromethane	9.550	49	475079	10.000	ppbV	-0.02
Standard Area = 440035			Recovery = 107.96%			
43) 1,4-difluorobenzene	11.827	114	1452364	10.000	ppbV	-0.01
Standard Area = 1334123			Recovery = 108.86%			
67) chlorobenzene-D5	16.567	54	235165	10.000	ppbV	-0.02
Standard Area = 210666			Recovery = 111.63%			

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) dichlorodifluoromethane	3.946	85	22945	0.614	ppbV	98
6) chloromethane	4.126	50	1815	0.101	ppbV	92
7) Freon-114	4.258		0	N.D.		
9) vinyl chloride	4.384	62	5743	0.247	ppbV	97
10) 1,3-butadiene	4.552	54	1095	0.058	ppbV	89
13) bromomethane	0.000		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	5.290	31	9574757	524.579	ppbV #	85
17) vinyl bromide	0.000		0	N.D.		
19) acetone	5.847	43	26473147	1017.174	ppbV #	63
21) trichlorofluoromethane	6.040	101	14828	0.436	ppbV	97
22) isopropyl alcohol	6.170	45	3294576	105.199	ppbV	99
26) 1,1-dichloroethene	6.752		0	N.D.		
27) tertiary butyl alcohol	6.896	59	1689561	43.360	ppbV	98
28) methylene chloride	6.992	49	10618	0.358	ppbV	100
29) 3-chloropropene	0.000		0	N.D.		
30) carbon disulfide	7.274	76	830514	12.227	ppbV	100
31) Freon 113	7.316	101	2903	0.076	ppbV	99
32) trans-1,2-dichloroethene	0.000		0	N.D.		
33) 1,1-dichloroethane	8.442		0	N.D.		
34) MTBE	0.000		0	N.D.	d	
36) 2-butanone	8.833	43	2177131	46.006	ppbV	99
37) cis-1,2-dichloroethene	0.000		0	N.D.	d	
38) Ethyl Acetate	0.000		0	N.D.	d	
39) chloroform	9.717	83	4036	0.109	ppbV #	97
40) Tetrahydrofuran	10.158	42	315423	11.547	ppbV	100
42) 1,2-dichloroethane	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
 Data File : r322232.D  
 Acq On : 19 May 2022 8:54 PM  
 Operator : AIRPIANO3:TS  
 Sample : L2225590-04,3,250,250  
 Misc : WG1640711,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 20 13:26:15 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0519T\r322225.D  
 Sub List : TO15-NY - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
44) hexane	9.625	57	61825	1.493	ppbV	#	43
48) 1,1,1-trichloroethane	10.858		0	N.D.			
50) benzene	11.387	78	43385	0.510	ppbV		94
52) carbon tetrachloride	11.560		0	N.D.			
53) cyclohexane	11.700	56	61787	1.435	ppbV	#	27
56) 1,2-dichloropropane	0.000		0	N.D.			
57) bromodichloromethane	0.000		0	N.D.	d		
58) 1,4-dioxane	12.620	88	136945	7.885	ppbV		98
59) trichloroethene	12.627		0	N.D.			
60) 2,2,4-trimethylpentane	12.673	57	114367	0.894	ppbV		94
62) heptane	12.993	43	102214	2.142	ppbV		98
63) cis-1,3-dichloropropene	13.658		0	N.D.			
64) 4-methyl-2-pentanone	13.675	43	467884	8.559	ppbV		99
65) trans-1,3-dichloropropene	0.000		0	N.D.	d		
66) 1,1,2-trichloroethane	14.550		0	N.D.			
68) toluene	14.775	91	1074611	12.164	ppbV		100
72) 2-hexanone	15.067	43	160796	3.024	ppbV		94
74) dibromochloromethane	0.000		0	N.D.			
75) 1,2-dibromoethane	0.000		0	N.D.			
78) tetrachloroethene	15.950	166	312456	7.301	ppbV		98
80) chlorobenzene	0.000		0	N.D.	d		
81) ethylbenzene	16.958	91	103848	0.980	ppbV		99
83) m+p-xylene	17.117	91	325737	3.762	ppbV		100
84) bromoform	0.000		0	N.D.			
85) styrene	17.450	104	14790	0.192	ppbV		98
86) 1,1,2,2-tetrachloroethane	17.533		0	N.D.			
87) o-xylene	17.542	91	142890	1.656	ppbV		100
96) 4-ethyl toluene	18.608	105	79198M6	0.603	ppbV		
97) 1,3,5-trimethylbenzene	18.667	105	158243	1.315	ppbV		99
99) 1,2,4-trimethylbenzene	19.000	105	477757M6	4.534	ppbV		
101) Benzyl Chloride	0.000		0	N.D.	d		
102) 1,3-dichlorobenzene	19.125		0	N.D.			
103) 1,4-dichlorobenzene	19.183		0	N.D.			
107) 1,2-dichlorobenzene	0.000		0	N.D.			
115) 1,2,4-trichlorobenzene	20.942		0	N.D.			
119) hexachlorobutadiene	0.000		0	N.D.			

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
Data File : r322232.D  
Acq On : 19 May 2022 8:54 PM  
Operator : AIRPIANO3:TS  
Sample : L2225590-04,3,250,250  
Misc : WG1640711,ICAL19030  
ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 20 13:26:15 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 15:52:12 2022  
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0519T\r322225.D  
Sub List : TO15-NY - .

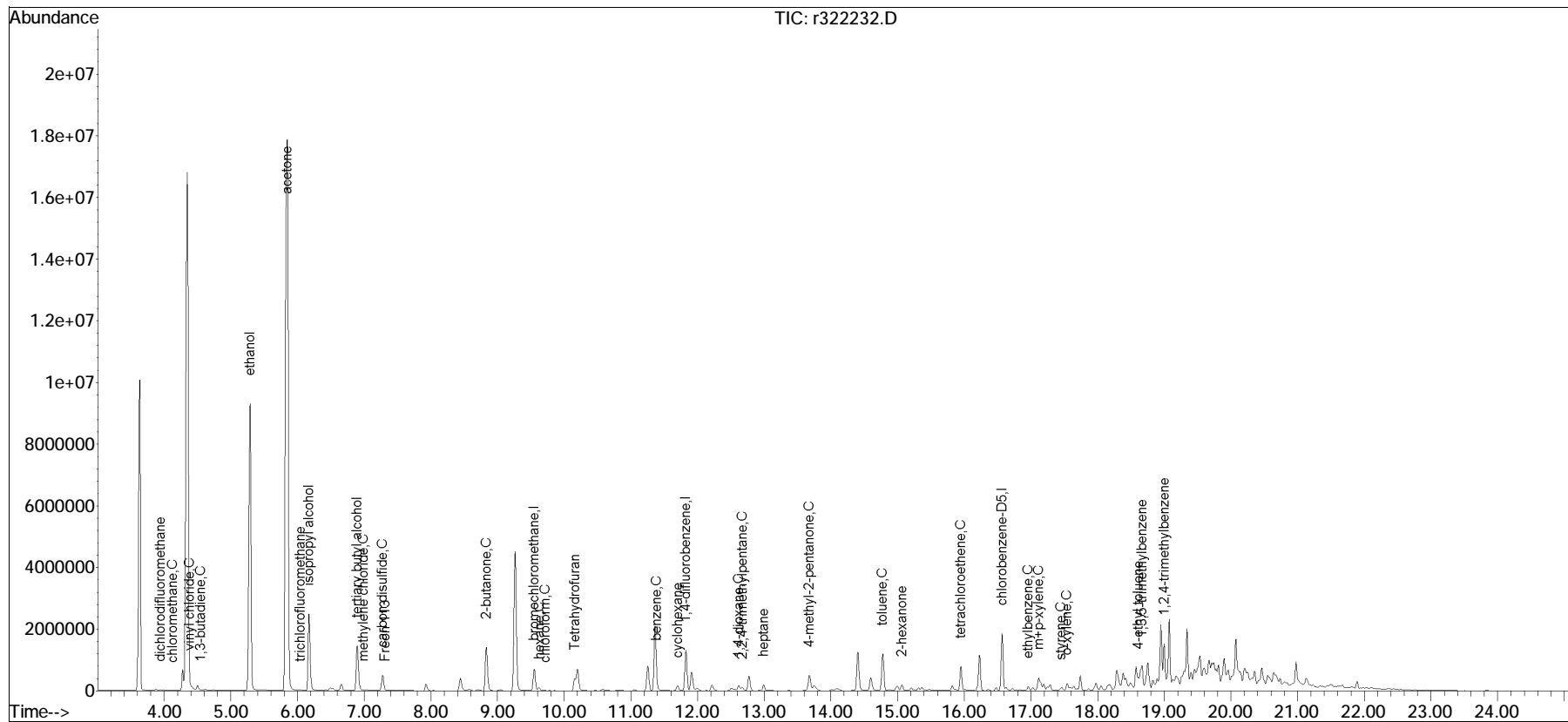
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
----------	------	------	----------	------	-------	----------

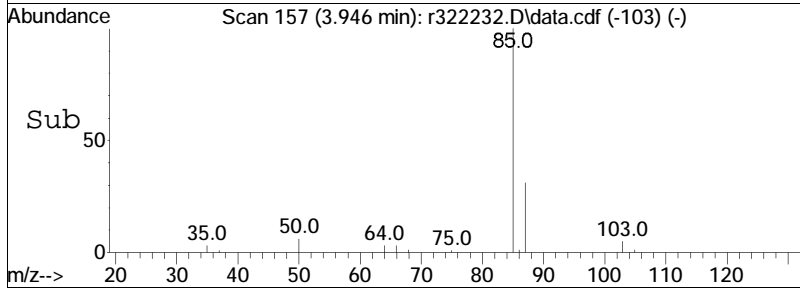
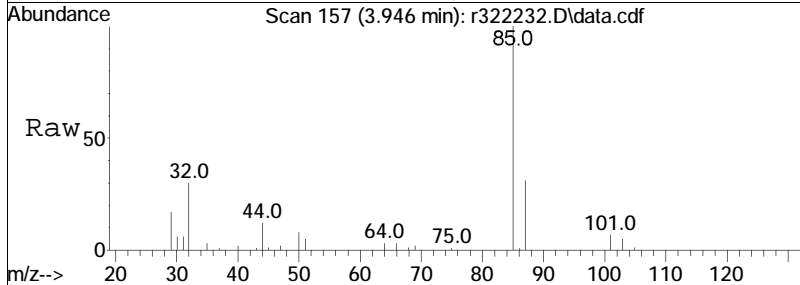
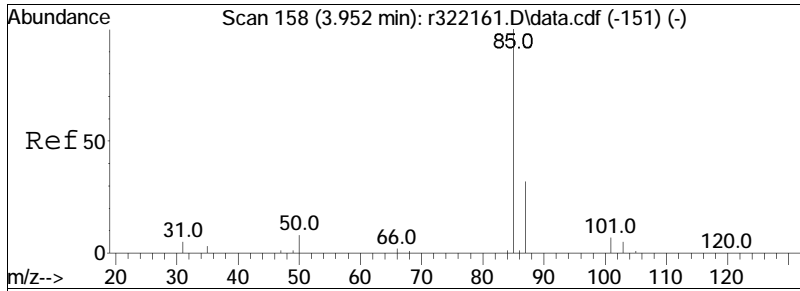
-----

Sub List : TO15-NY - .s\Data\Airpiano3\2022\05\0519T\r322225.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
Data File : r322232.D  
Acq On : 19 May 2022 8:54 PM  
Operator : AIRPIANO3:TS  
Sample : L2225590-04,3,250,250  
Misc : WG1640711,ICAL19030  
ALS Vial : 0 Sample Multiplier: 1

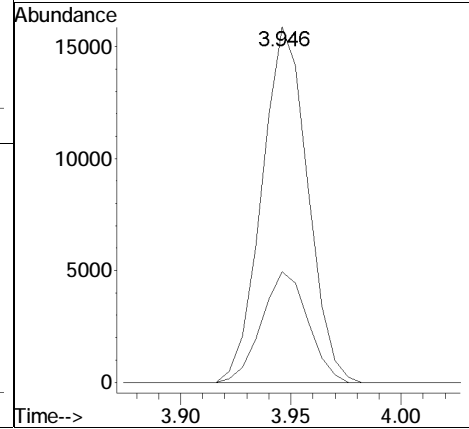
Quant Time: May 20 13:26:15 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 15:52:12 2022  
Response via : Initial Calibration

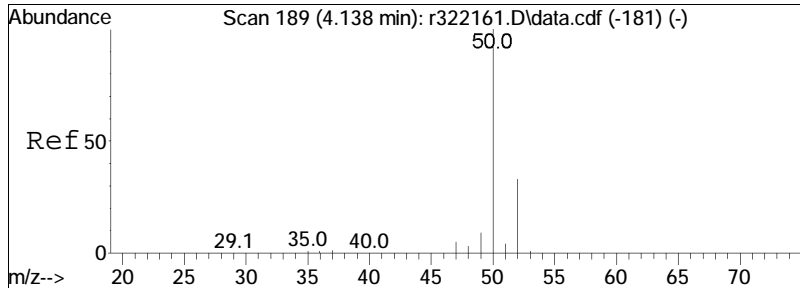




#5  
dichlorodifluoromethane  
Concen: 0.61 ppbV  
RT: 3.946 min Scan# 157  
Delta R.T. -0.006 min  
Lab File: r322232.D  
Acq: 19 May 2022 8:54 PM

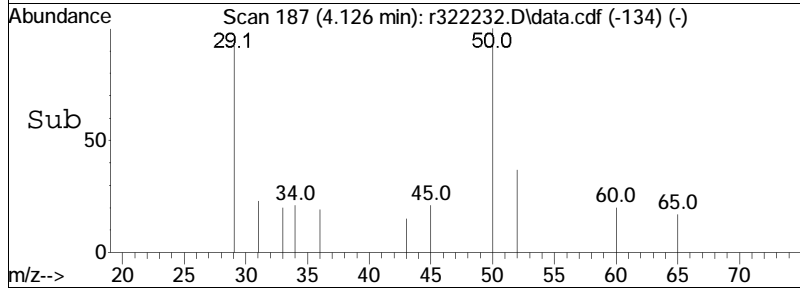
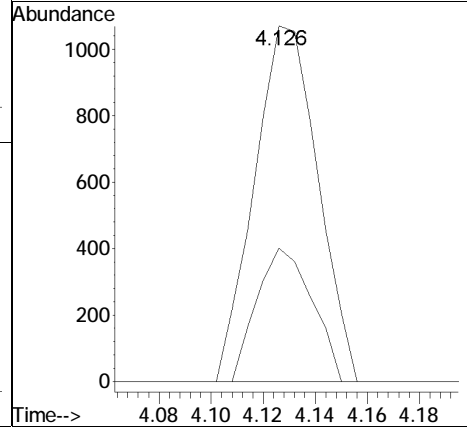
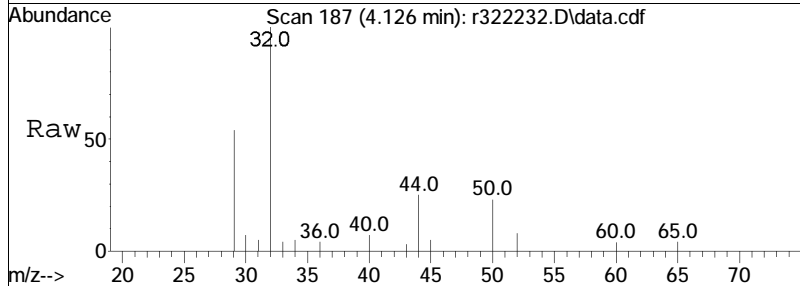
Tgt Ion:	85	Resp:	22945
Ion Ratio	Lower	Upper	
	85	100	
	87	31.1	25.8 38.6

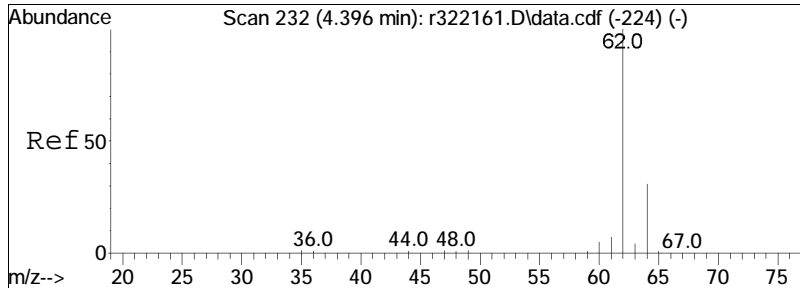




#6  
 chloromethane  
 Concen: 0.10 ppbV  
 RT: 4.126 min Scan# 187  
 Delta R.T. -0.012 min  
 Lab File: r322232.D  
 Acq: 19 May 2022 8:54 PM

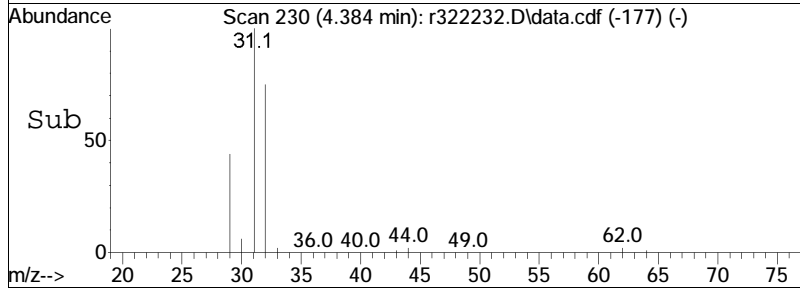
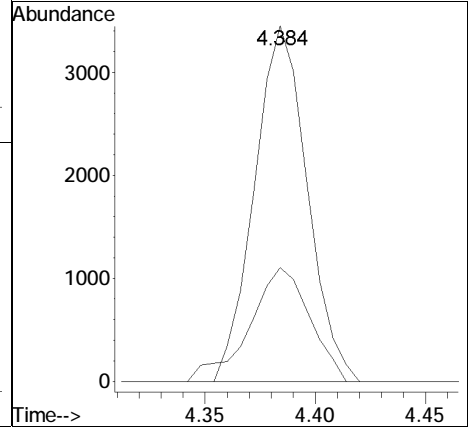
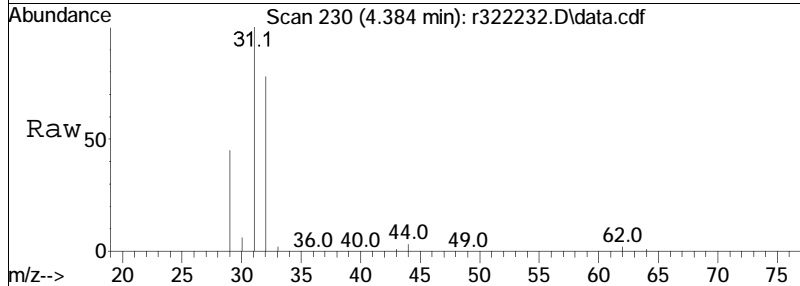
Tgt Ion:	50	Resp:	1815
Ion Ratio	100	Lower	Upper
52	37.5	26.3	39.5

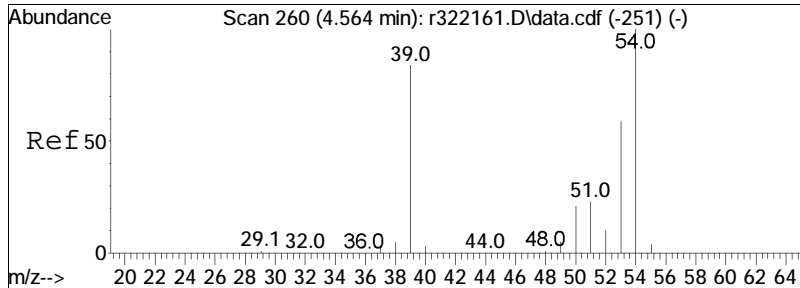




#9  
 vinyl chloride  
 Concen: 0.25 ppbV  
 RT: 4.384 min Scan# 230  
 Delta R.T. -0.012 min  
 Lab File: r322232.D  
 Acq: 19 May 2022 8:54 PM

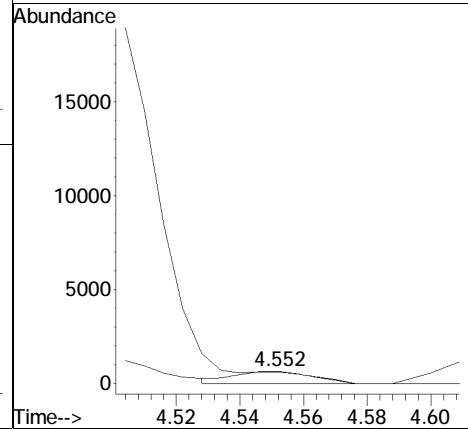
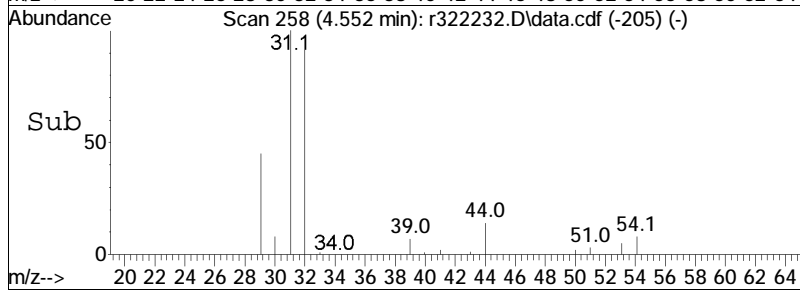
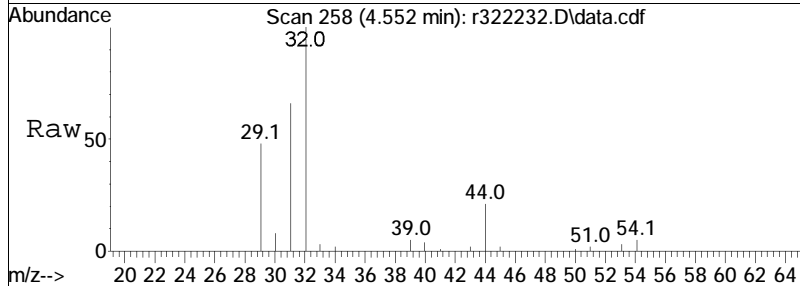
Tgt Ion	Resp	Lower	Upper
62	100		
64	32.0	24.4	36.6



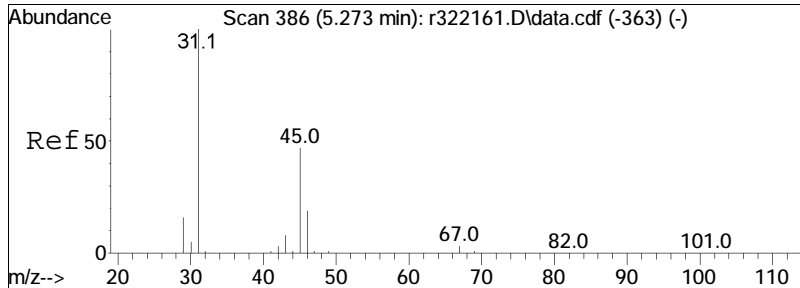


#10  
 1,3-butadiene  
 Concen: 0.06 ppbV  
 RT: 4.552 min Scan# 258  
 Delta R.T. -0.012 min  
 Lab File: r322232.D  
 Acq: 19 May 2022 8:54 PM

Tgt Ion:	Resp:	Lower	Upper
54	1095		
39	95.2	67.8	101.8

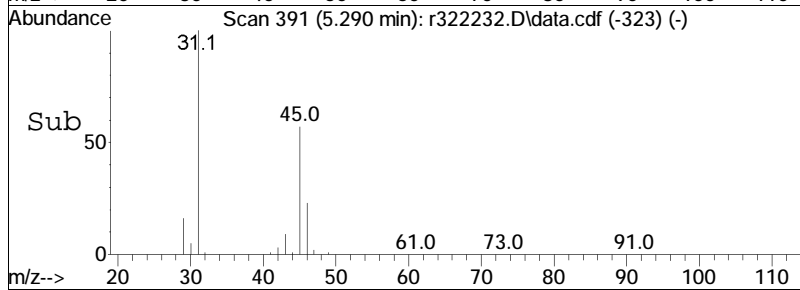
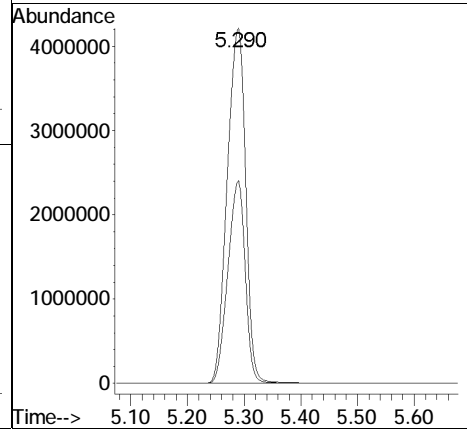
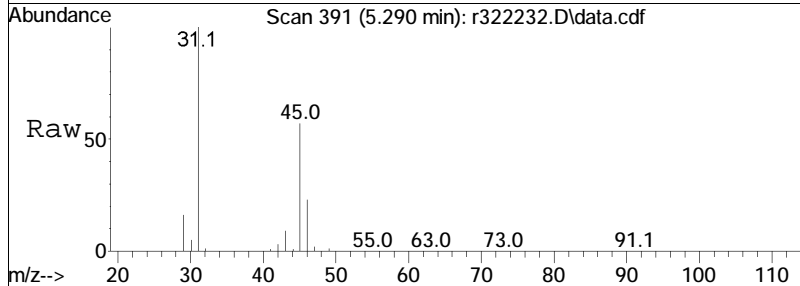


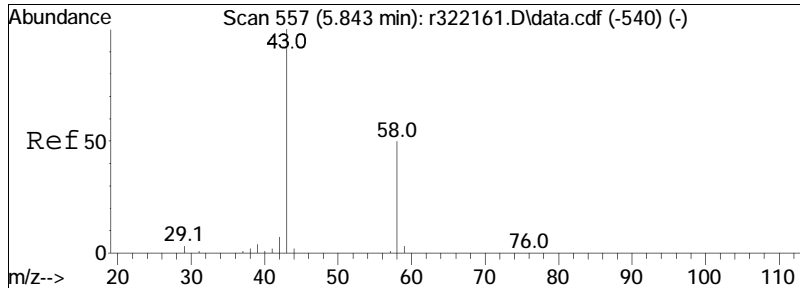




#15  
 ethanol  
 Concen: 524.58 ppbV  
 RT: 5.290 min Scan# 391  
 Delta R.T. 0.017 min  
 Lab File: r322232.D  
 Acq: 19 May 2022 8:54 PM

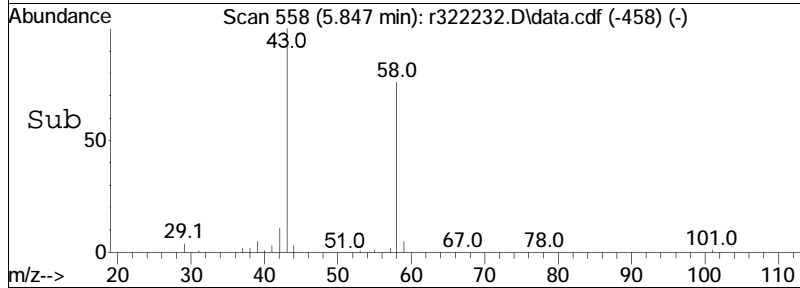
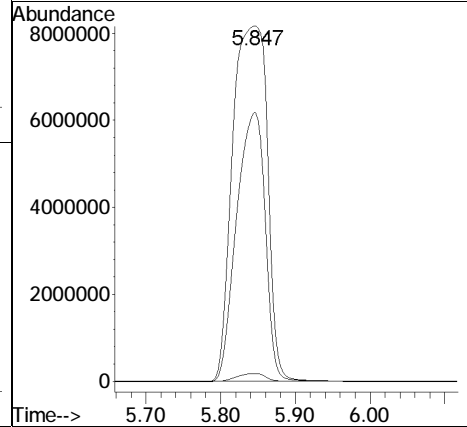
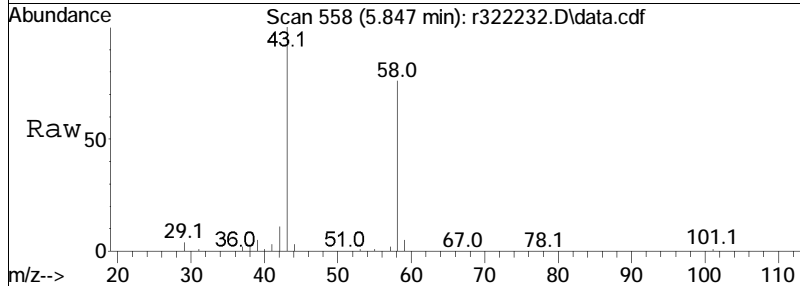
Tgt Ion: 31 Resp: 9574757  
 Ion Ratio Lower Upper  
 31 100  
 45 57.1 37.6 56.4#

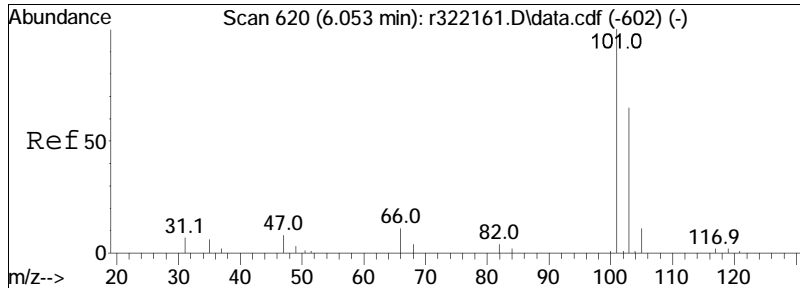




#19  
 acetone  
 Concen: 1017.17 ppbV  
 RT: 5.847 min Scan# 558  
 Delta R.T. 0.003 min  
 Lab File: r322232.D  
 Acq: 19 May 2022 8:54 PM

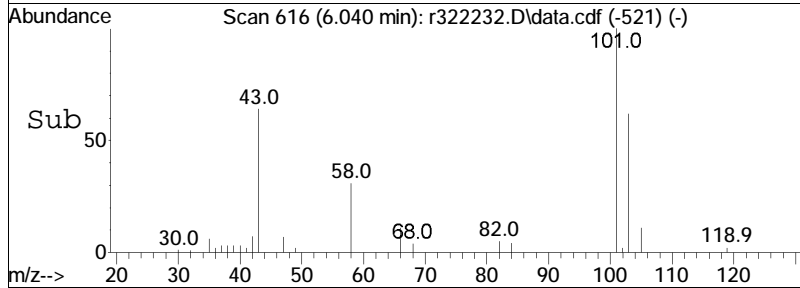
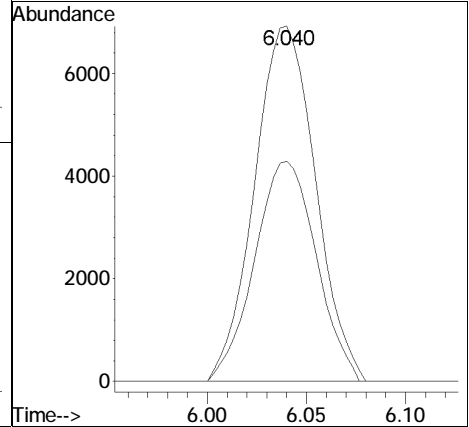
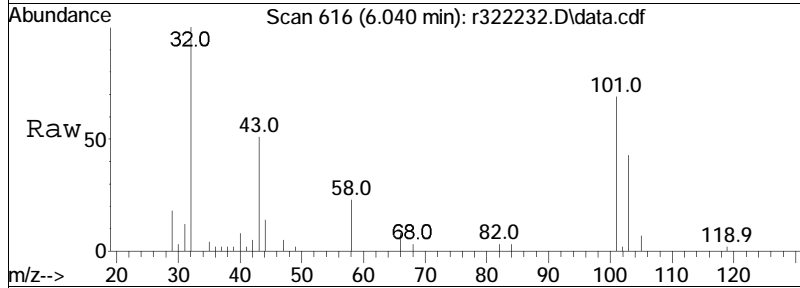
Tgt Ion:	Resp:	Lower	Upper
43	100		
58	75.7	39.8	59.8#
57	2.2	1.0	1.6#

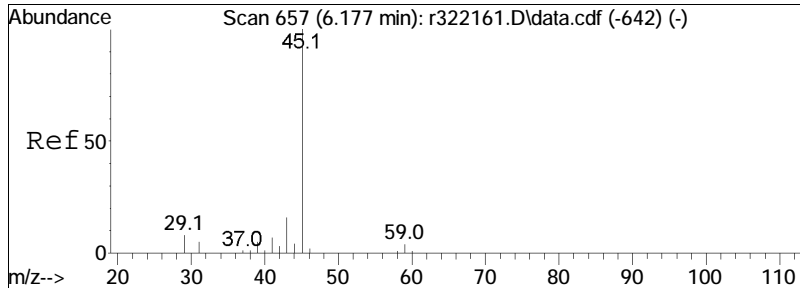




#21  
 trichlorofluoromethane  
 Concen: 0.44 ppbV  
 RT: 6.040 min Scan# 616  
 Delta R.T. -0.013 min  
 Lab File: r322232.D  
 Acq: 19 May 2022 8:54 PM

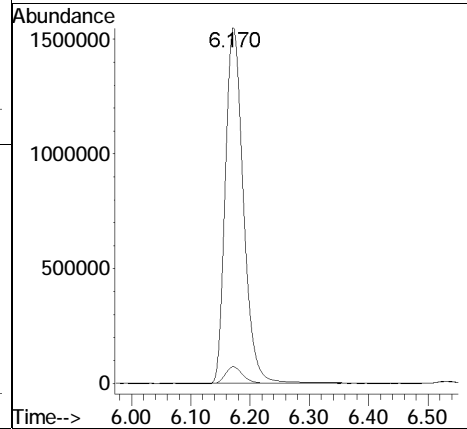
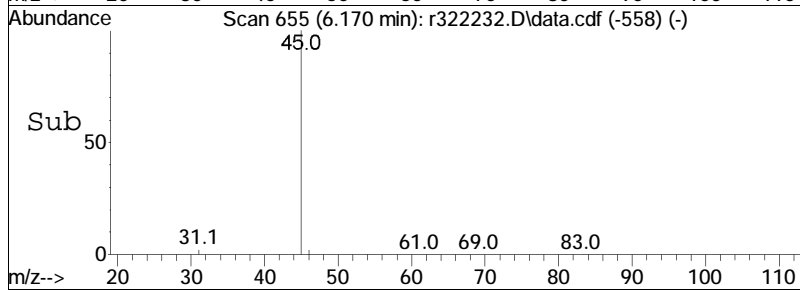
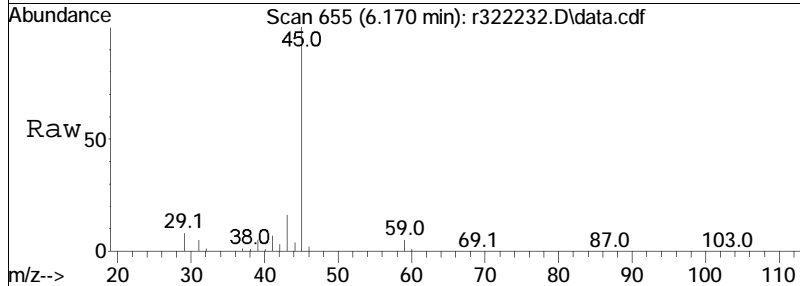
Tgt Ion: 101 Resp: 14828  
 Ion Ratio Lower Upper  
 101 100  
 103 62.0 51.8 77.6

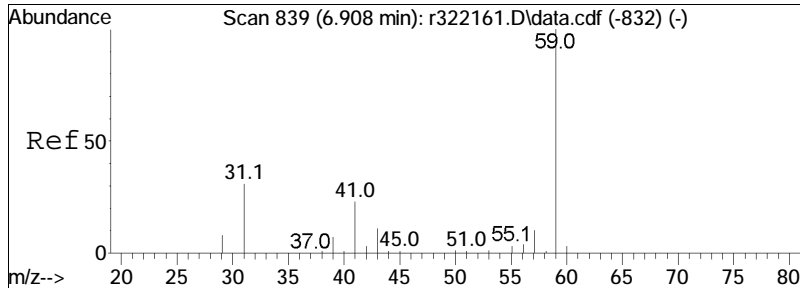




#22  
 isopropyl alcohol  
 Concen: 105.20 ppbV  
 RT: 6.170 min Scan# 655  
 Delta R.T. -0.007 min  
 Lab File: r322232.D  
 Acq: 19 May 2022 8:54 PM

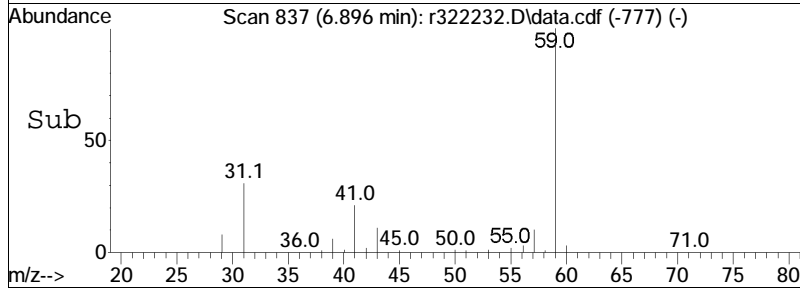
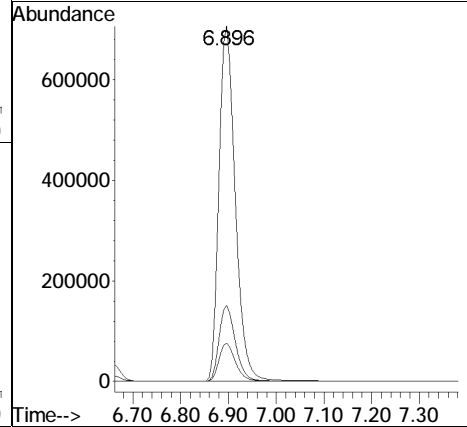
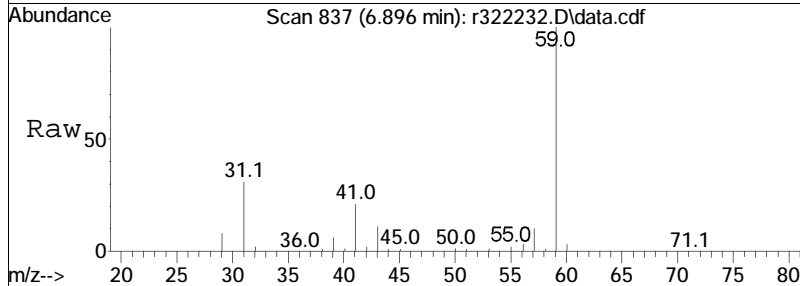
Tgt Ion: 45 Resp: 3294576  
 Ion Ratio Lower Upper  
 45 100  
 59 4.7 3.5 5.3

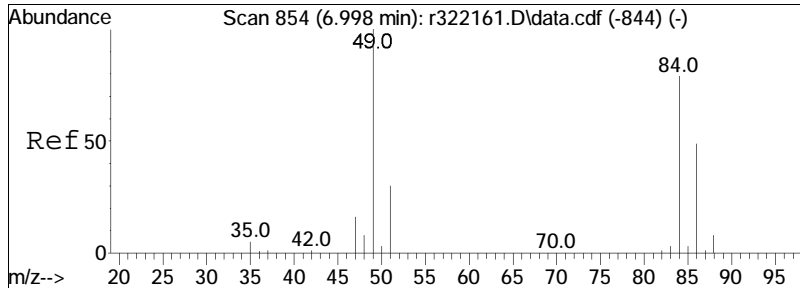




#27  
 tertiary butyl alcohol  
 Concen: 43.36 ppbV  
 RT: 6.896 min Scan# 837  
 Delta R.T. -0.012 min  
 Lab File: r322232.D  
 Acq: 19 May 2022 8:54 PM

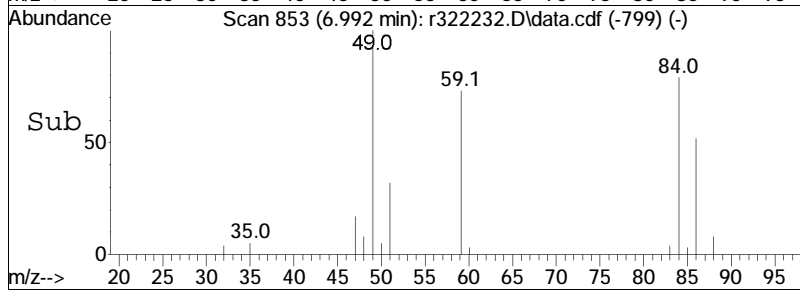
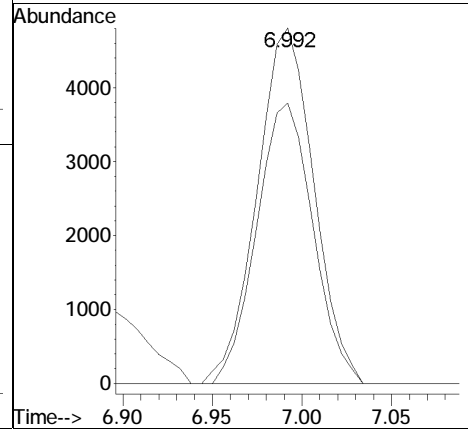
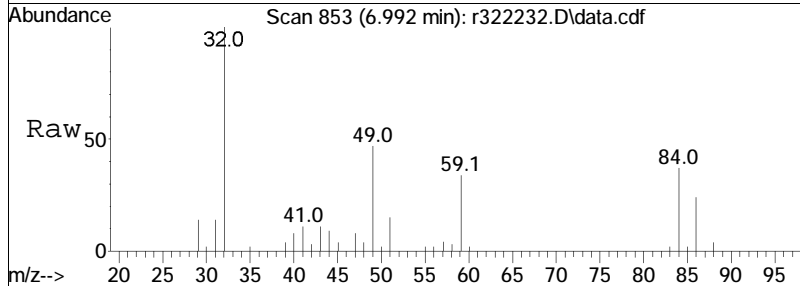
Tgt Ion	Resp	Lower	Upper
59	100		
41	21.4	18.2	27.2
43	10.8	8.9	13.3

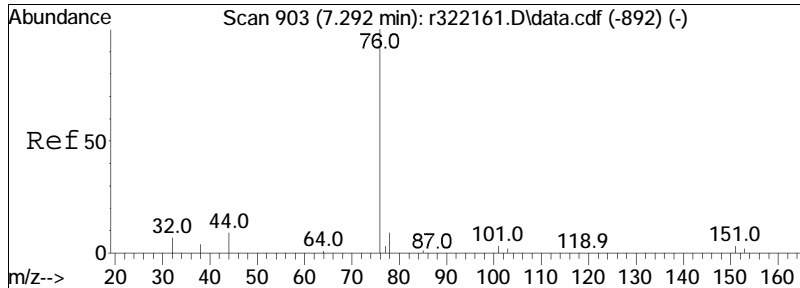




#28  
 methylene chloride  
 Concen: 0.36 ppbV  
 RT: 6.992 min Scan# 853  
 Delta R.T. -0.006 min  
 Lab File: r322232.D  
 Acq: 19 May 2022 8:54 PM

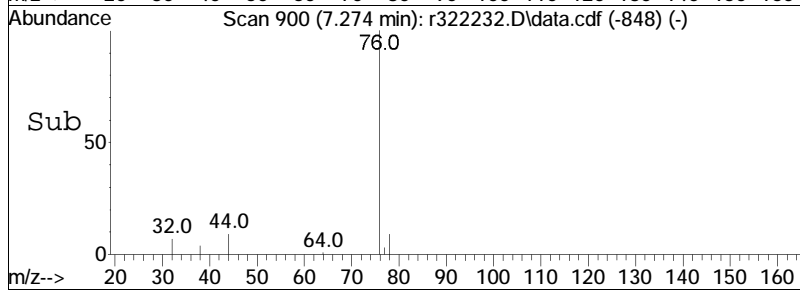
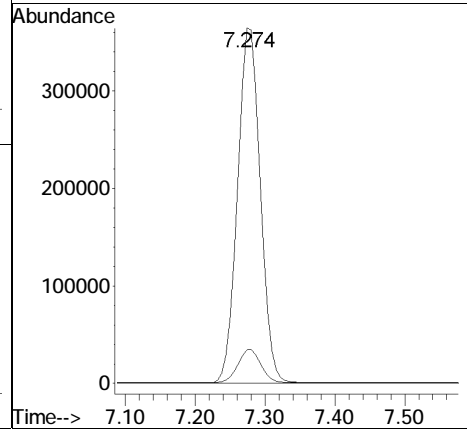
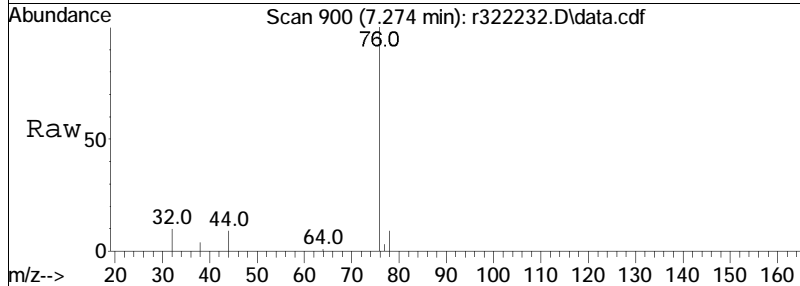
Tgt Ion:	49	84	Resp:	10618
Ion Ratio	100	78.9	Lower	Upper
			63.0	94.6

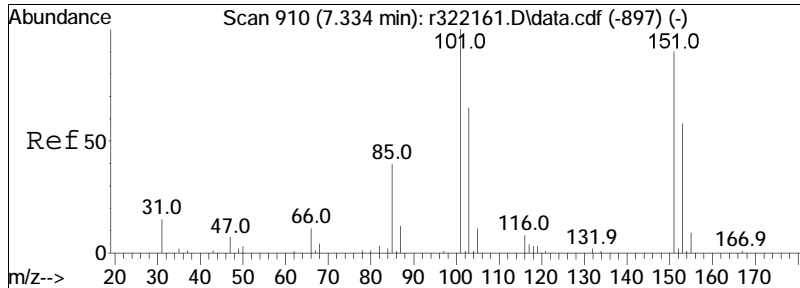




#30  
 carbon disulfide  
 Concen: 12.23 ppbV  
 RT: 7.274 min Scan# 900  
 Delta R.T. -0.018 min  
 Lab File: r322232.D  
 Acq: 19 May 2022 8:54 PM

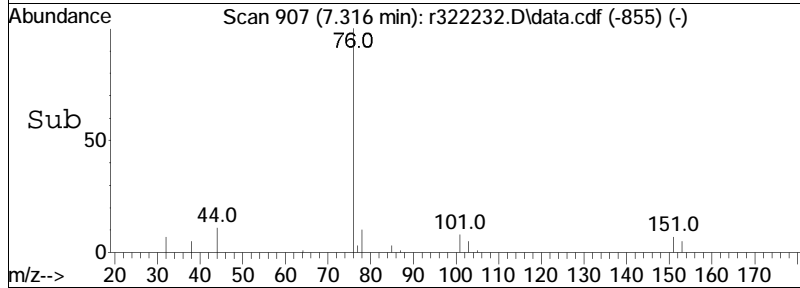
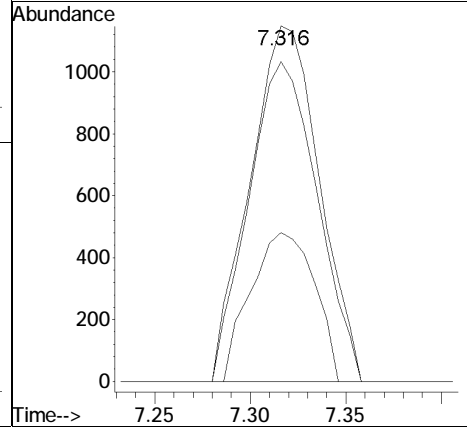
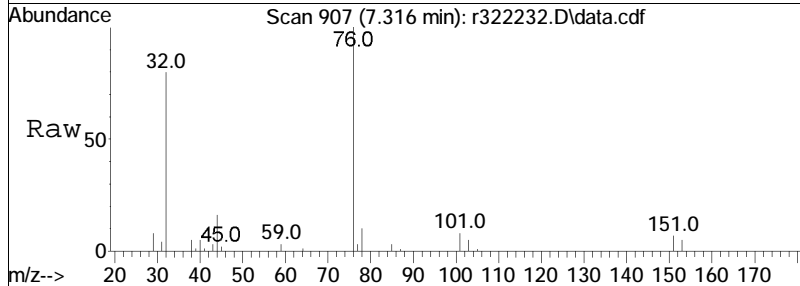
Tgt Ion	Resp	Lower	Upper
76	100		
44	9.4	7.6	11.4



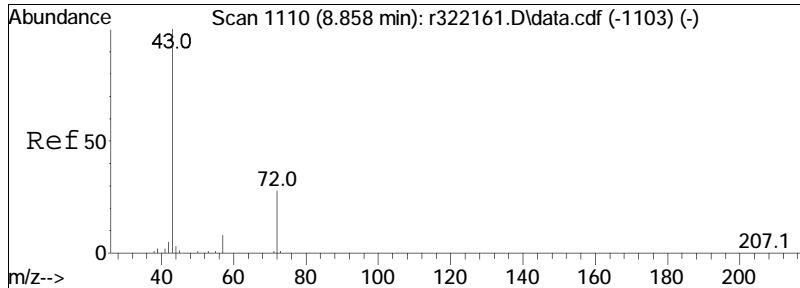


#31  
 Freon 113  
 Concen: 0.08 ppbV  
 RT: 7.316 min Scan# 907  
 Delta R.T. -0.018 min  
 Lab File: r322232.D  
 Acq: 19 May 2022 8:54 PM

Tgt Ion	Ratio	Lower	Upper
101	100		
85	41.9	31.8	47.8
151	90.0	72.2	108.4

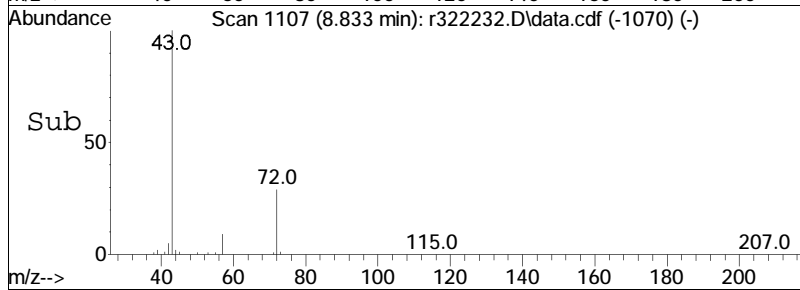
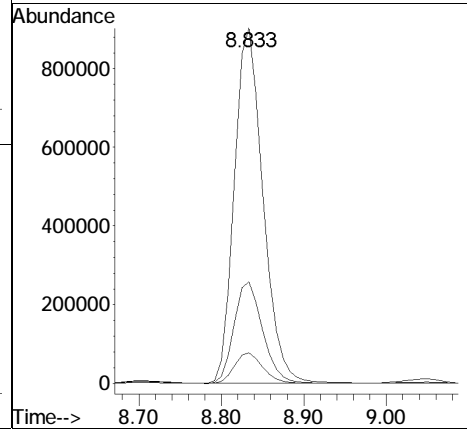
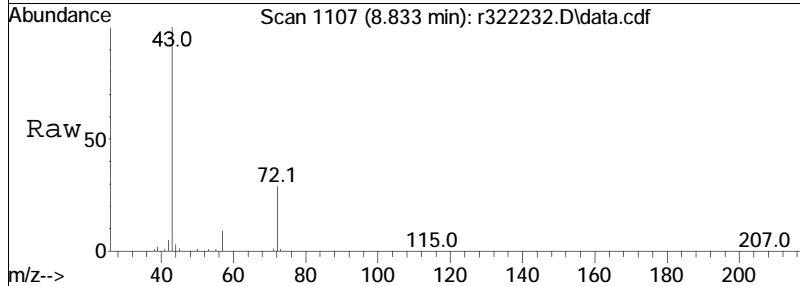


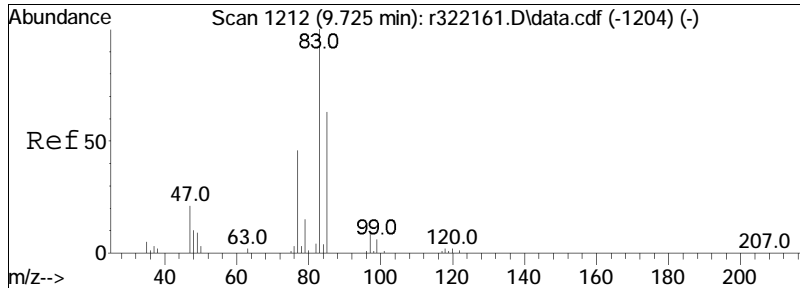




#36  
 2-butanone  
 Concen: 46.01 ppbV  
 RT: 8.833 min Scan# 1107  
 Delta R.T. -0.025 min  
 Lab File: r322232.D  
 Acq: 19 May 2022 8:54 PM

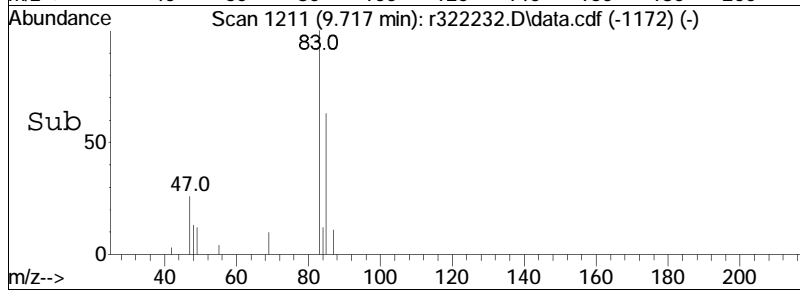
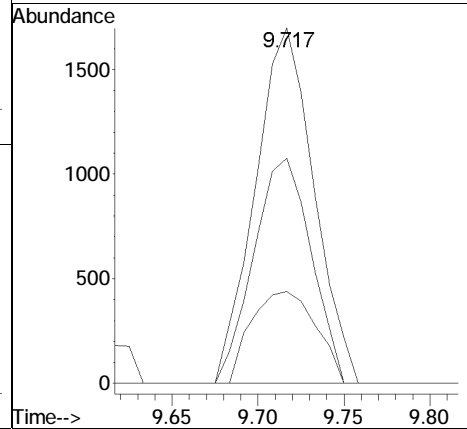
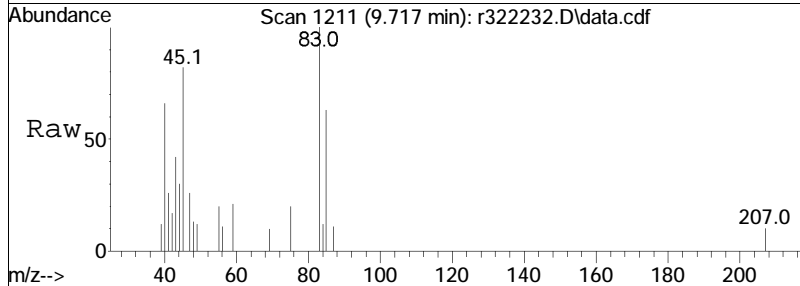
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
43	100		
72	28.6	22.6	33.8
57	8.6	6.6	10.0

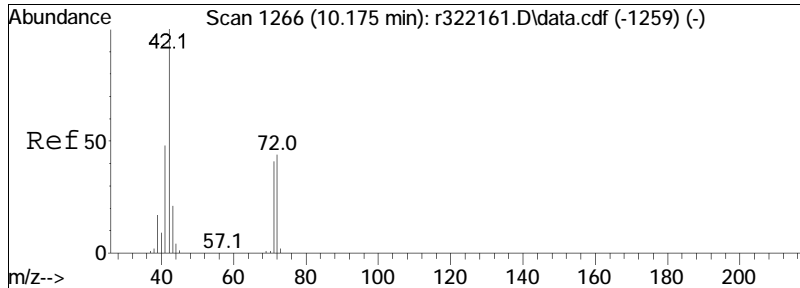




#39  
 chloroform  
 Concen: 0.11 ppbV  
 RT: 9.717 min Scan# 1211  
 Delta R.T. -0.008 min  
 Lab File: r322232.D  
 Acq: 19 May 2022 8:54 PM

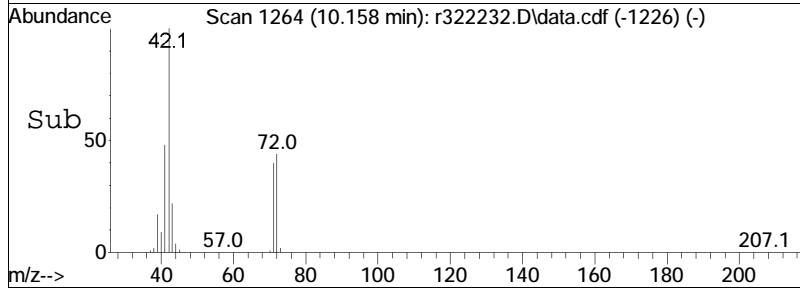
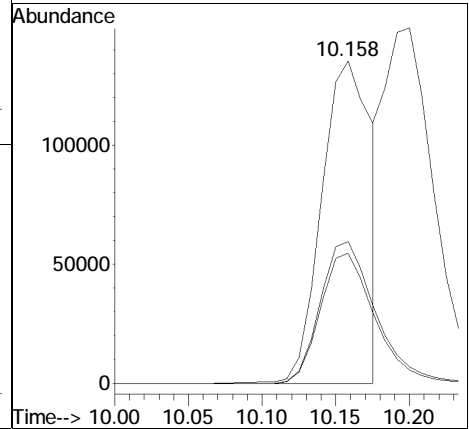
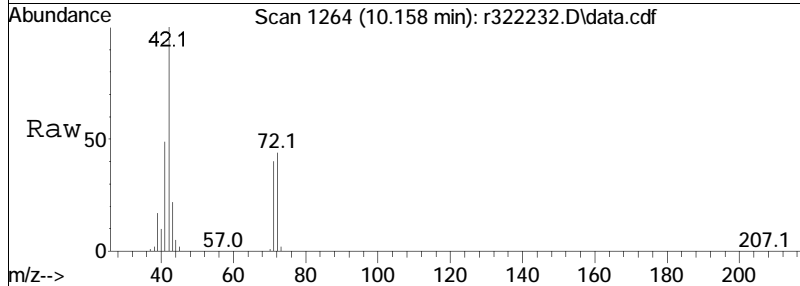
Tgt Ion	Resp	Lower	Upper
83	4036		
85	63.4	50.4	75.6
47	25.9	16.9	25.3#

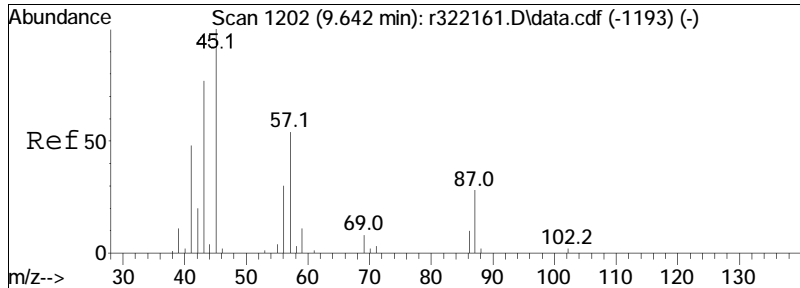




#40  
 Tetrahydrofuran  
 Concen: 11.55 ppbV  
 RT: 10.158 min Scan# 1264  
 Delta R.T. -0.017 min  
 Lab File: r322232.D  
 Acq: 19 May 2022 8:54 PM

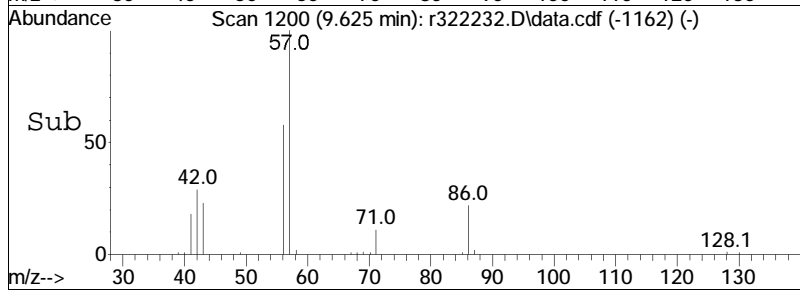
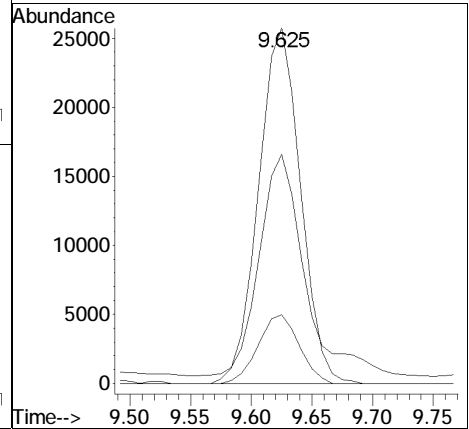
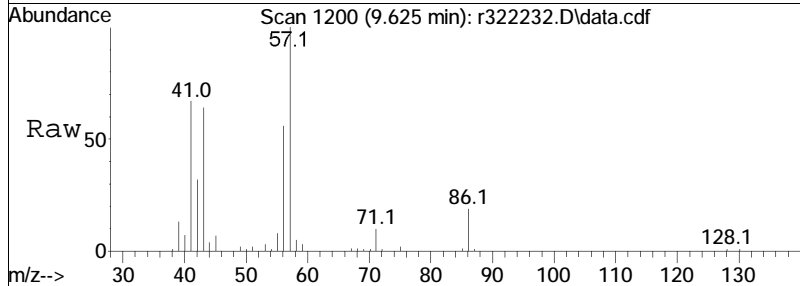
Tgt Ion	Resp	Lower	Upper
42	315423		
71	40.4	32.4	48.6
72	44.0	35.2	52.8

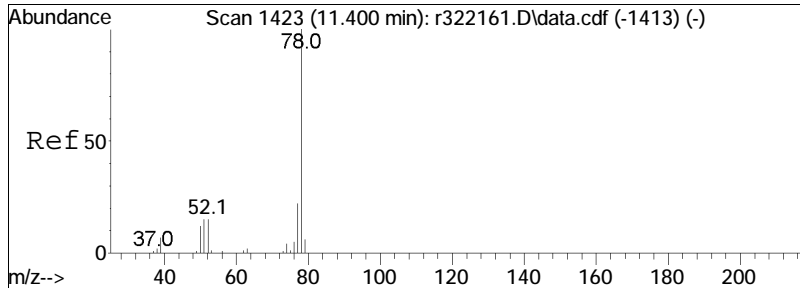




#44  
 hexane  
 Concen: 1.49 ppbV  
 RT: 9.625 min Scan# 1200  
 Delta R.T. -0.017 min  
 Lab File: r322232.D  
 Acq: 19 May 2022 8:54 PM

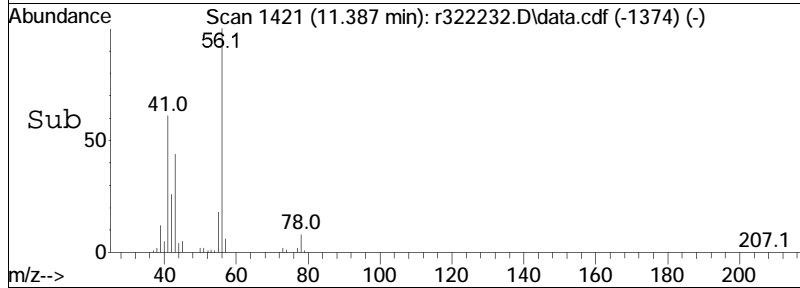
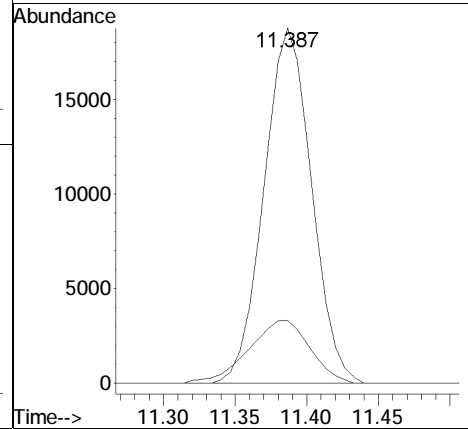
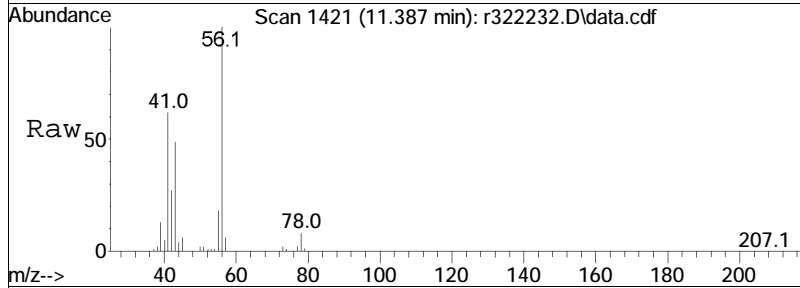
Tgt Ion:	Resp:		
Ion Ratio	Lower	Upper	
57	100		
43	64.4	115.0	172.6#
86	19.3	15.5	23.3

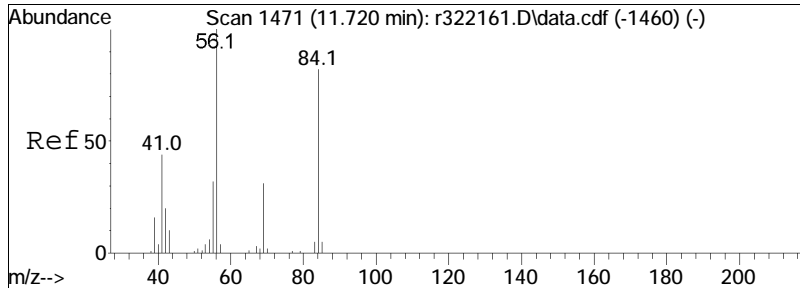




#50  
benzene  
Concen: 0.51 ppbV  
RT: 11.387 min Scan# 1421  
Delta R.T. -0.013 min  
Lab File: r322232.D  
Acq: 19 May 2022 8:54 PM

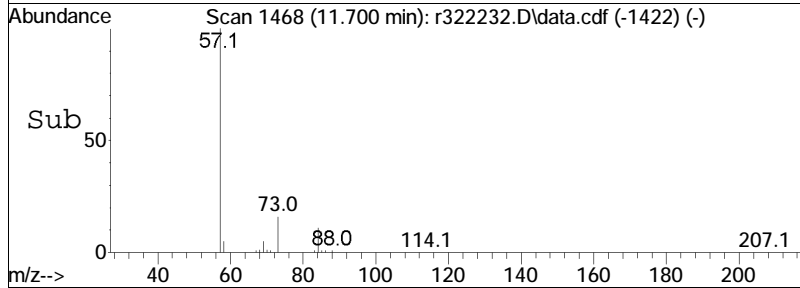
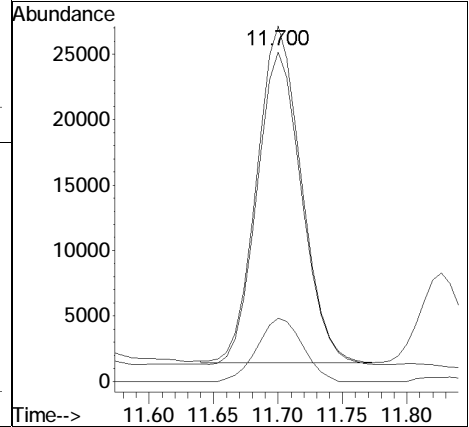
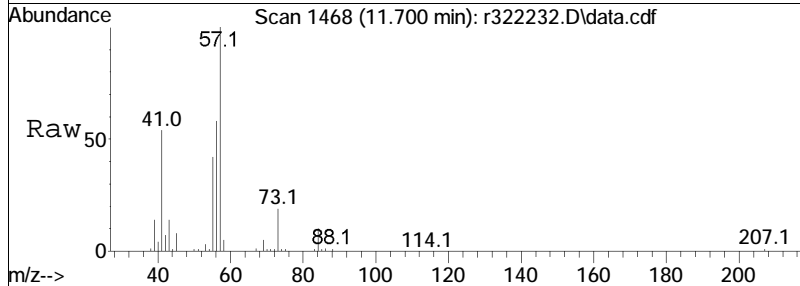
Tgt Ion:	78	Resp:	43385
Ion Ratio	Lower	Upper	
78	100		
52	17.7	12.2	18.2

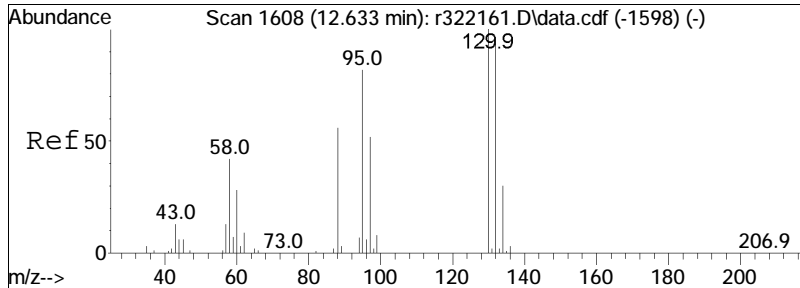




#53  
 cyclohexane  
 Concen: 1.44 ppbV  
 RT: 11.700 min Scan# 1468  
 Delta R.T. -0.020 min  
 Lab File: r322232.D  
 Acq: 19 May 2022 8:54 PM

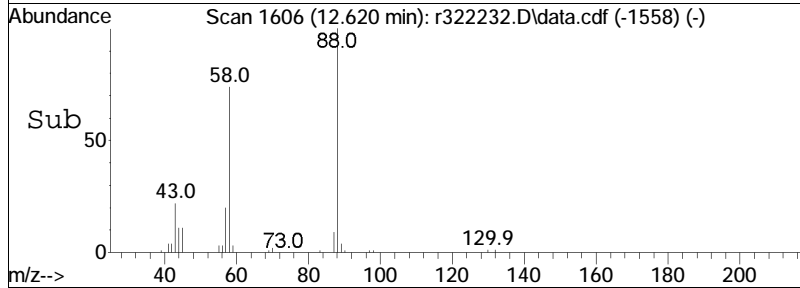
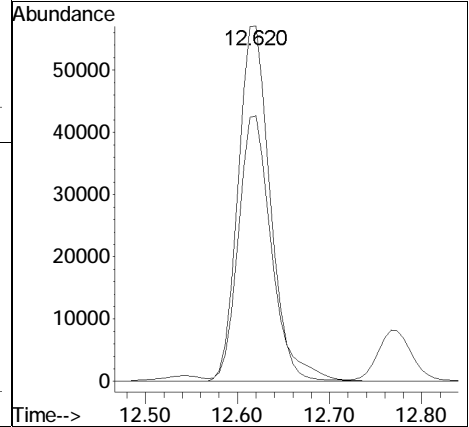
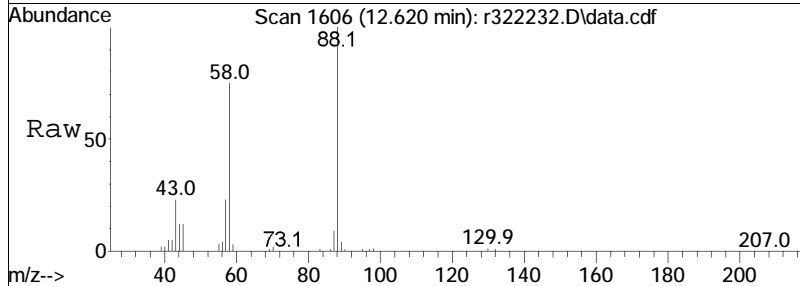
Tgt Ion	Resp	Lower	Upper
56	100		
84	17.8	65.4	98.0#
41	92.7	35.4	53.2#

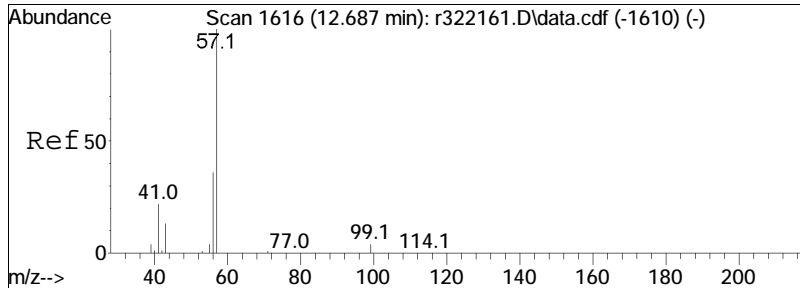




#58  
 1,4-dioxane  
 Concen: 7.89 ppbV  
 RT: 12.620 min Scan# 1606  
 Delta R.T. -0.013 min  
 Lab File: r322232.D  
 Acq: 19 May 2022 8:54 PM

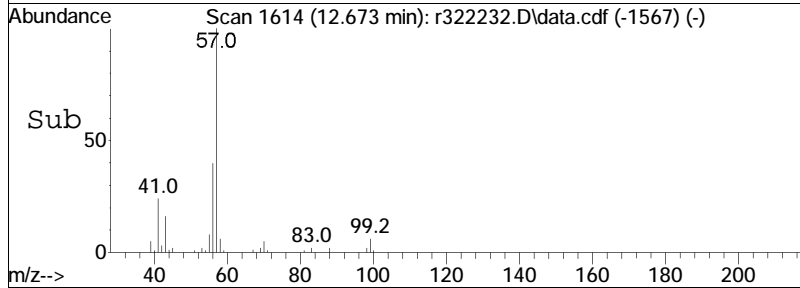
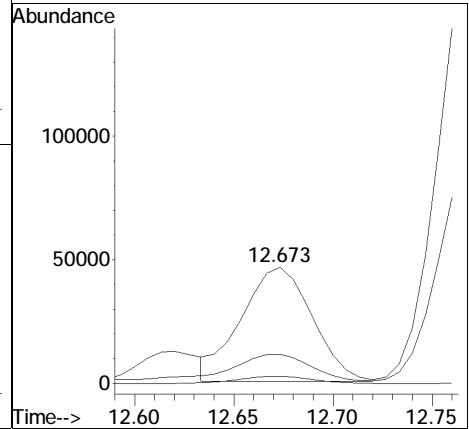
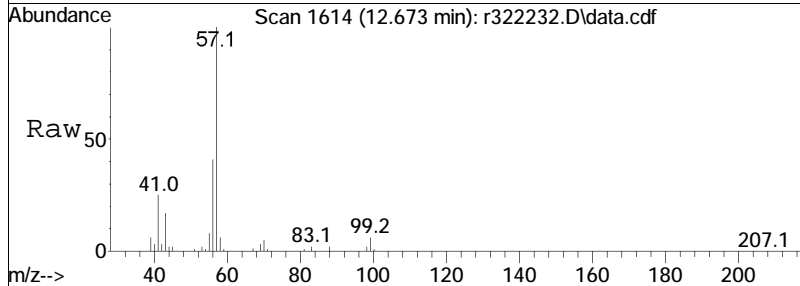
Tgt Ion	Resp	Lower	Upper
88	136945		
88	100		
58	74.7	61.2	91.8



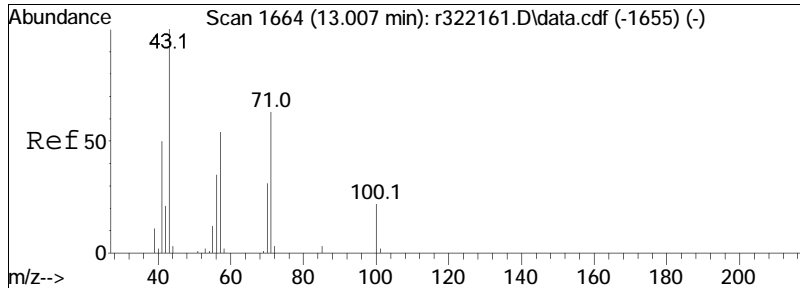


#60  
 2,2,4-trimethylpentane  
 Concen: 0.89 ppbV  
 RT: 12.673 min Scan# 1614  
 Delta R.T. -0.013 min  
 Lab File: r322232.D  
 Acq: 19 May 2022 8:54 PM

Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
57	100		
99	6.3	5.0	7.4
41	25.1	17.4	26.2

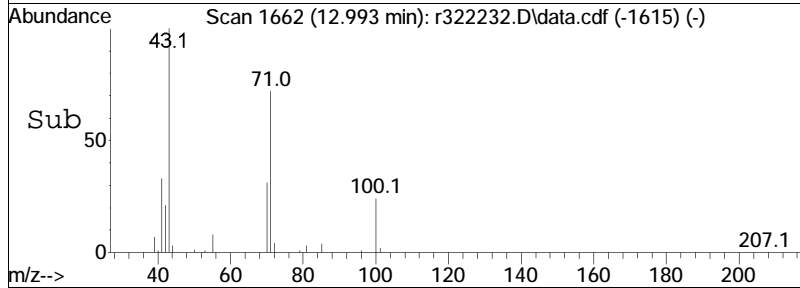
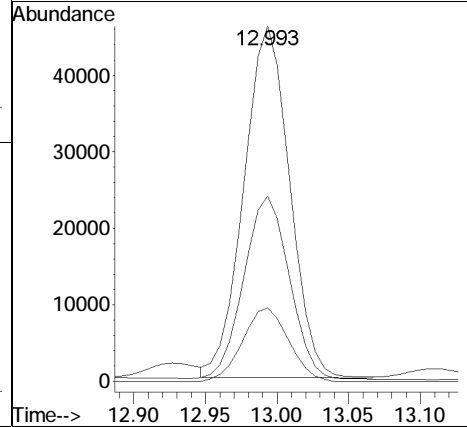
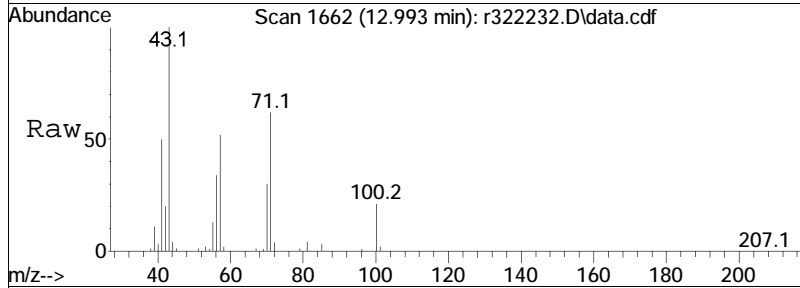


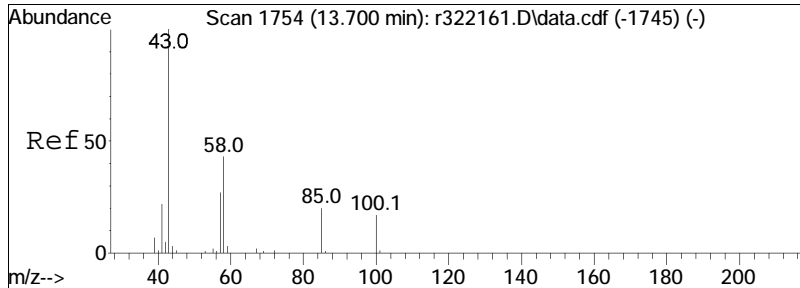




#62  
 heptane  
 Concen: 2.14 ppbV  
 RT: 12.993 min Scan# 1662  
 Delta R.T. -0.013 min  
 Lab File: r322232.D  
 Acq: 19 May 2022 8:54 PM

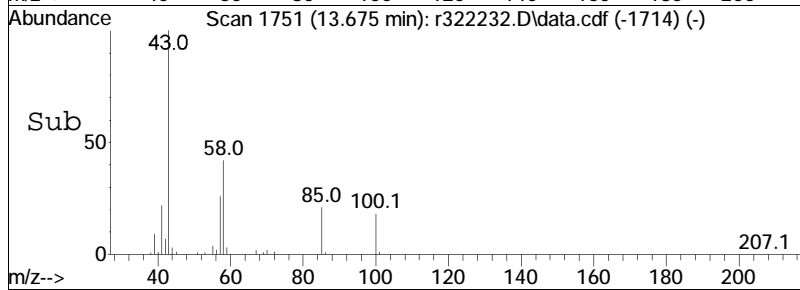
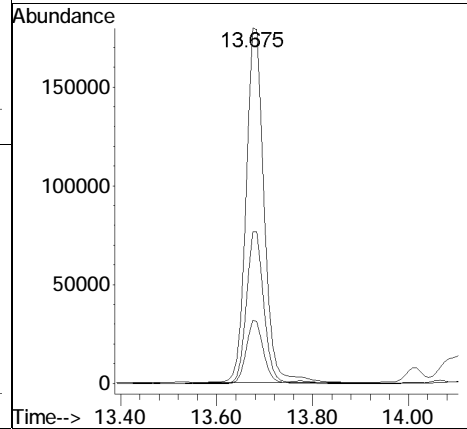
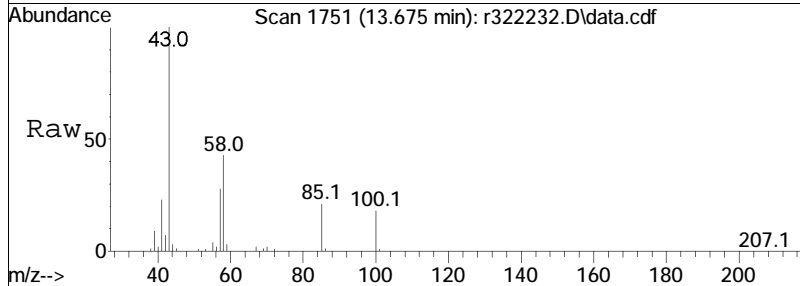
Tgt Ion:	43	Resp:	102214
Ion Ratio	Lower	Upper	
43	100		
57	52.2	43.0	64.4
100	20.7	17.6	26.4

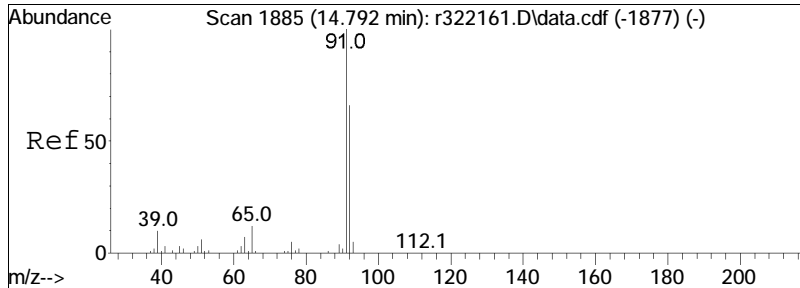




#64  
 4-methyl-2-pentanone  
 Concen: 8.56 ppbV  
 RT: 13.675 min Scan# 1751  
 Delta R.T. -0.025 min  
 Lab File: r322232.D  
 Acq: 19 May 2022 8:54 PM

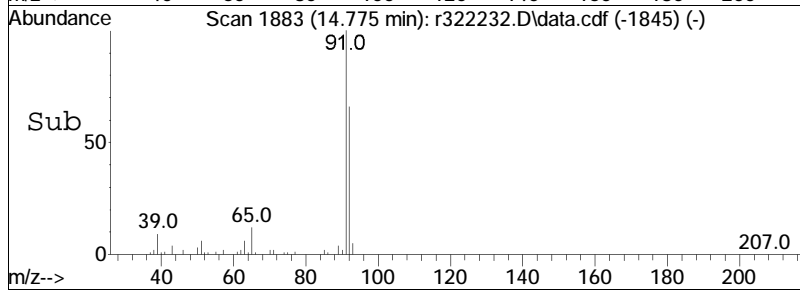
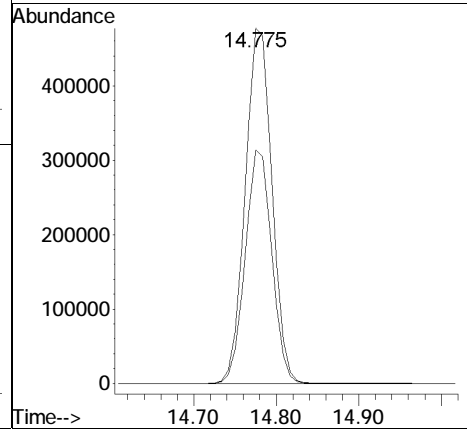
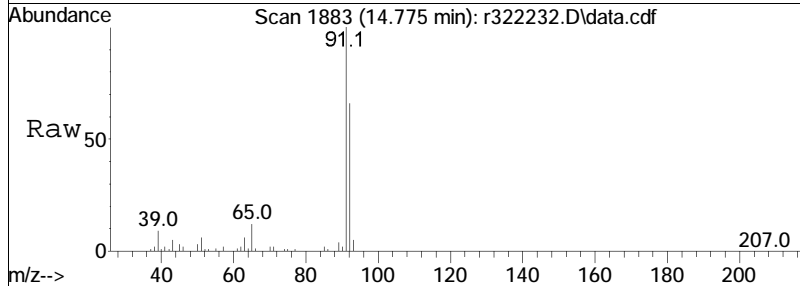
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
43	100		
58	42.7	34.3	51.5
100	17.8	13.8	20.6

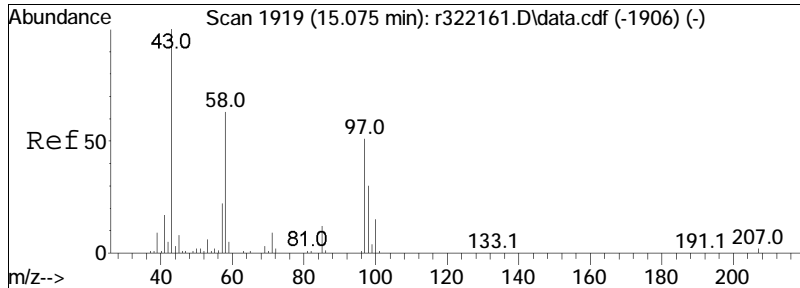




#68  
 toluene  
 Concen: 12.16 ppbV  
 RT: 14.775 min Scan# 1883  
 Delta R.T. -0.017 min  
 Lab File: r322232.D  
 Acq: 19 May 2022 8:54 PM

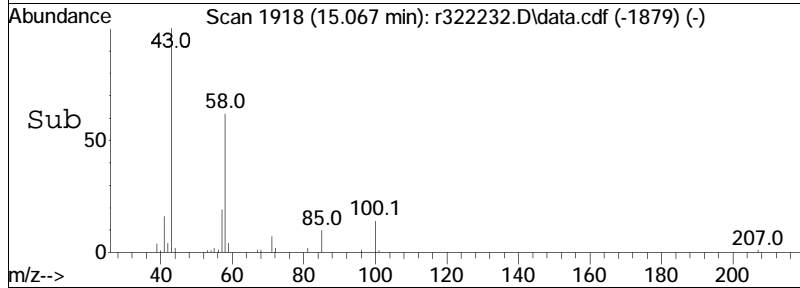
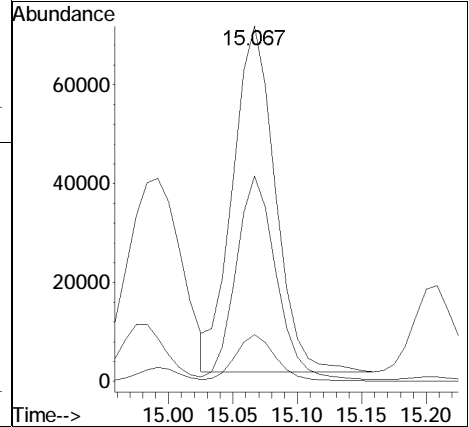
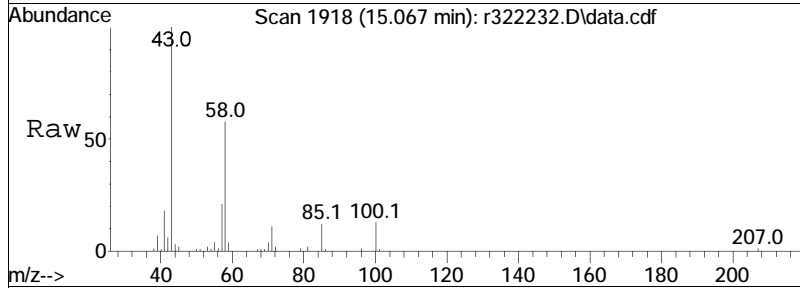
Tgt Ion: 91 Resp: 1074611  
 Ion Ratio Lower Upper  
 91 100  
 92 65.7 52.7 79.1

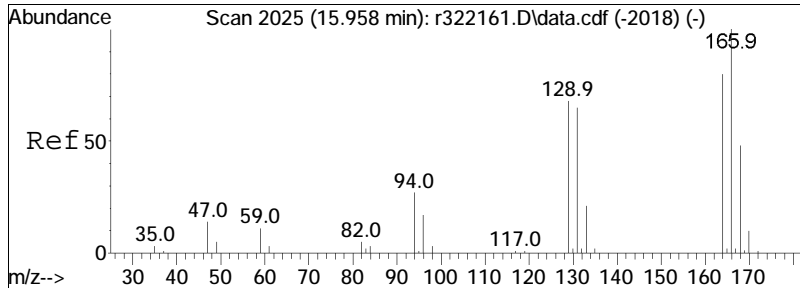




#72  
 2-hexanone  
 Concen: 3.02 ppbV  
 RT: 15.067 min Scan# 1918  
 Delta R.T. -0.008 min  
 Lab File: r322232.D  
 Acq: 19 May 2022 8:54 PM

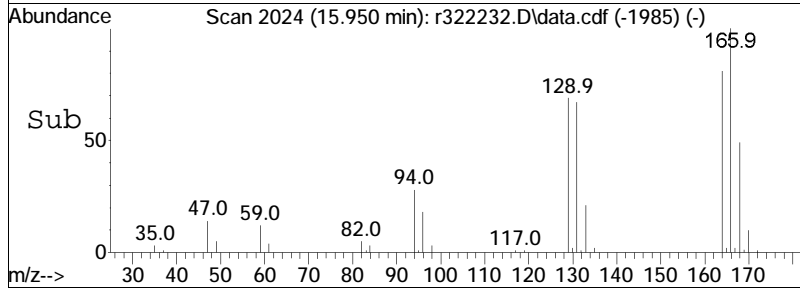
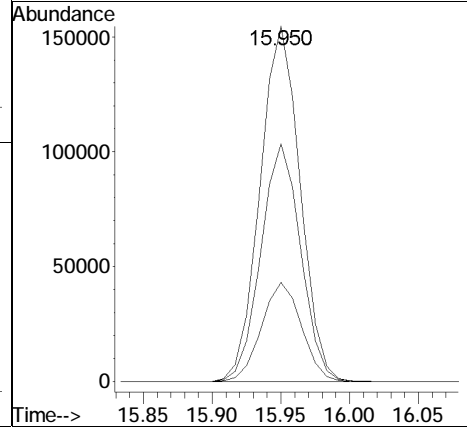
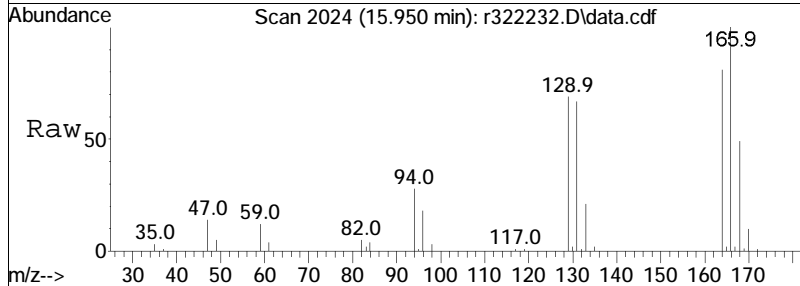
Tgt Ion:	43	58	100	Resp:	160796
Ion Ratio	100	57.8	13.2	Lower	Upper
		50.5	12.2		75.7
					18.2

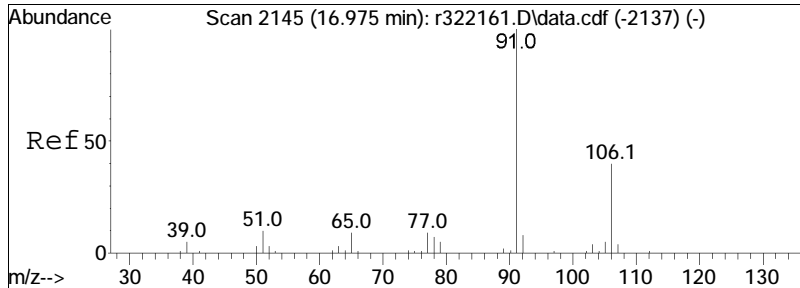




#78  
 tetrachloroethene  
 Concen: 7.30 ppbV  
 RT: 15.950 min Scan# 2024  
 Delta R.T. -0.008 min  
 Lab File: r322232.D  
 Acq: 19 May 2022 8:54 PM

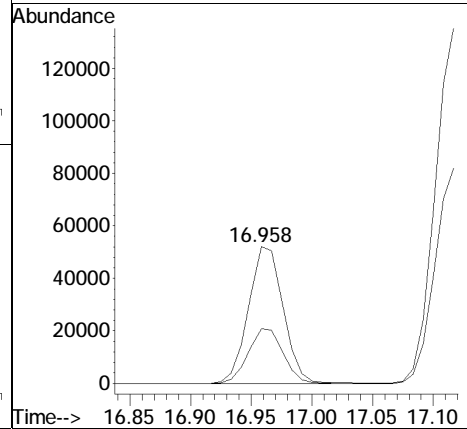
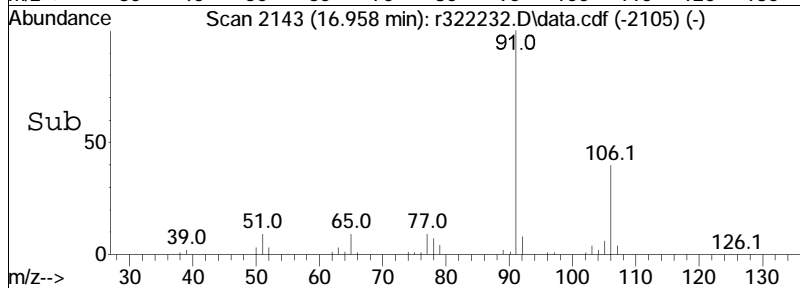
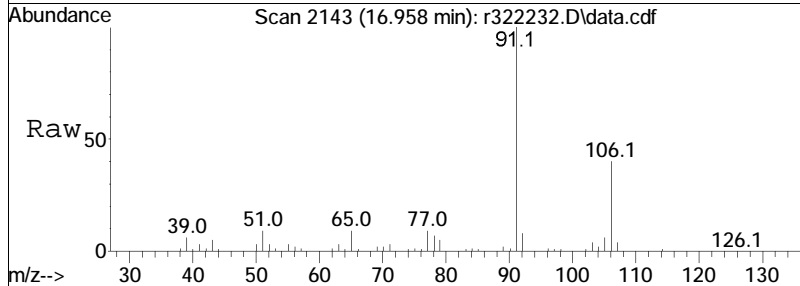
Tgt Ion	Resp	Lower	Upper
166	100		
131	66.9	51.8	77.6
94	27.9	21.8	32.8

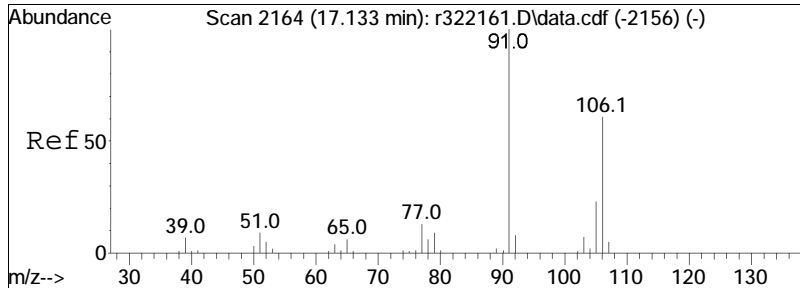




#81  
 ethylbenzene  
 Concen: 0.98 ppbV  
 RT: 16.958 min Scan# 2143  
 Delta R.T. -0.017 min  
 Lab File: r322232.D  
 Acq: 19 May 2022 8:54 PM

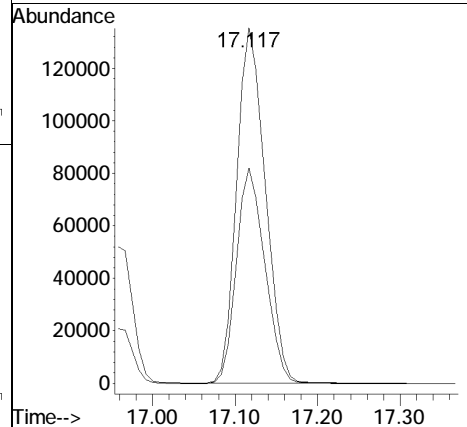
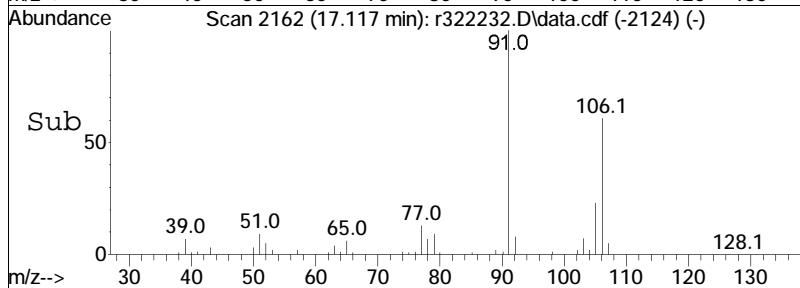
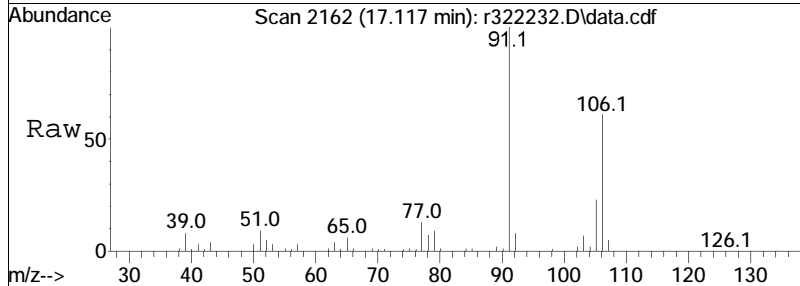
Tgt Ion:	91	Resp:	103848
Ion Ratio	Lower	Upper	
91	100		
106	40.0	32.4	48.6

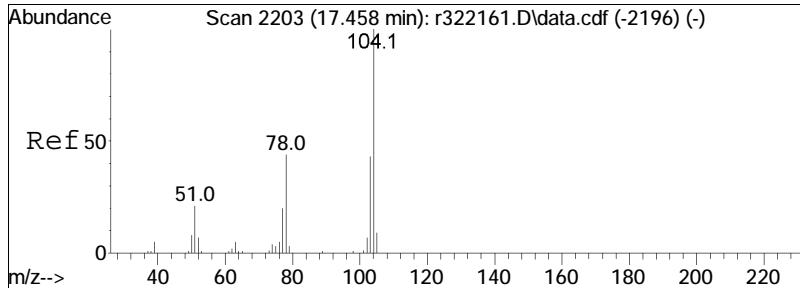




#83  
 m+p-xylene  
 Concen: 3.76 ppbV  
 RT: 17.117 min Scan# 2162  
 Delta R.T. -0.017 min  
 Lab File: r322232.D  
 Acq: 19 May 2022 8:54 PM

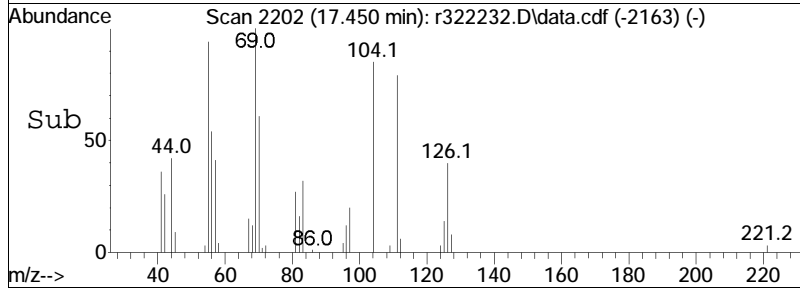
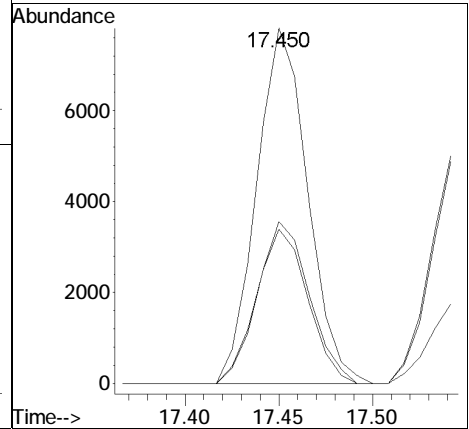
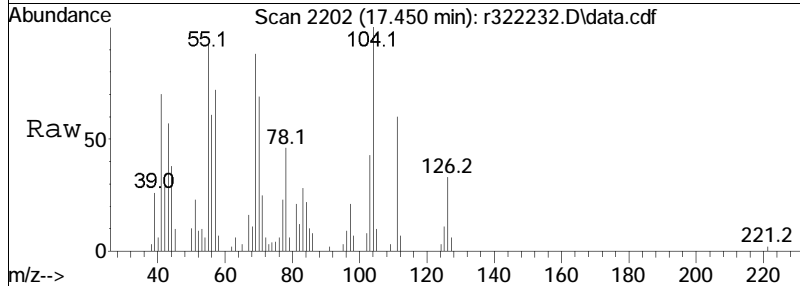
Tgt Ion: 91 Resp: 325737  
 Ion Ratio Lower Upper  
 91 100  
 106 60.6 48.4 72.6



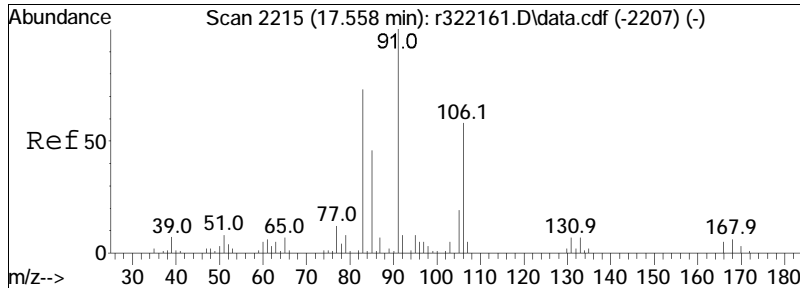


#85  
 styrene  
 Concen: 0.19 ppbV  
 RT: 17.450 min Scan# 2202  
 Delta R.T. -0.008 min  
 Lab File: r322232.D  
 Acq: 19 May 2022 8:54 PM

Tgt Ion	Ratio	Lower	Upper
104	100		
103	43.4	34.4	51.6
78	45.5	35.1	52.7

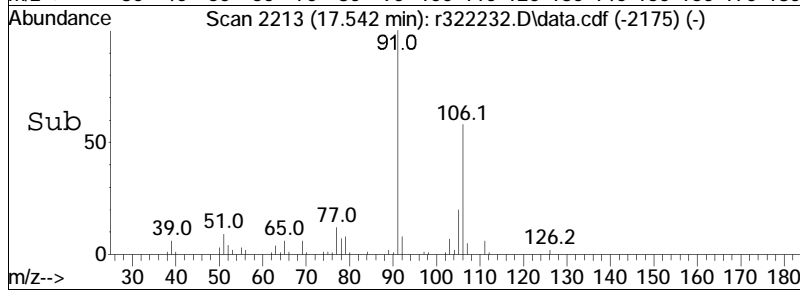
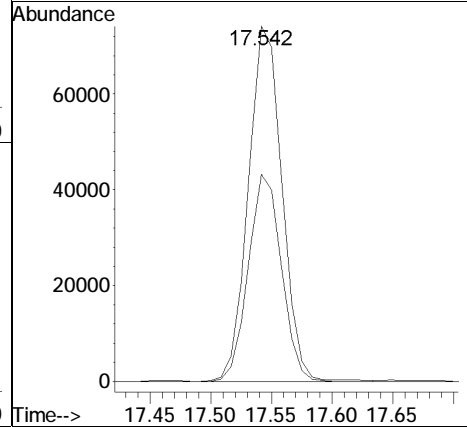
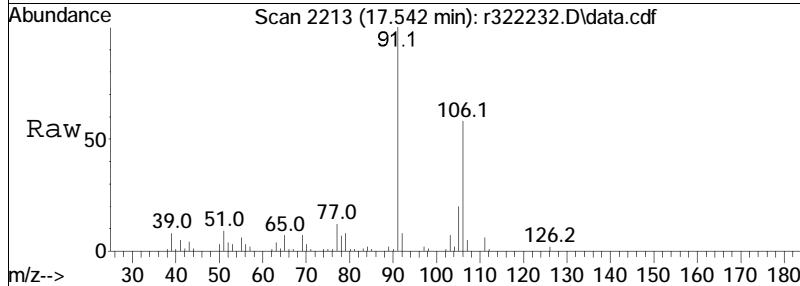


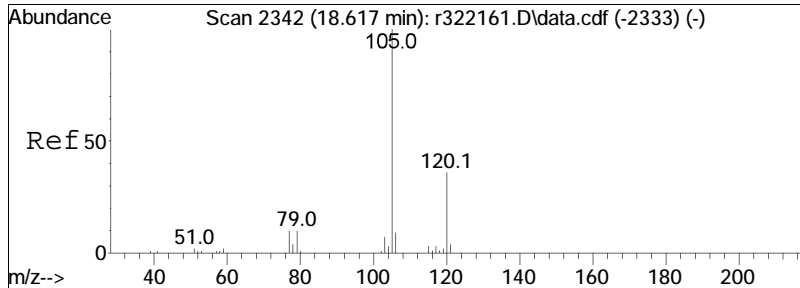




#87  
 o-xylene  
 Concen: 1.66 ppbV  
 RT: 17.542 min Scan# 2213  
 Delta R.T. -0.017 min  
 Lab File: r322232.D  
 Acq: 19 May 2022 8:54 PM

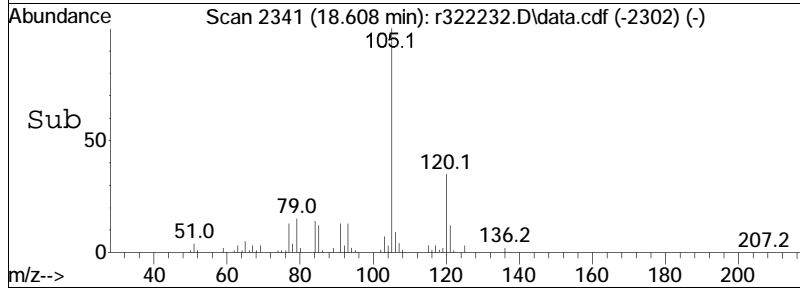
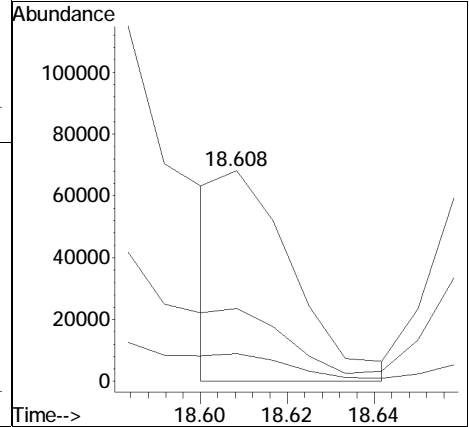
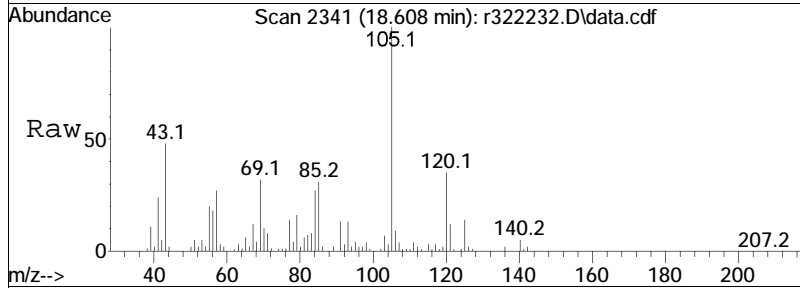
Tgt Ion: 91 Resp: 142890  
 Ion Ratio Lower Upper  
 91 100  
 106 58.3 46.4 69.6

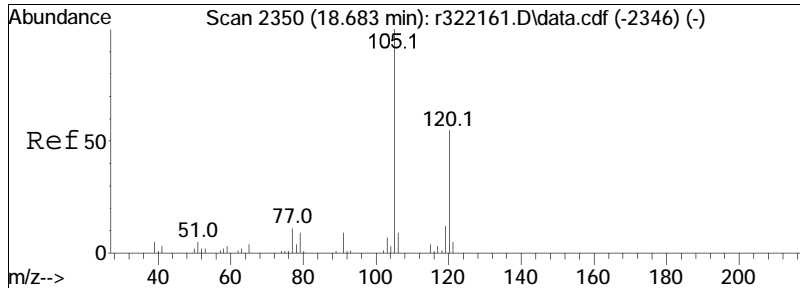




#96  
 4-ethyl toluene  
 Concen: 0.60 ppbV m  
 RT: 18.608 min Scan# 2341  
 Delta R.T. -0.008 min  
 Lab File: r322232.D  
 Acq: 19 May 2022 8:54 PM

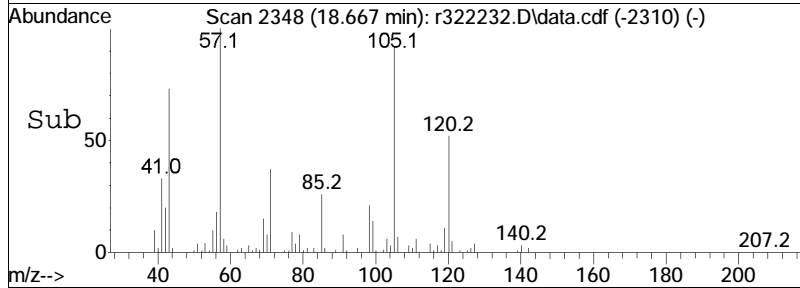
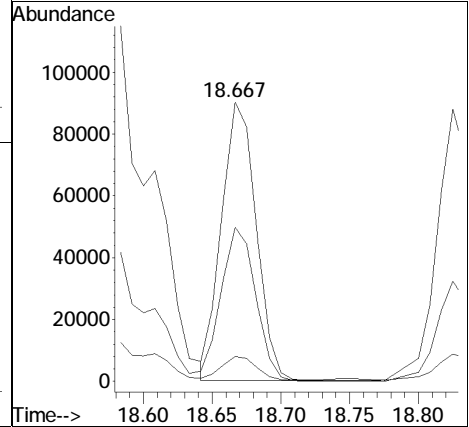
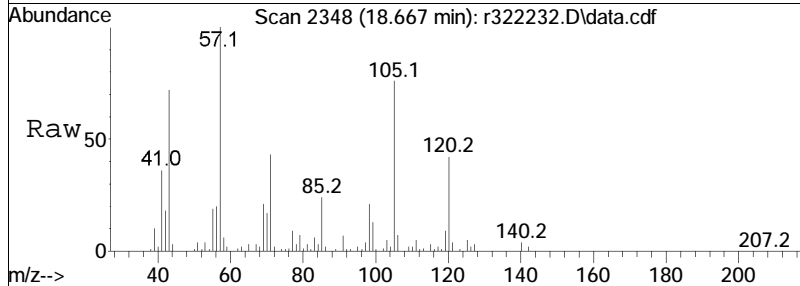
Tgt Ion	Ratio	Lower	Upper
105	100		
120	34.6	28.6	42.8
91	13.2	7.4	11.2#

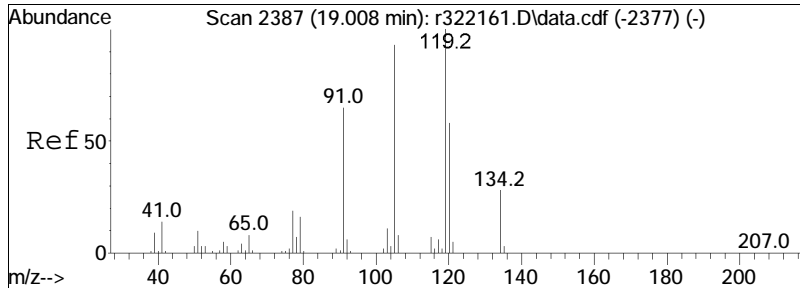




#97  
 1,3,5-trimethylbenzene  
 Concen: 1.32 ppbV  
 RT: 18.667 min Scan# 2348  
 Delta R.T. -0.017 min  
 Lab File: r322232.D  
 Acq: 19 May 2022 8:54 PM

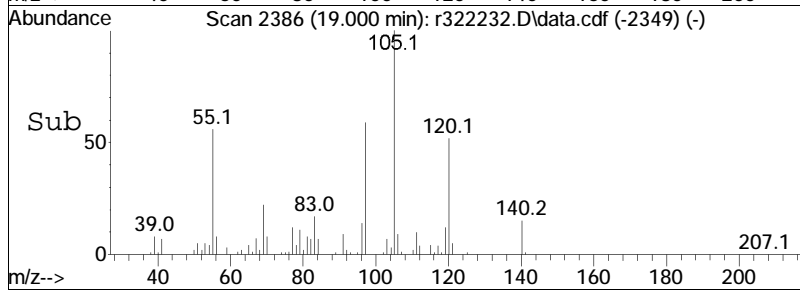
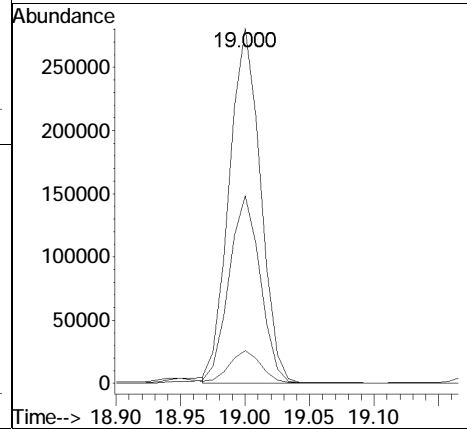
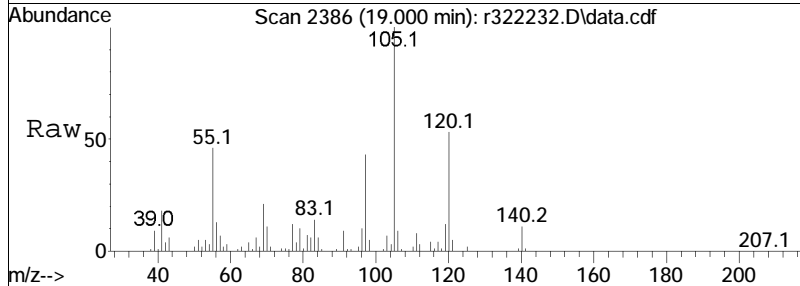
Tgt Ion	Resp	Lower	Upper
105	158243		
120	55.2	43.7	65.5
91	8.9	7.0	10.4





#99  
 1,2,4-trimethylbenzene  
 Concen: 4.53 ppbV m  
 RT: 19.000 min Scan# 2386  
 Delta R.T. -0.008 min  
 Lab File: r322232.D  
 Acq: 19 May 2022 8:54 PM

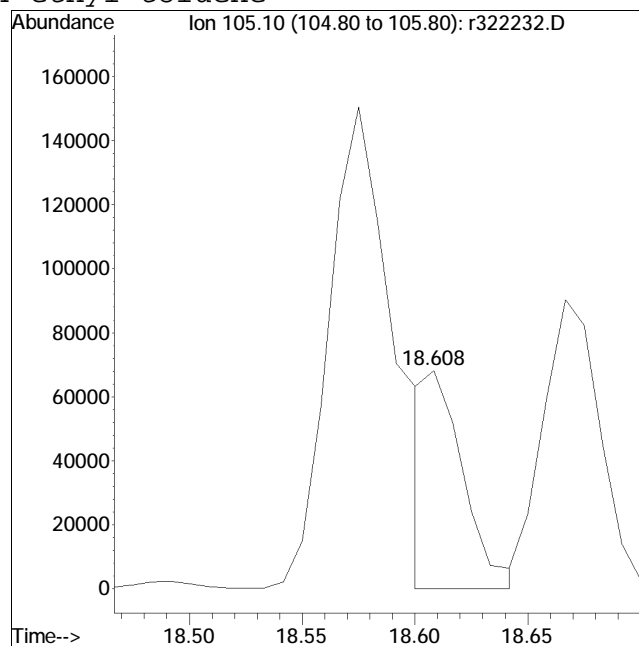
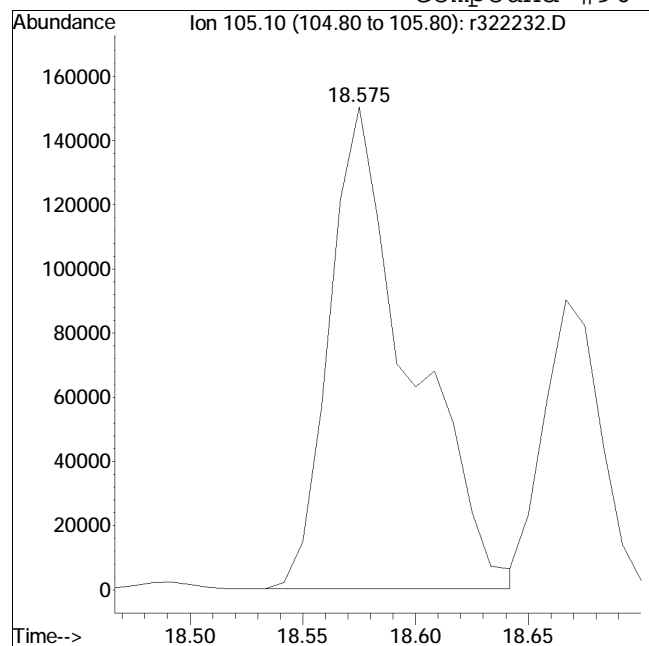
Tgt Ion	Ratio	Lower	Upper
105	100		
120	52.9	49.4	74.2
91	9.3	55.8	83.8#



# Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322232.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:8: 4 Instrument :  
Sample : L2225590-04,3,250,250 Quant Date : 5/20/2022 8:05 am

## Compound #96: 4-ethyl toluene



Original Peak Response = 375219

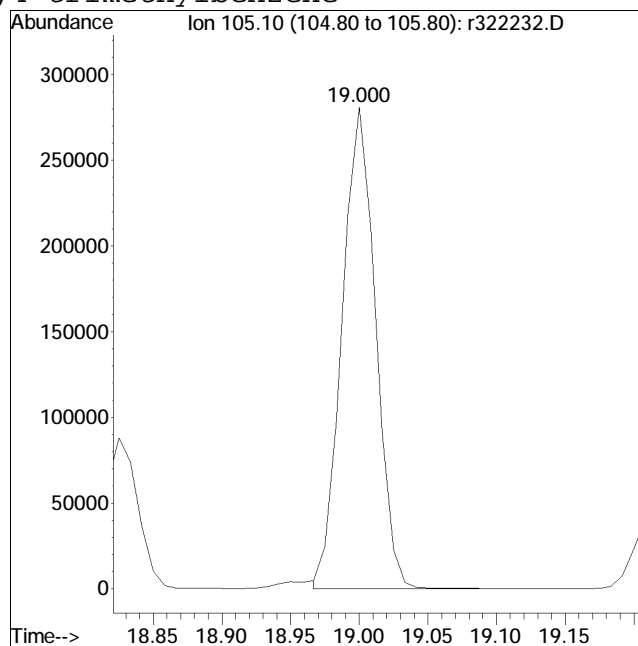
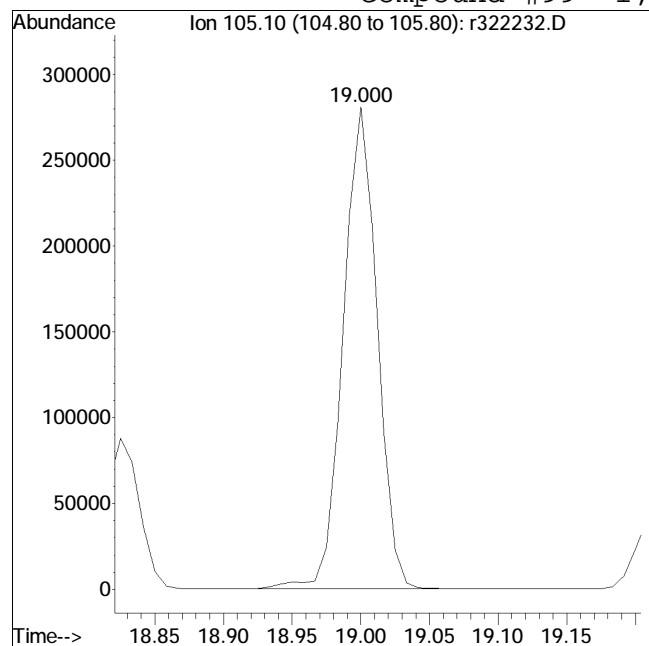
Manual Peak Response = 79198 M6

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

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322232.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:8: 4 Instrument :  
Sample : L2225590-04,3,250,250 Quant Date : 5/20/2022 8:05 am

Compound #99: 1,2,4-trimethylbenzene



Original Peak Response = 484145

Manual Peak Response = 477757 M6

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
 Data File : r322234.D  
 Acq On : 19 May 2022 10:13 PM  
 Operator : AIRPIANO3:TS  
 Sample : L2225590-05,3,250,250  
 Misc : WG1640711,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 20 13:29:11 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0519T\r322225.D  
 Sub List : TO15-NY - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) bromochloromethane	9.542	49	493171	10.000	ppbV	-0.03
Standard Area =	440035		Recovery =	112.08%		
43) 1,4-difluorobenzene	11.820	114	1515840	10.000	ppbV	-0.02
Standard Area =	1334123		Recovery =	113.62%		
67) chlorobenzene-D5	16.567	54	239431	10.000	ppbV	-0.02
Standard Area =	210666		Recovery =	113.65%		

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) dichlorodifluoromethane	3.940	85	20937	0.540	ppbV	98
6) chloromethane	4.126		0	N.D.		
7) Freon-114	4.252		0	N.D.		
9) vinyl chloride	4.384	62	3052	0.127	ppbV	92
10) 1,3-butadiene	4.546	54	4853	0.250	ppbV	97
13) bromomethane	0.000		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	5.260	31	1930653	101.896	ppbV	95
17) vinyl bromide	0.000		0	N.D.		
19) acetone	5.820	43	1512080M6	55.967	ppbV	
21) trichlorofluoromethane	6.037	101	20901	0.593	ppbV	99
22) isopropyl alcohol	6.157	45	1174718	36.134	ppbV	99
26) 1,1-dichloroethene	6.746		0	N.D.		
27) tertiary butyl alcohol	6.902	59	35960M6	0.889	ppbV	
28) methylene chloride	6.974	49	2029	0.066	ppbV	96
29) 3-chloropropene	0.000		0	N.D.	d	
30) carbon disulfide	7.274	76	20184	0.286	ppbV #	1
31) Freon 113	7.316	101	3246	0.082	ppbV	94
32) trans-1,2-dichloroethene	0.000		0	N.D.		
33) 1,1-dichloroethane	8.433		0	N.D.		
34) MTBE	0.000		0	N.D.	d	
36) 2-butanone	8.842	43	102952	2.096	ppbV	99
37) cis-1,2-dichloroethene	0.000		0	N.D.		
38) Ethyl Acetate	9.675		0	N.D.		
39) chloroform	9.708	83	1935	0.050	ppbV #	90
40) Tetrahydrofuran	10.183	42	12912M6	0.455	ppbV	
42) 1,2-dichloroethane	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
 Data File : r322234.D  
 Acq On : 19 May 2022 10:13 PM  
 Operator : AIRPIANO3:TS  
 Sample : L2225590-05,3,250,250  
 Misc : WG1640711,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 20 13:29:11 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0519T\r322225.D  
 Sub List : TO15-NY - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) hexane	9.617	57	137929	3.192	ppbV #	37
48) 1,1,1-trichloroethane	10.850	97	3756	0.115	ppbV	98
50) benzene	11.380	78	67647	0.762	ppbV	98
52) carbon tetrachloride	11.553		0	N.D.		
53) cyclohexane	11.700	56	32410	0.721	ppbV	96
56) 1,2-dichloropropane	0.000		0	N.D.		
57) bromodichloromethane	0.000		0	N.D.	d	
58) 1,4-dioxane	12.633	88	14249	0.786	ppbV	96
59) trichloroethene	0.000		0	N.D.		
60) 2,2,4-trimethylpentane	12.667	57	137631	1.031	ppbV	98
62) heptane	12.987	43	65844	1.322	ppbV	95
63) cis-1,3-dichloropropene	0.000		0	N.D.		
64) 4-methyl-2-pentanone	13.700	43	9784	0.171	ppbV	95
65) trans-1,3-dichloropropene	0.000		0	N.D.		
66) 1,1,2-trichloroethane	14.617		0	N.D.		
68) toluene	14.775	91	245618	2.731	ppbV	99
72) 2-hexanone	15.092	43	5615M6	0.104	ppbV	
74) dibromochloromethane	0.000		0	N.D.		
75) 1,2-dibromoethane	0.000		0	N.D.		
78) tetrachloroethene	15.950	166	197873	4.541	ppbV	99
80) chlorobenzene	16.625		0	N.D.		
81) ethylbenzene	16.958	91	47952	0.444	ppbV	98
83) m+p-xylene	17.117	91	141400	1.604	ppbV	97
84) bromoform	0.000		0	N.D.		
85) styrene	17.450	104	6800	0.087	ppbV	96
86) 1,1,2,2-tetrachloroethane	17.583		0	N.D.		
87) o-xylene	17.542	91	47616	0.542	ppbV	96
96) 4-ethyl toluene	18.608	105	17993M6	0.135	ppbV	
97) 1,3,5-trimethylbenzene	18.667	105	13252	0.108	ppbV	98
99) 1,2,4-trimethylbenzene	19.000	105	48903	0.456	ppbV #	55
101) Benzyl Chloride	19.183		0	N.D.		
102) 1,3-dichlorobenzene	19.133		0	N.D.		
103) 1,4-dichlorobenzene	19.183		0	N.D.		
107) 1,2-dichlorobenzene	0.000		0	N.D.		
115) 1,2,4-trichlorobenzene	20.933		0	N.D.		
119) hexachlorobutadiene	0.000		0	N.D.		

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



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
Data File : r322234.D  
Acq On : 19 May 2022 10:13 PM  
Operator : AIRPIANO3:TS  
Sample : L2225590-05,3,250,250  
Misc : WG1640711,ICAL19030  
ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 20 13:29:11 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 15:52:12 2022  
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0519T\r322225.D  
Sub List : TO15-NY - .

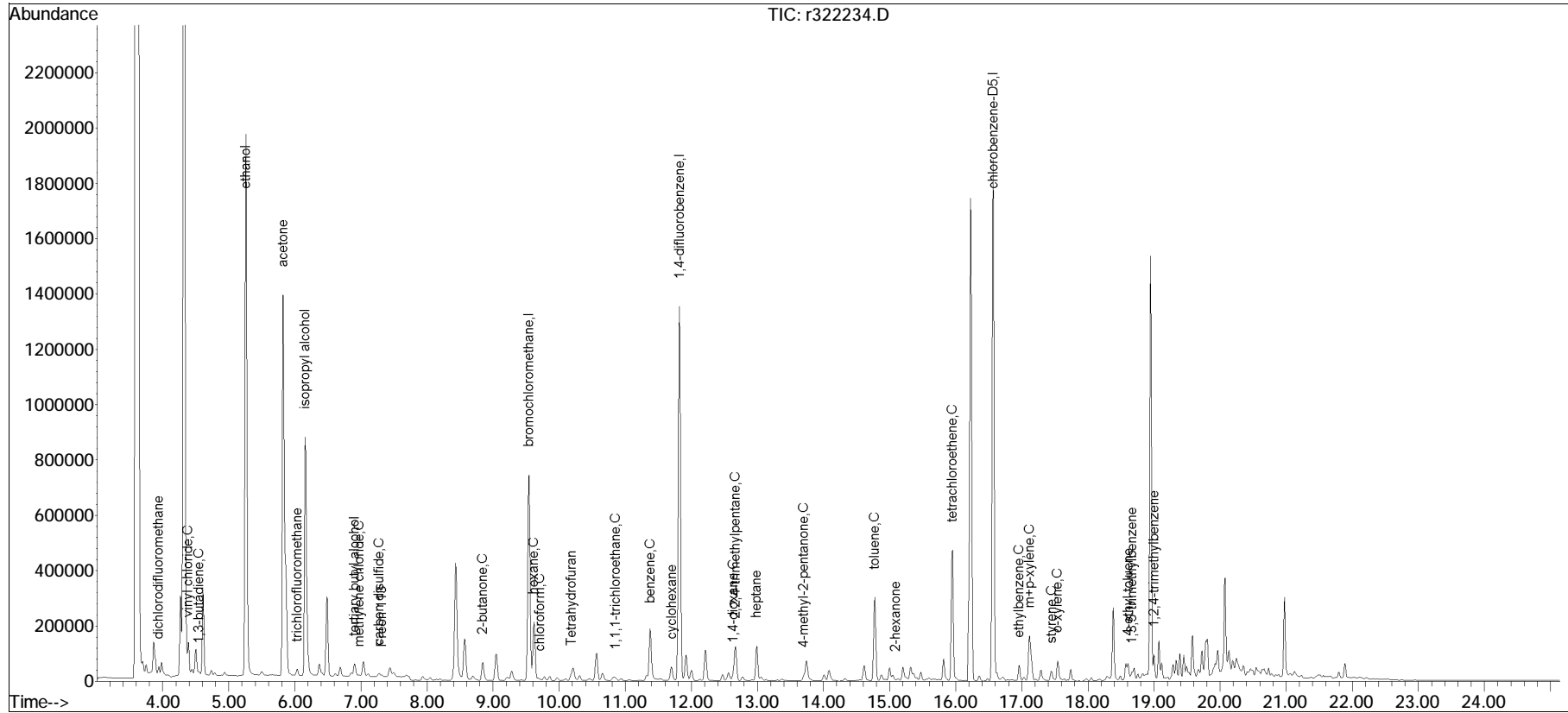
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
----------	------	------	----------	------	-------	----------

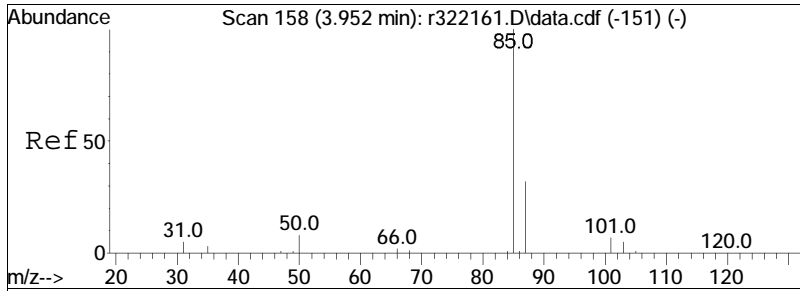
-----

Sub List : TO15-NY - .s\Data\Airpiano3\2022\05\0519T\r322225.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
Data File : r322234.D  
Acq On : 19 May 2022 10:13 PM  
Operator : AIRPIANO3:TS  
Sample : L2225590-05,3,250,250  
Misc : WG1640711,ICAL19030  
ALS Vial : 0 Sample Multiplier: 1

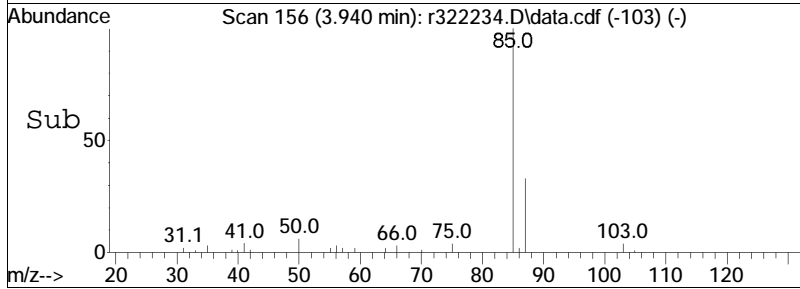
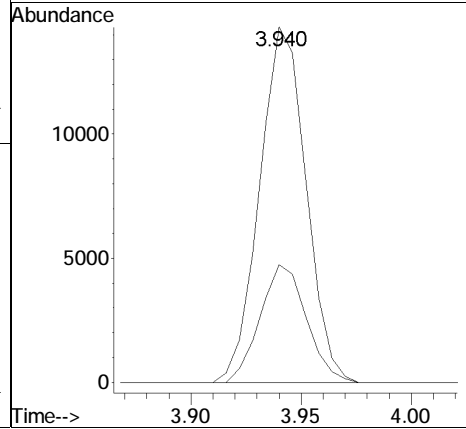
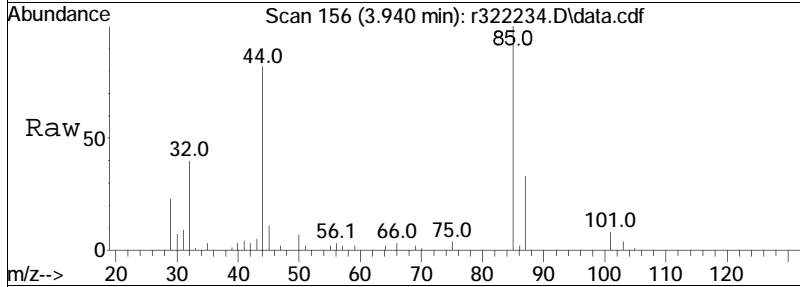
Quant Time: May 20 13:29:11 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 15:52:12 2022  
Response via : Initial Calibration

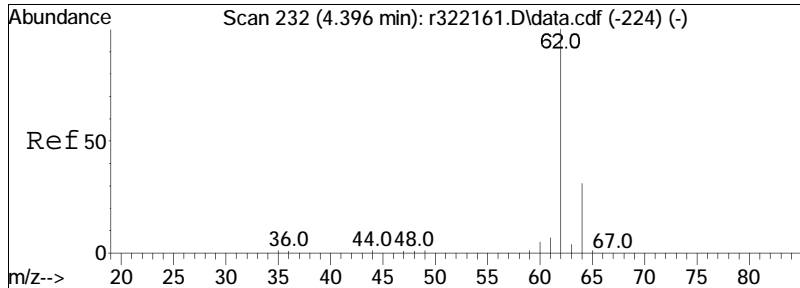




#5  
dichlorodifluoromethane  
Concen: 0.54 ppbV  
RT: 3.940 min Scan# 156  
Delta R.T. -0.012 min  
Lab File: r322234.D  
Acq: 19 May 2022 10:13 PM

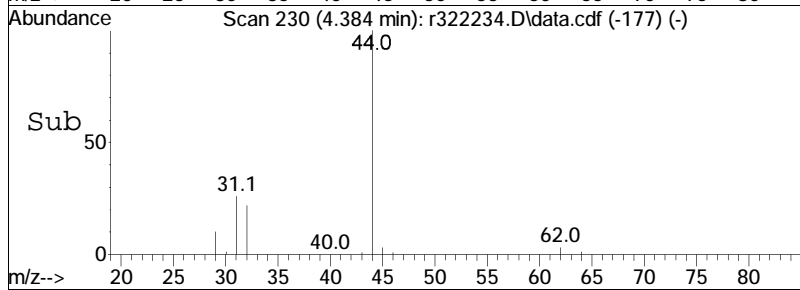
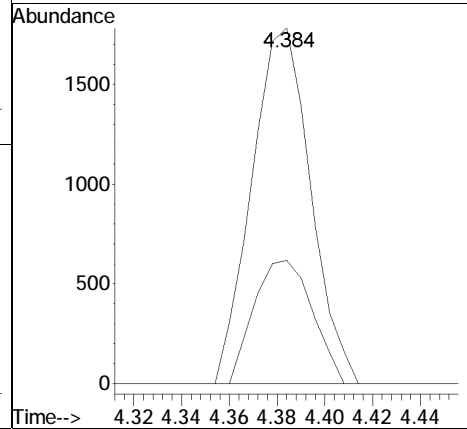
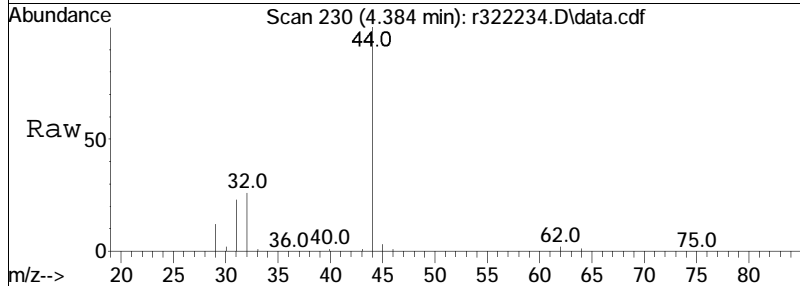
Tgt Ion:	85	Resp:	20937
Ion Ratio	Lower	Upper	
85	100		
87	33.1	25.8	38.6

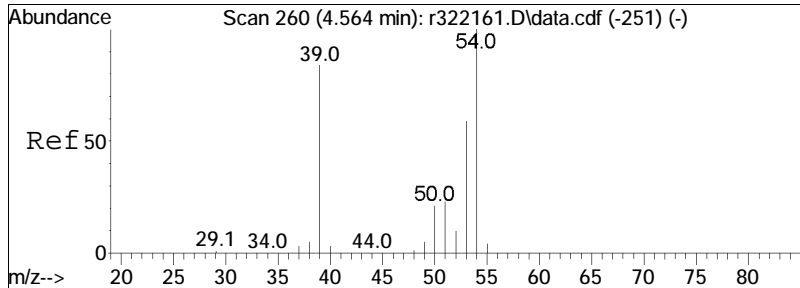




#9  
 vinyl chloride  
 Concen: 0.13 ppbV  
 RT: 4.384 min Scan# 230  
 Delta R.T. -0.012 min  
 Lab File: r322234.D  
 Acq: 19 May 2022 10:13 PM

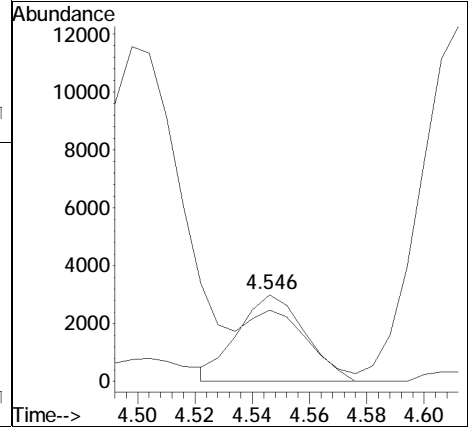
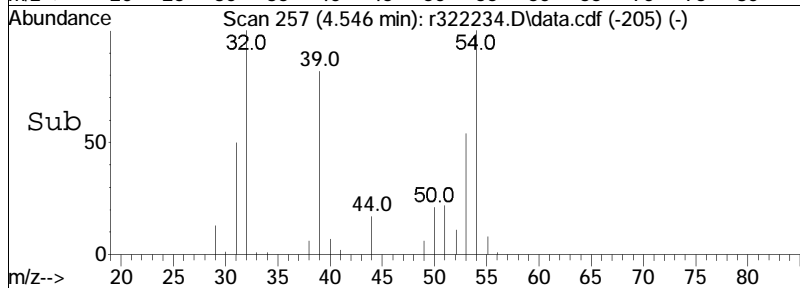
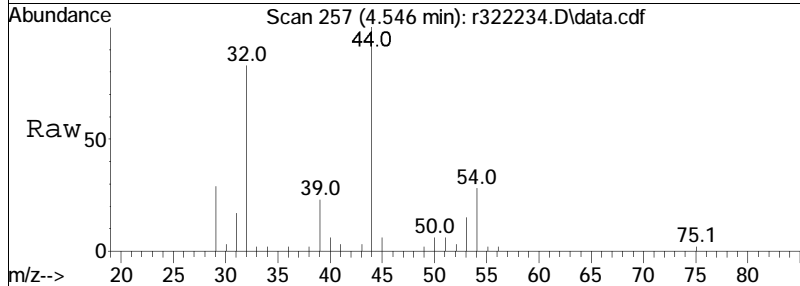
Tgt Ion:	Resp:	Lower	Upper
62	100		
64	34.7	24.4	36.6

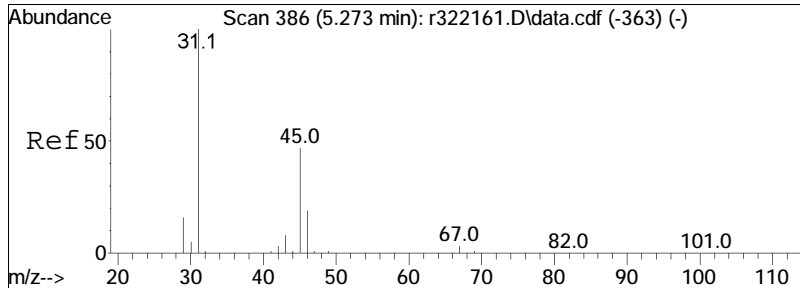




#10  
 1,3-butadiene  
 Concen: 0.25 ppbV  
 RT: 4.546 min Scan# 257  
 Delta R.T. -0.018 min  
 Lab File: r322234.D  
 Acq: 19 May 2022 10:13 PM

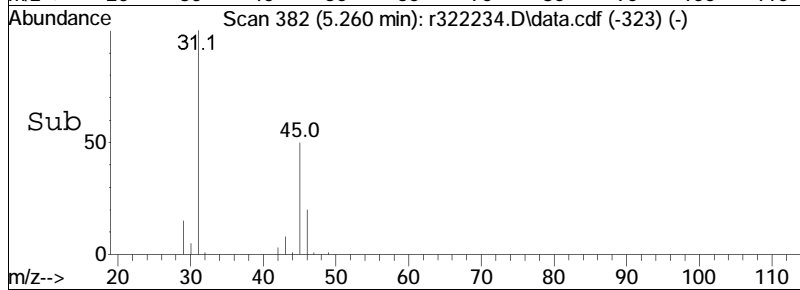
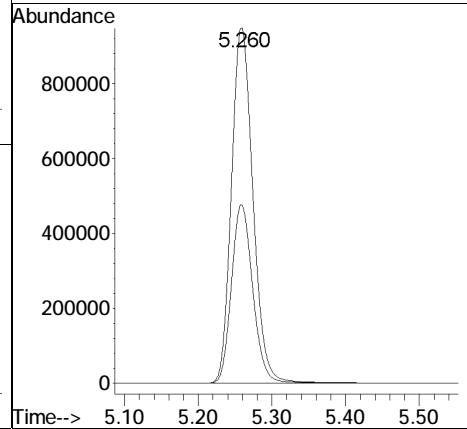
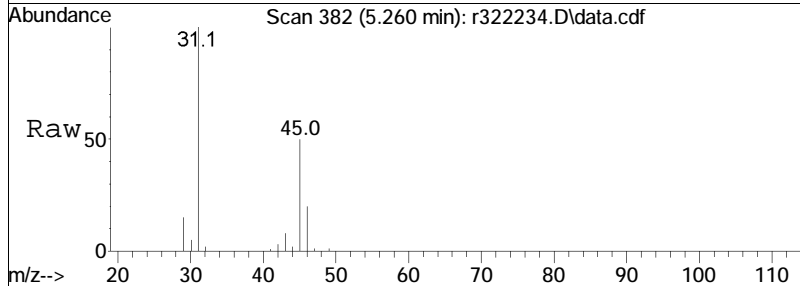
Tgt Ion:	Resp:	Lower	Upper
54	100		
39	82.4	67.8	101.8

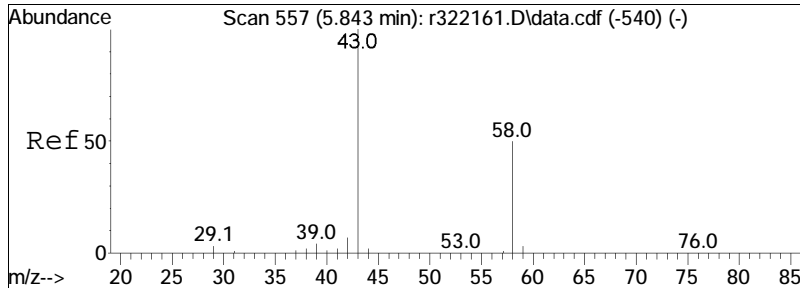




#15  
 ethanol  
 Concen: 101.90 ppbV  
 RT: 5.260 min Scan# 382  
 Delta R.T. -0.013 min  
 Lab File: r322234.D  
 Acq: 19 May 2022 10:13 PM

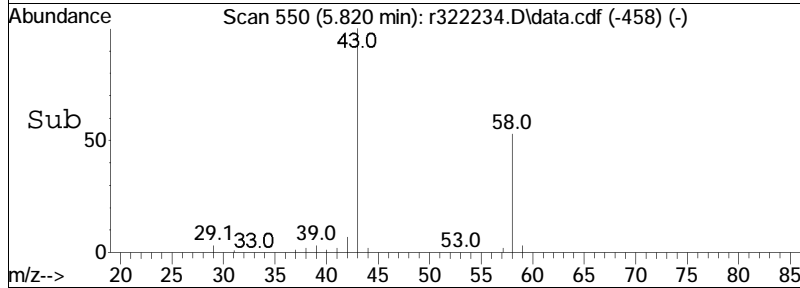
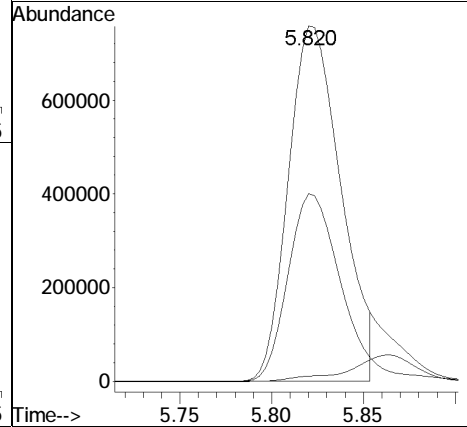
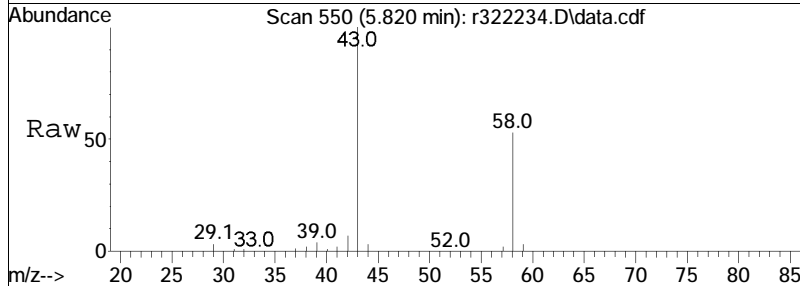
Tgt Ion:	Resp:	Lower	Upper
31	100		
45	50.1	37.6	56.4

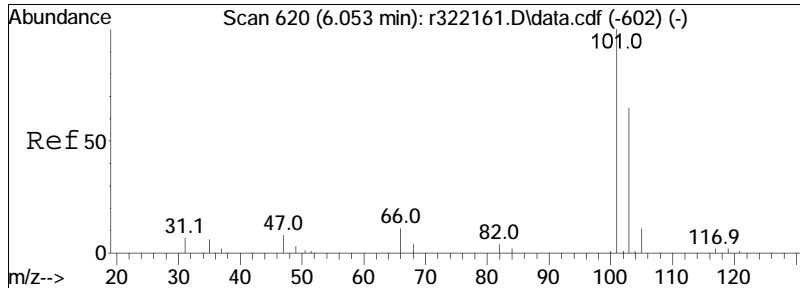




#19  
 acetone  
 Concen: 55.97 ppbV m  
 RT: 5.820 min Scan# 550  
 Delta R.T. -0.023 min  
 Lab File: r322234.D  
 Acq: 19 May 2022 10:13 PM

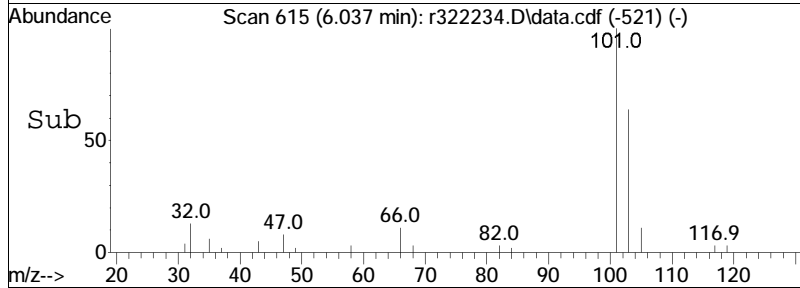
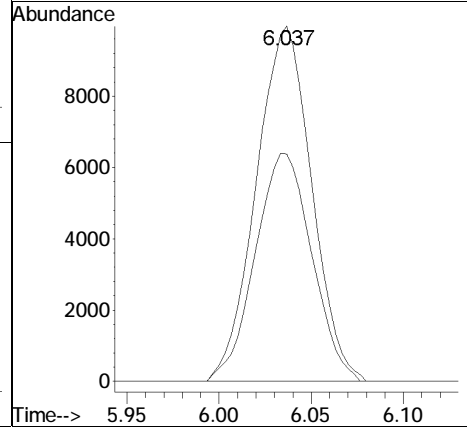
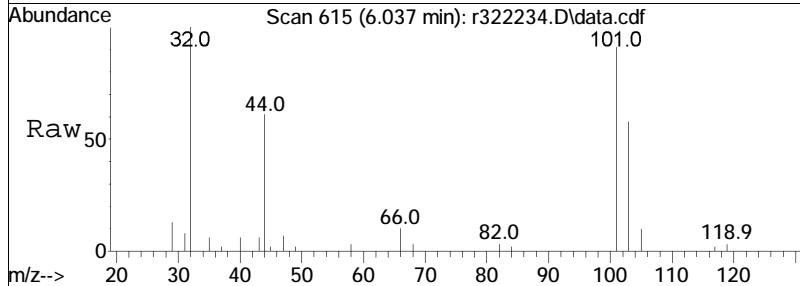
Tgt Ion	Resp	Lower	Upper
43	1512080		
58	52.8	39.8	59.8
57	1.5	1.0	1.6



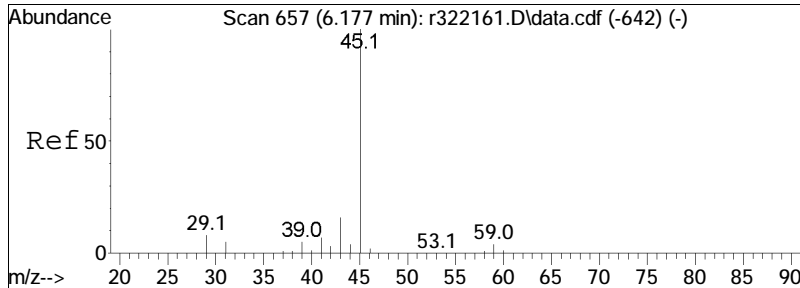


#21  
 trichlorofluoromethane  
 Concen: 0.59 ppbV  
 RT: 6.037 min Scan# 615  
 Delta R.T. -0.017 min  
 Lab File: r322234.D  
 Acq: 19 May 2022 10:13 PM

Tgt Ion	Ratio	Lower	Upper
101	100		
103	64.0	51.8	77.6

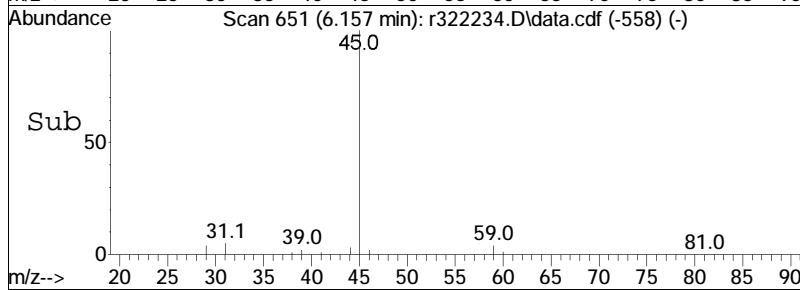
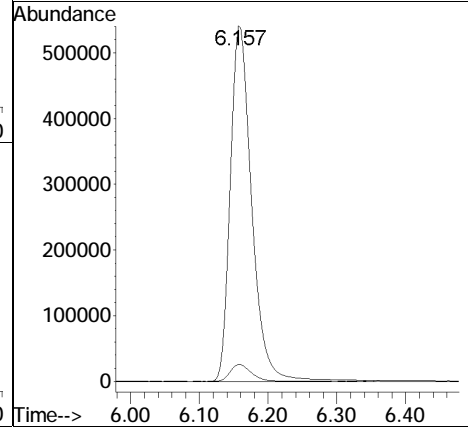
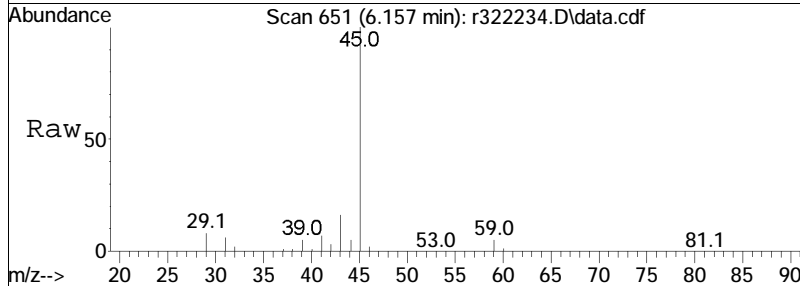


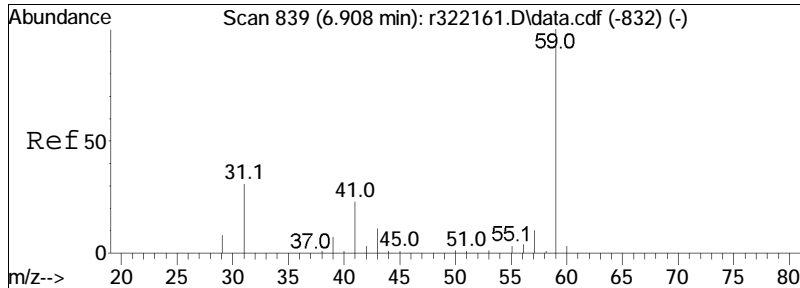




#22  
 isopropyl alcohol  
 Concen: 36.13 ppbV  
 RT: 6.157 min Scan# 651  
 Delta R.T. -0.020 min  
 Lab File: r322234.D  
 Acq: 19 May 2022 10:13 PM

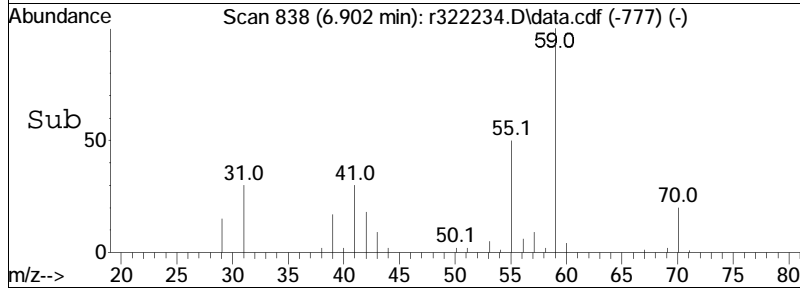
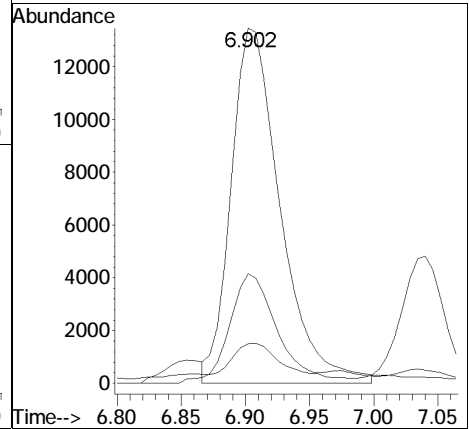
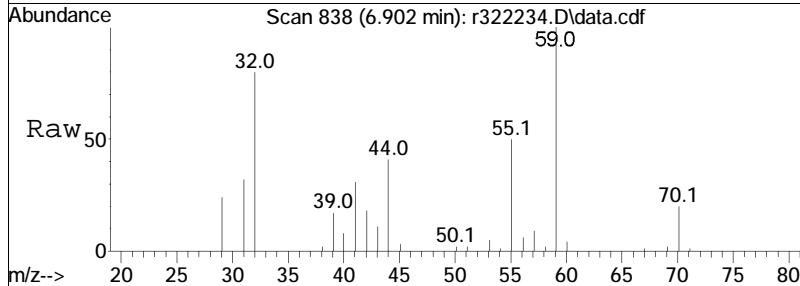
Tgt Ion: 45 Resp: 1174718  
 Ion Ratio Lower Upper  
 45 100  
 59 4.8 3.5 5.3

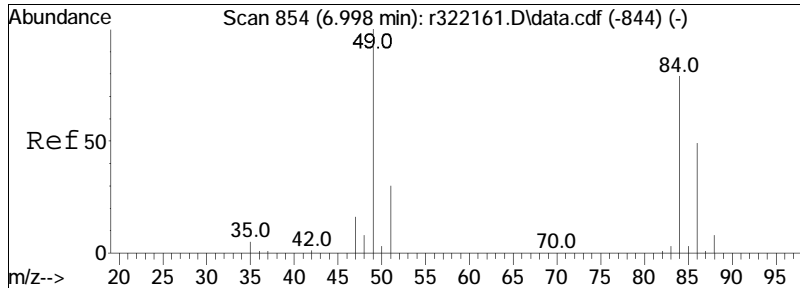




#27  
 tertiary butyl alcohol  
 Concen: 0.89 ppbV m  
 RT: 6.902 min Scan# 838  
 Delta R.T. -0.006 min  
 Lab File: r322234.D  
 Acq: 19 May 2022 10:13 PM

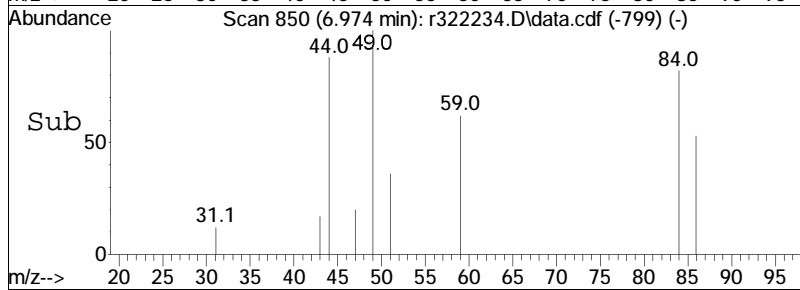
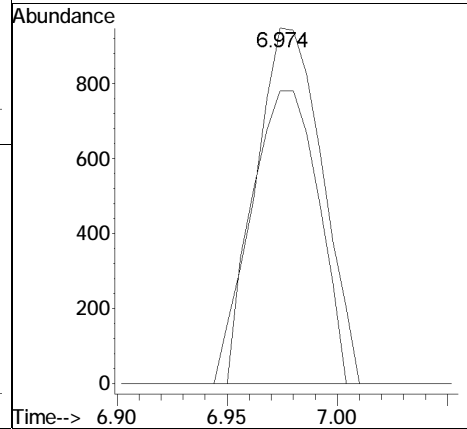
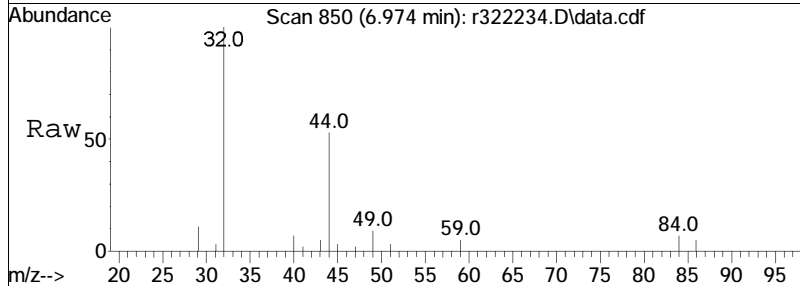
Tgt Ion	Resp	Lower	Upper
59	35960		
59	100		
41	30.9	18.2	27.2#
43	11.2	8.9	13.3

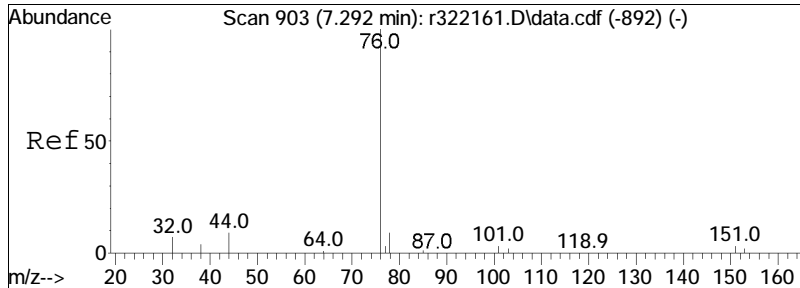




#28  
 methylene chloride  
 Concen: 0.07 ppbV  
 RT: 6.974 min Scan# 850  
 Delta R.T. -0.024 min  
 Lab File: r322234.D  
 Acq: 19 May 2022 10:13 PM

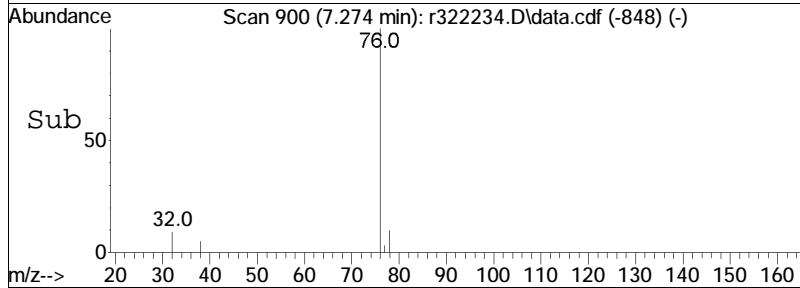
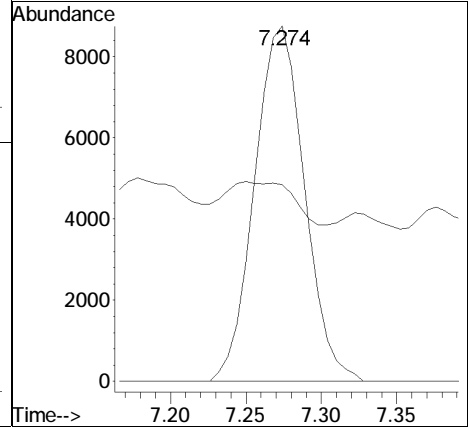
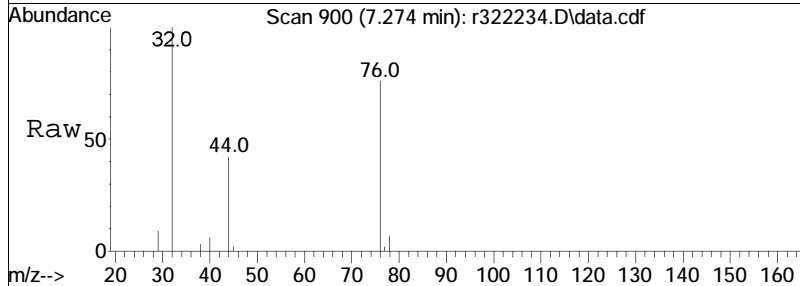
Tgt Ion:	Resp:	Lower	Upper
49	100		
84	82.4	63.0	94.6

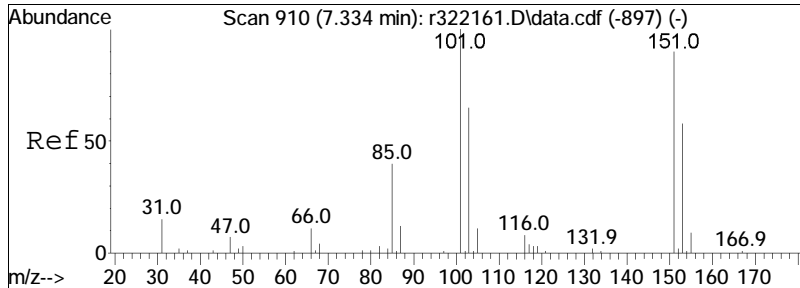




#30  
 carbon disulfide  
 Concen: 0.29 ppbV  
 RT: 7.274 min Scan# 900  
 Delta R.T. -0.018 min  
 Lab File: r322234.D  
 Acq: 19 May 2022 10:13 PM

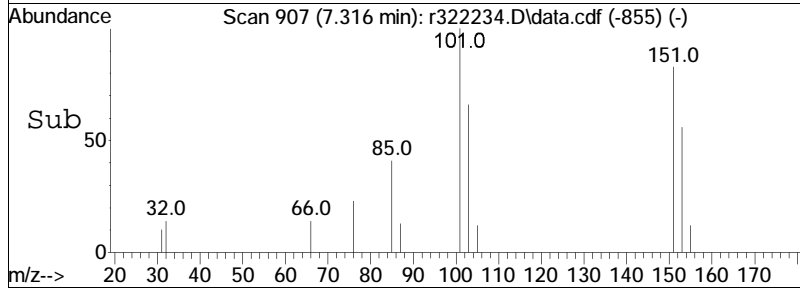
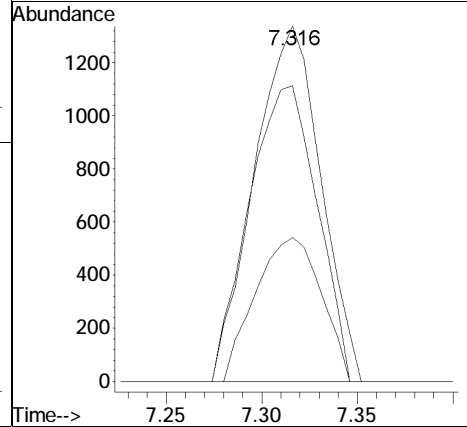
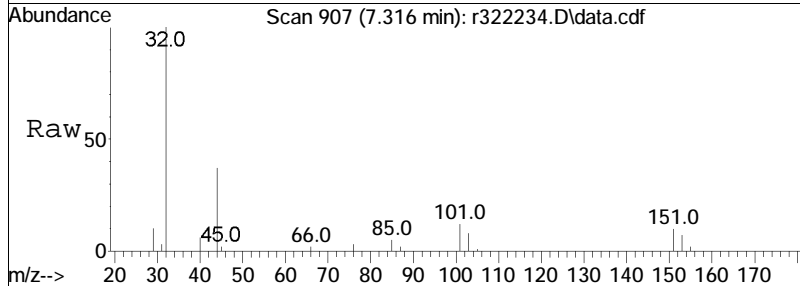
Tgt Ion: 76 Resp: 20184  
 Ion Ratio Lower Upper  
 76 100  
 44 55.3 7.6 11.4#

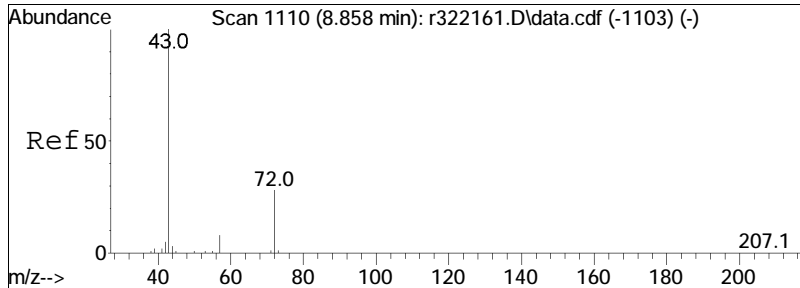




#31  
 Freon 113  
 Concen: 0.08 ppbV  
 RT: 7.316 min Scan# 907  
 Delta R.T. -0.018 min  
 Lab File: r322234.D  
 Acq: 19 May 2022 10:13 PM

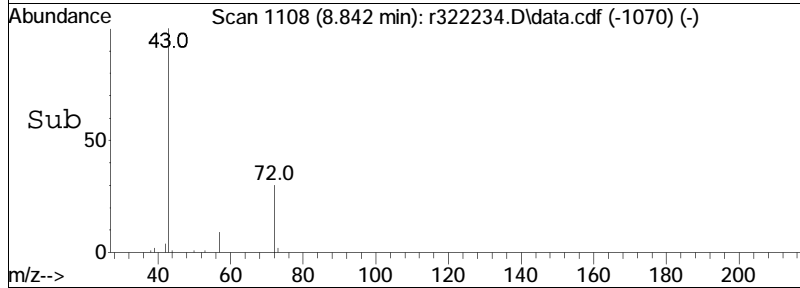
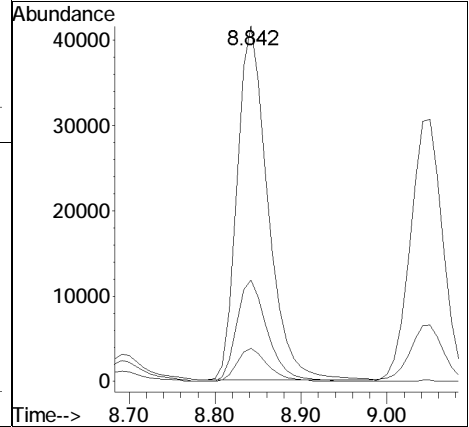
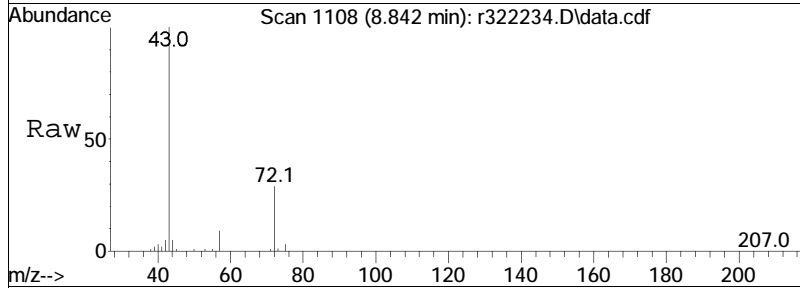
Tgt Ion	Ratio	Lower	Upper
101	100		
85	40.5	31.8	47.8
151	83.2	72.2	108.4

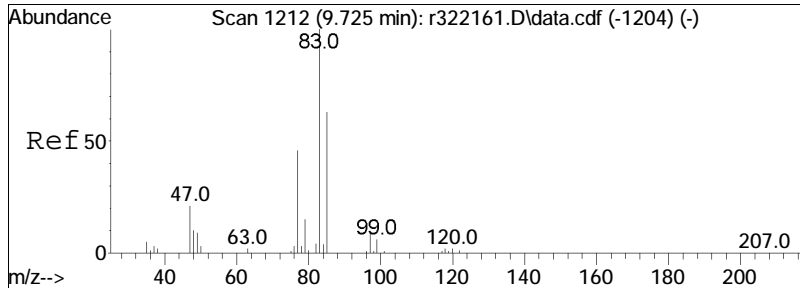




#36  
 2-butanone  
 Concen: 2.10 ppbV  
 RT: 8.842 min Scan# 1108  
 Delta R.T. -0.017 min  
 Lab File: r322234.D  
 Acq: 19 May 2022 10:13 PM

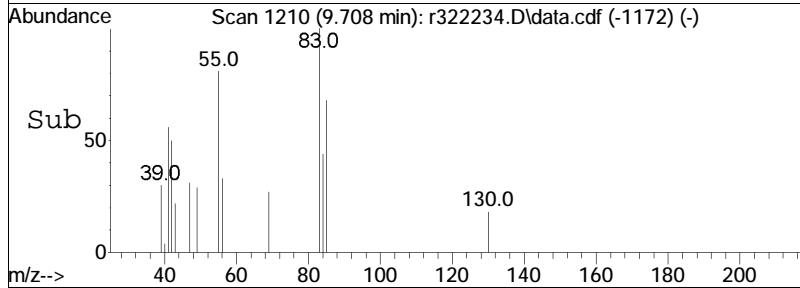
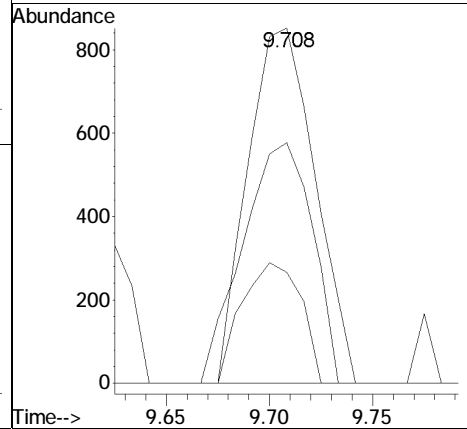
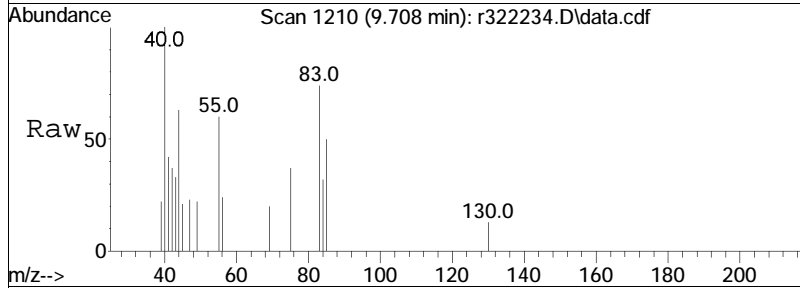
Tgt Ion	Ratio	Lower	Upper
43	100		
72	28.5	22.6	33.8
57	9.3	6.6	10.0

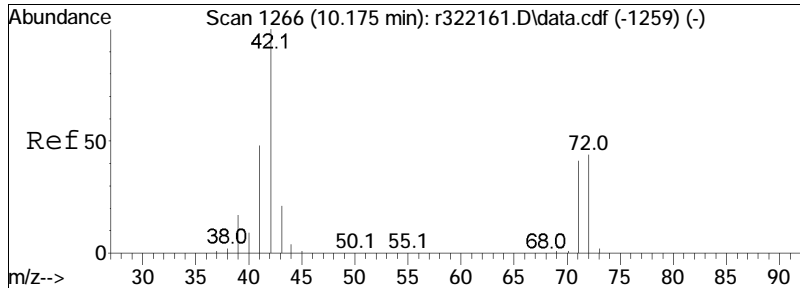




#39  
 chloroform  
 Concen: 0.05 ppbV  
 RT: 9.708 min Scan# 1210  
 Delta R.T. -0.017 min  
 Lab File: r322234.D  
 Acq: 19 May 2022 10:13 PM

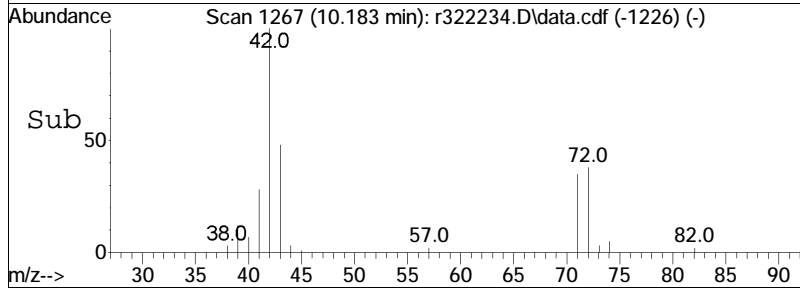
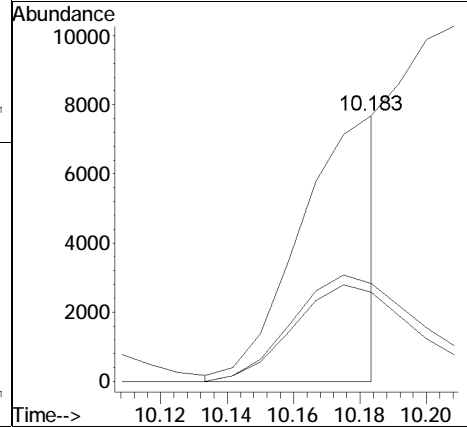
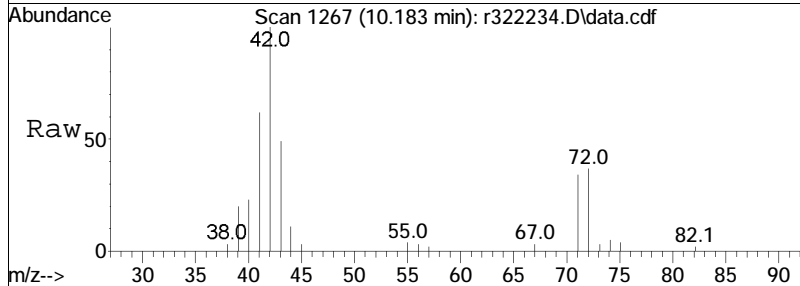
Tgt Ion:	83	Resp:	1935
Ion Ratio	Lower	Upper	
83	100		
85	67.7	50.4	75.6
47	31.2	16.9	25.3#



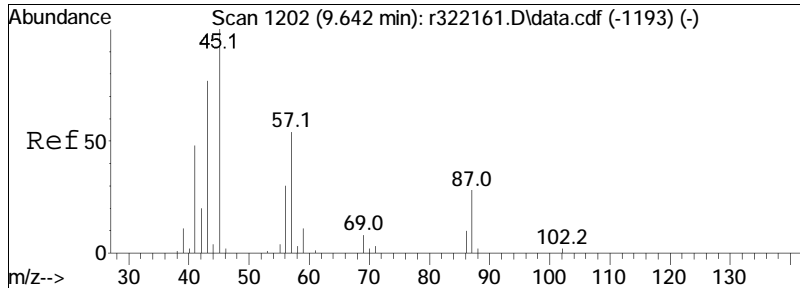


#40  
 Tetrahydrofuran  
 Concen: 0.46 ppbV m  
 RT: 10.183 min Scan# 1267  
 Delta R.T. 0.008 min  
 Lab File: r322234.D  
 Acq: 19 May 2022 10:13 PM

Tgt Ion:	42	Resp:	12912
Ion Ratio	Lower	Upper	
42	100		
71	33.6	32.4	48.6
72	36.9	35.2	52.8

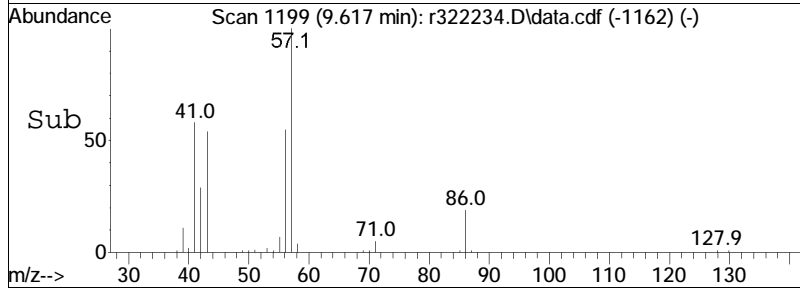
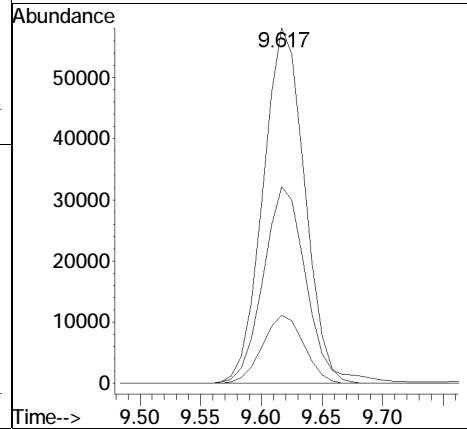
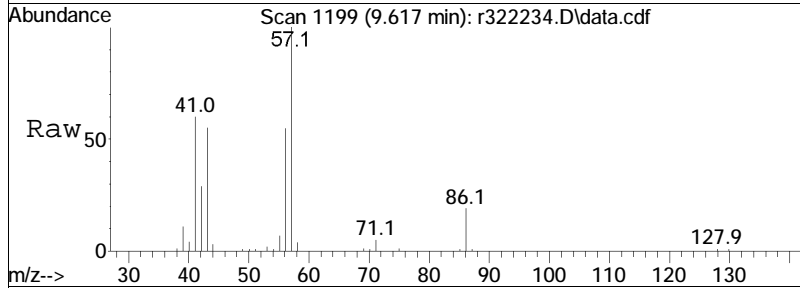


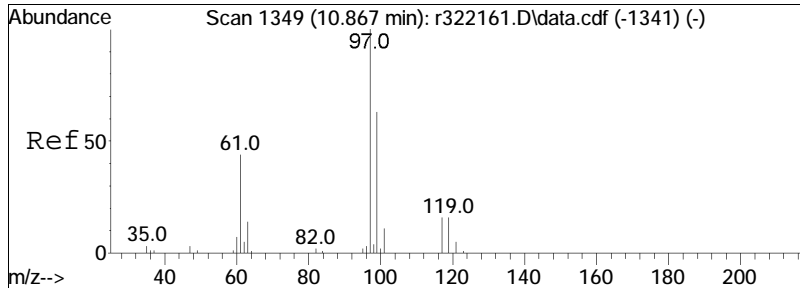




#44  
 hexane  
 Concen: 3.19 ppbV  
 RT: 9.617 min Scan# 1199  
 Delta R.T. -0.025 min  
 Lab File: r322234.D  
 Acq: 19 May 2022 10:13 PM

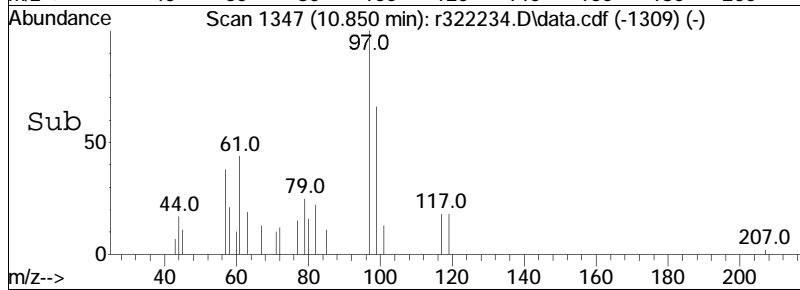
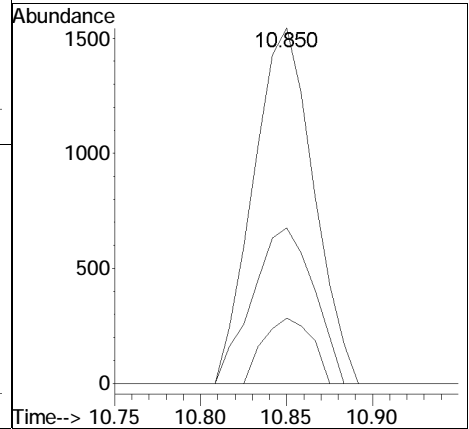
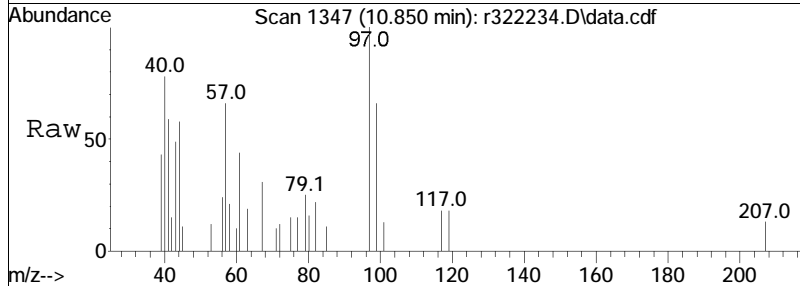
Tgt Ion	Resp	Lower	Upper
57	137929		
57	100		
43	55.3	115.0	172.6#
86	19.2	15.5	23.3

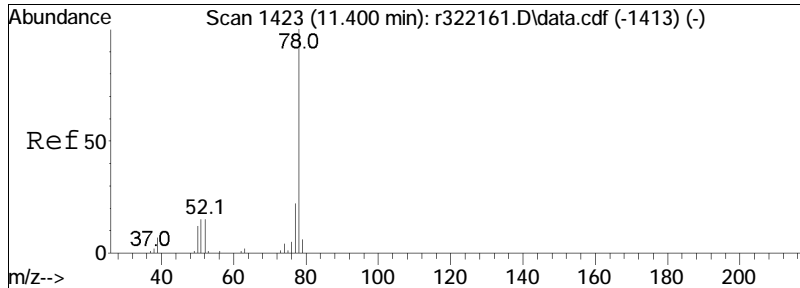




#48  
 1,1,1-trichloroethane  
 Concen: 0.11 ppbV  
 RT: 10.850 min Scan# 1347  
 Delta R.T. -0.017 min  
 Lab File: r322234.D  
 Acq: 19 May 2022 10:13 PM

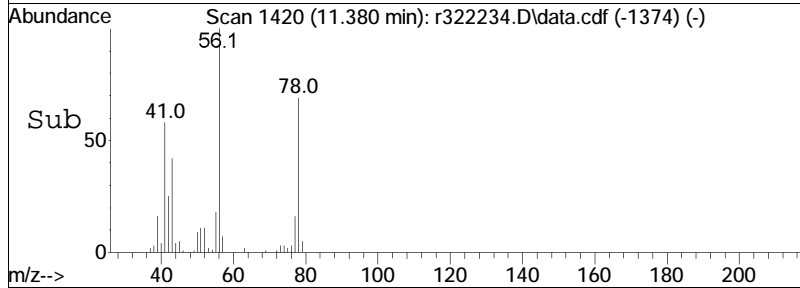
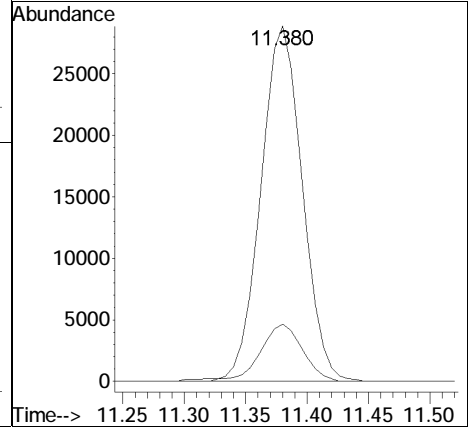
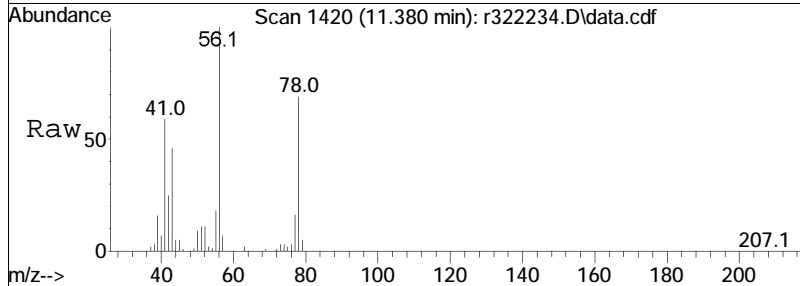
Tgt Ion	Resp	Lower	Upper
97	100		
61	43.8	35.1	52.7
119	18.4	12.5	18.7

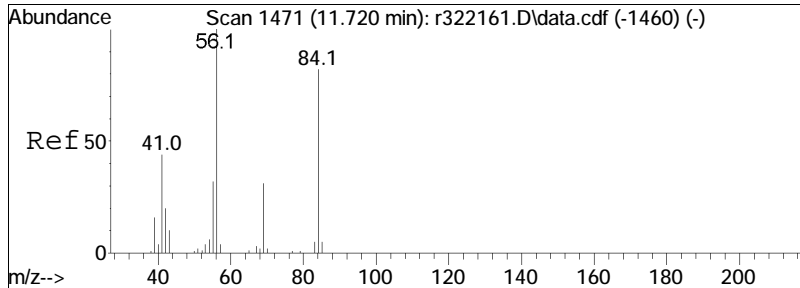




#50  
 benzene  
 Concen: 0.76 ppbV  
 RT: 11.380 min Scan# 1420  
 Delta R.T. -0.020 min  
 Lab File: r322234.D  
 Acq: 19 May 2022 10:13 PM

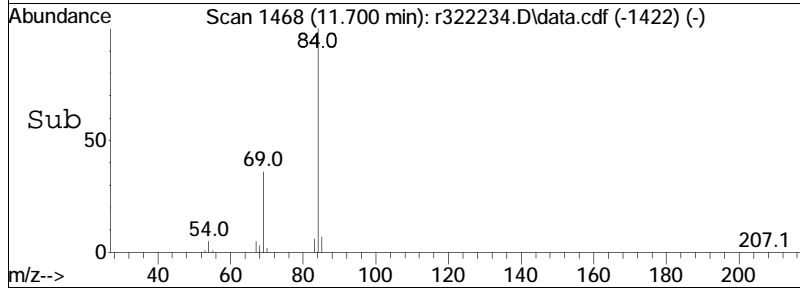
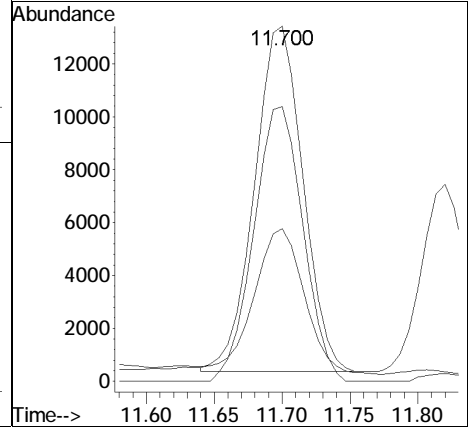
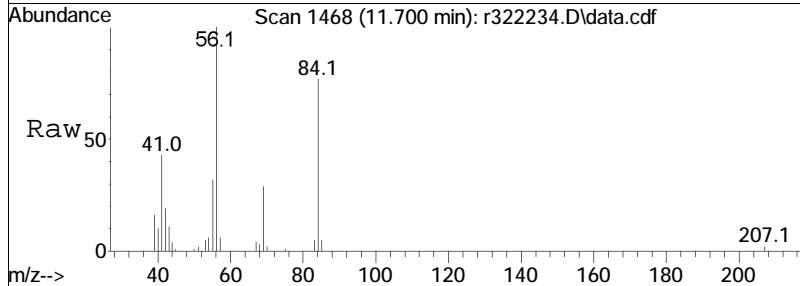
Tgt Ion	Resp	Lower	Upper
78	100		
52	16.1	12.2	18.2

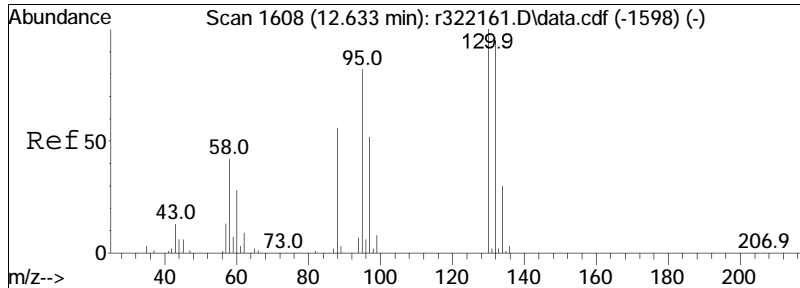




#53  
 cyclohexane  
 Concen: 0.72 ppbV  
 RT: 11.700 min Scan# 1468  
 Delta R.T. -0.020 min  
 Lab File: r322234.D  
 Acq: 19 May 2022 10:13 PM

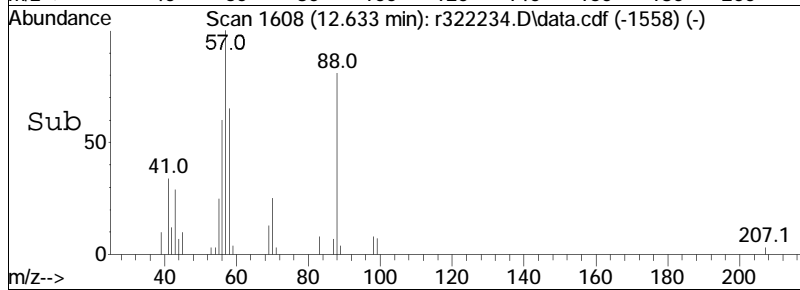
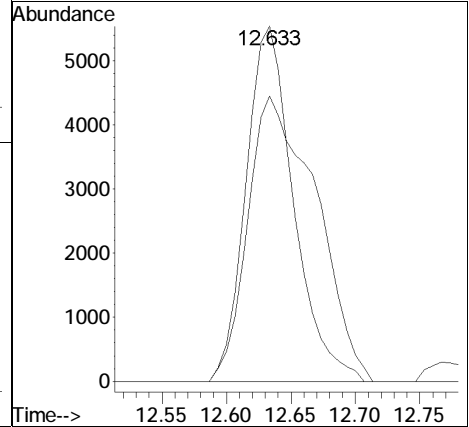
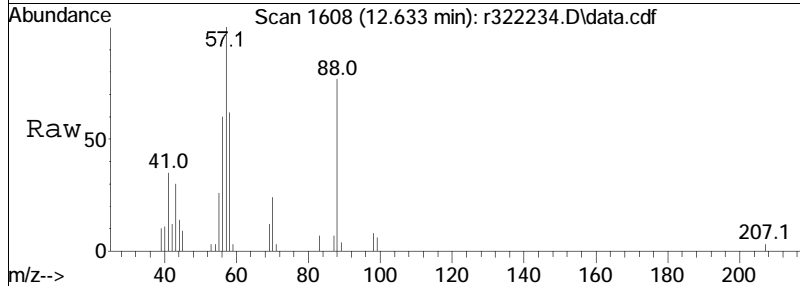
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
56	100		
84	77.3	65.4	98.0
41	43.0	35.4	53.2

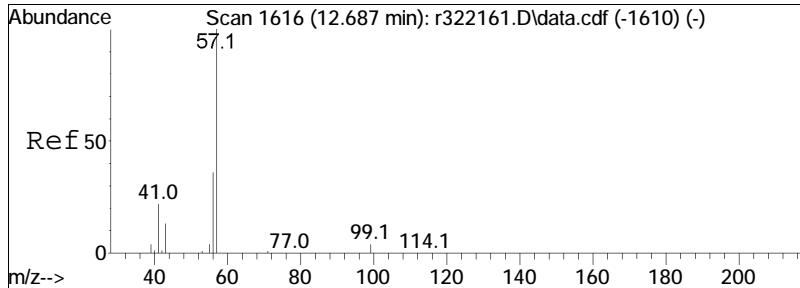




#58  
 1,4-dioxane  
 Concen: 0.79 ppbV  
 RT: 12.633 min Scan# 1608  
 Delta R.T. 0.000 min  
 Lab File: r322234.D  
 Acq: 19 May 2022 10:13 PM

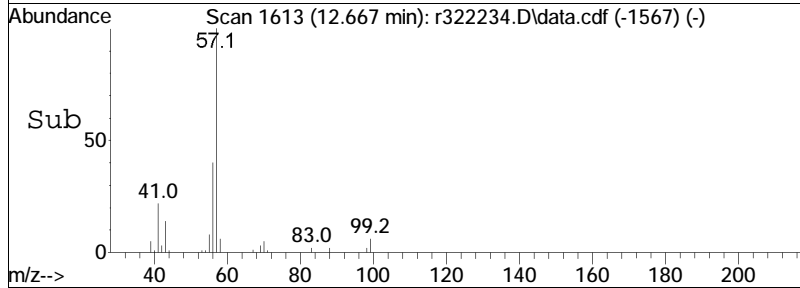
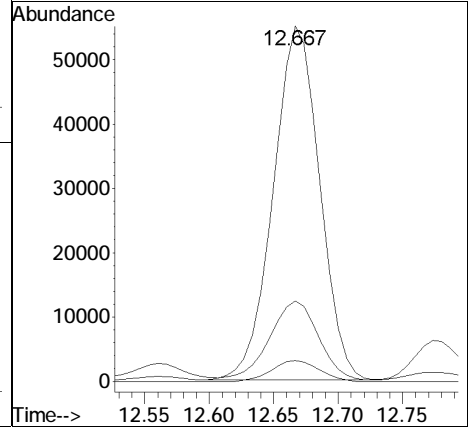
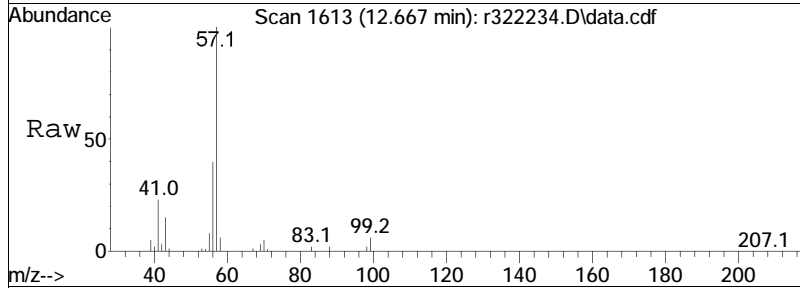
Tgt Ion:	88	Resp:	14249
Ion Ratio	Lower	Upper	
88	100		
58	80.3	61.2	91.8

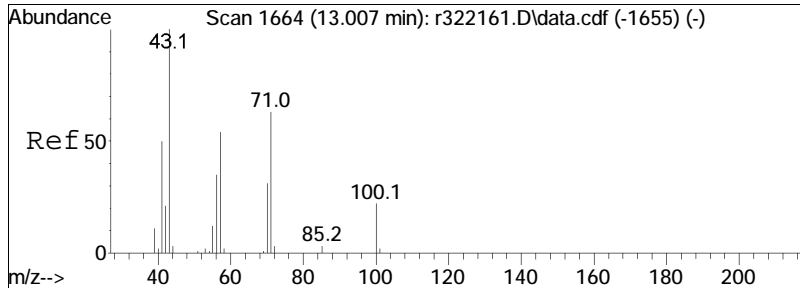




#60  
 2,2,4-trimethylpentane  
 Concen: 1.03 ppbV  
 RT: 12.667 min Scan# 1613  
 Delta R.T. -0.020 min  
 Lab File: r322234.D  
 Acq: 19 May 2022 10:13 PM

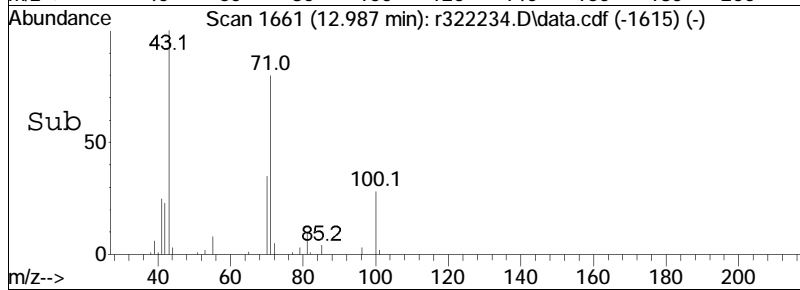
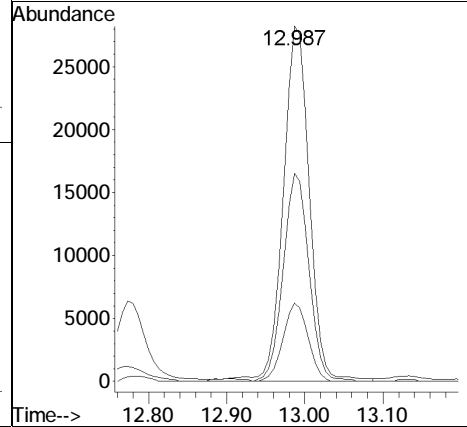
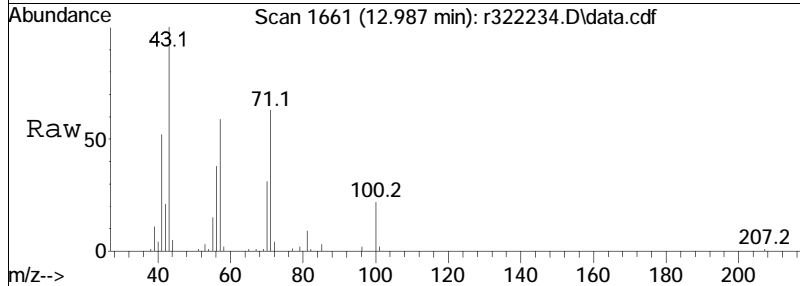
Tgt Ion	Resp	Lower	Upper
57	137631		
57	100		
99	5.9	5.0	7.4
41	22.6	17.4	26.2

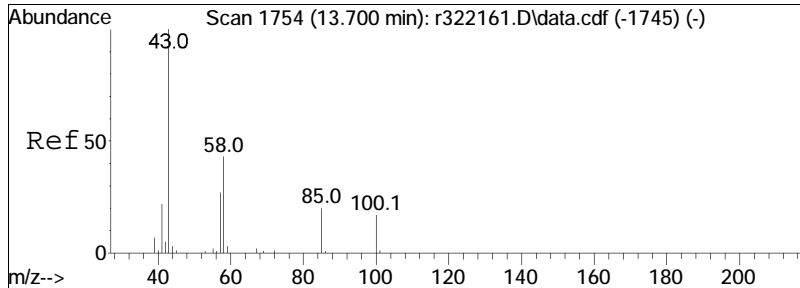




#62  
 heptane  
 Concen: 1.32 ppbV  
 RT: 12.987 min Scan# 1661  
 Delta R.T. -0.020 min  
 Lab File: r322234.D  
 Acq: 19 May 2022 10:13 PM

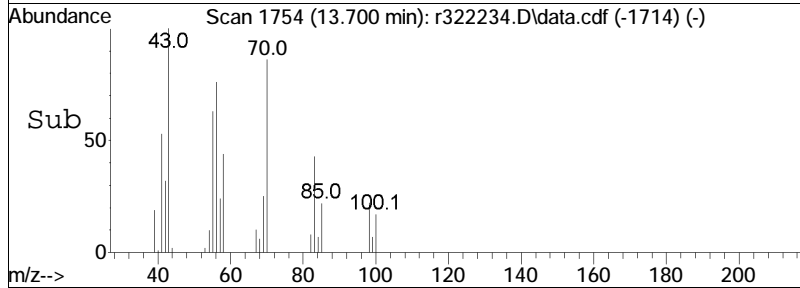
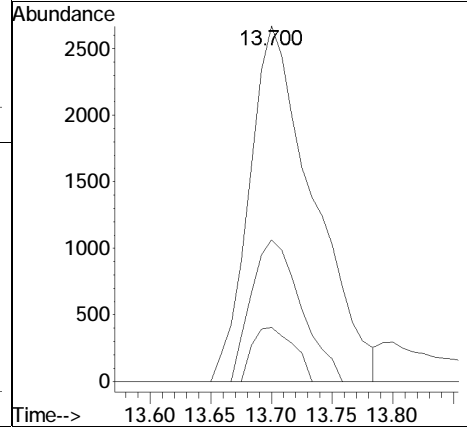
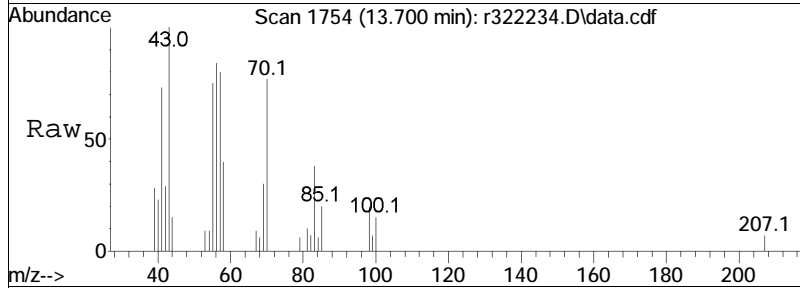
Tgt Ion	Ratio	Lower	Upper
43	100		
57	58.5	43.0	64.4
100	22.1	17.6	26.4



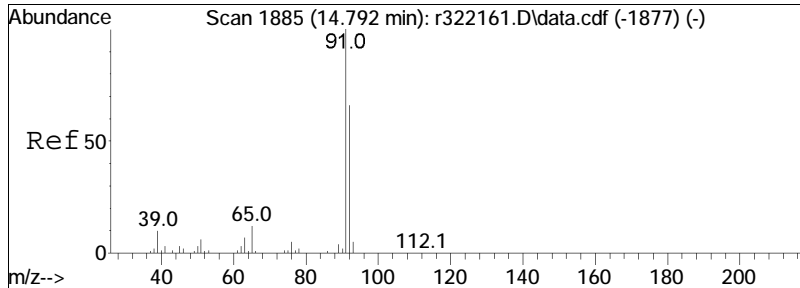


#64  
 4-methyl-2-pentanone  
 Concen: 0.17 ppbV  
 RT: 13.700 min Scan# 1754  
 Delta R.T. 0.000 min  
 Lab File: r322234.D  
 Acq: 19 May 2022 10:13 PM

Tgt Ion	Resp	Lower	Upper
43	100		
58	39.9	34.3	51.5
100	15.2	13.8	20.6

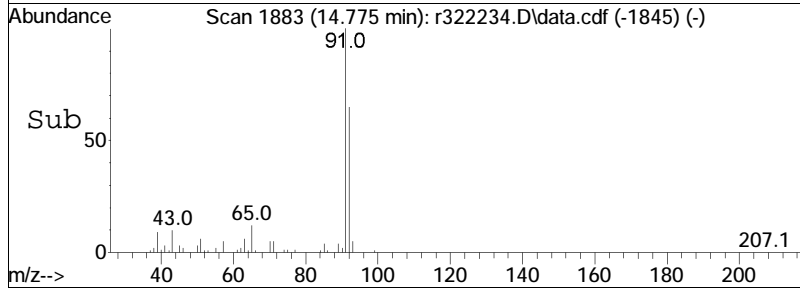
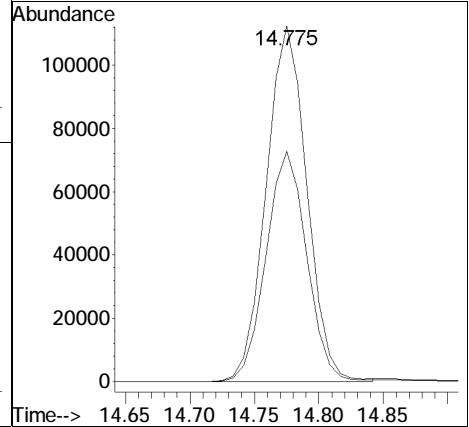
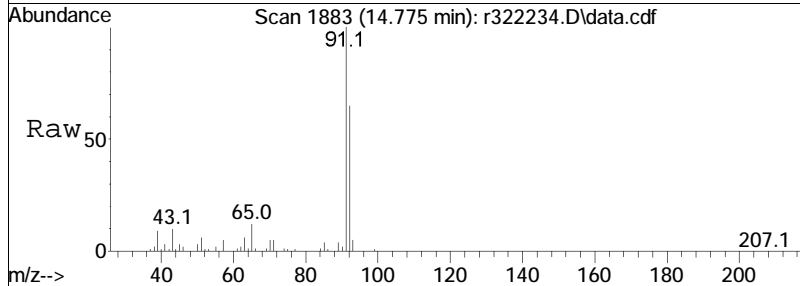


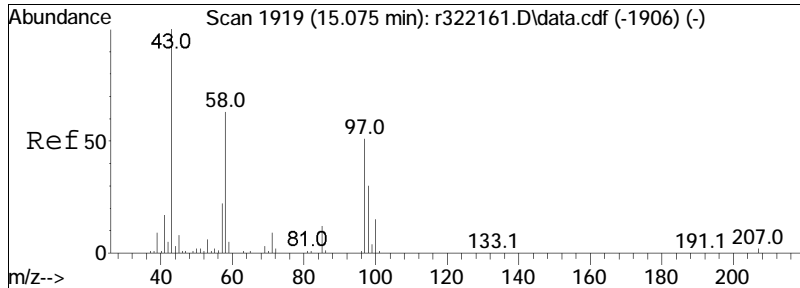




#68  
 toluene  
 Concen: 2.73 ppbV  
 RT: 14.775 min Scan# 1883  
 Delta R.T. -0.017 min  
 Lab File: r322234.D  
 Acq: 19 May 2022 10:13 PM

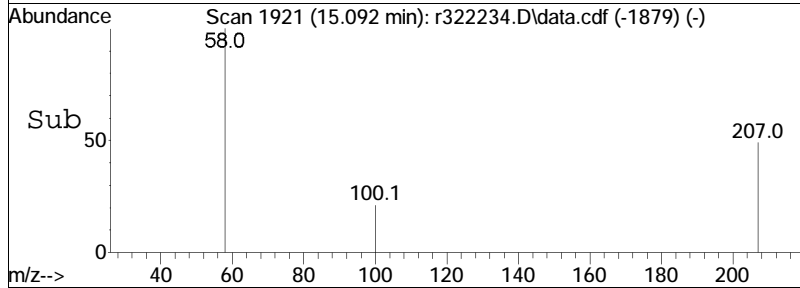
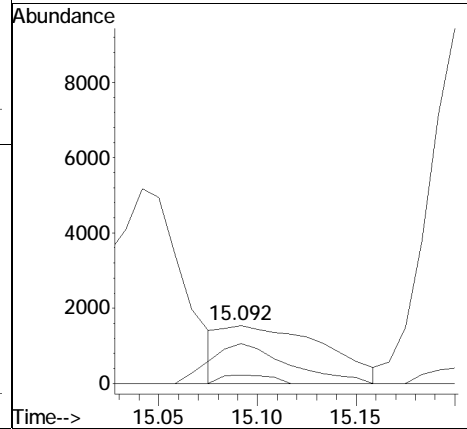
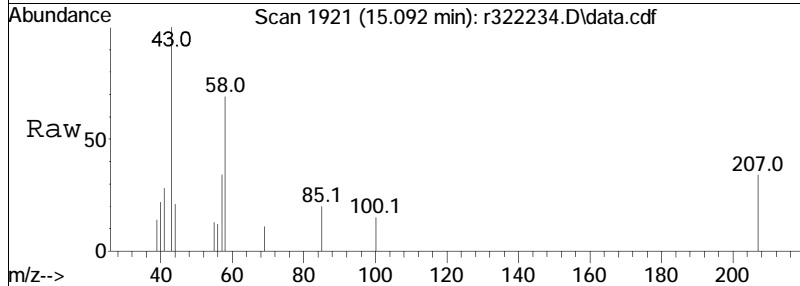
Tgt Ion:	91	Resp:	245618
Ion Ratio	Lower	Upper	
91	100		
92	64.8	52.7	79.1

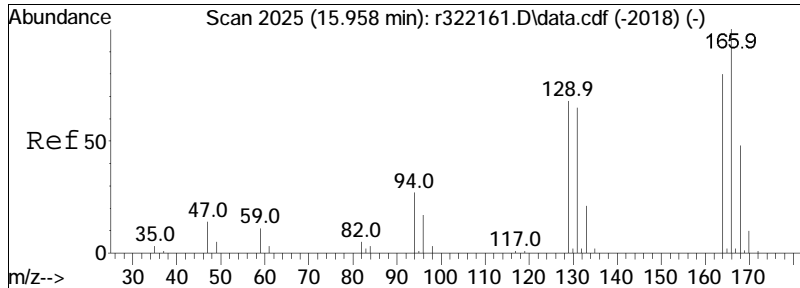




#72  
 2-hexanone  
 Concen: 0.10 ppbV m  
 RT: 15.092 min Scan# 1921  
 Delta R.T. 0.017 min  
 Lab File: r322234.D  
 Acq: 19 May 2022 10:13 PM

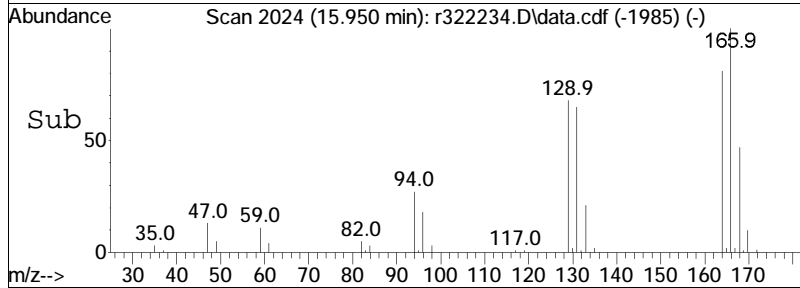
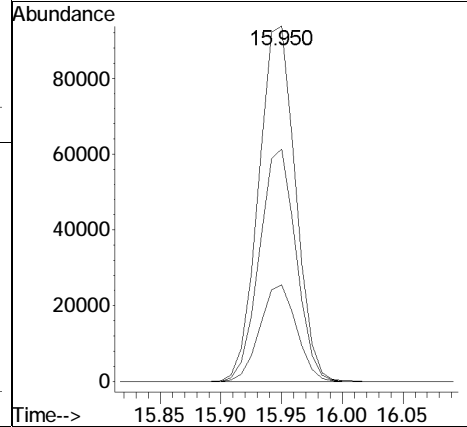
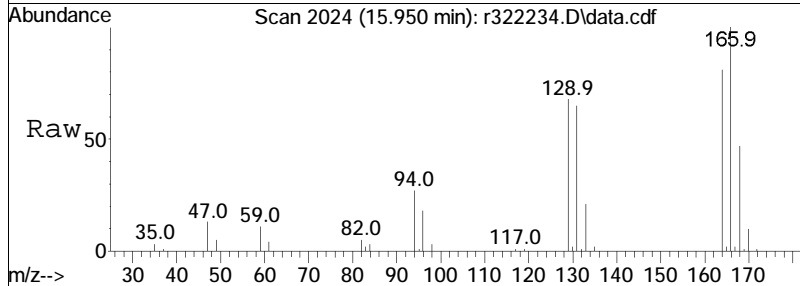
Tgt Ion:	43	58	100	Resp:	5615	Lower	Upper
Ion Ratio	100	69.0	14.5			50.5	75.7
						12.2	18.2

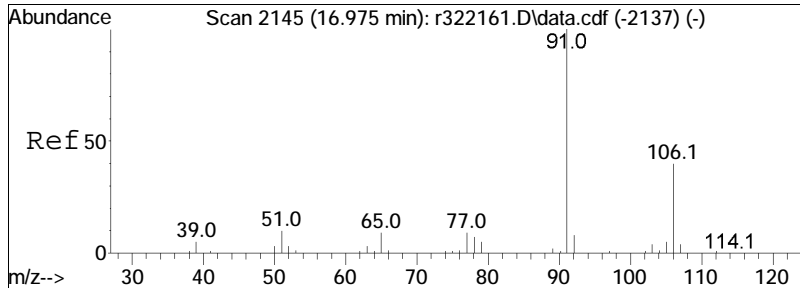




#78  
 tetrachloroethene  
 Concen: 4.54 ppbV  
 RT: 15.950 min Scan# 2024  
 Delta R.T. -0.008 min  
 Lab File: r322234.D  
 Acq: 19 May 2022 10:13 PM

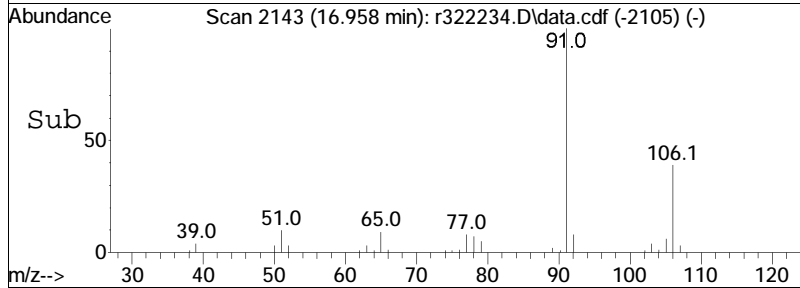
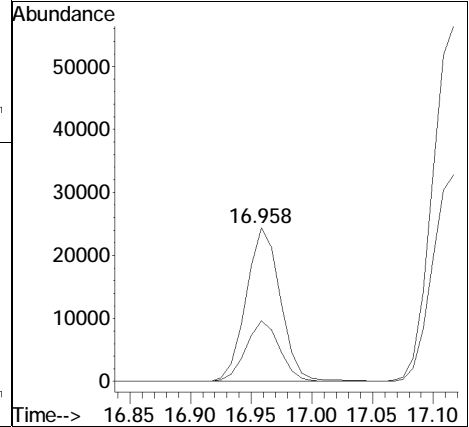
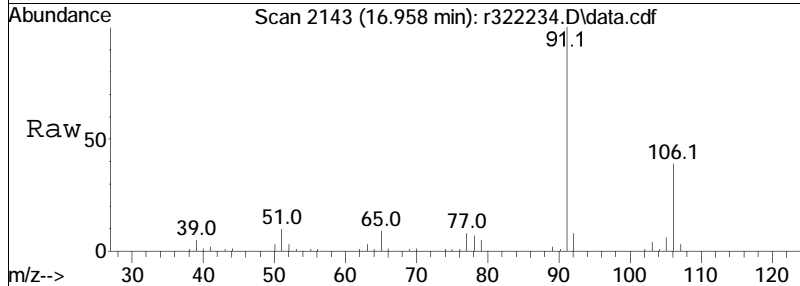
Tgt Ion	Resp	Lower	Upper
166	100		
131	65.4	51.8	77.6
94	27.2	21.8	32.8

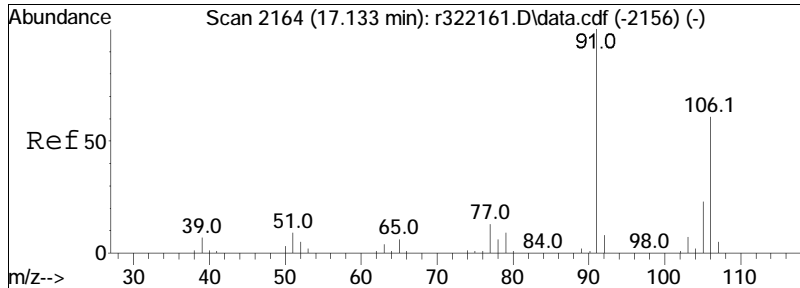




#81  
 ethylbenzene  
 Concen: 0.44 ppbV  
 RT: 16.958 min Scan# 2143  
 Delta R.T. -0.017 min  
 Lab File: r322234.D  
 Acq: 19 May 2022 10:13 PM

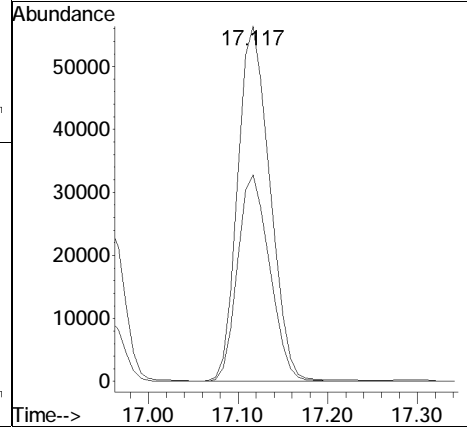
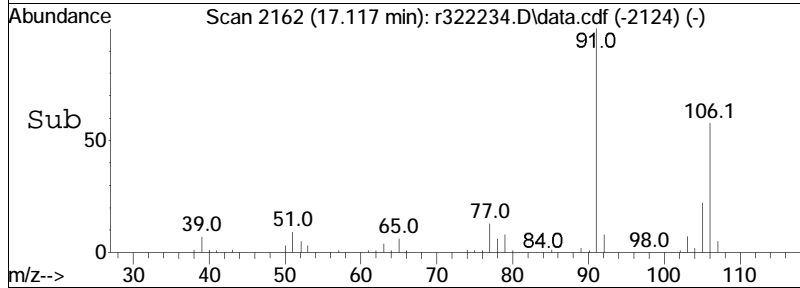
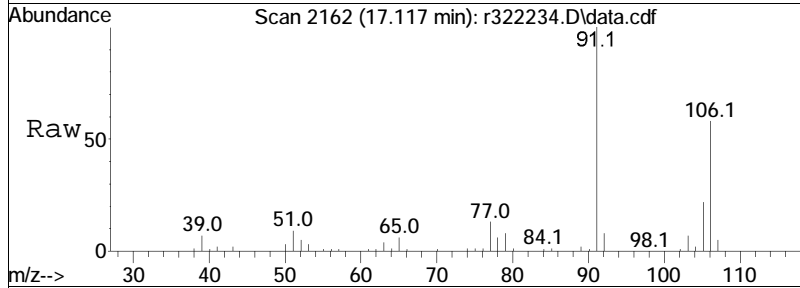
Tgt Ion	Resp	Lower	Upper
91	100		
106	39.4	32.4	48.6

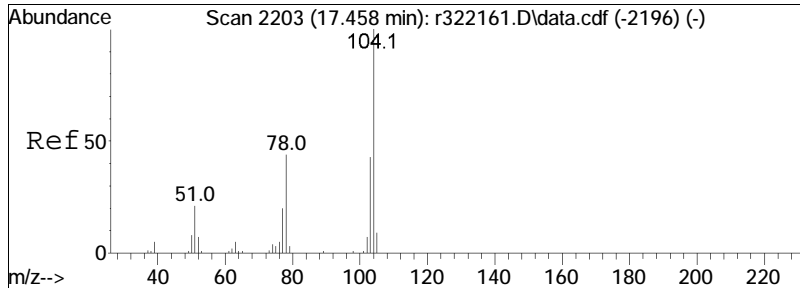




#83  
 m+p-xylene  
 Concen: 1.60 ppbV  
 RT: 17.117 min Scan# 2162  
 Delta R.T. -0.017 min  
 Lab File: r322234.D  
 Acq: 19 May 2022 10:13 PM

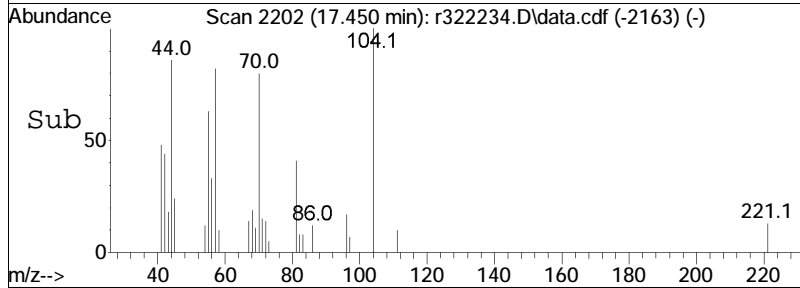
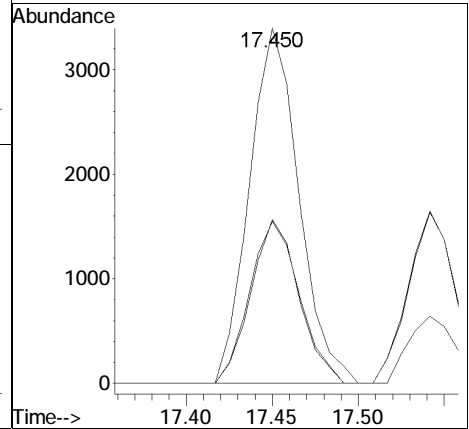
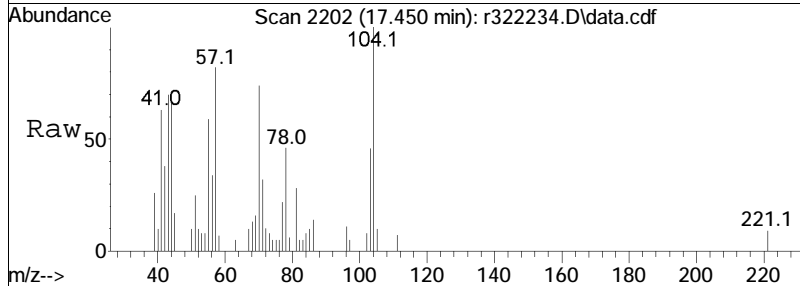
Tgt Ion: 91 Resp: 141400  
 Ion Ratio Lower Upper  
 91 100  
 106 58.2 48.4 72.6

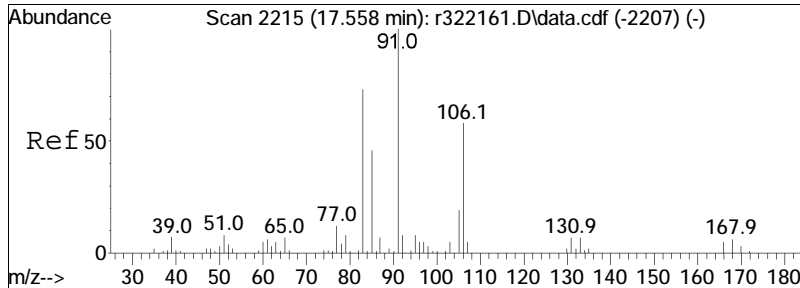




#85  
 styrene  
 Concen: 0.09 ppbV  
 RT: 17.450 min Scan# 2202  
 Delta R.T. -0.008 min  
 Lab File: r322234.D  
 Acq: 19 May 2022 10:13 PM

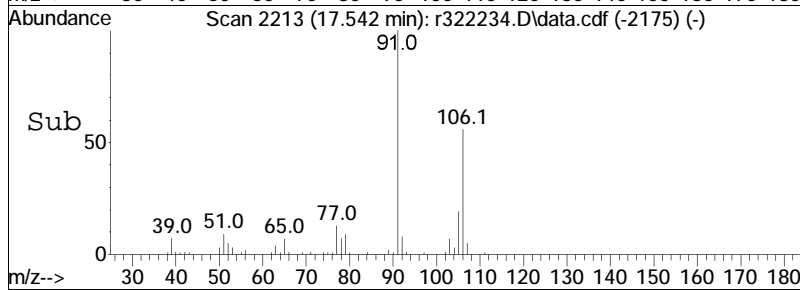
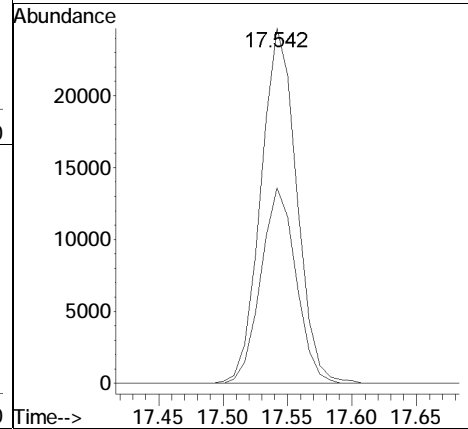
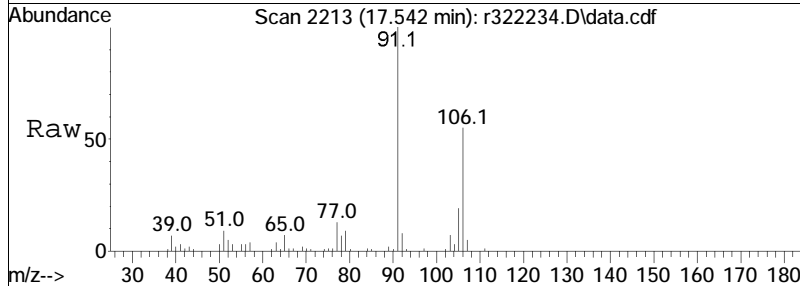
Tgt Ion	Ratio	Lower	Upper
104	100		
103	46.1	34.4	51.6
78	45.6	35.1	52.7

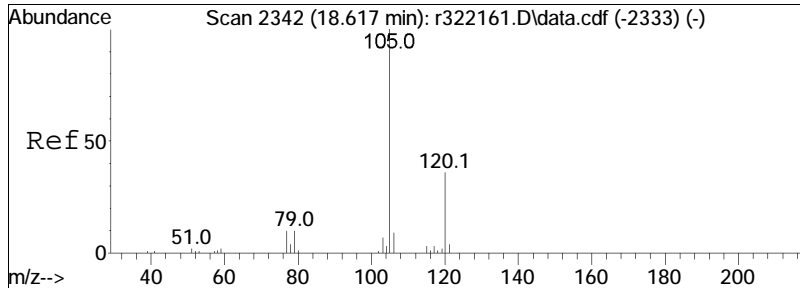




#87  
 o-xylene  
 Concen: 0.54 ppbV  
 RT: 17.542 min Scan# 2213  
 Delta R.T. -0.017 min  
 Lab File: r322234.D  
 Acq: 19 May 2022 10:13 PM

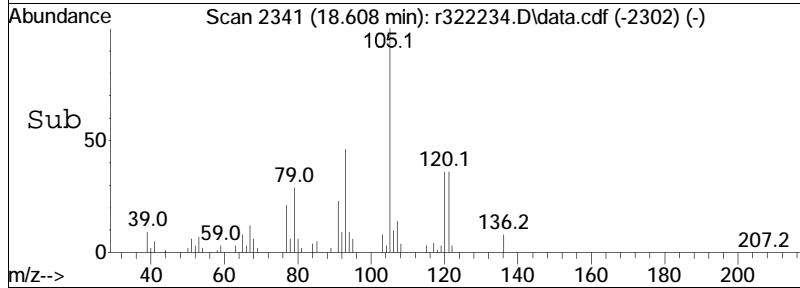
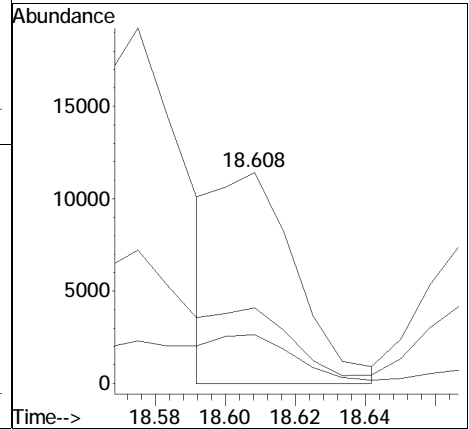
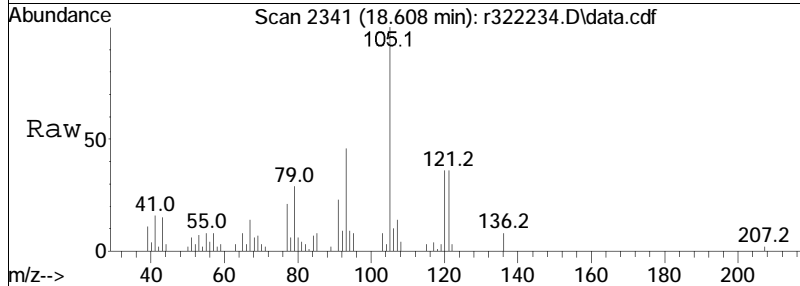
Tgt Ion: 91 Resp: 47616  
 Ion Ratio Lower Upper  
 91 100  
 106 55.1 46.4 69.6



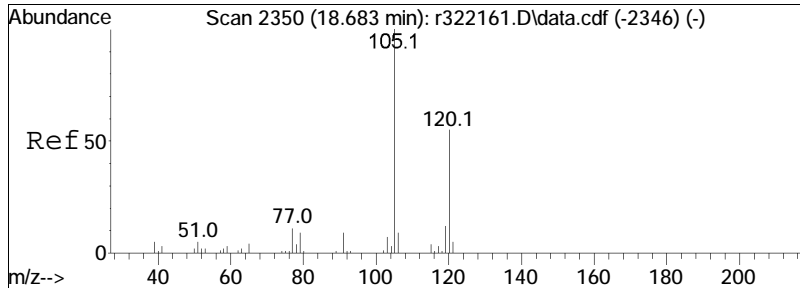


#96  
 4-ethyl toluene  
 Concen: 0.13 ppbV m  
 RT: 18.608 min Scan# 2341  
 Delta R.T. -0.008 min  
 Lab File: r322234.D  
 Acq: 19 May 2022 10:13 PM

Tgt Ion	Resp	Lower	Upper
105	17993		
120	35.9	28.6	42.8
91	23.1	7.4	11.2#

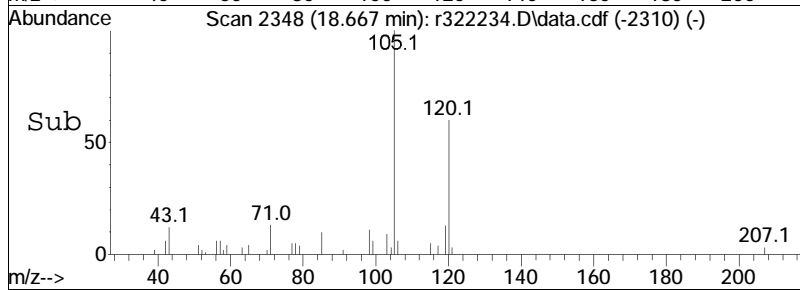
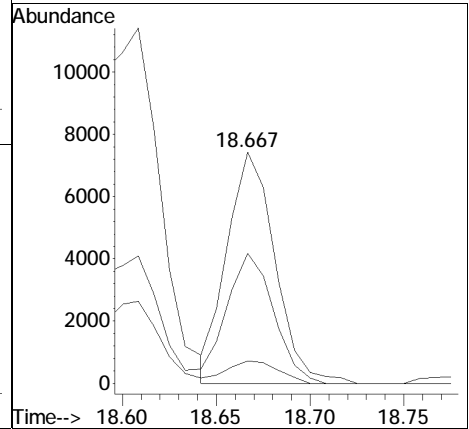
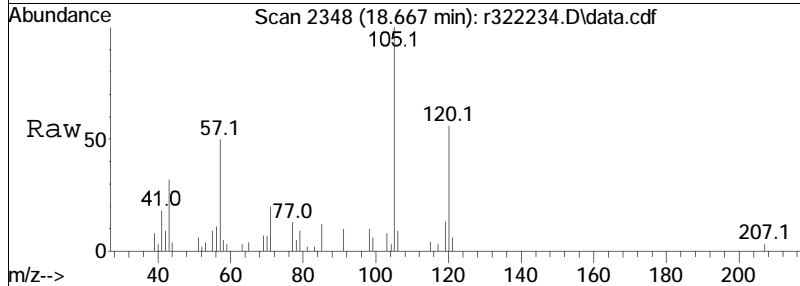


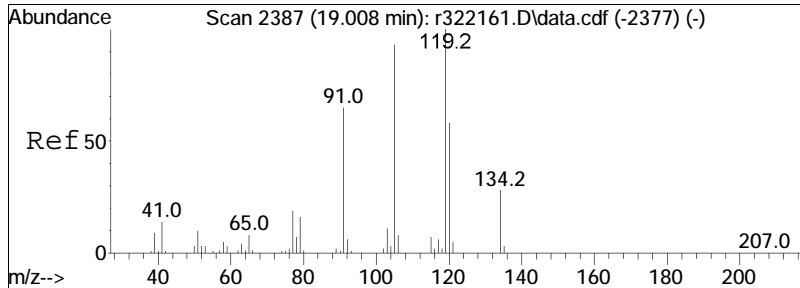




#97  
 1,3,5-trimethylbenzene  
 Concen: 0.11 ppbV  
 RT: 18.667 min Scan# 2348  
 Delta R.T. -0.017 min  
 Lab File: r322234.D  
 Acq: 19 May 2022 10:13 PM

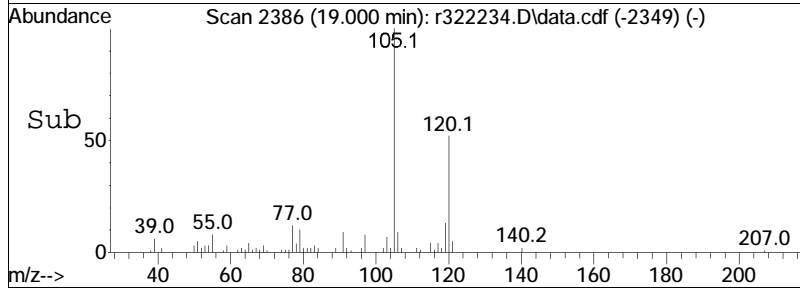
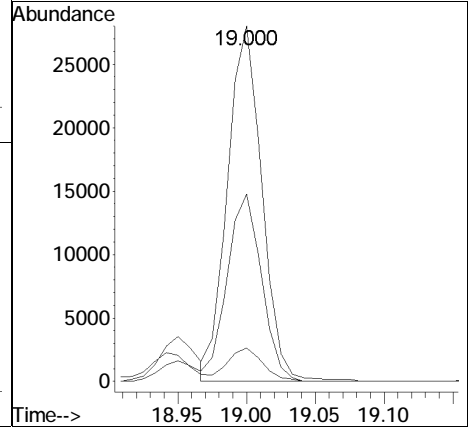
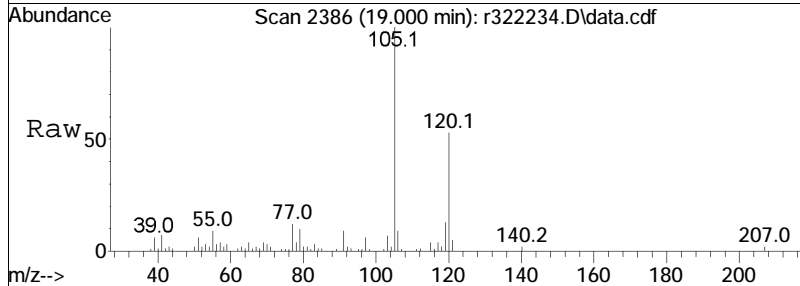
Tgt Ion	Ratio	Lower	Upper
105	100		
120	56.2	43.7	65.5
91	9.7	7.0	10.4





#99  
 1,2,4-trimethylbenzene  
 Concen: 0.46 ppbV  
 RT: 19.000 min Scan# 2386  
 Delta R.T. -0.008 min  
 Lab File: r322234.D  
 Acq: 19 May 2022 10:13 PM

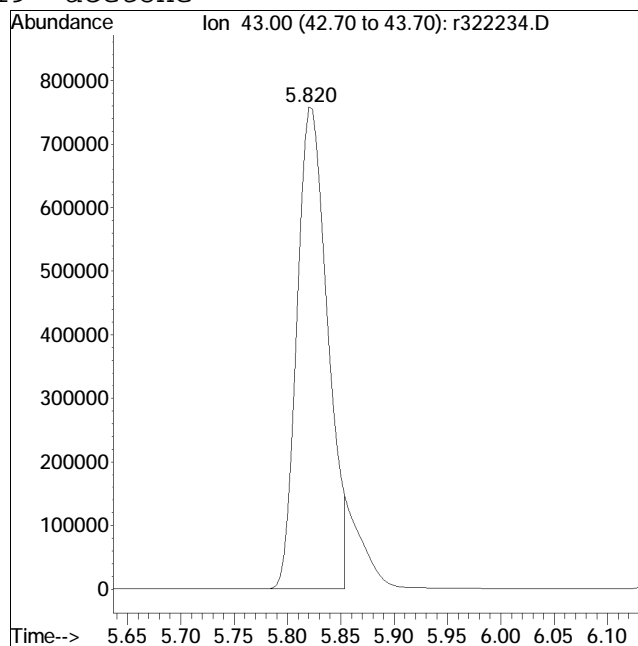
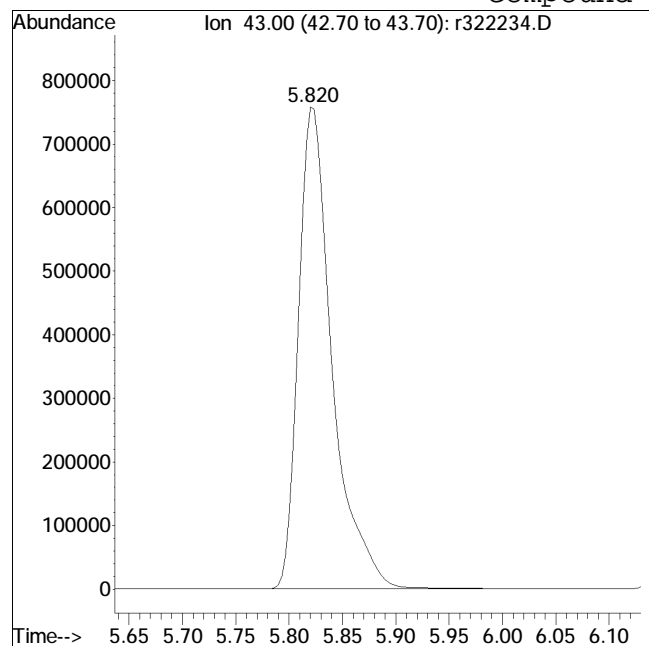
Tgt Ion	Resp	Lower	Upper
105	100		
120	52.7	49.4	74.2
91	9.4	55.8	83.8#



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322234.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:0: 3 Instrument :  
Sample : L2225590-05,3,250,250 Quant Date : 5/20/2022 8:13 am

Compound #19: acetone



Original Peak Response = 1669949

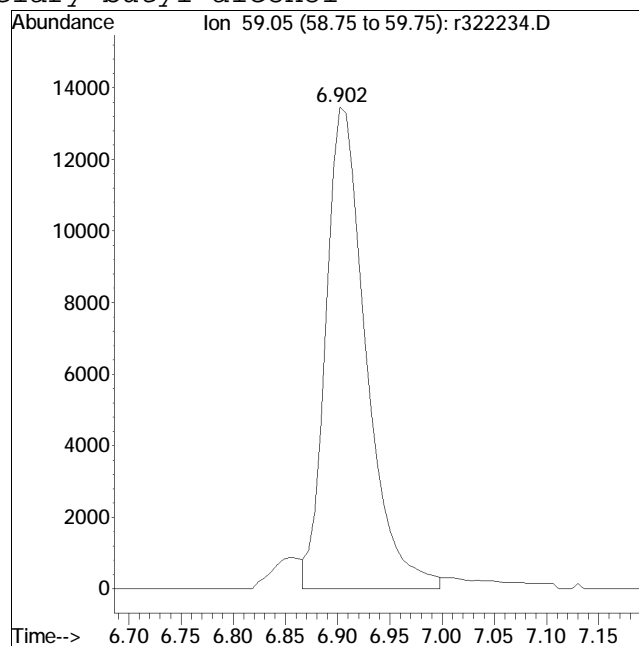
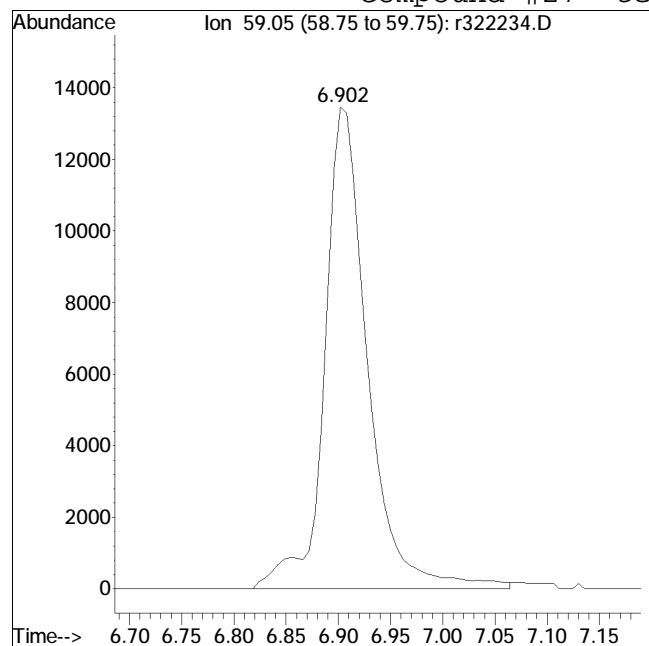
Manual Peak Response = 1512080 M6

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

# Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322234.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:0: 3 Instrument :  
Sample : L2225590-05,3,250,250 Quant Date : 5/20/2022 8:13 am

## Compound #27: tertiary butyl alcohol



Original Peak Response = 38735

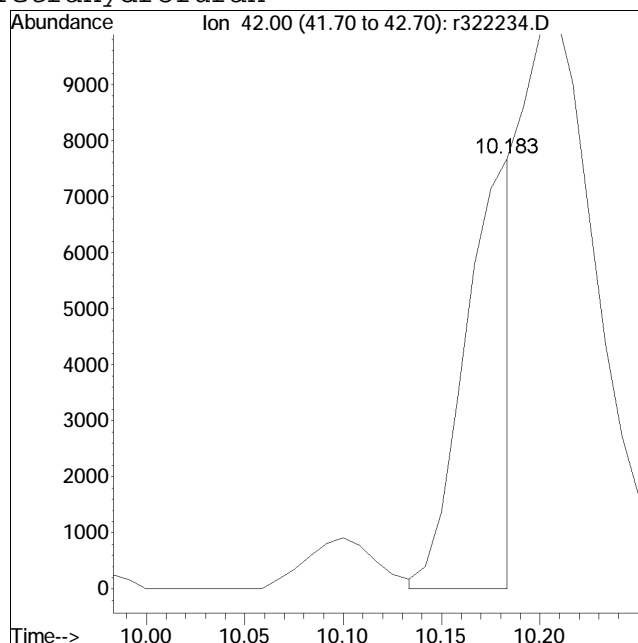
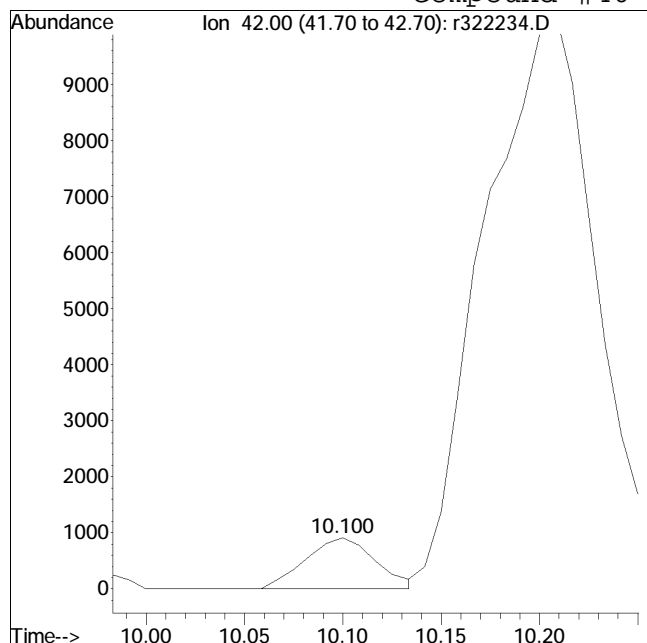
Manual Peak Response = 35960 M6

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

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322234.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:0: 3 Instrument :  
Sample : L2225590-05,3,250,250 Quant Date : 5/20/2022 8:13 am

Compound #40: Tetrahydrofuran



Original Peak Response = 2271

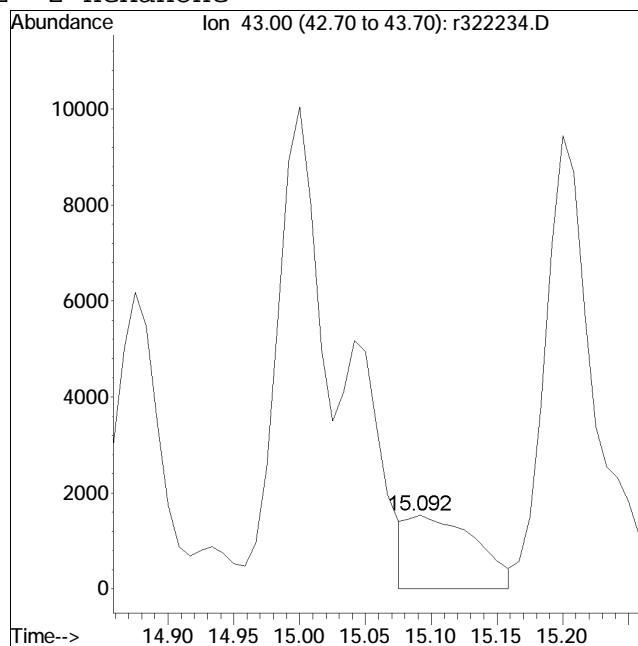
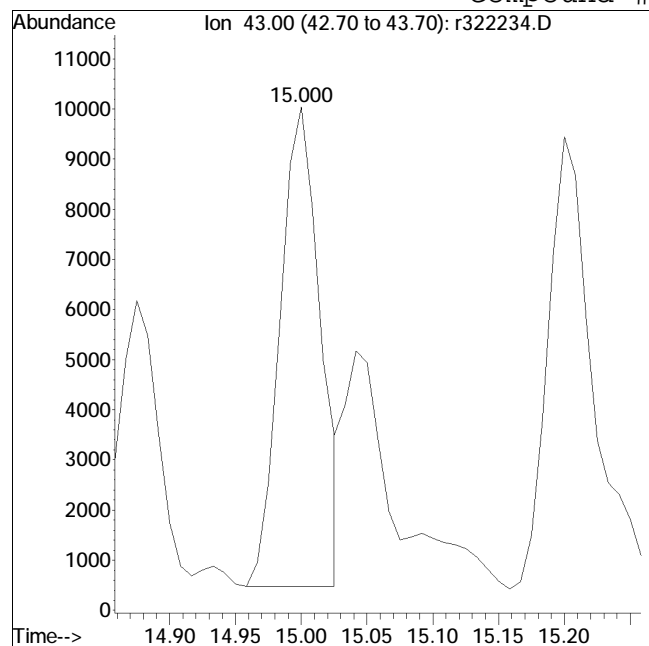
Manual Peak Response = 12912 M6

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

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322234.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:0: 3 Instrument :  
Sample : L2225590-05,3,250,250 Quant Date : 5/20/2022 8:13 am

Compound #72: 2-hexanone



Original Peak Response = 20373

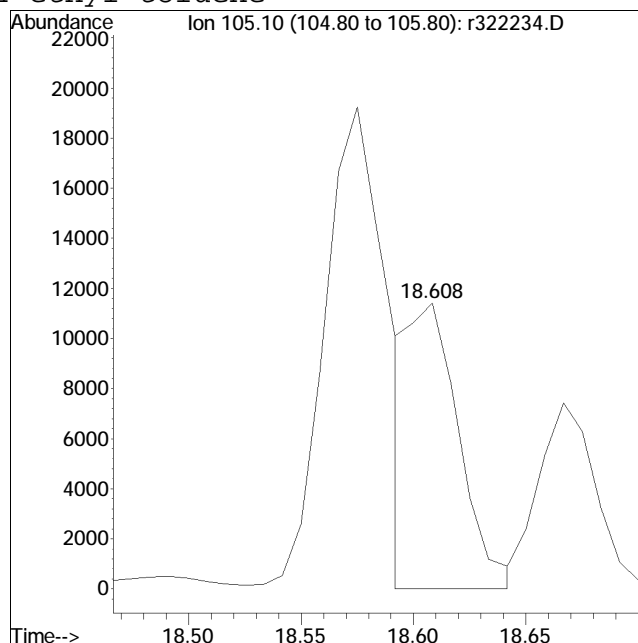
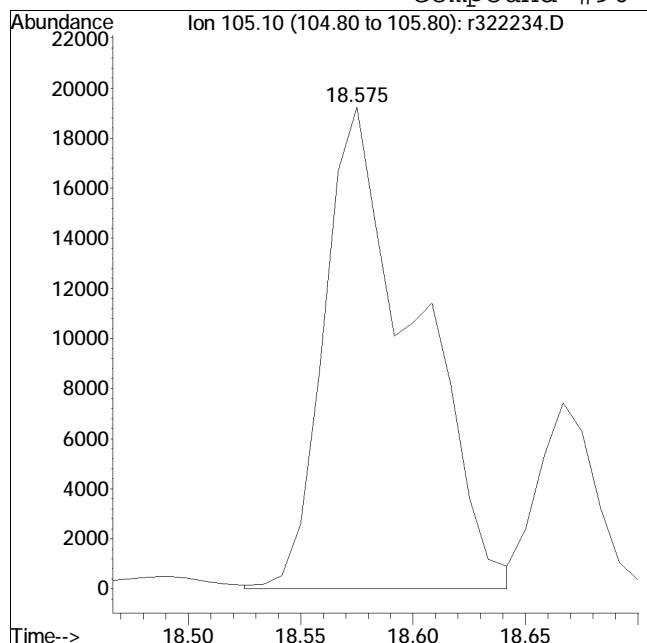
Manual Peak Response = 5615 M6

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

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322234.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:0: 3 Instrument :  
Sample : L2225590-05,3,250,250 Quant Date : 5/20/2022 8:13 am

Compound #96: 4-ethyl toluene



Original Peak Response = 54257

Manual Peak Response = 17993 M6

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
 Data File : r322248.D  
 Acq On : 20 May 2022 7:32 AM  
 Operator : AIRPIANO3:TS  
 Sample : L2225590-04D,3,30,250  
 Misc : WG1640711,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 20 09:44:45 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0519T\r322225.D  
 Sub List : Acetone - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.517	49	417797	10.000	ppbV	-0.05
Standard Area =	440035		Recovery =	94.95%		
43) 1,4-difluorobenzene	11.793	114	1257221	10.000	ppbV	-0.05
Standard Area =	1334123		Recovery =	94.24%		
67) chlorobenzene-D5	16.550	54	197957	10.000	ppbV	-0.03
Standard Area =	210666		Recovery =	93.97%		

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
19) acetone	5.793	43	5304744	231.769	ppbV	90

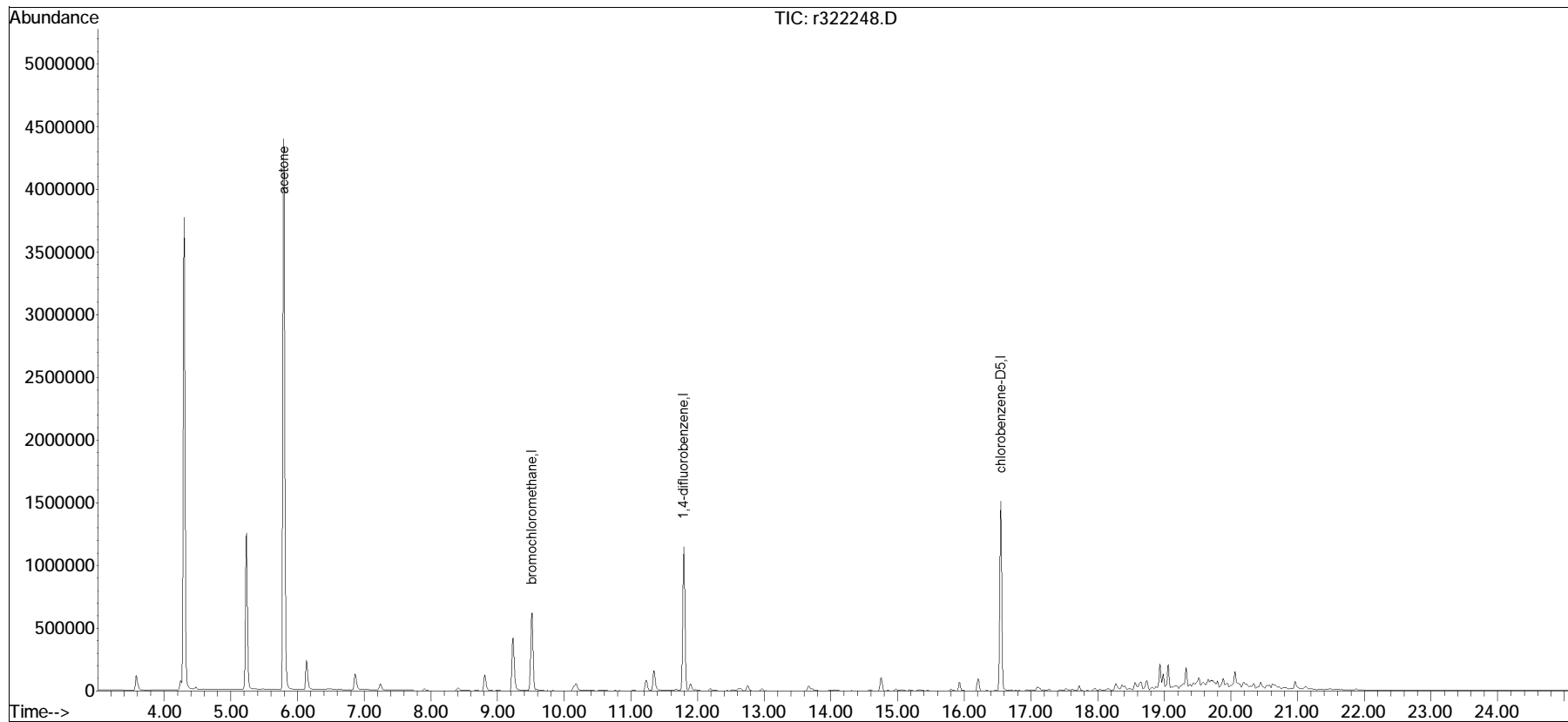
(#) = qualifier out of range (m) = manual integration (+) = signals summed

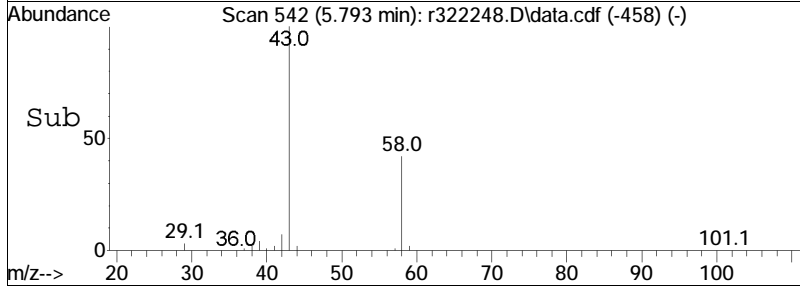
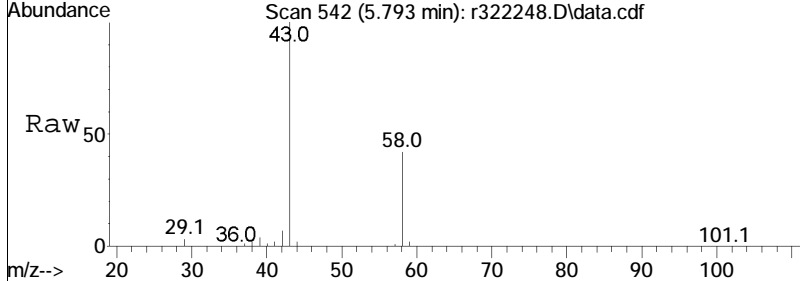
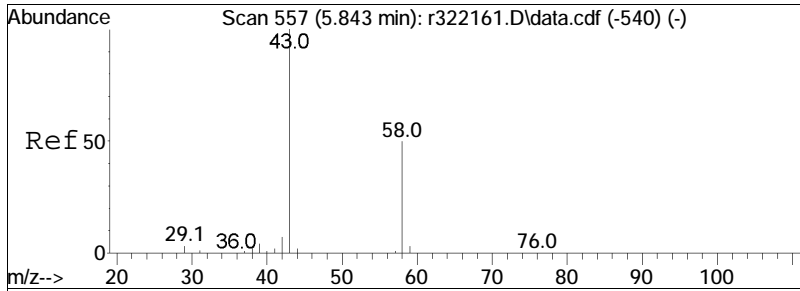


Sub List : Acetone - .s\Data\Airpiano3\2022\05\0519T\r322225.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
Data File : r322248.D  
Acq On : 20 May 2022 7:32 AM  
Operator : AIRPIANO3:TS  
Sample : L2225590-04D,3,30,250  
Misc : WG1640711,ICAL19030  
ALS Vial : 0 Sample Multiplier: 1

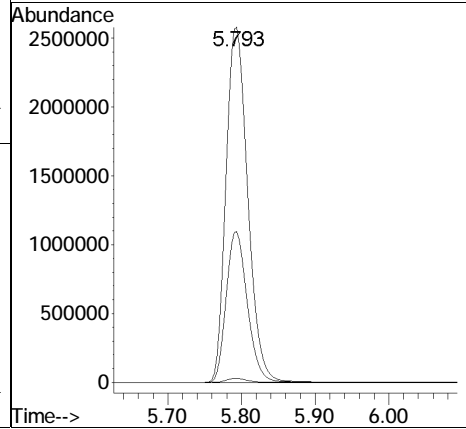
Quant Time: May 20 09:44:45 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 15:52:12 2022  
Response via : Initial Calibration





#19  
 acetone  
 Concen: 231.77 ppbV  
 RT: 5.793 min Scan# 542  
 Delta R.T. -0.050 min  
 Lab File: r322248.D  
 Acq: 20 May 2022 7:32 AM

Tgt Ion	Resp	Lower	Upper
43	5304744	100	
58	42.5	39.8	59.8
57	1.1	1.0	1.6



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322248.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/20/2020 0:7: 2 Instrument :  
Sample : L2225590-04D,3,30,250 Quant Date : 5/20/2022 9:40 am

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

# **Volatiles Standards Data**

# **Initial Calibration**

# Initial Calibration Summary

## Form 6

### Air Volatiles

<b>Client</b> : Langan Engineering & Environmental	<b>Lab Number</b> : L2225590
<b>Project Name</b> : 57-00, 57-05 47TH ST	<b>Project Number</b> : 100965503
<b>Instrument ID</b> : AIRPIANO3	<b>Ical Ref</b> : ICAL19030
<b>Calibration dates</b> : 05/16/22 23:12 05/17/22 04:02	

Calibration Files

0.2 =r322157.D 0.5 =r322158.D 1.0 =r322159.D 5.0 =r322160.D 10 =r322161.D 20 =r322162.D  
 50 =r322163.D 100 =r322164.D

Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
1) I bromochloromethane	-----ISTD-----									
2) chlorodifluoromethane	0.696	0.718	0.723	0.527	0.532	0.715	0.667	0.607	0.6483	12.70
3) propylene		0.483	0.476	0.269	0.277	0.366	0.346	0.339	0.3652	23.56
4) propane		0.540	0.540	0.351	0.364	0.498	0.493	0.468	0.4650	16.71
5) dichlorodifluoromethane	0.893	0.934	0.927	0.674	0.664	0.848	0.741	0.611	0.7865	16.45
6) C chloromethane	0.435	0.452	0.447	0.304	0.302	0.388	0.367	0.331	0.3781	16.52
7) Freon-114	1.135	1.193	1.187	0.868	0.858	1.122	0.998	0.818	1.0223	15.33
8) C methanol			0.453	0.246	0.245	0.219	0.207	0.181	0.2583	38.14#
9) C vinyl chloride	0.509	0.535	0.539	0.395	0.399	0.542	0.520	0.472	0.4889	12.46
10) C 1,3-butadiene	0.425	0.438	0.444	0.317	0.316	0.432	0.413	0.370	0.3943	13.49
11) butane	0.857	0.872	0.867	0.542	0.540	0.724	0.694	0.633	0.7161	19.47
12) C acetaldehyde		0.595	0.583	0.172	0.165	0.201	0.168	0.131	0.2879	71.81#
13) C bromomethane	0.437	0.423	0.439	0.316	0.316	0.426	0.405	0.364	0.3909	13.23
14) C chloroethane	0.257	0.273	0.276	0.198	0.199	0.271	0.275	0.255	0.2503	13.22
15) ethanol			0.545	0.312	0.331	0.407	0.390	0.321	0.3842	22.86
16) dichlorofluoromethane	0.892	0.894	0.911	0.764	0.755	1.004	0.928	0.808	0.8695	9.94
17) C vinyl bromide	0.379	0.415	0.411	0.301	0.304	0.416	0.399	0.361	0.3732	12.74
18) C acrolein		0.624	0.632	0.193	0.194	0.257	0.251	0.233	0.3407	58.11#
19) acetone	0.771	0.699	0.691	0.416	0.404	0.520	0.491	0.390	0.5478	27.60
20) C acetonitrile	0.610	0.591	0.603	0.332	0.328	0.435	0.428	0.398	0.4658	25.56
21) trichlorofluoromethane	0.787	0.814	0.788	0.610	0.602	0.715	0.751	0.655	0.7153	11.71
22) isopropyl alcohol	0.596	0.657	0.720	0.529	0.550	0.783	0.749	0.690	0.6592	14.13
23) C acrylonitrile	0.410	0.436	0.447	0.317	0.324	0.461	0.467	0.458	0.4148	14.70
24) pentane	0.921	0.968	0.979	0.702	0.684	0.961	0.932	0.971	0.8900	13.82
25) ethyl ether	0.664	0.698	0.713	0.548	0.555	0.804	0.998	0.915	0.7370	21.79
26) C 1,1-dichloroethene	0.654	0.664	0.671	0.506	0.515	0.714	0.699	0.649	0.6340	12.49
27) tertiary butyl alcohol		0.707	0.756	0.632	0.660	0.990	1.017	0.980	0.8202	20.59
28) C methylene chloride		0.834	0.839	0.524	0.527	0.571	0.554	0.520	0.6239	23.47
29) C 3-chloropropene	0.576	0.622	0.632	0.468	0.481	0.675	0.669	0.655	0.5972	13.73
30) C carbon disulfide	1.453	1.553	1.571	1.148	1.170	1.599	1.530	1.413	1.4298	12.45
31) Freon 113	0.841	0.883	0.886	0.651	0.652	0.876	0.839	0.769	0.7997	12.34
32) trans-1,2-dichloroethene	0.639	0.673	0.695	0.511	0.525	0.734	0.724	0.686	0.6484	13.24
33) C 1,1-dichloroethane	0.785	0.808	0.828	0.614	0.622	0.864	0.864	0.833	0.7773	13.12
34) C MTBE	1.158	1.210	1.263	0.934	0.956	1.326	1.278	1.174	1.1625	12.48
35) C vinyl acetate			0.896	0.641	0.675	1.040	1.058	1.026	0.8894	21.19
36) C 2-butanone		1.199	1.239	0.748	0.764	1.042	1.017	0.964	0.9961	19.20



# Initial Calibration Summary

## Form 6

### Air Volatiles

**Client** : Langan Engineering & Environmental      **Lab Number** : L2225590  
**Project Name** : 57-00, 57-05 47TH ST      **Project Number** : 100965503  
**Instrument ID** : AIRPIANO3      **Ical Ref** : ICAL19030  
**Calibration dates** : 05/16/22 23:12    05/17/22 04:02

Calibration Files

0.2 =r322157.D    0.5 =r322158.D    1.0 =r322159.D    5.0 =r322160.D    10 =r322161.D    20 =r322162.D  
 50 =r322163.D    100 =r322164.D

Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
37) cis-1,2-dichloroethene	0.560	0.602	0.614	0.461	0.471	0.653	0.654	0.615	0.5787	13.04
38) Ethyl Acetate		0.146	0.164	0.121	0.131	0.186	0.194	0.194	0.1622	18.74
39) C chloroform	0.793	0.845	0.856	0.642	0.652	0.889	0.844	0.740	0.7827	12.11
40) Tetrahydrofuran	0.591	0.598	0.618	0.447	0.457	0.638	0.632	0.620	0.5750	13.52
41) 2,2-dichloropropane	0.592	0.618	0.641	0.508	0.532	0.750	0.716	0.616	0.6217	13.27
42) C 1,2-dichloroethane	0.576	0.547	0.533	0.385	0.390	0.530	0.506	0.445	0.4888	14.94
43) I 1,4-difluorobenzene	-----ISTD-----									
44) C hexane	0.295	0.305	0.313	0.226	0.230	0.313	0.312	0.286	0.2851	12.73
45) diisopropyl ether	0.148	0.163	0.164	0.123	0.126	0.181	0.186	0.178	0.1585	15.26
46) tert-butyl ethyl ether	0.441	0.478	0.490	0.383	0.393	0.559	0.566	0.534	0.4805	14.77
47) s 1,2-dichloroethane-D4	0.310	0.309	0.311	0.315	0.314	0.308	0.301	0.285	0.3068	3.21
48) C 1,1,1-trichloroethane	0.211	0.228	0.228	0.171	0.172	0.240	0.257	0.218	0.2157	14.14
49) 1,1-dichloropropene	0.223	0.235	0.243	0.184	0.187	0.264	0.262	0.249	0.2309	13.47
50) C benzene	0.704	0.700	0.689	0.423	0.429	0.592	0.589	0.557	0.5854	19.33
51) thiophene	0.302	0.319	0.328	0.255	0.261	0.371	0.376	0.357	0.3211	14.46
52) C carbon tetrachloride	0.188	0.205	0.213	0.164	0.169	0.238	0.229	0.195	0.2002	13.16
53) cyclohexane	0.280	0.301	0.314	0.227	0.232	0.334	0.344	0.338	0.2965	15.57
54) tert-amyl methyl ether	0.447	0.467	0.487	0.370	0.377	0.537	0.531	0.500	0.4645	13.70
55) dibromomethane	0.172	0.166	0.165	0.121	0.121	0.170	0.169	0.154	0.1547	13.93
56) C 1,2-dichloropropane	0.177	0.182	0.182	0.137	0.139	0.196	0.202	0.197	0.1765	14.44
57) bromodichloromethane	0.269	0.287	0.291	0.220	0.225	0.320	0.318	0.287	0.2770	13.63
58) C 1,4-dioxane	0.108	0.118	0.121	0.093	0.094	0.139	0.144	0.140	0.1196	16.98
59) C trichloroethene	0.230	0.239	0.236	0.182	0.183	0.252	0.249	0.233	0.2254	12.29
60) C 2,2,4-trimethylpentane	0.910	0.939	0.945	0.693	0.693	0.983	0.980	0.904	0.8810	13.53
61) methyl methacrylate		0.179	0.192	0.142	0.148	0.219	0.221	0.215	0.1880	17.63
62) heptane	0.337	0.355	0.364	0.257	0.257	0.360	0.356	0.342	0.3285	13.67
63) C cis-1,3-dichloropropene	0.216	0.250	0.251	0.198	0.207	0.298	0.300	0.286	0.2506	16.37
64) C 4-methyl-2-pentanone		0.367	0.390	0.306	0.311	0.430	0.426	0.405	0.3764	13.61
65) trans-1,3-dichloropropene	0.177	0.204	0.221	0.180	0.192	0.281	0.285	0.268	0.2259	20.05
66) C 1,1,2-trichloroethane	0.181	0.201	0.199	0.148	0.150	0.207	0.211	0.203	0.1875	13.52
67) I chlorobenzene-D5	-----ISTD-----									
68) C toluene	3.950	4.054	4.139	2.969	2.985	4.102	4.045	3.810	3.7567	13.09
69) s toluene-D8	6.292	6.309	6.418	6.485	6.459	6.410	6.470	6.812	6.4568	2.48
70) 2-methylthiophene	2.878	3.034	3.157	2.436	2.446	3.346	3.310	3.192	2.9749	12.15
71) 1,3-dichloropropane	1.973	2.109	2.090	1.565	1.576	2.205	2.171	2.108	1.9747	13.10
72) 2-hexanone	1.835	2.355	2.455	1.842	1.910	2.643	2.578	2.467	2.2607	15.10



# Initial Calibration Summary

## Form 6

### Air Volatiles

**Client** : Langan Engineering & Environmental      **Lab Number** : L2225590  
**Project Name** : 57-00, 57-05 47TH ST      **Project Number** : 100965503  
**Instrument ID** : AIRPIANO3      **Ical Ref** : ICAL19030  
**Calibration dates** : 05/16/22 23:12    05/17/22 04:02

Calibration Files

0.2 =r322157.D    0.5 =r322158.D    1.0 =r322159.D    5.0 =r322160.D    10 =r322161.D    20 =r322162.D  
 50 =r322163.D    100 =r322164.D

Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
73) 3-methylthiophene	2.880	3.138	3.235	2.512	2.500	3.472	3.372	3.163	3.0340	12.17
74) dibromochloromethane	1.634	1.715	1.812	1.411	1.447	2.053	1.982	1.789	1.7305	13.28
75) C 1,2-dibromoethane	1.767	1.871	1.954	1.471	1.494	2.060	1.976	1.877	1.8088	12.11
76) butyl acetate		0.454	0.531	0.446	0.485	0.687	0.698	0.698	0.5714	20.68
77) octane	1.582	1.646	1.731	1.285	1.321	1.871	1.891	1.839	1.6459	14.44
78) C tetrachloroethene	1.831	1.993	1.997	1.481	1.485	2.033	1.937	1.802	1.8200	12.26
79) 1,1,1,2-tetrachloroethane	1.255	1.377	1.446	1.091	1.137	1.596	1.531	1.333	1.3459	13.31
80) C chlorobenzene	3.370	3.556	3.565	2.621	2.636	3.547	3.427	3.074	3.2245	12.43
81) C ethylbenzene	4.469	4.793	4.898	3.623	3.676	5.097	4.959	4.543	4.5073	12.61
82) 2-ethylthiophene	3.275	3.582	3.756	2.916	2.893	3.951	3.835	3.491	3.4624	11.64
83) C m+p-xylene	3.630	3.981	4.118	3.066	3.082	4.202	3.978	3.398	3.6820	12.41
84) C bromoform	1.348	1.558	1.688	1.326	1.391	1.992	1.898	1.676	1.6099	15.56
85) C styrene	2.977	3.365	3.565	2.696	2.755	3.769	3.649	3.434	3.2765	12.62
86) C 1,1,2,2-tetrachloroethane	2.604	2.932	3.070	2.279	2.354	3.196	2.948	2.484	2.7334	12.69
87) C o-xylene	3.643	4.079	4.261	3.102	3.130	4.194	3.826	3.126	3.6702	13.53
88) 1,2,3-trichloropropane	2.219	2.413	2.551	1.869	1.904	2.631	2.567	2.437	2.3238	12.81
89) nonane	3.137	3.427	3.514	2.570	2.557	3.484	3.374	3.141	3.1505	12.34
90) s bromofluorobenzene	3.798	3.937	3.945	4.099	4.099	4.096	4.147	4.418	4.0674	4.52
91) C isopropylbenzene	5.556	6.102	6.189	4.482	4.512	6.085	5.616	4.886	5.4285	13.11
92) bromobenzene	3.052	3.290	3.397	2.490	2.535	3.488	3.327	3.023	3.0753	12.42
93) 2-chlorotoluene	1.493	1.648	1.745	1.294	1.315	1.821	1.785	1.674	1.5970	12.93
94) n-propylbenzene	1.677	1.968	2.025	1.522	1.541	2.143	2.086	1.885	1.8559	13.20
95) 4-chlorotoluene	1.429	1.685	1.709	1.299	1.315	1.812	1.785	1.660	1.5868	13.07
96) 4-ethyl toluene	5.232	6.042	6.417	4.761	4.780	6.426	5.925	5.104	5.5858	12.49
97) 1,3,5-trimethylbenzene	4.608	5.172	6.050	4.610	4.609	6.076	5.613	4.187	5.1156	14.17
98) tert-butylbenzene	4.956	5.570	5.803	4.303	4.277	5.509	4.654	3.642	4.8394	15.61
99) 1,2,4-trimethylbenzene	4.357	4.970	5.363	4.052	4.026	5.218	4.481	3.382	4.4811	15.03
100) decane	3.510	4.109	4.374	3.241	3.297	4.458	4.191	3.539	3.8400	12.89
101) C Benzyl Chloride	1.190	1.538	2.066	2.035	2.427	3.904	3.856	3.241	2.5323	40.61#
102) 1,3-dichlorobenzene	2.955	3.712	3.990	2.986	2.992	3.902	3.568	2.968	3.3842	13.43
103) C 1,4-dichlorobenzene	3.067	3.634	3.779	2.830	2.862	3.744	3.440	2.967	3.2903	12.23
104) sec-butylbenzene	6.861	7.685	8.024	5.993	5.968	7.759	6.965	5.612	6.8583	13.45
105) 1,2,3-trimethylbenzene	4.222	4.672	4.839	3.567	3.537	4.744	3.998	3.064	4.0804	16.00
106) p-isopropyltoluene	5.803	6.655	6.877	5.197	5.217	6.583	5.383	4.096	5.7265	16.49
107) 1,2-dichlorobenzene	2.910	3.426	3.620	2.696	2.736	3.593	3.366	2.985	3.1666	11.94
108) n-butylbenzene	4.398	5.203	5.553	4.267	4.339	5.828	5.262	4.398	4.9061	12.73





# Initial Calibration Summary

## Form 6

### Air Volatiles

<b>Client</b>	: Langan Engineering & Environmental	<b>Lab Number</b>	: L2225590
<b>Project Name</b>	: 57-00, 57-05 47TH ST	<b>Project Number</b>	: 100965503
<b>Instrument ID</b>	: AIRPIANO3	<b>Ical Ref</b>	: ICAL19030
<b>Calibration dates</b>	: 05/16/22 23:12    05/17/22 04:02		

Calibration Files

0.2 =r322157.D    0.5 =r322158.D    1.0 =r322159.D    5.0 =r322160.D    10 =r322161.D    20 =r322162.D  
 50 =r322163.D    100 =r322164.D

Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
109)    indan	4.229	4.875	5.113	3.895	3.920	5.309	4.752	3.942	4.5044	12.79
110)    indene	2.858	3.455	3.725	3.046	3.117	4.364	4.033	3.455	3.5065	14.66
111) C    1,2-dibromo-3-chloropropane	0.928	1.184	1.304	1.125	1.170	1.577	1.451	1.232	1.2464	16.05
112)    undecane	3.780	4.362	4.736	3.775	3.833	5.079	4.621	3.744	4.2412	12.44
113)    1,2,4,5-tetramethylbenzene	5.459	6.517	6.926	3.520	3.553	5.928	5.276	4.305	5.1855	24.88
114)    dodecane	3.859	4.184	4.674	4.049	4.175	4.750	4.465	3.677	4.2290	8.96
115) C    1,2,4-trichlorobenzene	1.940	2.418	2.637	2.248	2.315	3.036	2.866	2.559	2.5022	14.02
116)    naphthalene	5.496	6.575	7.291	5.885	5.998	7.571	6.962	5.989	6.4709	11.51
117)    1,2,3-trichlorobenzene	2.141	2.599	2.789	2.292	2.323	2.902	2.775	2.498	2.5398	10.75
118)    benzothiophene	1.212	1.581	1.731	0.771	0.786	1.339	1.130	0.851	1.1750	30.91#
119) C    hexachlorobutadiene	2.327	2.674	2.815	2.146	2.124	2.581	2.246	1.870	2.3477	13.56
120)    2-methylnaphthalene			1.948	0.805	0.930	2.063	1.869	1.974	1.5980	35.71#
121)    1-methylnaphthalene			4.699	2.179	2.365	3.862	3.257	3.144	3.2509	28.91



Response Factor Report

Method Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Method File : TFS3\_220516.M  
 Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 Last Update : Tue May 17 15:52:12 2022  
 Response Via : Initial Calibration

Calibration Files

0.2 =r322157.D 0.5 =r322158.D 1.0 =r322159.D 5.0 =r322160.D 10 =r322161.D 20 =r322162.D  
 50 =r322163.D 100 =r322164.D

Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
1) I bromochloromethane	-----ISTD-----									
2) chlorodifluoromethane	0.696	0.718	0.723	0.527	0.532	0.715	0.667	0.607	0.6483	12.70
3) propylene		0.483	0.476	0.269	0.277	0.366	0.346	0.339	0.3652	23.56
4) propane		0.540	0.540	0.351	0.364	0.498	0.493	0.468	0.4650	16.71
5) dichlorodifluoromethane	0.893	0.934	0.927	0.674	0.664	0.848	0.741	0.611	0.7865	16.45
6) C chloromethane	0.435	0.452	0.447	0.304	0.302	0.388	0.367	0.331	0.3781	16.52
7) Freon-114	1.135	1.193	1.187	0.868	0.858	1.122	0.998	0.818	1.0223	15.33
8) C methanol			0.453	0.246	0.245	0.219	0.207	0.181	0.2583	38.14#
9) C vinyl chloride	0.509	0.535	0.539	0.395	0.399	0.542	0.520	0.472	0.4889	12.46
10) C 1,3-butadiene	0.425	0.438	0.444	0.317	0.316	0.432	0.413	0.370	0.3943	13.49
11) butane	0.857	0.872	0.867	0.542	0.540	0.724	0.694	0.633	0.7161	19.47
12) C acetaldehyde		0.595	0.583	0.172	0.165	0.201	0.168	0.131	0.2879	71.81#
13) C bromomethane	0.437	0.423	0.439	0.316	0.316	0.426	0.405	0.364	0.3909	13.23
14) C chloroethane	0.257	0.273	0.276	0.198	0.199	0.271	0.275	0.255	0.2503	13.22
15) ethanol			0.545	0.312	0.331	0.407	0.390	0.321	0.3842	22.86
16) dichlorofluoromethane	0.892	0.894	0.911	0.764	0.755	1.004	0.928	0.808	0.8695	9.94
17) C vinyl bromide	0.379	0.415	0.411	0.301	0.304	0.416	0.399	0.361	0.3732	12.74
18) C acrolein		0.624	0.632	0.193	0.194	0.257	0.251	0.233	0.3407	58.11#
19) acetone	0.771	0.699	0.691	0.416	0.404	0.520	0.491	0.390	0.5478	27.60
20) C acetonitrile	0.610	0.591	0.603	0.332	0.328	0.435	0.428	0.398	0.4658	25.56
21) trichlorofluoromethane	0.787	0.814	0.788	0.610	0.602	0.715	0.751	0.655	0.7153	11.71
22) isopropyl alcohol	0.596	0.657	0.720	0.529	0.550	0.783	0.749	0.690	0.6592	14.13
23) C acrylonitrile	0.410	0.436	0.447	0.317	0.324	0.461	0.467	0.458	0.4148	14.70
24) pentane	0.921	0.968	0.979	0.702	0.684	0.961	0.932	0.971	0.8900	13.82
25) ethyl ether	0.664	0.698	0.713	0.548	0.555	0.804	0.998	0.915	0.7370	21.79
26) C 1,1-dichloroethene	0.654	0.664	0.671	0.506	0.515	0.714	0.699	0.649	0.6340	12.49
27) tertiary butyl alcohol		0.707	0.756	0.632	0.660	0.990	1.017	0.980	0.8202	20.59
28) C methylene chloride		0.834	0.839	0.524	0.527	0.571	0.554	0.520	0.6239	23.47
29) C 3-chloropropene	0.576	0.622	0.632	0.468	0.481	0.675	0.669	0.655	0.5972	13.73
30) C carbon disulfide	1.453	1.553	1.571	1.148	1.170	1.599	1.530	1.413	1.4298	12.45
31) Freon 113	0.841	0.883	0.886	0.651	0.652	0.876	0.839	0.769	0.7997	12.34

## Response Factor Report

Method Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Method File : TFS3\_220516.M  
 Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 Last Update : Tue May 17 15:52:12 2022  
 Response Via : Initial Calibration

## Calibration Files

0.2 =r322157.D 0.5 =r322158.D 1.0 =r322159.D 5.0 =r322160.D 10 =r322161.D 20 =r322162.D  
 50 =r322163.D 100 =r322164.D

Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
32) trans-1,2-dichloroethene	0.639	0.673	0.695	0.511	0.525	0.734	0.724	0.686	0.6484	13.24
33) C 1,1-dichloroethane	0.785	0.808	0.828	0.614	0.622	0.864	0.864	0.833	0.7773	13.12
34) C MTBE	1.158	1.210	1.263	0.934	0.956	1.326	1.278	1.174	1.1625	12.48
35) C vinyl acetate			0.896	0.641	0.675	1.040	1.058	1.026	0.8894	21.19
36) C 2-butanone		1.199	1.239	0.748	0.764	1.042	1.017	0.964	0.9961	19.20
37) cis-1,2-dichloroethene	0.560	0.602	0.614	0.461	0.471	0.653	0.654	0.615	0.5787	13.04
38) Ethyl Acetate		0.146	0.164	0.121	0.131	0.186	0.194	0.194	0.1622	18.74
39) C chloroform	0.793	0.845	0.856	0.642	0.652	0.889	0.844	0.740	0.7827	12.11
40) Tetrahydrofuran	0.591	0.598	0.618	0.447	0.457	0.638	0.632	0.620	0.5750	13.52
41) 2,2-dichloropropane	0.592	0.618	0.641	0.508	0.532	0.750	0.716	0.616	0.6217	13.27
42) C 1,2-dichloroethane	0.576	0.547	0.533	0.385	0.390	0.530	0.506	0.445	0.4888	14.94
43) I 1,4-difluorobenzene	-----ISTD-----									
44) C hexane	0.295	0.305	0.313	0.226	0.230	0.313	0.312	0.286	0.2851	12.73
45) diisopropyl ether	0.148	0.163	0.164	0.123	0.126	0.181	0.186	0.178	0.1585	15.26
46) tert-butyl ethyl ether	0.441	0.478	0.490	0.383	0.393	0.559	0.566	0.534	0.4805	14.77
47) s 1,2-dichloroethane-D4	0.310	0.309	0.311	0.315	0.314	0.308	0.301	0.285	0.3068	3.21
48) C 1,1,1-trichloroethane	0.211	0.228	0.228	0.171	0.172	0.240	0.257	0.218	0.2157	14.14
49) 1,1-dichloropropene	0.223	0.235	0.243	0.184	0.187	0.264	0.262	0.249	0.2309	13.47
50) C benzene	0.704	0.700	0.689	0.423	0.429	0.592	0.589	0.557	0.5854	19.33
51) thiophene	0.302	0.319	0.328	0.255	0.261	0.371	0.376	0.357	0.3211	14.46
52) C carbon tetrachloride	0.188	0.205	0.213	0.164	0.169	0.238	0.229	0.195	0.2002	13.16
53) cyclohexane	0.280	0.301	0.314	0.227	0.232	0.334	0.344	0.338	0.2965	15.57
54) tert-amyl methyl ether	0.447	0.467	0.487	0.370	0.377	0.537	0.531	0.500	0.4645	13.70
55) dibromomethane	0.172	0.166	0.165	0.121	0.121	0.170	0.169	0.154	0.1547	13.93
56) C 1,2-dichloropropane	0.177	0.182	0.182	0.137	0.139	0.196	0.202	0.197	0.1765	14.44
57) bromodichloromethane	0.269	0.287	0.291	0.220	0.225	0.320	0.318	0.287	0.2770	13.63
58) C 1,4-dioxane	0.108	0.118	0.121	0.093	0.094	0.139	0.144	0.140	0.1196	16.98
59) C trichloroethene	0.230	0.239	0.236	0.182	0.183	0.252	0.249	0.233	0.2254	12.29
60) C 2,2,4-trimethylpentane	0.910	0.939	0.945	0.693	0.693	0.983	0.980	0.904	0.8810	13.53
61) methyl methacrylate		0.179	0.192	0.142	0.148	0.219	0.221	0.215	0.1880	17.63
62) heptane	0.337	0.355	0.364	0.257	0.257	0.360	0.356	0.342	0.3285	13.67

Response Factor Report

Method Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Method File : TFS3\_220516.M  
 Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 Last Update : Tue May 17 15:52:12 2022  
 Response Via : Initial Calibration

Calibration Files

0.2 =r322157.D 0.5 =r322158.D 1.0 =r322159.D 5.0 =r322160.D 10 =r322161.D 20 =r322162.D  
 50 =r322163.D 100 =r322164.D

Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
63) C cis-1,3-dichloropropene	0.216	0.250	0.251	0.198	0.207	0.298	0.300	0.286	0.2506	16.37
64) C 4-methyl-2-pentanone		0.367	0.390	0.306	0.311	0.430	0.426	0.405	0.3764	13.61
65) trans-1,3-dichloropropene	0.177	0.204	0.221	0.180	0.192	0.281	0.285	0.268	0.2259	20.05
66) C 1,1,2-trichloroethane	0.181	0.201	0.199	0.148	0.150	0.207	0.211	0.203	0.1875	13.52
67) I chlorobenzene-D5	-----ISTD-----									
68) C toluene	3.950	4.054	4.139	2.969	2.985	4.102	4.045	3.810	3.7567	13.09
69) s toluene-D8	6.292	6.309	6.418	6.485	6.459	6.410	6.470	6.812	6.4568	2.48
70) 2-methylthiophene	2.878	3.034	3.157	2.436	2.446	3.346	3.310	3.192	2.9749	12.15
71) 1,3-dichloropropane	1.973	2.109	2.090	1.565	1.576	2.205	2.171	2.108	1.9747	13.10
72) 2-hexanone	1.835	2.355	2.455	1.842	1.910	2.643	2.578	2.467	2.2607	15.10
73) 3-methylthiophene	2.880	3.138	3.235	2.512	2.500	3.472	3.372	3.163	3.0340	12.17
74) dibromochloromethane	1.634	1.715	1.812	1.411	1.447	2.053	1.982	1.789	1.7305	13.28
75) C 1,2-dibromoethane	1.767	1.871	1.954	1.471	1.494	2.060	1.976	1.877	1.8088	12.11
76) butyl acetate		0.454	0.531	0.446	0.485	0.687	0.698	0.698	0.5714	20.68
77) octane	1.582	1.646	1.731	1.285	1.321	1.871	1.891	1.839	1.6459	14.44
78) C tetrachloroethene	1.831	1.993	1.997	1.481	1.485	2.033	1.937	1.802	1.8200	12.26
79) 1,1,1,2-tetrachloroethane	1.255	1.377	1.446	1.091	1.137	1.596	1.531	1.333	1.3459	13.31
80) C chlorobenzene	3.370	3.556	3.565	2.621	2.636	3.547	3.427	3.074	3.2245	12.43
81) C ethylbenzene	4.469	4.793	4.898	3.623	3.676	5.097	4.959	4.543	4.5073	12.61
82) 2-ethylthiophene	3.275	3.582	3.756	2.916	2.893	3.951	3.835	3.491	3.4624	11.64
83) C m+p-xylene	3.630	3.981	4.118	3.066	3.082	4.202	3.978	3.398	3.6820	12.41
84) C bromoform	1.348	1.558	1.688	1.326	1.391	1.992	1.898	1.676	1.6099	15.56
85) C styrene	2.977	3.365	3.565	2.696	2.755	3.769	3.649	3.434	3.2765	12.62
86) C 1,1,2,2-tetrachloroethane	2.604	2.932	3.070	2.279	2.354	3.196	2.948	2.484	2.7334	12.69
87) C o-xylene	3.643	4.079	4.261	3.102	3.130	4.194	3.826	3.126	3.6702	13.53
88) 1,2,3-trichloropropane	2.219	2.413	2.551	1.869	1.904	2.631	2.567	2.437	2.3238	12.81
89) nonane	3.137	3.427	3.514	2.570	2.557	3.484	3.374	3.141	3.1505	12.34
90) s bromofluorobenzene	3.798	3.937	3.945	4.099	4.099	4.096	4.147	4.418	4.0674	4.52
91) C isopropylbenzene	5.556	6.102	6.189	4.482	4.512	6.085	5.616	4.886	5.4285	13.11
92) bromobenzene	3.052	3.290	3.397	2.490	2.535	3.488	3.327	3.023	3.0753	12.42
93) 2-chlorotoluene	1.493	1.648	1.745	1.294	1.315	1.821	1.785	1.674	1.5970	12.93

## Response Factor Report

Method Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Method File : TFS3\_220516.M  
 Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 Last Update : Tue May 17 15:52:12 2022  
 Response Via : Initial Calibration

## Calibration Files

0.2 =r322157.D 0.5 =r322158.D 1.0 =r322159.D 5.0 =r322160.D 10 =r322161.D 20 =r322162.D  
 50 =r322163.D 100 =r322164.D

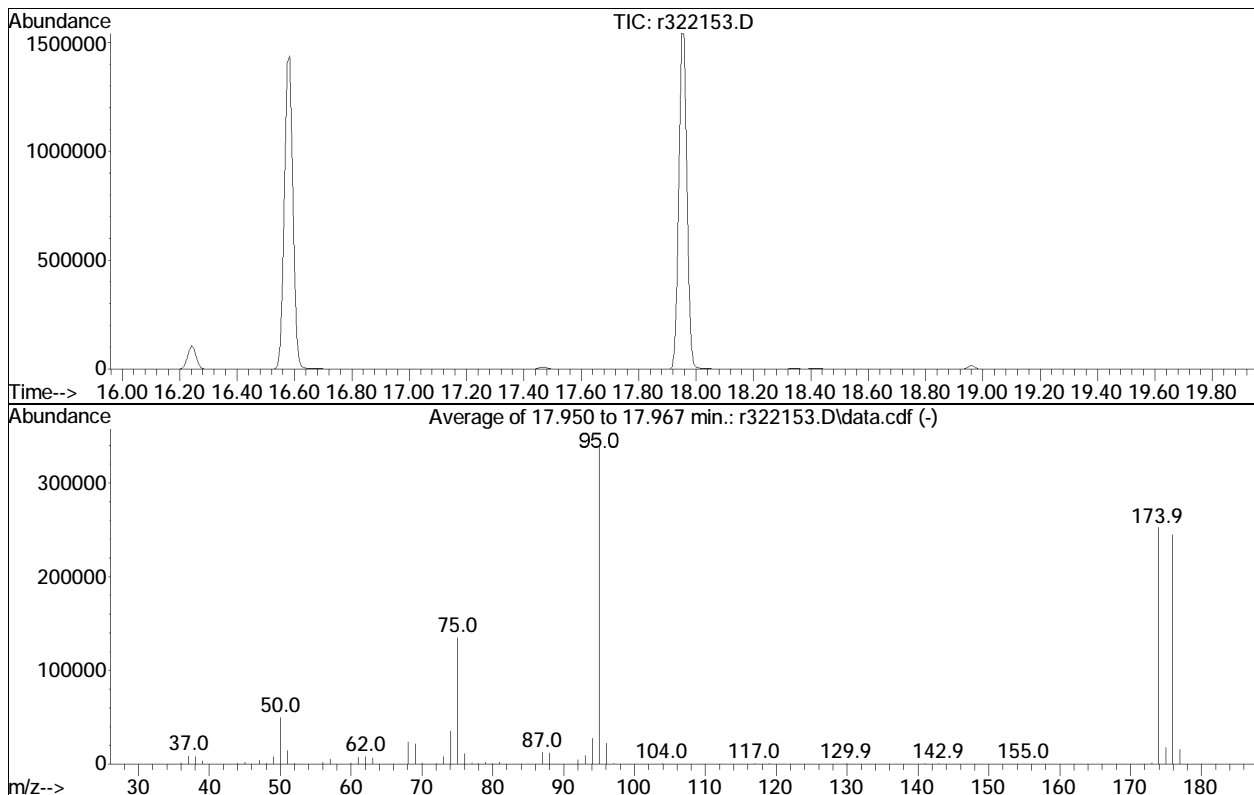
Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
94) n-propylbenzene	1.677	1.968	2.025	1.522	1.541	2.143	2.086	1.885	1.8559	13.20
95) 4-chlorotoluene	1.429	1.685	1.709	1.299	1.315	1.812	1.785	1.660	1.5868	13.07
96) 4-ethyl toluene	5.232	6.042	6.417	4.761	4.780	6.426	5.925	5.104	5.5858	12.49
97) 1,3,5-trimethylbenzene	4.608	5.172	6.050	4.610	4.609	6.076	5.613	4.187	5.1156	14.17
98) tert-butylbenzene	4.956	5.570	5.803	4.303	4.277	5.509	4.654	3.642	4.8394	15.61
99) 1,2,4-trimethylbenzene	4.357	4.970	5.363	4.052	4.026	5.218	4.481	3.382	4.4811	15.03
100) decane	3.510	4.109	4.374	3.241	3.297	4.458	4.191	3.539	3.8400	12.89
101) C Benzyl Chloride	1.190	1.538	2.066	2.035	2.427	3.904	3.856	3.241	2.5323	40.61#
102) 1,3-dichlorobenzene	2.955	3.712	3.990	2.986	2.992	3.902	3.568	2.968	3.3842	13.43
103) C 1,4-dichlorobenzene	3.067	3.634	3.779	2.830	2.862	3.744	3.440	2.967	3.2903	12.23
104) sec-butylbenzene	6.861	7.685	8.024	5.993	5.968	7.759	6.965	5.612	6.8583	13.45
105) 1,2,3-trimethylbenzene	4.222	4.672	4.839	3.567	3.537	4.744	3.998	3.064	4.0804	16.00
106) p-isopropyltoluene	5.803	6.655	6.877	5.197	5.217	6.583	5.383	4.096	5.7265	16.49
107) 1,2-dichlorobenzene	2.910	3.426	3.620	2.696	2.736	3.593	3.366	2.985	3.1666	11.94
108) n-butylbenzene	4.398	5.203	5.553	4.267	4.339	5.828	5.262	4.398	4.9061	12.73
109) indan	4.229	4.875	5.113	3.895	3.920	5.309	4.752	3.942	4.5044	12.79
110) indene	2.858	3.455	3.725	3.046	3.117	4.364	4.033	3.455	3.5065	14.66
111) C 1,2-dibromo-3-chloropropane	0.928	1.184	1.304	1.125	1.170	1.577	1.451	1.232	1.2464	16.05
112) undecane	3.780	4.362	4.736	3.775	3.833	5.079	4.621	3.744	4.2412	12.44
113) 1,2,4,5-tetramethylbenzene	5.459	6.517	6.926	3.520	3.553	5.928	5.276	4.305	5.1855	24.88
114) dodecane	3.859	4.184	4.674	4.049	4.175	4.750	4.465	3.677	4.2290	8.96
115) C 1,2,4-trichlorobenzene	1.940	2.418	2.637	2.248	2.315	3.036	2.866	2.559	2.5022	14.02
116) naphthalene	5.496	6.575	7.291	5.885	5.998	7.571	6.962	5.989	6.4709	11.51
117) 1,2,3-trichlorobenzene	2.141	2.599	2.789	2.292	2.323	2.902	2.775	2.498	2.5398	10.75
118) benzothiophene	1.212	1.581	1.731	0.771	0.786	1.339	1.130	0.851	1.1750	30.91#
119) C hexachlorobutadiene	2.327	2.674	2.815	2.146	2.124	2.581	2.246	1.870	2.3477	13.56
120) 2-methylnaphthalene			1.948	0.805	0.930	2.063	1.869	1.974	1.5980	35.71#
121) 1-methylnaphthalene			4.699	2.179	2.365	3.862	3.257	3.144	3.2509	28.91

(#) = Out of Range

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322153.D  
 Acq On : 16 May 2022 8:39 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1639636-1,3,250,250  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Integration File: rteint.p

Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 Last Update : Tue May 17 15:52:12 2022



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	14.6	49888	PASS
75	95	30	66	39.7	135317	PASS
95	95	100	100	100.0	341023	PASS
96	95	5	9	6.5	22142	PASS
173	174	0.00	2	0.6	1606	PASS
174	95	50	120	74.0	252386	PASS
175	174	4	9	7.1	17843	PASS
176	174	93	101	97.0	244906	PASS
177	176	5	9	6.4	15780	PASS

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322157.D  
 Acq On : 16 May 2022 11:12 PM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-LLSTD0.2  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:25:20 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 08:03:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) bromochloromethane	9.558	49	388888	10.000	ppbV	0.00
Standard Area =	424706		Recovery =	91.57%		
43) 1,4-difluorobenzene	11.840	114	1165742	10.000	ppbV	0.00
Standard Area =	1294364		Recovery =	90.06%		
67) chlorobenzene-D5	16.583	54	182902	10.000	ppbV	0.00
Standard Area =	203329		Recovery =	89.95%		
<b>System Monitoring Compounds</b>						
47) 1,2-dichloroethane-D4	10.450	65	360888	9.866	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	98.66%		
69) toluene-D8	14.683	98	1150741	9.741	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	97.41%		
90) bromofluorobenzene	17.958	95	694712	9.267	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	92.67%		
<b>Target Compounds</b>						
						Qvalue
2) chlorodifluoromethane	3.844	51	5414	0.262	ppbV	95
3) propylene	3.874	41	3726M6	0.346	ppbV	
4) propane	3.898	29	4251	0.300	ppbV	90
5) dichlorodifluoromethane	3.952	85	6945	0.269	ppbV	100
6) chloromethane	4.138	50	3384	0.288	ppbV	98
7) Freon-114	4.264	85	8825	0.264	ppbV	100
8) methanol	4.342	31	18173	1.909	ppbV #	58
9) vinyl chloride	4.396	62	3961	0.255	ppbV	96
10) 1,3-butadiene	4.558	54	3303	0.269	ppbV	95
11) butane	4.624	43	6666	0.318	ppbV	99
12) acetaldehyde	4.282	29	24299	3.780	ppbV	91
13) bromomethane	4.876	94	3397	0.276	ppbV	96
14) chloroethane	5.098	64	1999	0.259	ppbV	99
15) ethanol	5.290	31	21177	1.647	ppbV	96
16) dichlorofluoromethane	5.240	67	6941	0.236	ppbV	97
17) vinyl bromide	5.530	106	2946	0.249	ppbV	97
18) acrolein	5.693	56	4936	0.656	ppbV #	50
19) acetone	5.867	43	30001	1.909	ppbV #	89
20) acetonitrile	5.533	41	4745	0.372	ppbV #	69
21) trichlorofluoromethane	6.053	101	6123	0.262	ppbV	97
22) isopropyl alcohol	6.207	45	11597	0.543	ppbV	100
23) acrylonitrile	6.437	53	3187	0.253	ppbV	99
24) pentane	6.503	43	7164	0.269	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322157.D  
 Acq On : 16 May 2022 11:12 PM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-LLSTD0.2  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:25:20 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 08:03:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	6.560	31	5165	0.239	ppbV	95
26) 1,1-dichloroethene	6.830	61	5084	0.254	ppbV	99
27) tertiary butyl alcohol	6.950	59	4875	0.190	ppbV	95
28) methylene chloride	6.998	49	6504	0.317	ppbV	99
29) 3-chloropropene	7.136	41	4481	0.240	ppbV	96
30) carbon disulfide	7.292	76	11304	0.248	ppbV #	80
31) Freon 113	7.334	101	6541	0.258	ppbV	98
32) trans-1,2-dichloroethene	8.133	61	4968	0.243	ppbV	96
33) 1,1-dichloroethane	8.367	63	6105	0.253	ppbV	99
34) MTBE	8.475	73	9010	0.242	ppbV	98
35) vinyl acetate	8.600	43	6878	0.262	ppbV	97
36) 2-butanone	8.883	43	8682	0.292	ppbV	98
37) cis-1,2-dichloroethene	9.375	61	4354	0.238	ppbV	97
38) Ethyl Acetate	9.700	61	923	0.182	ppbV	82
39) chloroform	9.725	83	6170	0.243	ppbV	98
40) Tetrahydrofuran	10.217	42	4598	0.259	ppbV	98
41) 2,2-dichloropropane	9.742	77	4606	0.223	ppbV #	85
42) 1,2-dichloroethane	10.575	62	4480	0.295	ppbV	97
44) hexane	9.642	57	6879	0.256	ppbV #	67
45) diisopropyl ether	9.658	87	3459	0.235	ppbV	89
46) tert-butyl ethyl ether	10.292	59	10274	0.224	ppbV	98
48) 1,1,1-trichloroethane	10.867	97	4916	0.245	ppbV	98
49) 1,1-dichloropropene	11.240	75	5196	0.239	ppbV	97
50) benzene	11.400	78	16423	0.328	ppbV	99
51) thiophene	11.547	84	7040	0.231	ppbV	98
52) carbon tetrachloride	11.573	117	4390	0.223	ppbV	98
53) cyclohexane	11.720	56	6533	0.241	ppbV	97
54) tert-amyl methyl ether	12.127	73	10430	0.237	ppbV	97
55) dibromomethane	12.327	93	4015	0.284	ppbV	95
56) 1,2-dichloropropane	12.360	63	4138	0.256	ppbV	97
57) bromodichloromethane	12.593	83	6278	0.240	ppbV	97
58) 1,4-dioxane	12.667	88	2514	0.228	ppbV #	75
59) trichloroethene	12.640	130	5356	0.251	ppbV	99
60) 2,2,4-trimethylpentane	12.687	57	21205	0.262	ppbV	98
61) methyl methacrylate	12.907	41	3711	0.214	ppbV #	93
62) heptane	13.007	43	7858	0.262	ppbV	96
63) cis-1,3-dichloropropene	13.658	75	5030	0.209	ppbV	96
64) 4-methyl-2-pentanone	13.725	43	7625	0.210	ppbV	97
65) trans-1,3-dichloropropene	14.283	75	4129	0.185	ppbV	97
66) 1,1,2-trichloroethane	14.483	97	4224	0.242	ppbV	97



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322157.D  
 Acq On : 16 May 2022 11:12 PM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-LLSTD0.2  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:25:20 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 08:03:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	14.792	91	14448	0.265	ppbV	99
70) 2-methylthiophene	14.858	97	10527	0.235	ppbV	92
71) 1,3-dichloropropane	14.825	76	7219	0.251	ppbV	100
72) 2-hexanone	15.108	43	6714	0.192	ppbV	95
73) 3-methylthiophene	15.058	97	10534	0.230	ppbV	98
74) dibromochloromethane	15.242	129	5977	0.226	ppbV	97
75) 1,2-dibromoethane	15.492	107	6464	0.237	ppbV	97
76) butyl acetate	15.758	73	1268	0.143	ppbV	90
77) octane	15.833	85	5787	0.240	ppbV	96
78) tetrachloroethene	15.958	166	6697	0.247	ppbV	98
79) 1,1,1,2-tetrachloroethane	16.608	131	4592	0.221	ppbV	96
80) chlorobenzene	16.617	112	12326	0.256	ppbV	99
81) ethylbenzene	16.975	91	16346	0.243	ppbV	98
82) 2-ethylthiophene	17.008	97	11979	0.226	ppbV	96
83) m+p-xylene	17.133	91	26559	0.471	ppbV	99
84) bromoform	17.208	173	4931	0.194	ppbV	96
85) styrene	17.467	104	10891	0.216	ppbV	99
86) 1,1,2,2-tetrachloroethane	17.558	83	9526	0.221	ppbV	98
87) o-xylene	17.558	91	13326	0.233	ppbV	100
88) 1,2,3-trichloropropane	17.675	75	8116	0.233	ppbV	97
89) nonane	17.750	43	11477	0.245	ppbV	95
91) isopropylbenzene	18.067	105	20324	0.246	ppbV	99
92) bromobenzene	18.150	77	11164	0.241	ppbV	99
93) 2-chlorotoluene	18.475	126	5461	0.227	ppbV	98
94) n-propylbenzene	18.500	120	6136	0.218	ppbV	97
95) 4-chlorotoluene	18.533	126	5227	0.217	ppbV	95
96) 4-ethyl toluene	18.617	105	19139	0.219	ppbV	99
97) 1,3,5-trimethylbenzene	18.683	105	16855	0.200	ppbV	98
98) tert-butylbenzene	19.008	119	18129	0.232	ppbV	99
99) 1,2,4-trimethylbenzene	19.008	105	15939	0.216	ppbV	96
100) decane	19.083	57	12838	0.213	ppbV	98
101) Benzyl Chloride	19.125	91	4353	0.098	ppbV	99
102) 1,3-dichlorobenzene	19.142	146	10808	0.197	ppbV	99
103) 1,4-dichlorobenzene	19.192	146	11221	0.214	ppbV	97
104) sec-butylbenzene	19.225	105	25096	0.230	ppbV	98
105) 1,2,3-trimethylbenzene	19.350	105	15443	0.239	ppbV	94
106) p-isopropyltoluene	19.350	119	21229	0.222	ppbV	99
107) 1,2-dichlorobenzene	19.467	146	10645	0.213	ppbV	98
108) n-butylbenzene	19.683	91	16089	0.203	ppbV	99
109) indan	19.517	117	15469	0.216	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322157.D  
 Acq On : 16 May 2022 11:12 PM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-LLSTD0.2  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:25:20 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 08:03:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default - All compounds listed

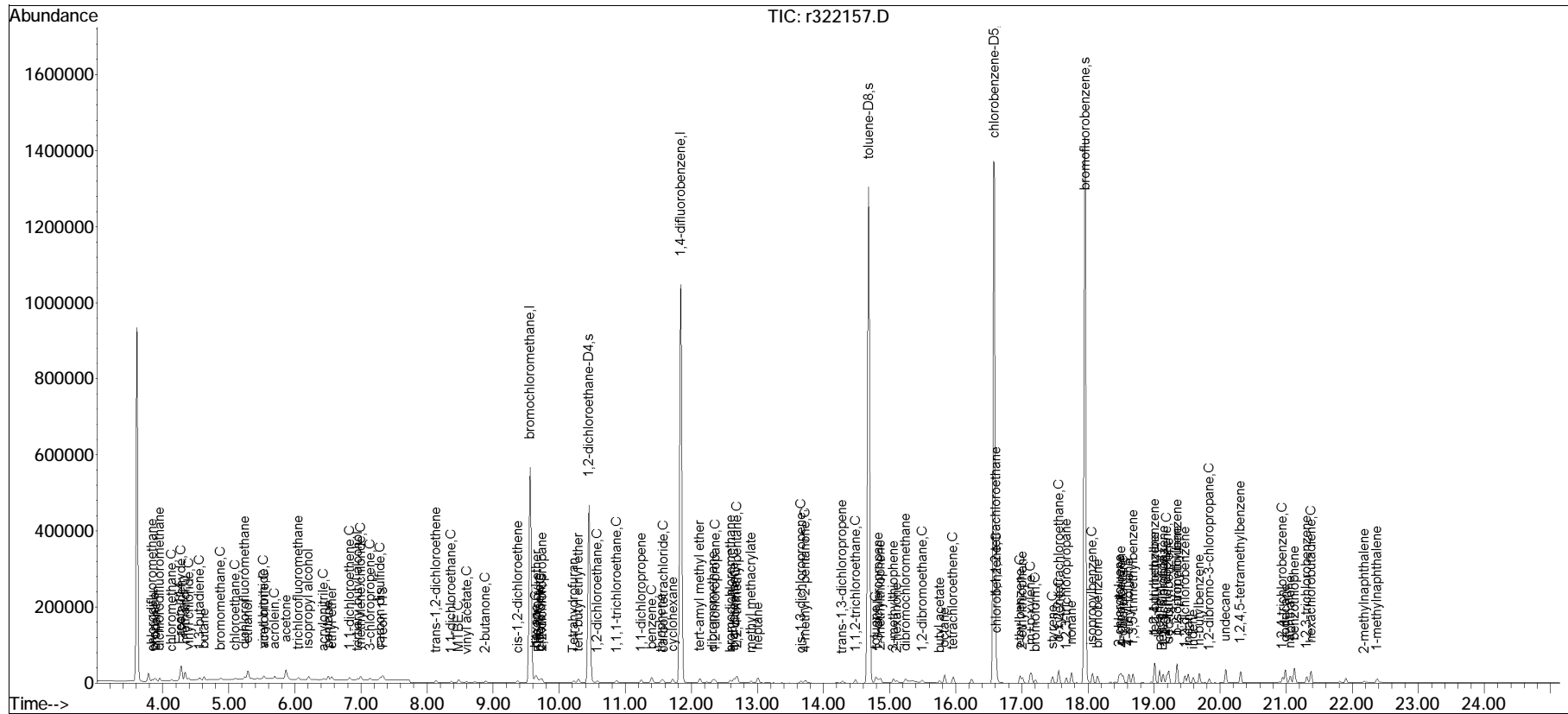
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	19.592	115	10454	0.183	ppbV	99
111) 1,2-dibromo-3-chloropr...	19.833	75	3396	0.159	ppbV #	87
112) undecane	20.083	57	13828	0.197	ppbV	97
113) 1,2,4,5-tetramethylben...	20.308	119	19971	0.307	ppbV	100
114) dodecane	20.992	57	14115	0.185	ppbV	92
115) 1,2,4-trichlorobenzene	20.942	180	7096	0.168	ppbV	96
116) naphthalene	21.058	128	20104	0.183	ppbV	99
117) 1,2,3-trichlorobenzene	21.308	180	7832	0.184	ppbV	99
118) benzothiophene	21.125	134	44324	0.308	ppbV	100
119) hexachlorobutadiene	21.375	225	8513	0.219	ppbV	99
120) 2-methylnaphthalene	22.183	142	3565	0.210	ppbV	96
121) 1-methylnaphthalene	22.375	142	9796	0.226	ppbV	98

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

Sub List : Default - All compounds listed22\05\0516T\_I\r322161.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
Data File : r322157.D  
Acq On : 16 May 2022 11:12 PM  
Operator : AIRPIANO3:TS  
Sample : ITO15-LLSTD0.2  
Misc : WG1639636  
ALS Vial : 0 Sample Multiplier: 1

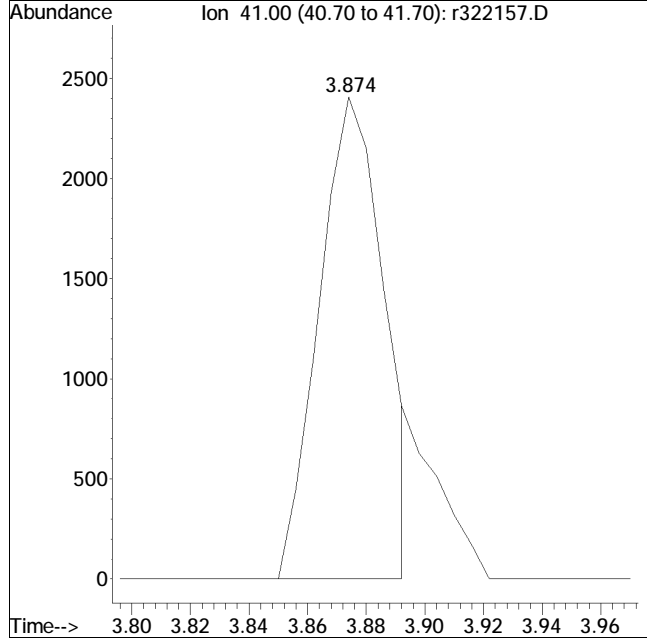
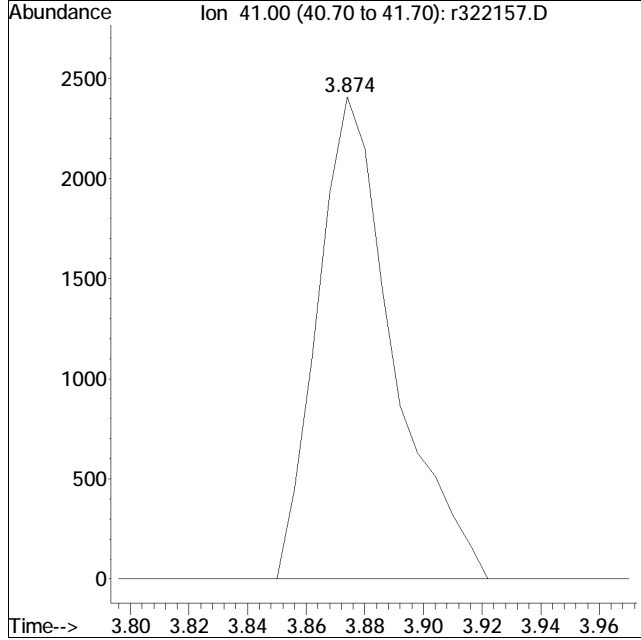
Quant Time: May 17 15:25:20 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 08:03:54 2022  
Response via : Initial Calibration



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322157.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/16/2020 0:1: 2 Instrument :  
Sample : ITO15-LLSTD0.2 Quant Date : 5/17/2022 8:05 am

Compound #3: propylene



Original Peak Response = 4312

Manual Peak Response = 3726 M6

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322158.D  
 Acq On : 16 May 2022 11:53 PM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-LLSTD0.5  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:34:11 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 08:03:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) bromochloromethane	9.558	49	394274	10.000	ppbV	0.00
Standard Area =	424706		Recovery =	92.83%		
43) 1,4-difluorobenzene	11.840	114	1182852	10.000	ppbV	0.00
Standard Area =	1294364		Recovery =	91.38%		
67) chlorobenzene-D5	16.583	54	186418	10.000	ppbV	0.00
Standard Area =	203329		Recovery =	91.68%		
<b>System Monitoring Compounds</b>						
47) 1,2-dichloroethane-D4	10.450	65	366057	9.863	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	98.63%		
69) toluene-D8	14.683	98	1176140	9.769	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	97.69%		
90) bromofluorobenzene	17.958	95	733933	9.606	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	96.06%		
<b>Target Compounds</b>						
						Qvalue
2) chlorodifluoromethane	3.844	51	14153	0.675	ppbV	99
3) propylene	3.874	41	9528M6	0.872	ppbV	
4) propane	3.898	29	10652	0.741	ppbV	97
5) dichlorodifluoromethane	3.952	85	18415	0.703	ppbV	98
6) chloromethane	4.138	50	8913	0.749	ppbV	98
7) Freon-114	4.264	85	23527	0.695	ppbV	97
8) methanol	4.336	31	45387	4.703	ppbV #	82
9) vinyl chloride	4.396	62	10541	0.669	ppbV	100
10) 1,3-butadiene	4.564	54	8627	0.692	ppbV	99
11) butane	4.624	43	17199	0.808	ppbV	99
12) acetaldehyde	4.282	29	58607	8.992	ppbV	94
13) bromomethane	4.876	94	8348	0.669	ppbV	98
14) chloroethane	5.098	64	5375	0.687	ppbV	98
15) ethanol	5.283	31	54014	4.145	ppbV	100
16) dichlorofluoromethane	5.243	67	17626	0.592	ppbV	98
17) vinyl bromide	5.530	106	8178	0.682	ppbV	98
18) acrolein	5.693	56	12311	1.613	ppbV #	81
19) acetone	5.860	43	68866	4.323	ppbV #	97
20) acetonitrile	5.530	41	11652	0.900	ppbV	88
21) trichlorofluoromethane	6.050	101	16051	0.676	ppbV	97
22) isopropyl alcohol	6.200	45	32367	1.493	ppbV	99
23) acrylonitrile	6.433	53	8591	0.673	ppbV	99
24) pentane	6.507	43	19088	0.707	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322158.D  
 Acq On : 16 May 2022 11:53 PM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-LLSTD0.5  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:34:11 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 08:03:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	6.553	31	13754	0.628	ppbV	98
26) 1,1-dichloroethene	6.830	61	13092	0.644	ppbV	99
27) tertiary butyl alcohol	6.938	59	13934	0.535	ppbV	95
28) methylene chloride	6.998	49	16436	0.791	ppbV	99
29) 3-chloropropene	7.142	41	12263	0.647	ppbV	98
30) carbon disulfide	7.292	76	30620	0.664	ppbV #	93
31) Freon 113	7.334	101	17403	0.677	ppbV	96
32) trans-1,2-dichloroethene	8.133	61	13269	0.641	ppbV	99
33) 1,1-dichloroethane	8.367	63	15926	0.650	ppbV	96
34) MTBE	8.467	73	23847	0.633	ppbV	97
35) vinyl acetate	8.600	43	18269	0.686	ppbV	99
36) 2-butanone	8.875	43	23640	0.785	ppbV	99
37) cis-1,2-dichloroethene	9.375	61	11870	0.639	ppbV	98
38) Ethyl Acetate	9.692	61	2882	0.560	ppbV	94
39) chloroform	9.725	83	16652	0.648	ppbV	99
40) Tetrahydrofuran	10.208	42	11779M6	0.654	ppbV	
41) 2,2-dichloropropane	9.742	77	12189	0.581	ppbV #	86
42) 1,2-dichloroethane	10.575	62	10774	0.700	ppbV	98
44) hexane	9.642	57	18017	0.662	ppbV	81
45) diisopropyl ether	9.650	87	9634	0.646	ppbV	98
46) tert-butyl ethyl ether	10.283	59	28246	0.607	ppbV	98
48) 1,1,1-trichloroethane	10.867	97	13480	0.663	ppbV	100
49) 1,1-dichloropropene	11.240	75	13907	0.629	ppbV	96
50) benzene	11.400	78	41403	0.815	ppbV	100
51) thiophene	11.547	84	18888	0.612	ppbV	98
52) carbon tetrachloride	11.573	117	12123	0.607	ppbV	98
53) cyclohexane	11.720	56	17815	0.649	ppbV	97
54) tert-amyl methyl ether	12.120	73	27628	0.620	ppbV	97
55) dibromomethane	12.327	93	9845	0.687	ppbV	98
56) 1,2-dichloropropane	12.360	63	10770	0.657	ppbV	97
57) bromodichloromethane	12.593	83	16961	0.638	ppbV	100
58) 1,4-dioxane	12.660	88	6985	0.625	ppbV	89
59) trichloroethene	12.640	130	14147	0.655	ppbV	100
60) 2,2,4-trimethylpentane	12.687	57	55541	0.677	ppbV	98
61) methyl methacrylate	12.900	41	10558	0.601	ppbV	96
62) heptane	13.007	43	20992	0.689	ppbV	99
63) cis-1,3-dichloropropene	13.658	75	14764	0.604	ppbV	98
64) 4-methyl-2-pentanone	13.717	43	21723	0.591	ppbV	99
65) trans-1,3-dichloropropene	14.283	75	12052	0.531	ppbV	98
66) 1,1,2-trichloroethane	14.483	97	11874	0.669	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322158.D  
 Acq On : 16 May 2022 11:53 PM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-LLSTD0.5  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:34:11 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 08:03:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	14.792	91	37788	0.679	ppbV	98
70) 2-methylthiophene	14.867	97	28280	0.620	ppbV	97
71) 1,3-dichloropropane	14.825	76	19658	0.669	ppbV	99
72) 2-hexanone	15.092	43	21955M6	0.617	ppbV	
73) 3-methylthiophene	15.058	97	29251	0.628	ppbV	99
74) dibromochloromethane	15.242	129	15987	0.593	ppbV	99
75) 1,2-dibromoethane	15.492	107	17443	0.627	ppbV	98
76) butyl acetate	15.750	73	4235	0.468	ppbV	92
77) octane	15.833	85	15345	0.623	ppbV	92
78) tetrachloroethene	15.958	166	18580	0.671	ppbV	99
79) 1,1,1,2-tetrachloroethane	16.608	131	12833	0.605	ppbV	99
80) chlorobenzene	16.625	112	33142	0.674	ppbV	100
81) ethylbenzene	16.975	91	44675	0.652	ppbV	99
82) 2-ethylthiophene	17.017	97	33389	0.619	ppbV	96
83) m+p-xylene	17.133	91	74219	1.292	ppbV	100
84) bromoform	17.208	173	14525	0.560	ppbV	99
85) styrene	17.467	104	31369	0.611	ppbV	99
86) 1,1,2,2-tetrachloroethane	17.558	83	27331	0.623	ppbV	100
87) o-xylene	17.558	91	38020	0.652	ppbV	100
88) 1,2,3-trichloropropane	17.675	75	22495	0.634	ppbV	97
89) nonane	17.750	43	31939	0.670	ppbV	96
91) isopropylbenzene	18.067	105	56878	0.676	ppbV	99
92) bromobenzene	18.150	77	30666	0.649	ppbV	100
93) 2-chlorotoluene	18.475	126	15363	0.627	ppbV	98
94) n-propylbenzene	18.500	120	18342	0.638	ppbV	98
95) 4-chlorotoluene	18.533	126	15708	0.641	ppbV	100
96) 4-ethyl toluene	18.617	105	56317	0.632	ppbV	98
97) 1,3,5-trimethylbenzene	18.683	105	48205	0.561	ppbV	99
98) tert-butylbenzene	19.008	119	51919	0.651	ppbV	100
99) 1,2,4-trimethylbenzene	19.008	105	46323	0.617	ppbV	97
100) decane	19.083	57	38299	0.623	ppbV	96
101) Benzyl Chloride	19.125	91	14335	0.317	ppbV	99
102) 1,3-dichlorobenzene	19.142	146	34602	0.620	ppbV	99
103) 1,4-dichlorobenzene	19.192	146	33868	0.635	ppbV	99
104) sec-butylbenzene	19.225	105	71628	0.644	ppbV	100
105) 1,2,3-trimethylbenzene	19.350	105	43547	0.660	ppbV	97
106) p-isopropyltoluene	19.350	119	62026	0.638	ppbV	100
107) 1,2-dichlorobenzene	19.467	146	31937	0.626	ppbV	98
108) n-butylbenzene	19.683	91	48498	0.600	ppbV	99
109) indan	19.517	117	45438	0.622	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322158.D  
 Acq On : 16 May 2022 11:53 PM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-LLSTD0.5  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:34:11 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 08:03:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	19.592	115	32204	0.554	ppbV	98
111) 1,2-dibromo-3-chloropr...	19.833	75	11032	0.506	ppbV #	90
112) undecane	20.083	57	40654	0.569	ppbV	98
113) 1,2,4,5-tetramethylben...	20.308	119	60741	0.917	ppbV	99
114) dodecane	20.992	57	38995	0.501	ppbV	94
115) 1,2,4-trichlorobenzene	20.942	180	22534	0.522	ppbV	99
116) naphthalene	21.058	128	61284	0.548	ppbV	100
117) 1,2,3-trichlorobenzene	21.308	180	24223	0.559	ppbV	99
118) benzothiophene	21.125	134	147338	1.005	ppbV	99
119) hexachlorobutadiene	21.375	225	24922	0.630	ppbV	98
120) 2-methylnaphthalene	22.175	142	14541	0.839	ppbV	97
121) 1-methylnaphthalene	22.375	142	36553	0.829	ppbV	99

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

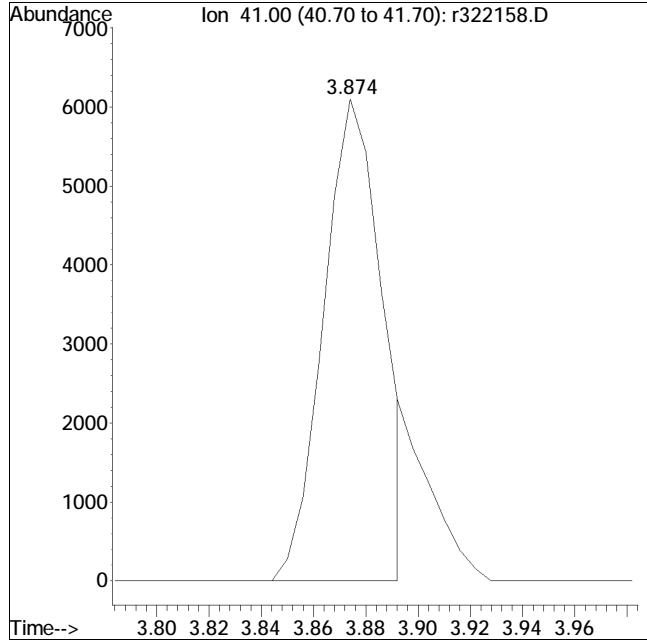
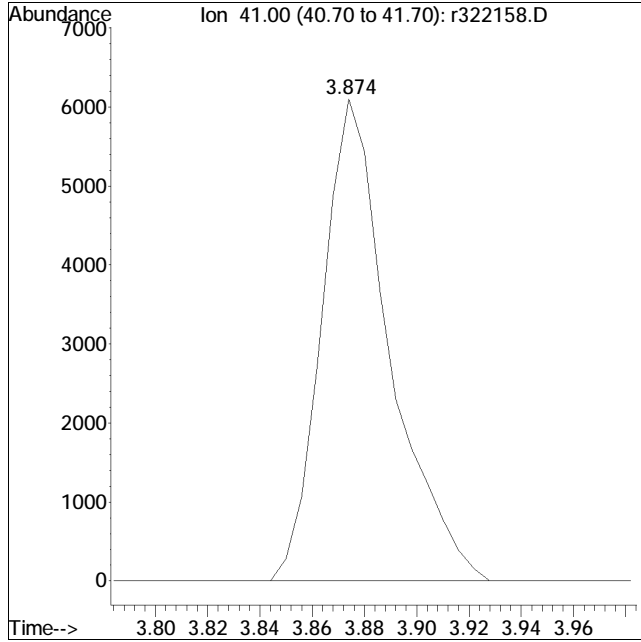




Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322158.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/16/2020 0:1: 3 Instrument :  
Sample : ITO15-LLSTD0.5 Quant Date : 5/17/2022 8:05 am

Compound #3: propylene



Original Peak Response = 11056

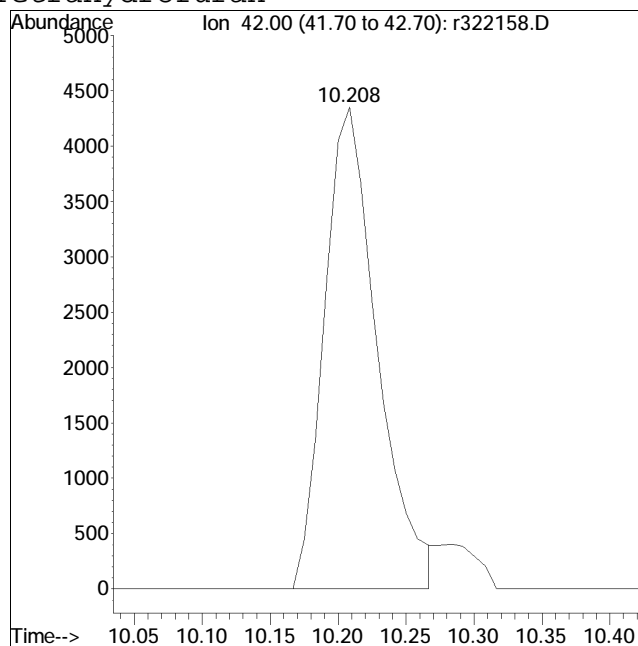
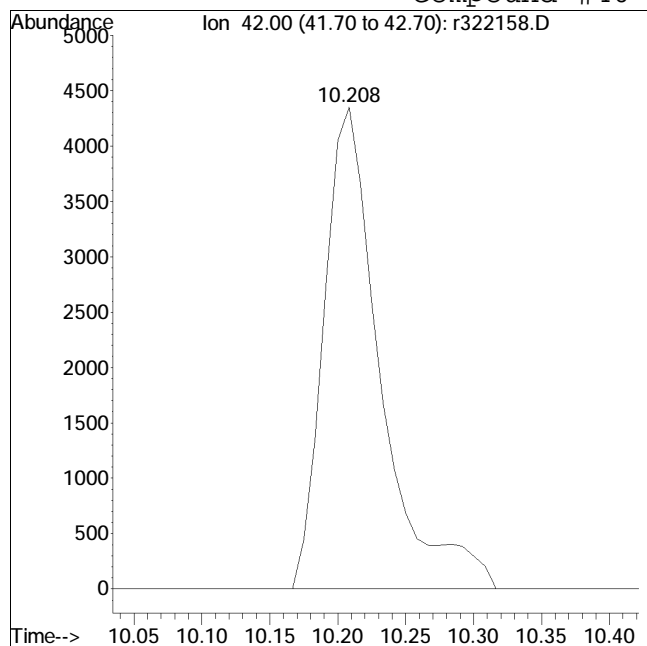
Manual Peak Response = 9528 M6

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

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322158.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/16/2020 0:1: 3 Instrument :  
Sample : ITO15-LLSTD0.5 Quant Date : 5/17/2022 8:05 am

Compound #40: Tetrahydrofuran



Original Peak Response = 12624

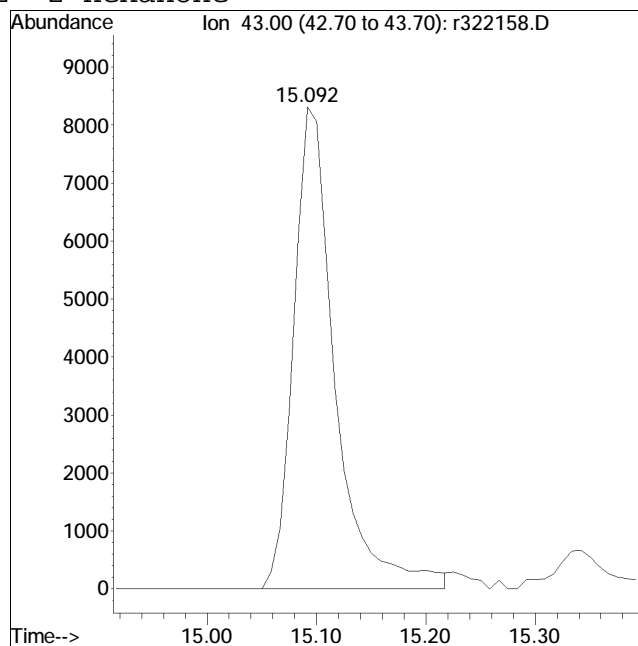
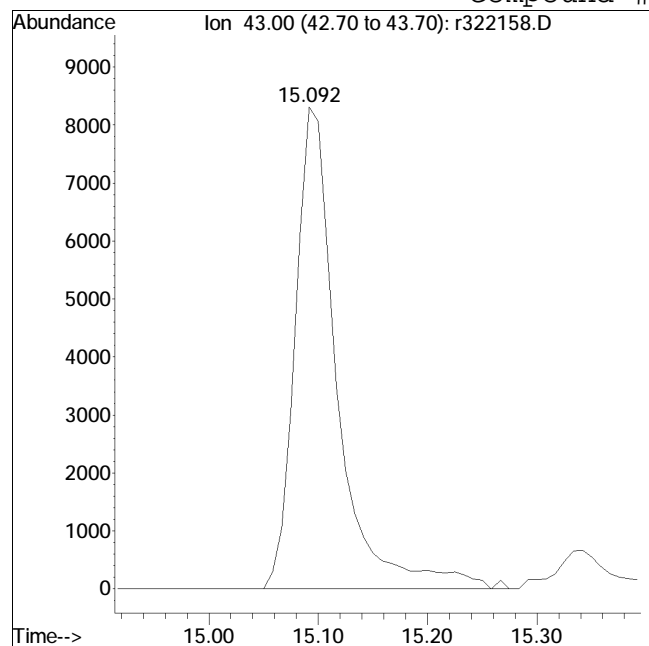
Manual Peak Response = 11779 M6

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

# Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322158.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/16/2020 0:1: 3 Instrument :  
Sample : ITO15-LLSTD0.5 Quant Date : 5/17/2022 8:05 am

## Compound #72: 2-hexanone



Original Peak Response = 22462

Manual Peak Response = 21955 M6

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322159.D  
 Acq On : 17 May 2022 12:37 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-LLSTD1.0  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:37:45 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 08:03:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) bromochloromethane	9.558	49	402187	10.000	ppbV	0.00
Standard Area =	424706		Recovery =	94.70%		
43) 1,4-difluorobenzene	11.840	114	1219735	10.000	ppbV	0.00
Standard Area =	1294364		Recovery =	94.23%		
67) chlorobenzene-D5	16.583	54	192503	10.000	ppbV	0.00
Standard Area =	203329		Recovery =	94.68%		
<b>System Monitoring Compounds</b>						
47) 1,2-dichloroethane-D4	10.450	65	379880	9.926	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	99.26%		
69) toluene-D8	14.683	98	1235474	9.937	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	99.37%		
90) bromofluorobenzene	17.958	95	759443	9.626	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	96.26%		
<b>Target Compounds</b>						
						Qvalue
2) chlorodifluoromethane	3.844	51	29082	1.359	ppbV	99
3) propylene	3.874	41	19164M6	1.720	ppbV	
4) propane	3.898	29	21738	1.483	ppbV	98
5) dichlorodifluoromethane	3.952	85	37298	1.396	ppbV	99
6) chloromethane	4.138	50	17975	1.482	ppbV	99
7) Freon-114	4.264	85	47728	1.383	ppbV	99
8) methanol	4.336	31	91131	9.258	ppbV	92
9) vinyl chloride	4.396	62	21694	1.350	ppbV	99
10) 1,3-butadiene	4.564	54	17872	1.405	ppbV	98
11) butane	4.624	43	34869	1.607	ppbV	99
12) acetaldehyde	4.282	29	117311	17.644	ppbV	97
13) bromomethane	4.876	94	17651	1.387	ppbV	100
14) chloroethane	5.098	64	11088	1.388	ppbV	98
15) ethanol	5.280	31	109628	8.246	ppbV	99
16) dichlorofluoromethane	5.240	67	36652	1.206	ppbV	99
17) vinyl bromide	5.530	106	16526	1.351	ppbV	96
18) acrolein	5.690	56	25403	3.262	ppbV #	93
19) acetone	5.853	43	138875	8.545	ppbV	98
20) acetonitrile	5.530	41	24271	1.838	ppbV	96
21) trichlorofluoromethane	6.053	101	31695	1.309	ppbV	97
22) isopropyl alcohol	6.190	45	72373	3.274	ppbV	99
23) acrylonitrile	6.430	53	17964	1.379	ppbV	99
24) pentane	6.503	43	39374M6	1.430	ppbV	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322159.D  
 Acq On : 17 May 2022 12:37 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-LLSTD1.0  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:37:45 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 08:03:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	6.550	31	28681	1.284	ppbV	98
26) 1,1-dichloroethene	6.830	61	26993	1.302	ppbV	99
27) tertiary butyl alcohol	6.926	59	30407M6	1.145	ppbV	
28) methylene chloride	6.998	49	33762	1.593	ppbV	99
29) 3-chloropropene	7.136	41	25427	1.315	ppbV	99
30) carbon disulfide	7.292	76	63201	1.343	ppbV	96
31) Freon 113	7.328	101	35618	1.358	ppbV	98
32) trans-1,2-dichloroethene	8.133	61	27944	1.324	ppbV	100
33) 1,1-dichloroethane	8.367	63	33318	1.333	ppbV	98
34) MTBE	8.467	73	50794	1.321	ppbV	99
35) vinyl acetate	8.592	43	36035	1.327	ppbV	99
36) 2-butanone	8.867	43	49819	1.622	ppbV	100
37) cis-1,2-dichloroethene	9.367	61	24680	1.302	ppbV	99
38) Ethyl Acetate	9.683	61	6579	1.253	ppbV	100
39) chloroform	9.725	83	34422	1.313	ppbV	99
40) Tetrahydrofuran	10.192	42	24837	1.352	ppbV	99
41) 2,2-dichloropropane	9.742	77	25799	1.206	ppbV #	87
42) 1,2-dichloroethane	10.575	62	21427	1.365	ppbV	99
44) hexane	9.642	57	38178	1.360	ppbV	88
45) diisopropyl ether	9.650	87	19983	1.299	ppbV	98
46) tert-butyl ethyl ether	10.283	59	59768	1.245	ppbV	99
48) 1,1,1-trichloroethane	10.867	97	27850	1.329	ppbV	100
49) 1,1-dichloropropene	11.240	75	29668	1.302	ppbV	98
50) benzene	11.400	78	83982	1.604	ppbV	100
51) thiophene	11.547	84	40000	1.256	ppbV	97
52) carbon tetrachloride	11.573	117	25988	1.261	ppbV	98
53) cyclohexane	11.720	56	38278	1.351	ppbV	99
54) tert-amyl methyl ether	12.113	73	59407	1.292	ppbV	98
55) dibromomethane	12.327	93	20087	1.360	ppbV	98
56) 1,2-dichloropropane	12.360	63	22178	1.312	ppbV	99
57) bromodichloromethane	12.587	83	35540	1.296	ppbV	100
58) 1,4-dioxane	12.647	88	14750	1.281	ppbV	96
59) trichloroethene	12.640	130	28758	1.290	ppbV	97
60) 2,2,4-trimethylpentane	12.687	57	115304	1.363	ppbV	98
61) methyl methacrylate	12.900	41	23406	1.293	ppbV	99
62) heptane	13.007	43	44386	1.414	ppbV	98
63) cis-1,3-dichloropropene	13.658	75	30610	1.214	ppbV	98
64) 4-methyl-2-pentanone	13.708	43	47601	1.256	ppbV	97
65) trans-1,3-dichloropropene	14.283	75	26912	1.150	ppbV	99
66) 1,1,2-trichloroethane	14.483	97	24316	1.330	ppbV	97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322159.D  
 Acq On : 17 May 2022 12:37 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-LLSTD1.0  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:37:45 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 08:03:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	14.792	91	79685	1.387	ppbV	99
70) 2-methylthiophene	14.858	97	60775	1.291	ppbV	100
71) 1,3-dichloropropane	14.825	76	40238	1.327	ppbV	96
72) 2-hexanone	15.092	43	47259	1.285	ppbV	94
73) 3-methylthiophene	15.058	97	62269	1.294	ppbV	99
74) dibromochloromethane	15.242	129	34888	1.252	ppbV	99
75) 1,2-dibromoethane	15.492	107	37617	1.308	ppbV	99
76) butyl acetate	15.742	73	10214	1.093	ppbV	98
77) octane	15.833	85	33320	1.310	ppbV	95
78) tetrachloroethene	15.958	166	38450	1.345	ppbV	99
79) 1,1,1,2-tetrachloroethane	16.608	131	27836	1.272	ppbV	99
80) chlorobenzene	16.625	112	68629	1.353	ppbV	99
81) ethylbenzene	16.975	91	94287	1.332	ppbV	100
82) 2-ethylthiophene	17.008	97	72295	1.298	ppbV	98
83) m+p-xylene	17.133	91	158548	2.672	ppbV	99
84) bromoform	17.208	173	32502	1.214	ppbV	98
85) styrene	17.467	104	68635	1.294	ppbV	99
86) 1,1,2,2-tetrachloroethane	17.558	83	59090	1.304	ppbV	99
87) o-xylene	17.558	91	82022	1.361	ppbV	98
88) 1,2,3-trichloropropane	17.675	75	49117	1.340	ppbV	98
89) nonane	17.750	43	67637	1.374	ppbV	97
91) isopropylbenzene	18.067	105	119136	1.372	ppbV	99
92) bromobenzene	18.150	77	65385	1.340	ppbV	98
93) 2-chlorotoluene	18.475	126	33594	1.327	ppbV	99
94) n-propylbenzene	18.500	120	38988	1.314	ppbV	94
95) 4-chlorotoluene	18.533	126	32903	1.299	ppbV	96
96) 4-ethyl toluene	18.617	105	123521	1.342	ppbV	99
97) 1,3,5-trimethylbenzene	18.683	105	116468	1.313	ppbV	98
98) tert-butylbenzene	19.008	119	111714	1.357	ppbV	99
99) 1,2,4-trimethylbenzene	19.008	105	103232	1.332	ppbV	98
100) decane	19.083	57	84204	1.327	ppbV	98
101) Benzyl Chloride	19.125	91	39770	0.851	ppbV	99
102) 1,3-dichlorobenzene	19.133	146	76816	1.333	ppbV	97
103) 1,4-dichlorobenzene	19.192	146	72743	1.320	ppbV	99
104) sec-butylbenzene	19.225	105	154469	1.344	ppbV	99
105) 1,2,3-trimethylbenzene	19.350	105	93146	1.368	ppbV	98
106) p-isopropyltoluene	19.342	119	132393M6	1.318	ppbV	
107) 1,2-dichlorobenzene	19.467	146	69682	1.323	ppbV	99
108) n-butylbenzene	19.683	91	106897	1.280	ppbV	99
109) indan	19.517	117	98436	1.304	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322159.D  
 Acq On : 17 May 2022 12:37 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-LLSTD1.0  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:37:45 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 08:03:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	19.592	115	71710	1.195	ppbV	100
111) 1,2-dibromo-3-chloropr...	19.833	75	25099	1.114	ppbV	95
112) undecane	20.083	57	91160	1.235	ppbV	98
113) 1,2,4,5-tetramethylben...	20.308	119	133337	1.949	ppbV	99
114) dodecane	20.983	57	89979	1.120	ppbV	96
115) 1,2,4-trichlorobenzene	20.942	180	50754	1.139	ppbV	100
116) naphthalene	21.058	128	140361	1.216	ppbV	100
117) 1,2,3-trichlorobenzene	21.308	180	53693	1.201	ppbV	99
118) benzothiophene	21.117	134	333263	2.202	ppbV	99
119) hexachlorobutadiene	21.375	225	54189	1.326	ppbV	98
120) 2-methylnaphthalene	22.175	142	37496	2.095	ppbV	99
121) 1-methylnaphthalene	22.375	142	90458	1.987	ppbV	99

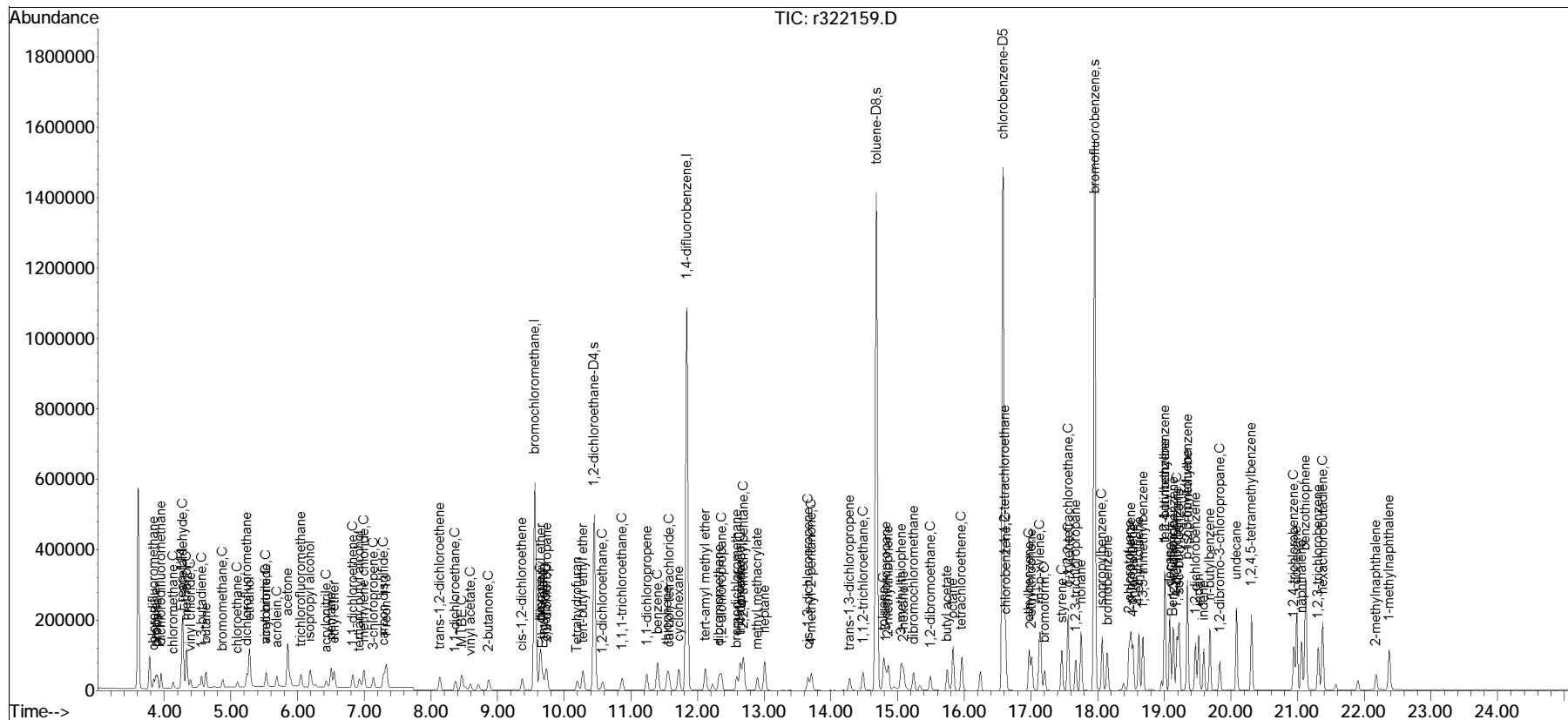
(#) = qualifier out of range (m) = manual integration (+) = signals summed



Sub List : Default - All compounds listed22\05\0516T\_I\r322161.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
Data File : r322159.D  
Acq On : 17 May 2022 12:37 AM  
Operator : AIRPIANO3:TS  
Sample : ITO15-LLSTD1.0  
Misc : WG1639636  
ALS Vial : 0 Sample Multiplier: 1

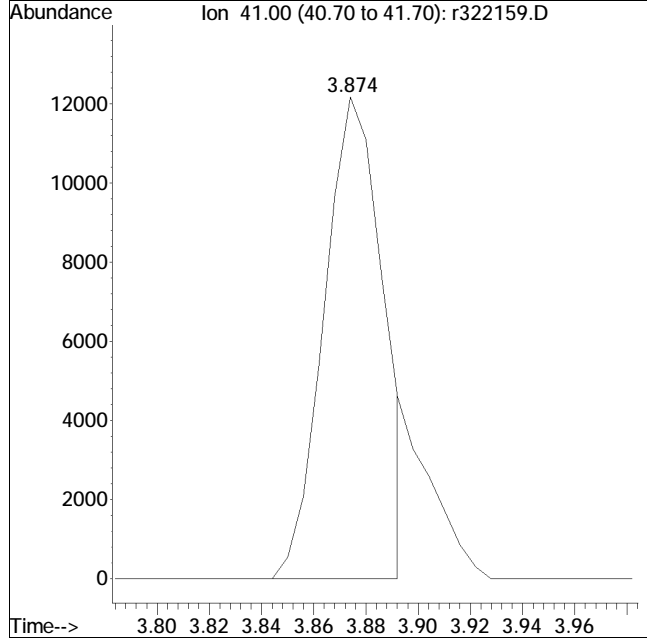
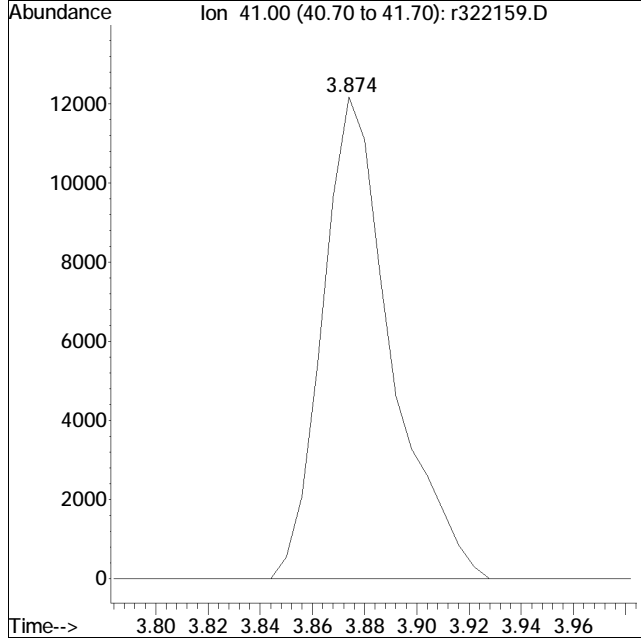
Quant Time: May 17 15:37:45 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 08:03:54 2022  
Response via : Initial Calibration



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322159.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/17/2020 0:2: 7 Instrument :  
Sample : ITO15-LLSTD1.0 Quant Date : 5/17/2022 8:06 am

Compound #3: propylene



Original Peak Response = 22327

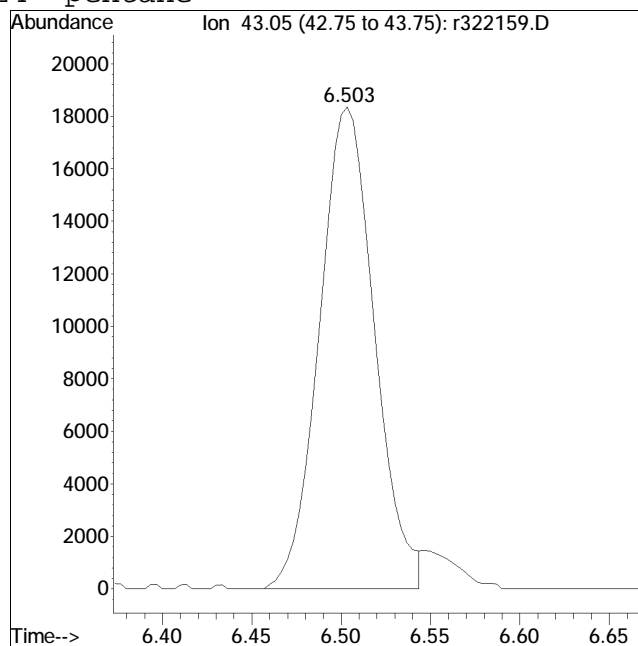
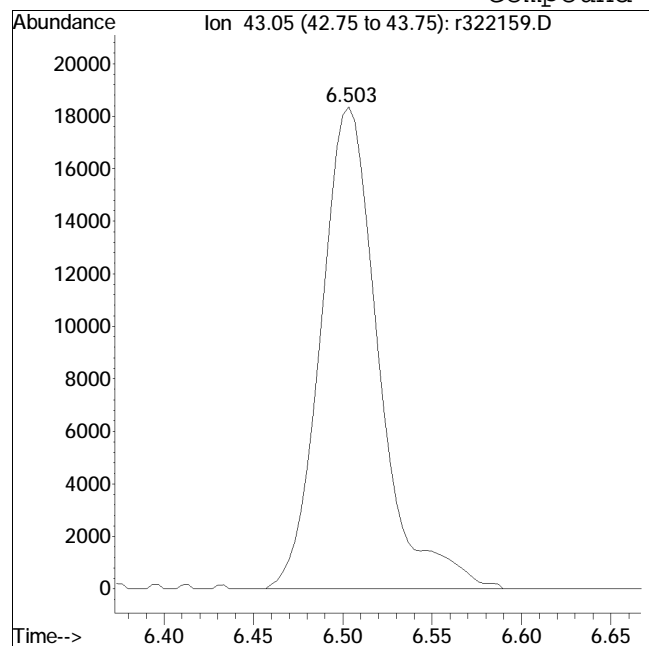
Manual Peak Response = 19164 M6

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

# Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322159.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/17/2020 0:2: 7 Instrument :  
Sample : ITO15-LLSTD1.0 Quant Date : 5/17/2022 8:06 am

## Compound #24: pentane



Original Peak Response = 41415

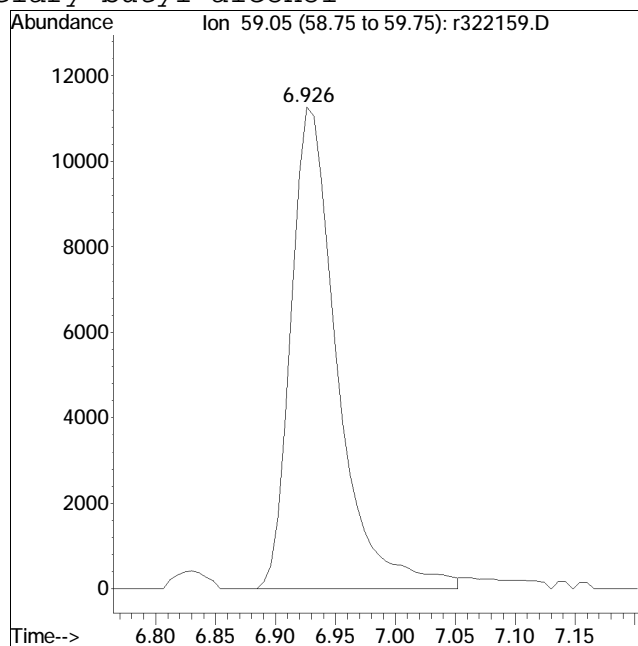
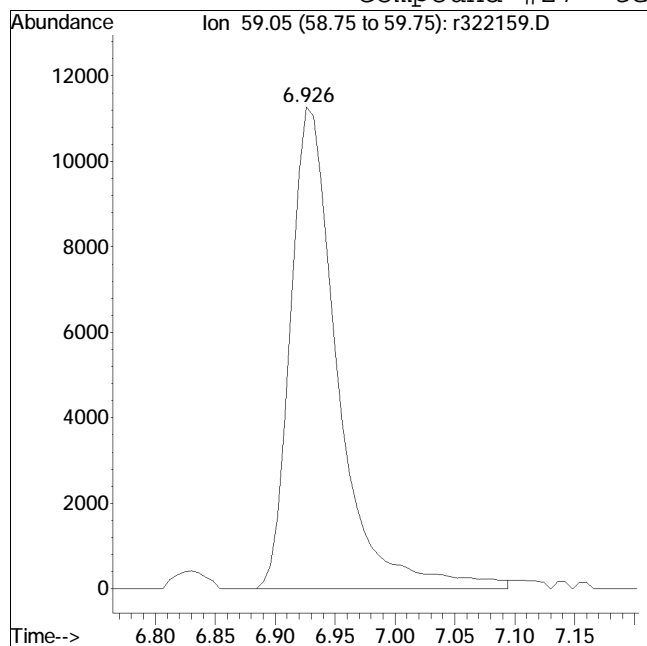
Manual Peak Response = 39374 M6

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

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322159.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/17/2020 0:2: 7 Instrument :  
Sample : ITO15-LLSTD1.0 Quant Date : 5/17/2022 8:06 am

Compound #27: tertiary butyl alcohol



Original Peak Response = 30989

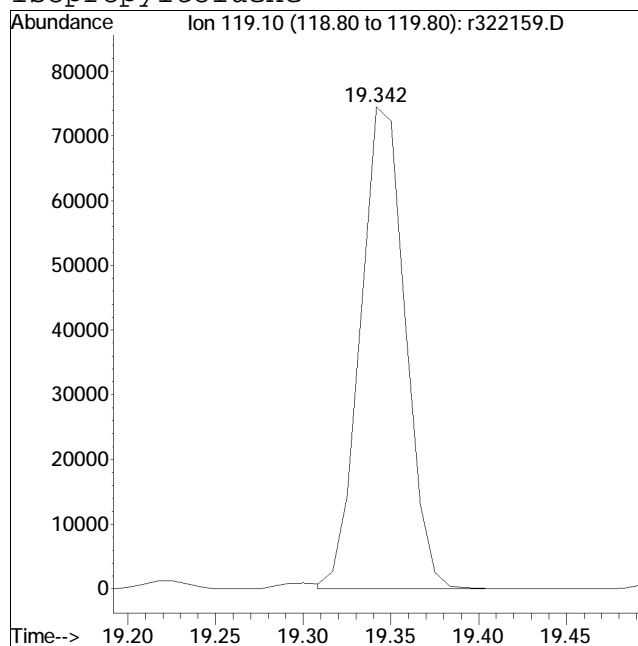
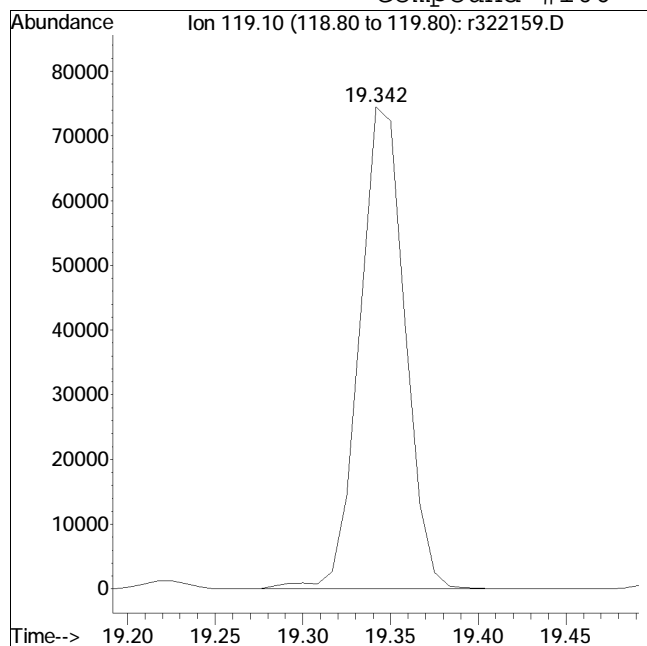
Manual Peak Response = 30407 M6

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

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322159.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/17/2020 0:2: 7 Instrument :  
Sample : ITO15-LLSTD1.0 Quant Date : 5/17/2022 8:06 am

Compound #106: p-isopropyltoluene



Original Peak Response = 133929

Manual Peak Response = 132393 M6

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322160.D  
 Acq On : 17 May 2022 1:18 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-LLSTD5.0  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:41:01 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 08:03:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) bromochloromethane	9.567	49	411409	10.000	ppbV	0.00
Standard Area = 424706			Recovery =	96.87%		
43) 1,4-difluorobenzene	11.840	114	1248013	10.000	ppbV	0.00
Standard Area = 1294364			Recovery =	96.42%		
67) chlorobenzene-D5	16.583	54	196977	10.000	ppbV	0.00
Standard Area = 203329			Recovery =	96.88%		
<b>System Monitoring Compounds</b>						
47) 1,2-dichloroethane-D4	10.450	65	393527	10.049	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.49%		
69) toluene-D8	14.683	98	1277360	10.040	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.40%		
90) bromofluorobenzene	17.958	95	807361	10.001	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.01%		
<b>Target Compounds</b>						
2) chlorodifluoromethane	3.844	51	108476	4.955	ppbV	100
3) propylene	3.874	41	55311M6	4.852	ppbV	
4) propane	3.904	29	72271	4.820	ppbV	98
5) dichlorodifluoromethane	3.958	85	138615	5.071	ppbV	100
6) chloromethane	4.138	50	62448	5.032	ppbV	99
7) Freon-114	4.264	85	178552	5.057	ppbV	99
8) methanol	4.336	31	252835	25.109	ppbV	98
9) vinyl chloride	4.396	62	81210	4.942	ppbV	100
10) 1,3-butadiene	4.564	54	65106	5.003	ppbV	98
11) butane	4.630	43	111492	5.022	ppbV	100
12) acetaldehyde	4.282	29	177086	26.038	ppbV	98
13) bromomethane	4.882	94	65019	4.994	ppbV	99
14) chloroethane	5.104	64	40708	4.983	ppbV	99
15) ethanol	5.277	31	320666	23.580	ppbV	99
16) dichlorofluoromethane	5.243	67	157146	5.056	ppbV	99
17) vinyl bromide	5.533	106	61927	4.948	ppbV	100
18) acrolein	5.690	56	39673	4.981	ppbV	94
19) acetone	5.850	43	428233	25.760	ppbV	99
20) acetonitrile	5.530	41	68270	5.054	ppbV	100
21) trichlorofluoromethane	6.057	101	125388	5.063	ppbV	99
22) isopropyl alcohol	6.183	45	272264	12.039	ppbV	100
23) acrylonitrile	6.430	53	65169	4.890	ppbV	98
24) pentane	6.507	43	144480	5.131	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322160.D  
 Acq On : 17 May 2022 1:18 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-LLSTD5.0  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:41:01 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 08:03:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	6.547	31	112744	4.934	ppbV	99
26) 1,1-dichloroethene	6.836	61	104072	4.908	ppbV	99
27) tertiary butyl alcohol	6.920	59	129915	4.783	ppbV	99
28) methylene chloride	6.998	49	107708	4.968	ppbV	99
29) 3-chloropropene	7.142	41	96220	4.864	ppbV	99
30) carbon disulfide	7.292	76	236130	4.904	ppbV	99
31) Freon 113	7.334	101	133980	4.993	ppbV	99
32) trans-1,2-dichloroethene	8.142	61	105108	4.868	ppbV	99
33) 1,1-dichloroethane	8.375	63	126271	4.937	ppbV	99
34) MTBE	8.458	73	192206	4.886	ppbV	99
35) vinyl acetate	8.592	43	131834	4.747	ppbV	99
36) 2-butanone	8.858	43	153806	4.896	ppbV	99
37) cis-1,2-dichloroethene	9.375	61	94926	4.896	ppbV	99
38) Ethyl Acetate	9.675	61	24926	4.642	ppbV	88
39) chloroform	9.725	83	132130	4.925	ppbV	99
40) Tetrahydrofuran	10.183	42	91896	4.891	ppbV	100
41) 2,2-dichloropropane	9.742	77	104471	4.774	ppbV	96
42) 1,2-dichloroethane	10.575	62	79148	4.929	ppbV	100
44) hexane	9.642	57	141277	4.919	ppbV	94
45) diisopropyl ether	9.650	87	76460	4.856	ppbV	94
46) tert-butyl ethyl ether	10.275	59	238754	4.862	ppbV	100
48) 1,1,1-trichloroethane	10.875	97	106902	4.984	ppbV	99
49) 1,1-dichloropropene	11.240	75	114830	4.925	ppbV	99
50) benzene	11.400	78	263834	4.924	ppbV	100
51) thiophene	11.547	84	159292	4.889	ppbV	99
52) carbon tetrachloride	11.573	117	102482	4.859	ppbV	99
53) cyclohexane	11.720	56	141958	4.898	ppbV	99
54) tert-amyl methyl ether	12.113	73	230616	4.901	ppbV	99
55) dibromomethane	12.327	93	75320	4.985	ppbV	99
56) 1,2-dichloropropane	12.360	63	85217	4.925	ppbV	99
57) bromodichloromethane	12.593	83	136973	4.883	ppbV	100
58) 1,4-dioxane	12.640	88	57777	4.903	ppbV	100
59) trichloroethene	12.640	130	113294	4.968	ppbV	99
60) 2,2,4-trimethylpentane	12.687	57	432618M6	4.999	ppbV	
61) methyl methacrylate	12.893	41	88601	4.782	ppbV	100
62) heptane	13.007	43	160375	4.992	ppbV	100
63) cis-1,3-dichloropropene	13.658	75	123816	4.799	ppbV	100
64) 4-methyl-2-pentanone	13.700	43	190654	4.915	ppbV	99
65) trans-1,3-dichloropropene	14.283	75	112629	4.705	ppbV	99
66) 1,1,2-trichloroethane	14.483	97	92336	4.934	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322160.D  
 Acq On : 17 May 2022 1:18 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-LLSTD5.0  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:41:01 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 08:03:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	14.792	91	292389	4.972	ppbV	100
70) 2-methylthiophene	14.867	97	239933	4.981	ppbV	99
71) 1,3-dichloropropane	14.825	76	154094	4.965	ppbV	99
72) 2-hexanone	15.083	43	181376	4.821	ppbV	96
73) 3-methylthiophene	15.058	97	247449	5.025	ppbV	99
74) dibromochloromethane	15.242	129	138929	4.873	ppbV	98
75) 1,2-dibromoethane	15.492	107	144908	4.926	ppbV	99
76) butyl acetate	15.742	73	43967	4.599	ppbV	94
77) octane	15.833	85	126589	4.865	ppbV	98
78) tetrachloroethene	15.967	166	145826	4.984	ppbV	97
79) 1,1,1,2-tetrachloroethane	16.608	131	107487	4.799	ppbV	99
80) chlorobenzene	16.625	112	258182	4.973	ppbV	100
81) ethylbenzene	16.975	91	356859	4.928	ppbV	100
82) 2-ethylthiophene	17.008	97	287241	5.041	ppbV	98
83) m+p-xylene	17.133	91	603893	9.948	ppbV	100
84) bromoform	17.208	173	130637	4.767	ppbV	99
85) styrene	17.458	104	265568	4.894	ppbV	100
86) 1,1,2,2-tetrachloroethane	17.558	83	224422	4.840	ppbV	100
87) o-xylene	17.558	91	305502	4.955	ppbV	99
88) 1,2,3-trichloropropane	17.667	75	184077	4.909	ppbV	100
89) nonane	17.750	43	253164	5.026	ppbV	98
91) isopropylbenzene	18.067	105	441433	4.967	ppbV	100
92) bromobenzene	18.150	77	245260	4.912	ppbV	100
93) 2-chlorotoluene	18.475	126	127472	4.922	ppbV	98
94) n-propylbenzene	18.500	120	149883	4.938	ppbV	98
95) 4-chlorotoluene	18.533	126	127940	4.937	ppbV	100
96) 4-ethyl toluene	18.617	105	468904	4.981	ppbV	99
97) 1,3,5-trimethylbenzene	18.683	105	454051	5.002	ppbV	100
98) tert-butylbenzene	19.008	119	423797	5.030	ppbV	100
99) 1,2,4-trimethylbenzene	19.008	105	399031	5.031	ppbV	99
100) decane	19.083	57	319223	4.915	ppbV	99
101) Benzyl Chloride	19.125	91	200450	4.192	ppbV	100
102) 1,3-dichlorobenzene	19.133	146	294082	4.989	ppbV	97
103) 1,4-dichlorobenzene	19.192	146	278748	4.944	ppbV	100
104) sec-butylbenzene	19.225	105	590238	5.021	ppbV	100
105) 1,2,3-trimethylbenzene	19.350	105	351333	5.043	ppbV	98
106) p-isopropyltoluene	19.342	119	511878M6	4.981	ppbV	
107) 1,2-dichlorobenzene	19.467	146	265496	4.926	ppbV	100
108) n-butylbenzene	19.683	91	420233	4.917	ppbV	99
109) indan	19.517	117	383617	4.968	ppbV	98



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322160.D  
 Acq On : 17 May 2022 1:18 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-LLSTD5.0  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:41:01 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 08:03:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default - All compounds listed

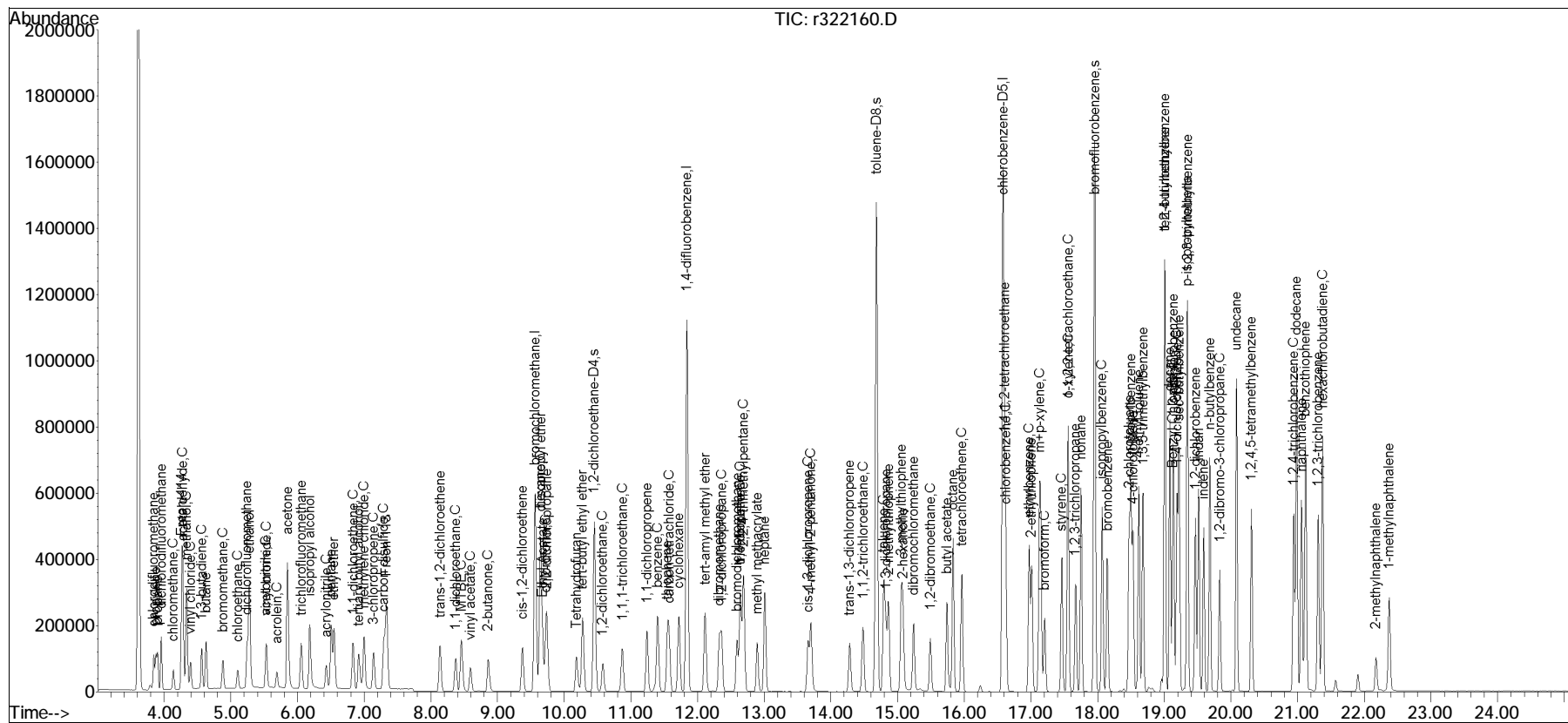
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	19.592	115	299961	4.886	ppbV	100
111) 1,2-dibromo-3-chloropr...	19.833	75	110834	4.807	ppbV	97
112) undecane	20.083	57	371745	4.923	ppbV	99
113) 1,2,4,5-tetramethylben...	20.308	119	346669	4.953	ppbV	99
114) dodecane	20.983	57	398792	4.850	ppbV	97
115) 1,2,4-trichlorobenzene	20.942	180	221411	4.856	ppbV	100
116) naphthalene	21.058	128	579562	4.905	ppbV	100
117) 1,2,3-trichlorobenzene	21.308	180	225696	4.932	ppbV	100
118) benzothiophene	21.117	134	759544	4.904	ppbV	100
119) hexachlorobutadiene	21.375	225	211356	5.053	ppbV	99
120) 2-methylnaphthalene	22.175	142	79280	4.328	ppbV	99
121) 1-methylnaphthalene	22.375	142	214578	4.606	ppbV	100

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

Sub List : Default - All compounds listed22\05\0516T\_I\r322161.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
Data File : r322160.D  
Acq On : 17 May 2022 1:18 AM  
Operator : AIRPIANO3:TS  
Sample : ITO15-LLSTD5.0  
Misc : WG1639636  
ALS Vial : 0 Sample Multiplier: 1

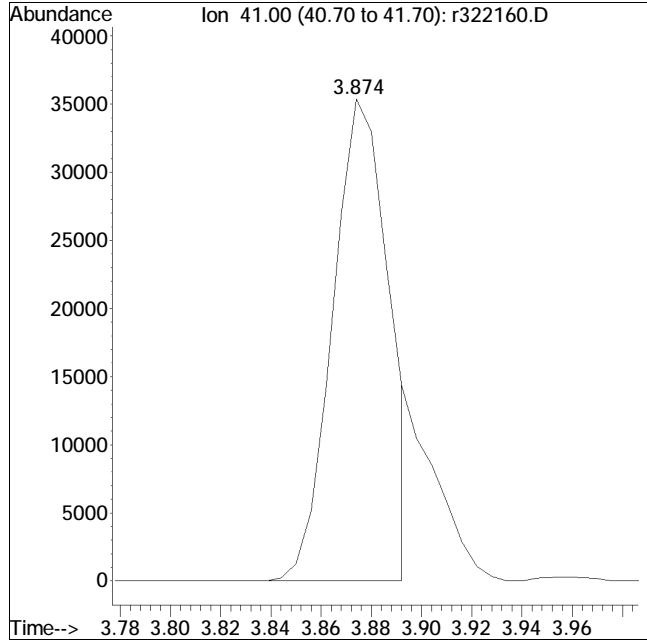
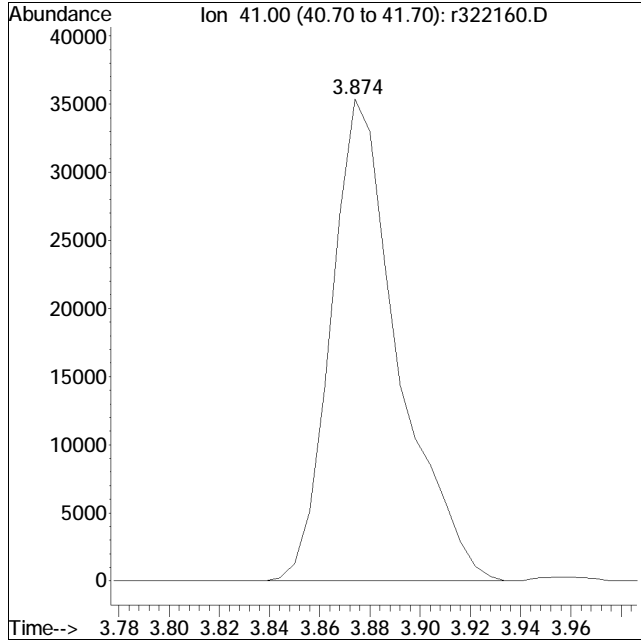
Quant Time: May 17 15:41:01 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 08:03:54 2022  
Response via : Initial Calibration



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322160.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/17/2020 0:1: 8 Instrument :  
Sample : ITO15-LLSTD5.0 Quant Date : 5/17/2022 8:06 am

Compound #3: propylene



Original Peak Response = 65777

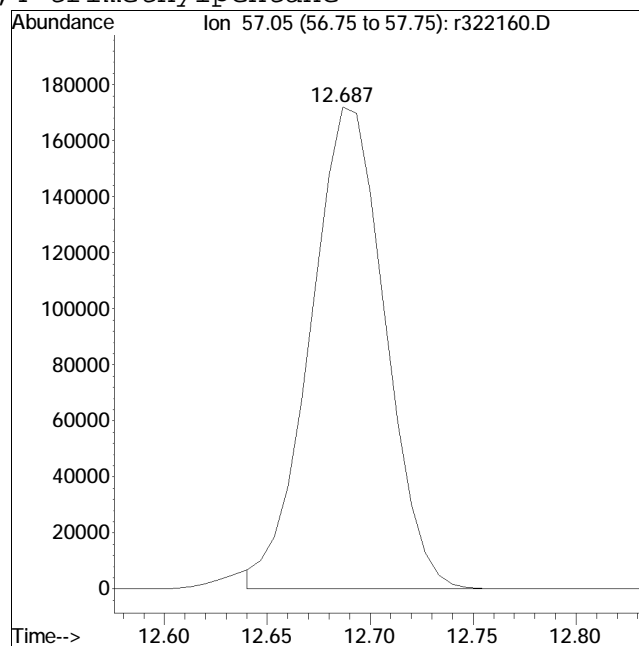
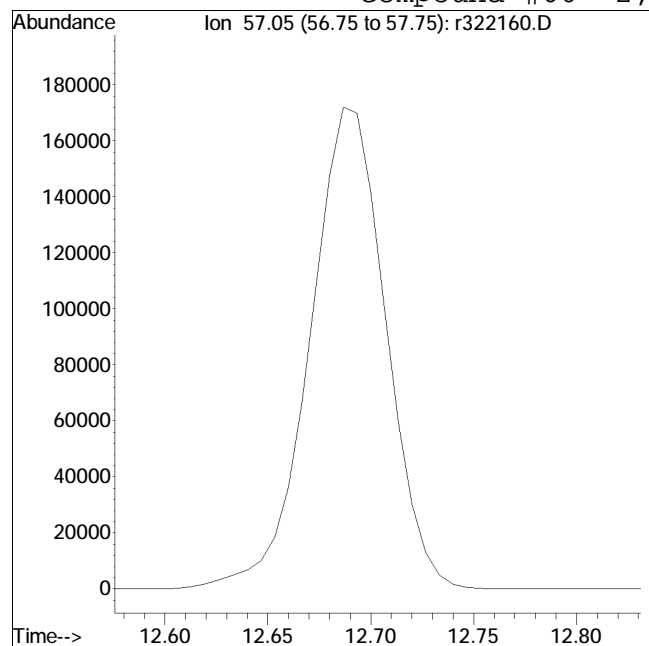
Manual Peak Response = 55311 M6

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

# Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322160.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/17/2020 0:1: 8 Instrument :  
Sample : ITO15-LLSTD5.0 Quant Date : 5/17/2022 8:06 am

## Compound #60: 2,2,4-trimethylpentane



Original Peak Response =

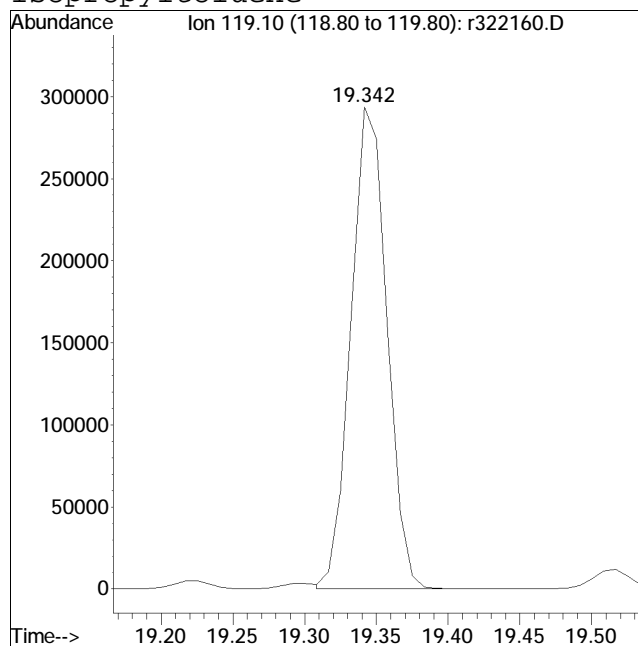
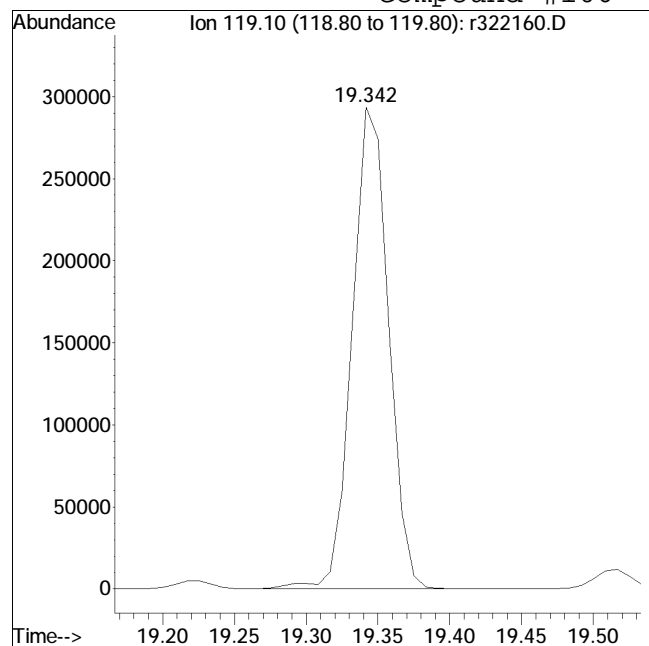
Manual Peak Response = 432618 M6

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

# Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322160.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/17/2020 0:1: 8 Instrument :  
Sample : ITO15-LLSTD5.0 Quant Date : 5/17/2022 8:06 am

## Compound #106: p-isopropyltoluene



Original Peak Response = 518148

Manual Peak Response = 511878 M6

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322161.D  
 Acq On : 17 May 2022 2:00 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-LLSTD010  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 08:58:02 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Mon Apr 04 12:46:44 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) bromochloromethane	9.567	49	424706	10.000	ppbV	-0.03
Standard Area = 424706			Recovery = 100.00%			
43) 1,4-difluorobenzene	11.840	114	1294364	10.000	ppbV	-0.03
Standard Area = 1294364			Recovery = 100.00%			
67) chlorobenzene-D5	16.583	54	203329	10.000	ppbV	0.00
Standard Area = 203329			Recovery = 100.00%			
<b>System Monitoring Compounds</b>						
47) 1,2-dichloroethane-D4	10.450	65	406145	12.024	ppbV	-0.03
Spiked Amount 10.000	Range 70 - 130		Recovery = 120.24%			
69) toluene-D8	14.683	98	1313234	9.051	ppbV	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 90.51%			
90) bromofluorobenzene	17.958	95	833344	8.142	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 81.42%			
<b>Target Compounds</b>						
2) chlorodifluoromethane	3.844	51	226017	7.621	ppbV #	93
3) propylene	3.874	41	117684M6	5.463	ppbV	
4) propane	3.898	29	154794	6.892	ppbV	92
5) dichlorodifluoromethane	3.952	85	282184	7.915	ppbV	99
6) chloromethane	4.138	50	128101	8.045	ppbV	98
7) Freon-114	4.264	85	364476	7.639	ppbV	96
8) methanol	4.336	31	519738	59.924	ppbV	96
9) vinyl chloride	4.396	62	169651	6.968	ppbV	96
10) 1,3-butadiene	4.564	54	134335	8.030	ppbV #	71
11) butane	4.624	43	229176	5.872	ppbV #	97
12) acetaldehyde	4.282	29	351044	44.036	ppbV #	69
13) bromomethane	4.876	94	134395	6.812	ppbV	95
14) chloroethane	5.098	64	84328	6.115	ppbV	97
15) ethanol	5.273	31	701926	46.148	ppbV #	78
16) dichlorofluoromethane	5.243	67	320834	7.243	ppbV	99
17) vinyl bromide	5.530	106	129208	5.938	ppbV	99
18) acrolein	5.687	56	82229	7.935	ppbV	96
19) acetone	5.843	43	858062	27.630	ppbV #	81
20) acetonitrile	5.527	41	139455	5.601	ppbV	98
21) trichlorofluoromethane	6.053	101	255670	6.121	ppbV	99
22) isopropyl alcohol	6.177	45	583643	14.233	ppbV	99
23) acrylonitrile	6.430	53	137576	6.801	ppbV	97
24) pentane	6.503	43	290685M6	5.665	ppbV	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322161.D  
 Acq On : 17 May 2022 2:00 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-LLSTD010  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 08:58:02 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Mon Apr 04 12:46:44 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	6.543	31	235906	5.078	ppbV	99
26) 1,1-dichloroethene	6.830	61	218917	5.731	ppbV	97
27) tertiary butyl alcohol	6.908	59	280393	5.197	ppbV	96
28) methylene chloride	6.998	49	223795	8.980	ppbV	90
29) 3-chloropropene	7.142	41	204207	5.357	ppbV	97
30) carbon disulfide	7.292	76	497092	6.569	ppbV	100
31) Freon 113	7.334	101	276990	5.825	ppbV	90
32) trans-1,2-dichloroethene	8.133	61	222906	5.650	ppbV	97
33) 1,1-dichloroethane	8.367	63	264031	5.404	ppbV	99
34) MTBE	8.450	73	406057	5.915	ppbV	99
35) vinyl acetate	8.592	43	286717	5.056	ppbV	99
36) 2-butanone	8.858	43	324315	5.794	ppbV	99
37) cis-1,2-dichloroethene	9.375	61	200155	5.672	ppbV	97
38) Ethyl Acetate	9.675	61	55433	5.510	ppbV	92
39) chloroform	9.725	83	276933	6.788	ppbV	96
40) Tetrahydrofuran	10.175	42	193960	5.676	ppbV	100
41) 2,2-dichloropropane	9.742	77	225911	6.288	ppbV	96
42) 1,2-dichloroethane	10.575	62	165759	5.864	ppbV #	94
44) hexane	9.642	57	297882	7.071	ppbV	98
45) diisopropyl ether	9.642	87	163299	6.569	ppbV	90
46) tert-butyl ethyl ether	10.275	59	509278	6.253	ppbV	98
48) 1,1,1-trichloroethane	10.867	97	222456	5.921	ppbV	94
49) 1,1-dichloropropene	11.240	75	241803	7.039	ppbV	94
50) benzene	11.400	78	555730	6.788	ppbV	98
51) thiophene	11.547	84	337938	6.998	ppbV	96
52) carbon tetrachloride	11.573	117	218724	7.264	ppbV	98
53) cyclohexane	11.720	56	300591	6.861	ppbV	97
54) tert-amyl methyl ether	12.107	73	488011	6.511	ppbV	99
55) dibromomethane	12.327	93	156720	6.238	ppbV	97
56) 1,2-dichloropropane	12.360	63	179446	5.987	ppbV	97
57) bromodichloromethane	12.593	83	290930	7.222	ppbV	98
58) 1,4-dioxane	12.633	88	122212	6.032	ppbV	95
59) trichloroethene	12.640	130	236508	6.991	ppbV	95
60) 2,2,4-trimethylpentane	12.687	57	897515M6	6.536	ppbV	
61) methyl methacrylate	12.893	41	192156	6.092	ppbV	98
62) heptane	13.007	43	333185	6.754	ppbV	98
63) cis-1,3-dichloropropene	13.658	75	267584	6.890	ppbV	96
64) 4-methyl-2-pentanone	13.700	43	402290	6.804	ppbV	96
65) trans-1,3-dichloropropene	14.283	75	248283	6.830	ppbV	95
66) 1,1,2-trichloroethane	14.483	97	194085	6.185	ppbV	90

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322161.D  
 Acq On : 17 May 2022 2:00 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-LLSTD010  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 08:58:02 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Mon Apr 04 12:46:44 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	14.792	91	606975	5.642	ppbV	99
70) 2-methylthiophene	14.858	97	497276	5.973	ppbV #	98
71) 1,3-dichloropropane	14.825	76	320366	7.007	ppbV	92
72) 2-hexanone	15.075	43	388363	7.076	ppbV	98
73) 3-methylthiophene	15.058	97	508296	6.032	ppbV #	98
74) dibromochloromethane	15.242	129	294277	6.876	ppbV	99
75) 1,2-dibromoethane	15.492	107	303674	6.850	ppbV	99
76) butyl acetate	15.733	73	98684	6.514	ppbV	97
77) octane	15.833	85	268596	6.559	ppbV	93
78) tetrachloroethene	15.958	166	301997	6.843	ppbV	97
79) 1,1,1,2-tetrachloroethane	16.608	131	231217	6.566	ppbV	99
80) chlorobenzene	16.625	112	535955	7.254	ppbV	99
81) ethylbenzene	16.975	91	747432	5.947	ppbV	92
82) 2-ethylthiophene	17.008	97	588130	6.156	ppbV #	89
83) m+p-xylene	17.133	91	1253308	12.311	ppbV	90
84) bromoform	17.208	173	282899	6.864	ppbV	100
85) styrene	17.458	104	560149	6.805	ppbV	97
86) 1,1,2,2-tetrachloroethane	17.558	83	478597	7.199	ppbV	98
87) o-xylene	17.558	91	636447	6.344	ppbV	91
88) 1,2,3-trichloropropane	17.667	75	387082	7.233	ppbV	98
89) nonane	17.750	43	519942	7.085	ppbV	95
91) isopropylbenzene	18.067	105	917426	6.908	ppbV	98
92) bromobenzene	18.150	77	515384	7.283	ppbV	96
93) 2-chlorotoluene	18.475	126	267321	6.578	ppbV	96
94) n-propylbenzene	18.500	120	313332	6.973	ppbV	77
95) 4-chlorotoluene	18.533	126	267475	6.764	ppbV	85
96) 4-ethyl toluene	18.617	105	971836	7.024	ppbV	98
97) 1,3,5-trimethylbenzene	18.683	105	937057	7.125	ppbV	99
98) tert-butylbenzene	19.008	119	869728	7.236	ppbV	98
99) 1,2,4-trimethylbenzene	19.008	105	818701	7.339	ppbV	96
100) decane	19.083	57	670464	7.067	ppbV	96
101) Benzyl Chloride	19.125	91	493573	5.339	ppbV	96
102) 1,3-dichlorobenzene	19.142	146	608454	7.512	ppbV	97
103) 1,4-dichlorobenzene	19.192	146	581993	7.179	ppbV	97
104) sec-butylbenzene	19.225	105	1213508	7.266	ppbV	99
105) 1,2,3-trimethylbenzene	19.350	105	719178	7.211	ppbV	99
106) p-isopropyltoluene	19.350	119	1060751	7.388	ppbV	98
107) 1,2-dichlorobenzene	19.467	146	556305	7.256	ppbV	97
108) n-butylbenzene	19.683	91	882274	6.540	ppbV	96
109) indan	19.517	117	797142	7.368	ppbV	99



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322161.D  
 Acq On : 17 May 2022 2:00 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-LLSTD010  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 08:58:02 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Mon Apr 04 12:46:44 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default - All compounds listed

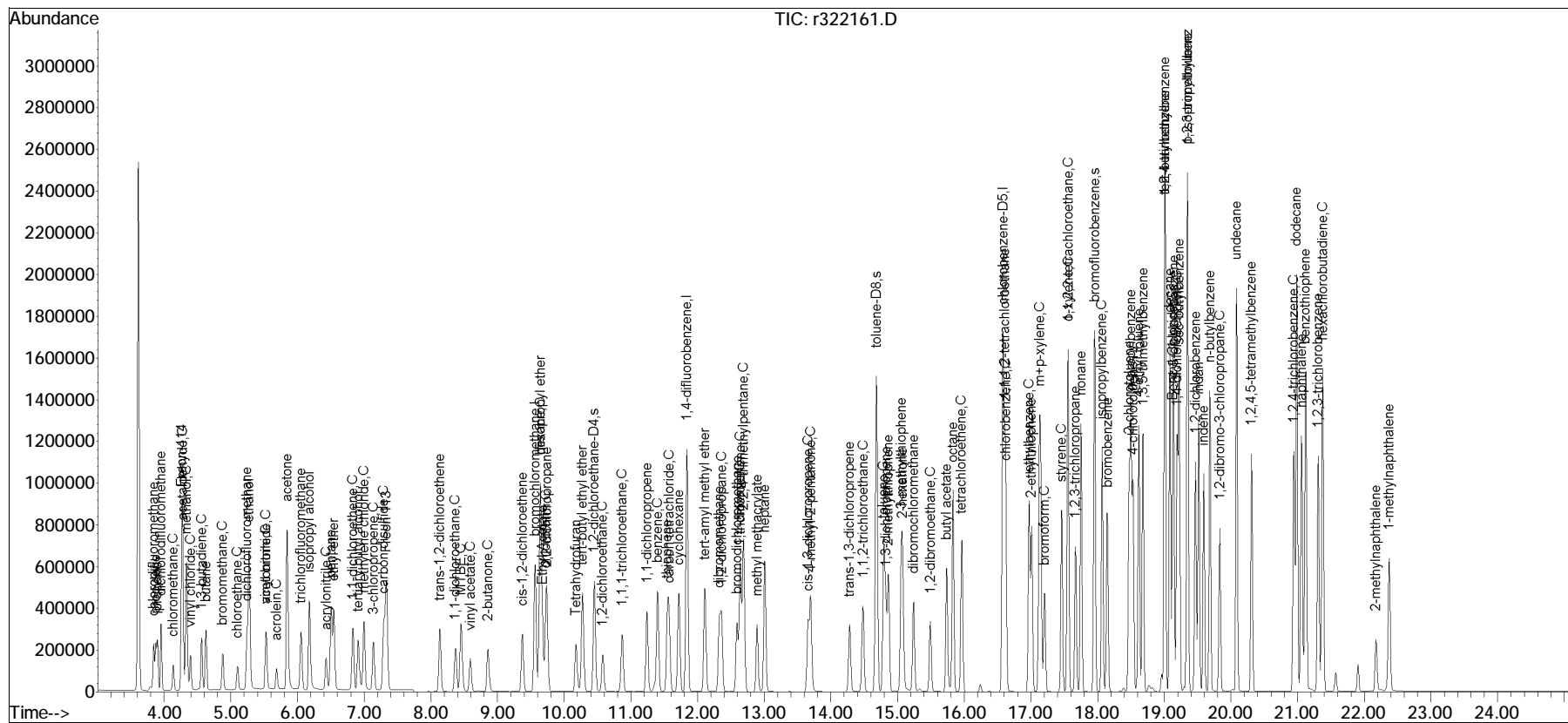
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	19.592	115	633718	7.482	ppbV	99
111) 1,2-dibromo-3-chloropr...	19.833	75	237988	7.654	ppbV	95
112) undecane	20.083	57	779422	7.419	ppbV	98
113) 1,2,4,5-tetramethylben...	20.308	119	722430	5.604	ppbV	97
114) dodecane	20.983	57	848798	8.089	ppbV	98
115) 1,2,4-trichlorobenzene	20.942	180	470636	6.991	ppbV	96
116) naphthalene	21.058	128	1219655	7.224	ppbV	99
117) 1,2,3-trichlorobenzene	21.308	180	472351	7.229	ppbV	96
118) benzothiophene	21.117	134	1598676	5.313	ppbV	98
119) hexachlorobutadiene	21.375	225	431780	7.882	ppbV	97
120) 2-methylnaphthalene	22.175	142	189073	4.599	ppbV	99
121) 1-methylnaphthalene	22.375	142	480858	5.979	ppbV	99

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

Sub List : Default - All compounds listed22\05\0516T\_I\r322161.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
Data File : r322161.D  
Acq On : 17 May 2022 2:00 AM  
Operator : AIRPIANO3:TS  
Sample : ITO15-LLSTD010  
Misc : WG1639636  
ALS Vial : 0 Sample Multiplier: 1

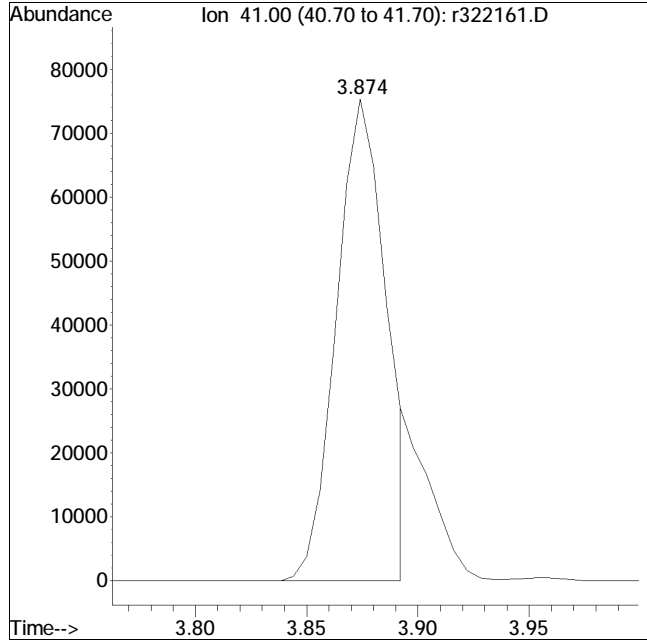
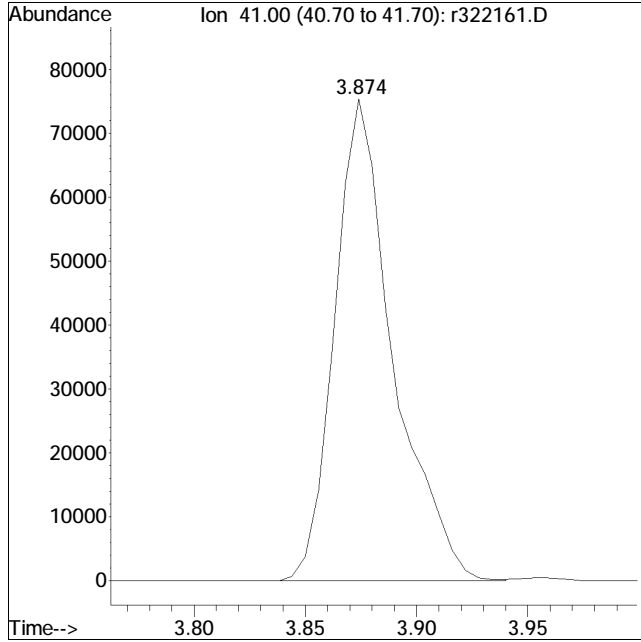
Quant Time: May 17 08:58:02 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Mon Apr 04 12:46:44 2022  
Response via : Initial Calibration



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322161.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/17/2020 0:2: 0 Instrument :  
Sample : ITO15-LLSTD010 Quant Date : 5/17/2022 7:52 am

Compound #3: propylene



Original Peak Response = 137499

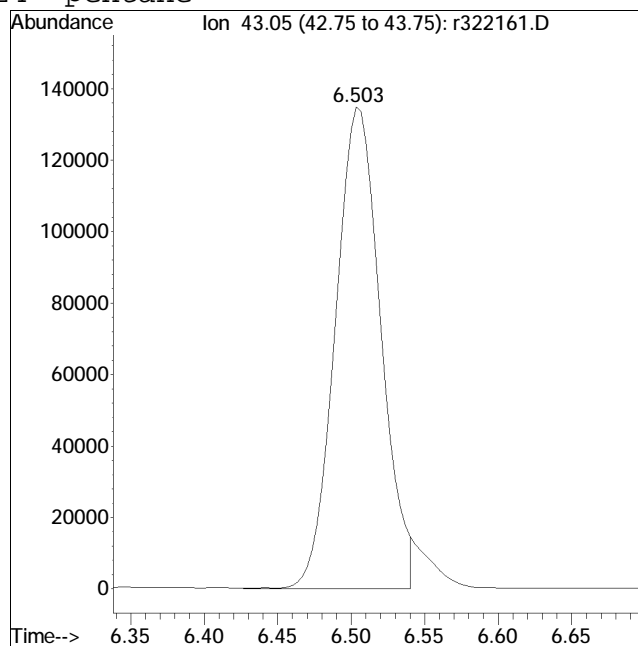
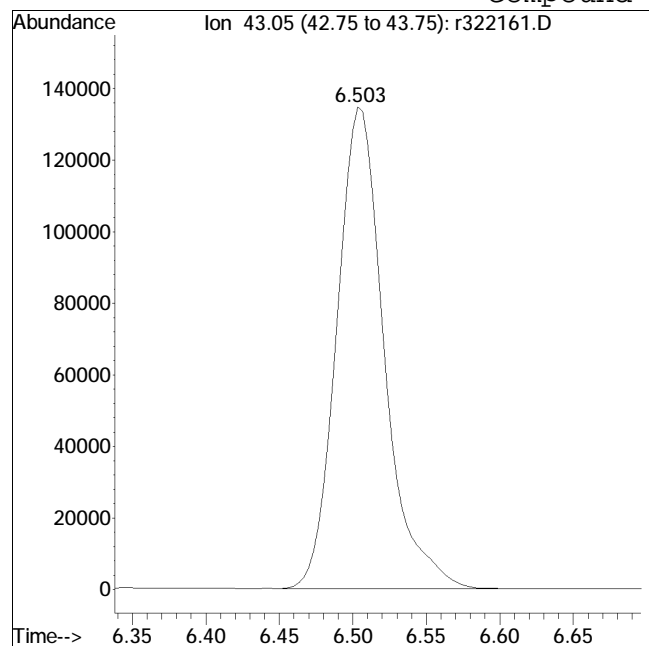
Manual Peak Response = 117684 M6

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

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322161.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/17/2020 0:2: 0 Instrument :  
Sample : ITO15-LLSTD010 Quant Date : 5/17/2022 7:52 am

Compound #24: pentane



Original Peak Response = 301876

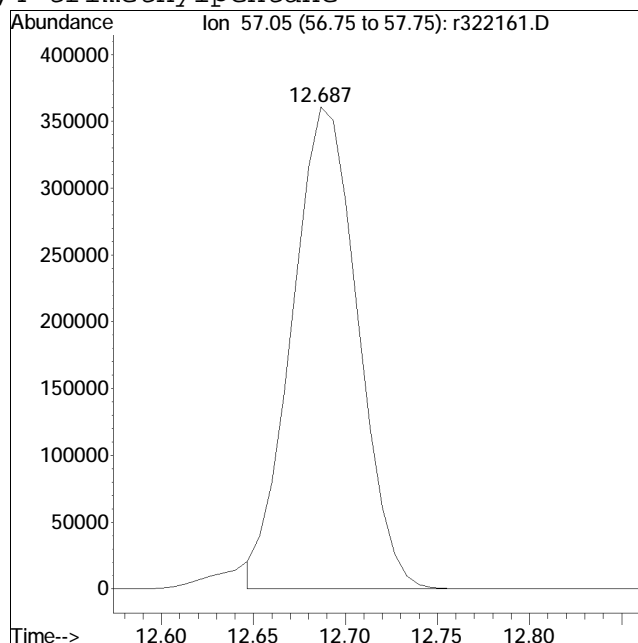
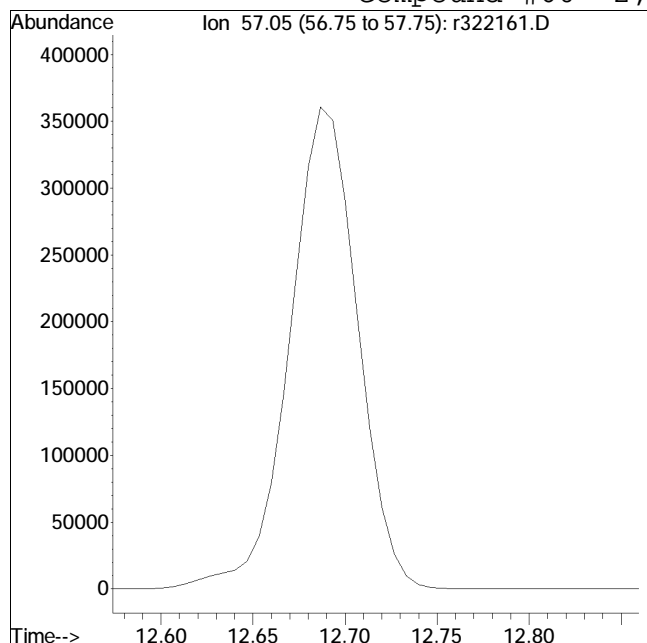
Manual Peak Response = 290685 M6

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

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322161.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/17/2020 0:2: 0 Instrument :  
Sample : ITO15-LLSTD010 Quant Date : 5/17/2022 7:52 am

Compound #60: 2,2,4-trimethylpentane



Original Peak Response =

Manual Peak Response = 897515 M6

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322162.D  
 Acq On : 17 May 2022 2:39 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-LLSTD020  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:42:30 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 08:03:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) bromochloromethane	9.567	49	442712	10.000	ppbV	0.00	
Standard Area =	424706		Recovery =	104.24%			
43) 1,4-difluorobenzene	11.840	114	1327128	10.000	ppbV	0.00	
Standard Area =	1294364		Recovery =	102.53%			
67) chlorobenzene-D5	16.583	54	208707	10.000	ppbV	0.00	
Standard Area =	203329		Recovery =	102.64%			
System Monitoring Compounds							
47) 1,2-dichloroethane-D4	10.450	65	409178	9.826	ppbV	0.00	
Spiked Amount	10.000	Range 70 - 130	Recovery =	98.26%			
69) toluene-D8	14.683	98	1337907	9.925	ppbV	0.00	
Spiked Amount	10.000	Range 70 - 130	Recovery =	99.25%			
90) bromofluorobenzene	17.958	95	854846	9.994	ppbV	0.00	
Spiked Amount	10.000	Range 70 - 130	Recovery =	99.94%			
Target Compounds							
							Qvalue
2) chlorodifluoromethane	3.844	51	633446	26.887	ppbV		100
3) propylene	3.874	41	323752M6	26.391	ppbV		
4) propane	3.904	29	440510	27.300	ppbV		97
5) dichlorodifluoromethane	3.958	85	750639	25.519	ppbV		100
6) chloromethane	4.138	50	343479	25.723	ppbV		99
7) Freon-114	4.264	85	993150	26.140	ppbV		100
8) methanol	4.336	31	967754	89.314	ppbV		99
9) vinyl chloride	4.396	62	479511	27.115	ppbV		99
10) 1,3-butadiene	4.564	54	382504	27.316	ppbV		100
11) butane	4.630	43	640635	26.817	ppbV		100
12) acetaldehyde	4.282	29	889617	121.557	ppbV		97
13) bromomethane	4.882	94	377097	26.918	ppbV		99
14) chloroethane	5.104	64	239863	27.287	ppbV		100
15) ethanol	5.277	31	1800170	123.015	ppbV		98
16) dichlorofluoromethane	5.247	67	888694	26.573	ppbV		100
17) vinyl bromide	5.533	106	368240	27.341	ppbV		98
18) acrolein	5.687	56	227893	26.587	ppbV		97
19) acetone	5.843	43	2304178	128.806	ppbV		98
20) acetonitrile	5.527	41	385409	26.513	ppbV		99
21) trichlorofluoromethane	6.057	101	633107	23.756	ppbV		99
22) isopropyl alcohol	6.177	45	1732633	71.198	ppbV		99
23) acrylonitrile	6.430	53	407851	28.440	ppbV		99
24) pentane	6.507	43	850815	28.079	ppbV		100

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322162.D  
 Acq On : 17 May 2022 2:39 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-LLSTD020  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:42:30 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 08:03:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	6.543	31	712202	28.962	ppbV	98
26) 1,1-dichloroethene	6.836	61	631980	27.694	ppbV	99
27) tertiary butyl alcohol	6.908	59	876149	29.976	ppbV	97
28) methylene chloride	6.998	49	505260	21.659	ppbV	96
29) 3-chloropropene	7.142	41	597504	28.070	ppbV	99
30) carbon disulfide	7.292	76	1416164	27.330	ppbV	99
31) Freon 113	7.334	101	776035	26.877	ppbV	100
32) trans-1,2-dichloroethene	8.142	61	650146	27.981	ppbV	99
33) 1,1-dichloroethane	8.375	63	765301	27.806	ppbV	99
34) MTBE	8.450	73	1174170	27.740	ppbV	99
35) vinyl acetate	8.592	43	921211	30.823	ppbV	99
36) 2-butanone	8.850	43	922482	27.287	ppbV	99
37) cis-1,2-dichloroethene	9.375	61	578138	27.710	ppbV	99
38) Ethyl Acetate	9.667	61	164638	28.492	ppbV	76
39) chloroform	9.733	83	787007	27.263	ppbV	99
40) Tetrahydrofuran	10.167	42	564688	27.930	ppbV	99
41) 2,2-dichloropropane	9.742	77	664225	28.206	ppbV	96
42) 1,2-dichloroethane	10.583	62	468928	27.139	ppbV	99
44) hexane	9.642	57	830560	27.194	ppbV	100
45) diisopropyl ether	9.642	87	480379	28.691	ppbV	91
46) tert-butyl ethyl ether	10.275	59	1484127	28.422	ppbV	99
48) 1,1,1-trichloroethane	10.867	97	638274	27.984	ppbV	100
49) 1,1-dichloropropene	11.240	75	699729	28.224	ppbV	99
50) benzene	11.400	78	1572009	27.589	ppbV	100
51) thiophene	11.547	84	983850	28.395	ppbV	100
52) carbon tetrachloride	11.573	117	631320	28.151	ppbV	99
53) cyclohexane	11.720	56	887583	28.799	ppbV	99
54) tert-amyl methyl ether	12.107	73	1424483	28.469	ppbV	100
55) dibromomethane	12.327	93	450350	28.027	ppbV	99
56) 1,2-dichloropropane	12.360	63	519778	28.251	ppbV	99
57) bromodichloromethane	12.593	83	848041	28.430	ppbV	99
58) 1,4-dioxane	12.627	88	369234	29.467	ppbV	97
59) trichloroethene	12.640	130	668175	27.554	ppbV	100
60) 2,2,4-trimethylpentane	12.687	57	2607893M6	28.339	ppbV	
61) methyl methacrylate	12.893	41	581902	29.535	ppbV	99
62) heptane	13.007	43	956178	27.990	ppbV	98
63) cis-1,3-dichloropropene	13.658	75	790236	28.803	ppbV	99
64) 4-methyl-2-pentanone	13.692	43	1142621	27.702	ppbV	98
65) trans-1,3-dichloropropene	14.283	75	745382	29.280	ppbV	99
66) 1,1,2-trichloroethane	14.483	97	550089	27.643	ppbV	97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322162.D  
 Acq On : 17 May 2022 2:39 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-LLSTD020  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:42:30 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 08:03:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	14.792	91	1712190	27.482	ppbV	100
70) 2-methylthiophene	14.867	97	1396636	27.362	ppbV	100
71) 1,3-dichloropropane	14.825	76	920563	27.994	ppbV	98
72) 2-hexanone	15.075	43	1103266	27.676	ppbV	99
73) 3-methylthiophene	15.058	97	1449102	27.774	ppbV	99
74) dibromochloromethane	15.242	129	857123	28.376	ppbV	99
75) 1,2-dibromoethane	15.492	107	859785	27.583	ppbV	100
76) butyl acetate	15.733	73	286852	28.319	ppbV	98
77) octane	15.833	85	781162	28.334	ppbV	97
78) tetrachloroethene	15.958	166	848724	27.380	ppbV	99
79) 1,1,1,2-tetrachloroethane	16.608	131	666129	28.067	ppbV	99
80) chlorobenzene	16.625	112	1480442	26.911	ppbV	99
81) ethylbenzene	16.975	91	2127619	27.732	ppbV	99
82) 2-ethylthiophene	17.008	97	1649396	27.322	ppbV	99
83) m+p-xylene	17.133	91	3507993	54.537	ppbV	100
84) bromoform	17.208	173	831671	28.641	ppbV	99
85) styrene	17.458	104	1573429	27.366	ppbV	99
86) 1,1,2,2-tetrachloroethane	17.558	83	1334250	27.160	ppbV	100
87) o-xylene	17.558	91	1750819	26.800	ppbV	100
88) 1,2,3-trichloropropane	17.667	75	1098197	27.640	ppbV	99
89) nonane	17.750	43	1454211	27.248	ppbV	98
91) isopropylbenzene	18.067	105	2540050	26.973	ppbV	98
92) bromobenzene	18.150	77	1456100	27.525	ppbV	100
93) 2-chlorotoluene	18.475	126	760199	27.705	ppbV	99
94) n-propylbenzene	18.500	120	894451	27.811	ppbV	97
95) 4-chlorotoluene	18.533	126	756218	27.544	ppbV	100
96) 4-ethyl toluene	18.617	105	2682502	26.891	ppbV	98
97) 1,3,5-trimethylbenzene	18.675	105	2536378	26.370	ppbV	97
98) tert-butylbenzene	19.008	119	2299563	25.759	ppbV	97
99) 1,2,4-trimethylbenzene	19.008	105	2178107	25.919	ppbV	100
100) decane	19.083	57	1860900	27.040	ppbV	98
101) Benzyl Chloride	19.125	91	1629750	32.169	ppbV	98
102) 1,3-dichlorobenzene	19.133	146	1628665	26.078	ppbV	98
103) 1,4-dichlorobenzene	19.192	146	1562596	26.157	ppbV	98
104) sec-butylbenzene	19.225	105	3238754	26.001	ppbV	97
105) 1,2,3-trimethylbenzene	19.350	105	1980272	26.826	ppbV	98
106) p-isopropyltoluene	19.350	119	2747714M6	25.236	ppbV	
107) 1,2-dichlorobenzene	19.467	146	1499971	26.268	ppbV	100
108) n-butylbenzene	19.683	91	2432588	26.861	ppbV	100
109) indan	19.517	117	2215988	27.083	ppbV	100



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322162.D  
 Acq On : 17 May 2022 2:39 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-LLSTD020  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:42:30 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 08:03:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default - All compounds listed

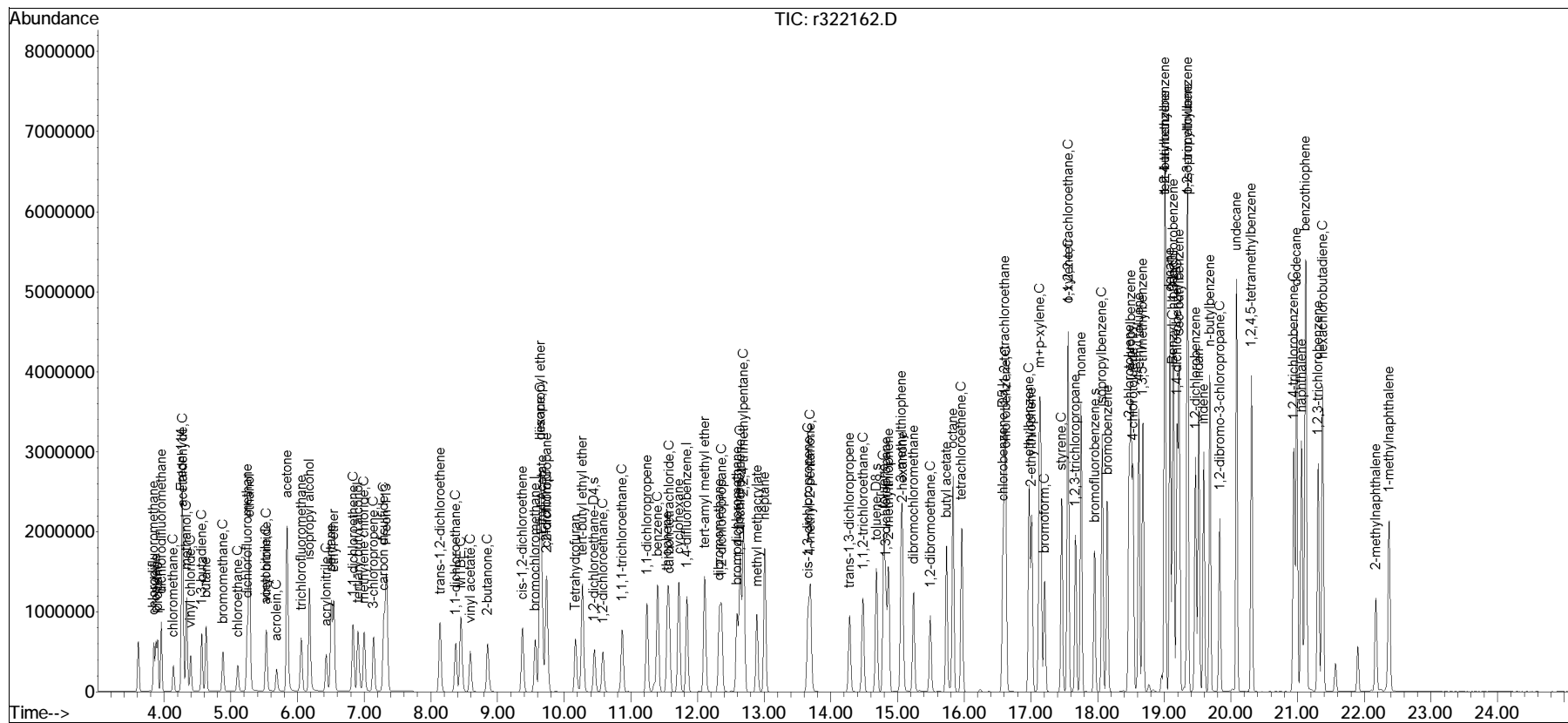
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	19.592	115	1821502	28.002	ppbV	99
111) 1,2-dibromo-3-chloropr...	19.833	75	658060	26.938	ppbV	99
112) undecane	20.083	57	2120017	26.499	ppbV	98
113) 1,2,4,5-tetramethylben...	20.308	119	2474277	33.367	ppbV	98
114) dodecane	20.983	57	1982609	22.756	ppbV	99
115) 1,2,4-trichlorobenzene	20.942	180	1267374	26.235	ppbV	99
116) naphthalene	21.058	128	3160438	25.245	ppbV	100
117) 1,2,3-trichlorobenzene	21.308	180	1211167	24.981	ppbV	100
118) benzothiophene	21.117	134	5588666	34.057	ppbV	99
119) hexachlorobutadiene	21.375	225	1077201	24.305	ppbV	98
120) 2-methylnaphthalene	22.175	142	860991	44.364	ppbV	100
121) 1-methylnaphthalene	22.375	142	1612143	32.662	ppbV	100

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

Sub List : Default - All compounds listed22\05\0516T\_I\r322161.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
Data File : r322162.D  
Acq On : 17 May 2022 2:39 AM  
Operator : AIRPIANO3:TS  
Sample : ITO15-LLSTD020  
Misc : WG1639636  
ALS Vial : 0 Sample Multiplier: 1

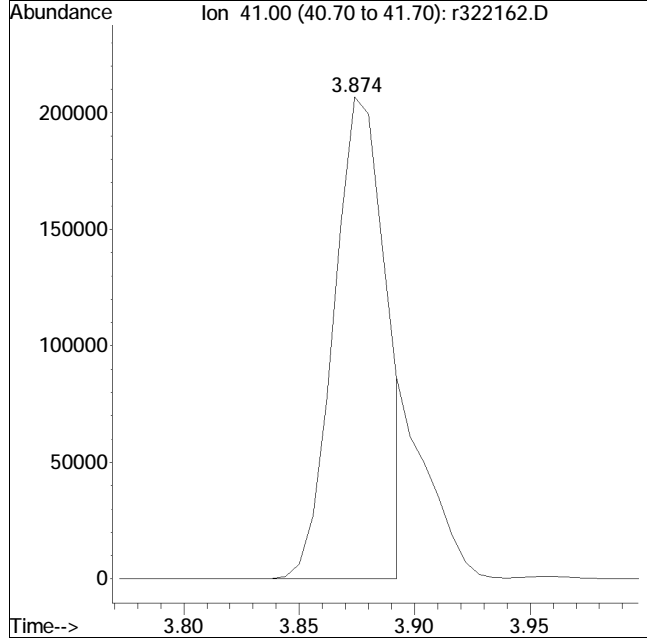
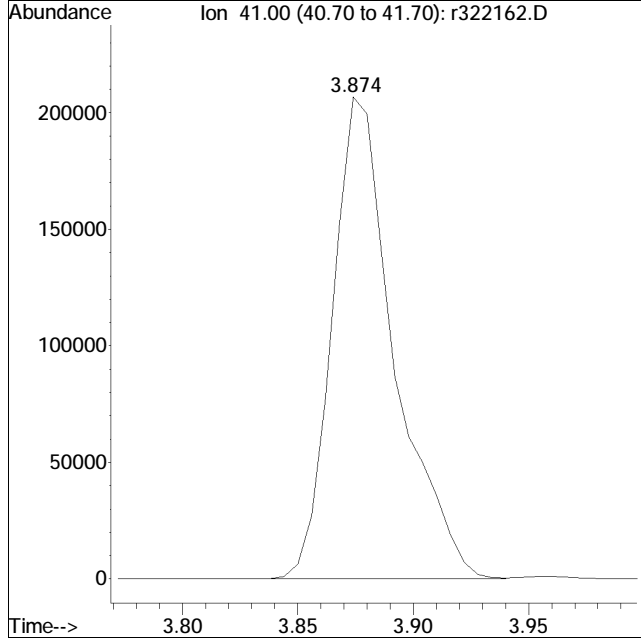
Quant Time: May 17 15:42:30 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 08:03:54 2022  
Response via : Initial Calibration



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322162.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/17/2020 0:2: 9 Instrument :  
Sample : ITO15-LLSTD020 Quant Date : 5/17/2022 8:06 am

Compound #3: propylene



Original Peak Response = 387327

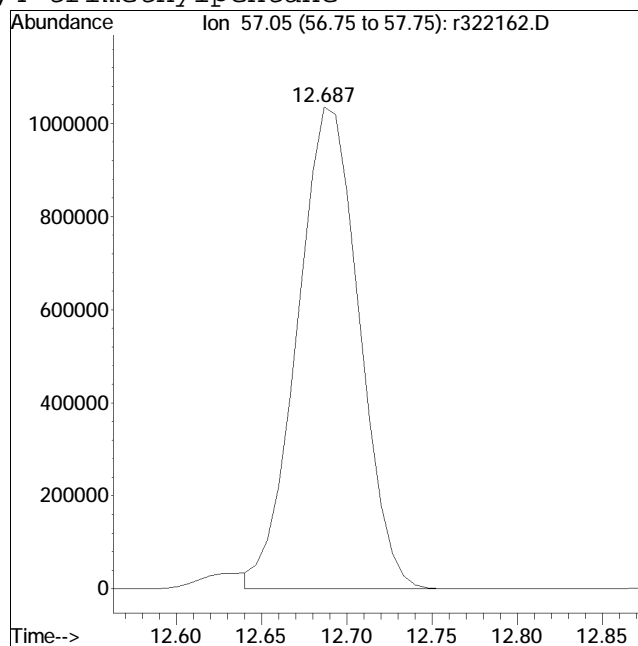
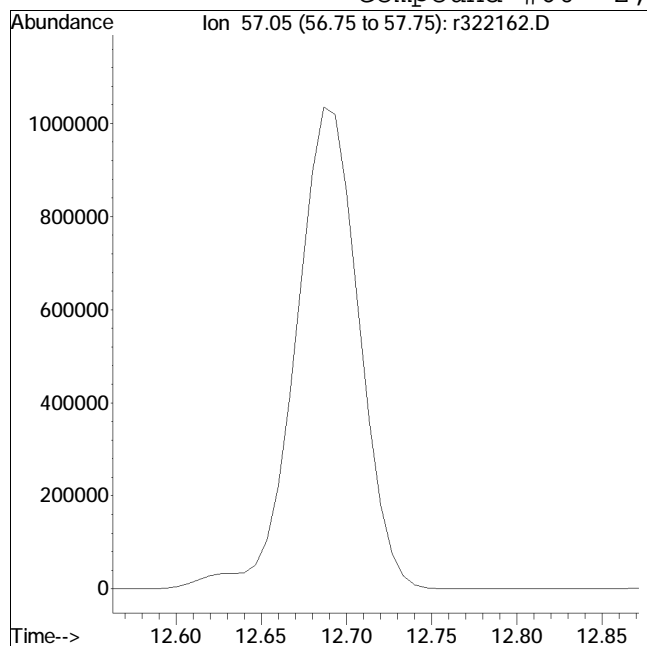
Manual Peak Response = 323752 M6

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

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322162.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/17/2020 0:2: 9 Instrument :  
Sample : ITO15-LLSTD020 Quant Date : 5/17/2022 8:06 am

Compound #60: 2,2,4-trimethylpentane



Original Peak Response =

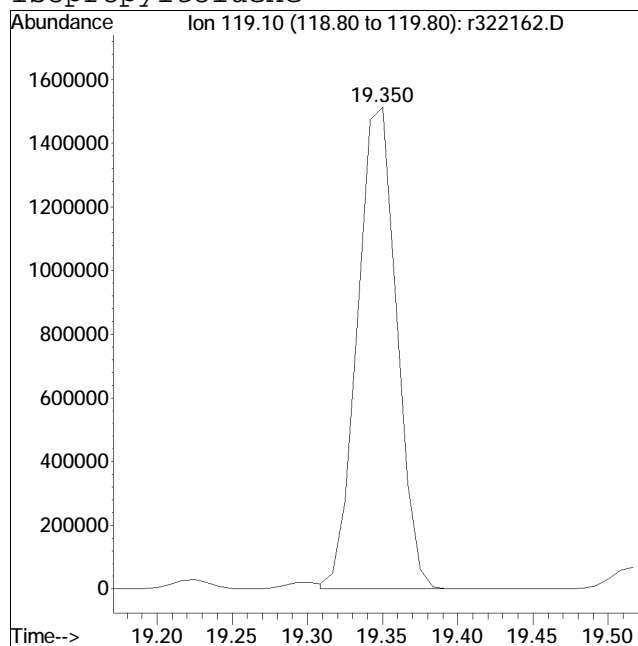
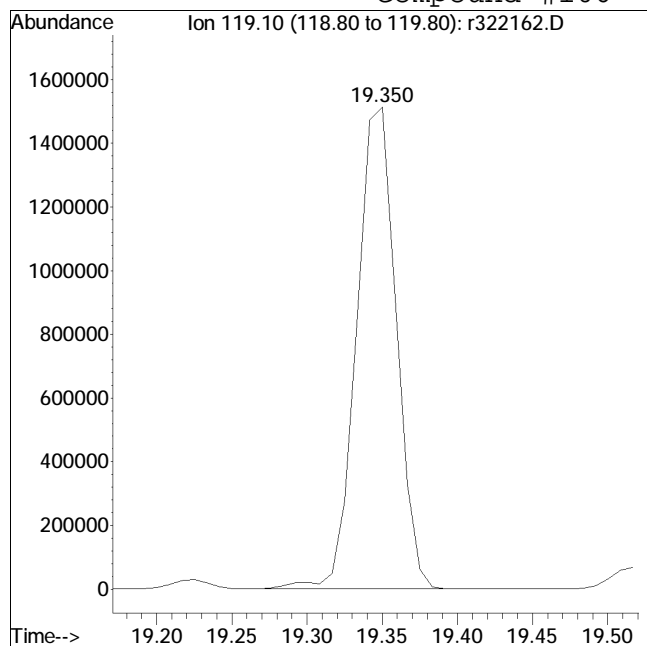
Manual Peak Response = 2607893 M6

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

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322162.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/17/2020 0:2: 9 Instrument :  
Sample : ITO15-LLSTD020 Quant Date : 5/17/2022 8:06 am

Compound #106: p-isopropyltoluene



Original Peak Response = 2780294

Manual Peak Response = 2747714 M6

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322163.D  
 Acq On : 17 May 2022 3:19 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-LLSTD050  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:44:54 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 08:03:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) bromochloromethane	9.567	49	475675	10.000	ppbV	0.00
Standard Area = 424706			Recovery = 112.00%			
43) 1,4-difluorobenzene	11.840	114	1391469	10.000	ppbV	0.00
Standard Area = 1294364			Recovery = 107.50%			
67) chlorobenzene-D5	16.583	54	217568	10.000	ppbV	0.00
Standard Area = 203329			Recovery = 107.00%			
<b>System Monitoring Compounds</b>						
47) 1,2-dichloroethane-D4	10.450	65	419509	9.608	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.08%			
69) toluene-D8	14.683	98	1407710	10.018	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.18%			
90) bromofluorobenzene	17.958	95	902281	10.119	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.19%			
<b>Target Compounds</b>						
2) chlorodifluoromethane	3.844	51	1587205	62.700	ppbV	99
3) propylene	3.874	41	822902M6	62.432	ppbV	
4) propane	3.898	29	1171927	67.597	ppbV	97
5) dichlorodifluoromethane	3.952	85	1762383	55.763	ppbV	100
6) chloromethane	4.138	50	872115	60.785	ppbV	99
7) Freon-114	4.264	85	2372508	58.119	ppbV	99
8) methanol	4.336	31	2462232	211.491	ppbV	97
9) vinyl chloride	4.396	62	1237207	65.112	ppbV	99
10) 1,3-butadiene	4.558	54	981959	65.265	ppbV	99
11) butane	4.624	43	1650477	64.301	ppbV	99
12) acetaldehyde	4.276	29	1993807	253.554	ppbV	87
13) bromomethane	4.876	94	963441	64.006	ppbV	100
14) chloroethane	5.098	64	653616	69.204	ppbV	99
15) ethanol	5.280	31	4637548	294.948	ppbV	94
16) dichlorofluoromethane	5.243	67	2206551	61.406	ppbV	100
17) vinyl bromide	5.530	106	949981	65.645	ppbV	98
18) acrolein	5.683	56	597856	64.916	ppbV	96
19) acetone	5.840	43	5844063	304.050	ppbV	94
20) acetonitrile	5.527	41	1018113	65.184	ppbV	98
21) trichlorofluoromethane	6.053	101	1785977	62.370	ppbV	100
22) isopropyl alcohol	6.177	45	4454017	170.342	ppbV	98
23) acrylonitrile	6.430	53	1110250	72.054	ppbV	99
24) pentane	6.503	43	2217788	68.120	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322163.D  
 Acq On : 17 May 2022 3:19 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-LLSTD050  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:44:54 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 08:03:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	6.540	31	2374139	89.856	ppbV	96
26) 1,1-dichloroethene	6.830	61	1661545	67.766	ppbV	98
27) tertiary butyl alcohol	6.902	59	2418450	77.010	ppbV	95
28) methylene chloride	6.998	49	1316497	52.523	ppbV	95
29) 3-chloropropene	7.142	41	1591056	69.565	ppbV	98
30) carbon disulfide	7.292	76	3638997	65.362	ppbV	99
31) Freon 113	7.334	101	1995408	64.320	ppbV	98
32) trans-1,2-dichloroethene	8.133	61	1722502	68.995	ppbV	98
33) 1,1-dichloroethane	8.367	63	2055147	69.497	ppbV	99
34) MTBE	8.442	73	3039590	66.835	ppbV	97
35) vinyl acetate	8.592	43	2515704	78.340	ppbV	97
36) 2-butanone	8.850	43	2419450	66.608	ppbV	99
37) cis-1,2-dichloroethene	9.375	61	1554571	69.346	ppbV	100
38) Ethyl Acetate	9.667	61	461594	74.348	ppbV	99
39) chloroform	9.733	83	2006993	64.707	ppbV	97
40) Tetrahydrofuran	10.167	42	1504257	69.245	ppbV	100
41) 2,2-dichloropropane	9.742	77	1702285	67.278	ppbV	92
42) 1,2-dichloroethane	10.575	62	1202777	64.787	ppbV	98
44) hexane	9.642	57	2169735	67.756	ppbV	99
45) diisopropyl ether	9.642	87	1290831	73.531	ppbV	84
46) tert-butyl ethyl ether	10.275	59	3939283	71.952	ppbV	98
48) 1,1,1-trichloroethane	10.867	97	1784731	74.630	ppbV	98
49) 1,1-dichloropropene	11.240	75	1825712	70.235	ppbV	97
50) benzene	11.400	78	4095996	68.561	ppbV	99
51) thiophene	11.553	84	2614578	71.969	ppbV	99
52) carbon tetrachloride	11.573	117	1592155	67.713	ppbV	99
53) cyclohexane	11.720	56	2392864	74.050	ppbV	98
54) tert-amyl methyl ether	12.107	73	3693349	70.400	ppbV	98
55) dibromomethane	12.327	93	1174536	69.715	ppbV	99
56) 1,2-dichloropropane	12.360	63	1405685	72.868	ppbV	97
57) bromodichloromethane	12.593	83	2212249	70.734	ppbV	99
58) 1,4-dioxane	12.627	88	1002478	76.303	ppbV	97
59) trichloroethene	12.640	130	1731860	68.116	ppbV	99
60) 2,2,4-trimethylpentane	12.687	57	6820979M6	70.695	ppbV	
61) methyl methacrylate	12.887	41	1540605	74.580	ppbV	97
62) heptane	13.007	43	2473413	69.055	ppbV	96
63) cis-1,3-dichloropropene	13.658	75	2088294	72.596	ppbV	98
64) 4-methyl-2-pentanone	13.692	43	2961209	68.472	ppbV	95
65) trans-1,3-dichloropropene	14.283	75	1980784	74.212	ppbV	98
66) 1,1,2-trichloroethane	14.483	97	1465724	70.249	ppbV	97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322163.D  
 Acq On : 17 May 2022 3:19 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-LLSTD050  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:44:54 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 08:03:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	14.792	91	4400049	67.747	ppbV	99
70) 2-methylthiophene	14.867	97	3601249	67.680	ppbV	100
71) 1,3-dichloropropane	14.825	76	2361197	68.880	ppbV	98
72) 2-hexanone	15.075	43	2804761	67.494	ppbV	95
73) 3-methylthiophene	15.058	97	3668724	67.453	ppbV	99
74) dibromochloromethane	15.242	129	2156410	68.482	ppbV	99
75) 1,2-dibromoethane	15.492	107	2149685	66.156	ppbV	99
76) butyl acetate	15.733	73	758993	71.878	ppbV	94
77) octane	15.833	85	2056952	71.570	ppbV	93
78) tetrachloroethene	15.967	166	2106664	65.192	ppbV	96
79) 1,1,1,2-tetrachloroethane	16.608	131	1665987	67.337	ppbV	99
80) chlorobenzene	16.625	112	3727974	65.005	ppbV	99
81) ethylbenzene	16.975	91	5395130	67.458	ppbV	98
82) 2-ethylthiophene	17.017	97	4172251	66.298	ppbV	99
83) m+p-xylene	17.142	91	8655348	129.081	ppbV	98
84) bromoform	17.208	173	2064986	68.217	ppbV	98
85) styrene	17.467	104	3969351	66.225	ppbV	98
86) 1,1,2,2-tetrachloroethane	17.558	83	3206962	62.622	ppbV	100
87) o-xylene	17.558	91	4162452	61.121	ppbV	93
88) 1,2,3-trichloropropane	17.667	75	2792173	67.413	ppbV	98
89) nonane	17.758	43	3670670	65.977	ppbV	98
91) isopropylbenzene	18.067	105	6109323	62.234	ppbV	94
92) bromobenzene	18.150	77	3619481	65.633	ppbV	99
93) 2-chlorotoluene	18.475	126	1941749	67.884	ppbV	90
94) n-propylbenzene	18.500	120	2269029	67.677	ppbV	84
95) 4-chlorotoluene	18.533	126	1941433	67.833	ppbV	92
96) 4-ethyl toluene	18.617	105	6445956	61.987	ppbV	96
97) 1,3,5-trimethylbenzene	18.683	105	6105722	60.894	ppbV	96
98) tert-butylbenzene	19.008	119	5063152	54.405	ppbV	91
99) 1,2,4-trimethylbenzene	19.017	105	4874791	55.646	ppbV	92
100) decane	19.083	57	4559678	63.557	ppbV	99
101) Benzyl Chloride	19.125	91	4195040	79.431	ppbV	94
102) 1,3-dichlorobenzene	19.142	146	3881034	59.611	ppbV	97
103) 1,4-dichlorobenzene	19.192	146	3742477	60.096	ppbV	98
104) sec-butylbenzene	19.225	105	7576761	58.351	ppbV	93
105) 1,2,3-trimethylbenzene	19.350	105	4349345	56.519	ppbV	100
106) p-isopropyltoluene	19.350	119	5856198M6	51.595	ppbV	
107) 1,2-dichlorobenzene	19.467	146	3662064	61.520	ppbV	99
108) n-butylbenzene	19.683	91	5724053	60.632	ppbV	94
109) indan	19.517	117	5169955	60.612	ppbV	99



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322163.D  
 Acq On : 17 May 2022 3:19 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-LLSTD050  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:44:54 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 08:03:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default - All compounds listed

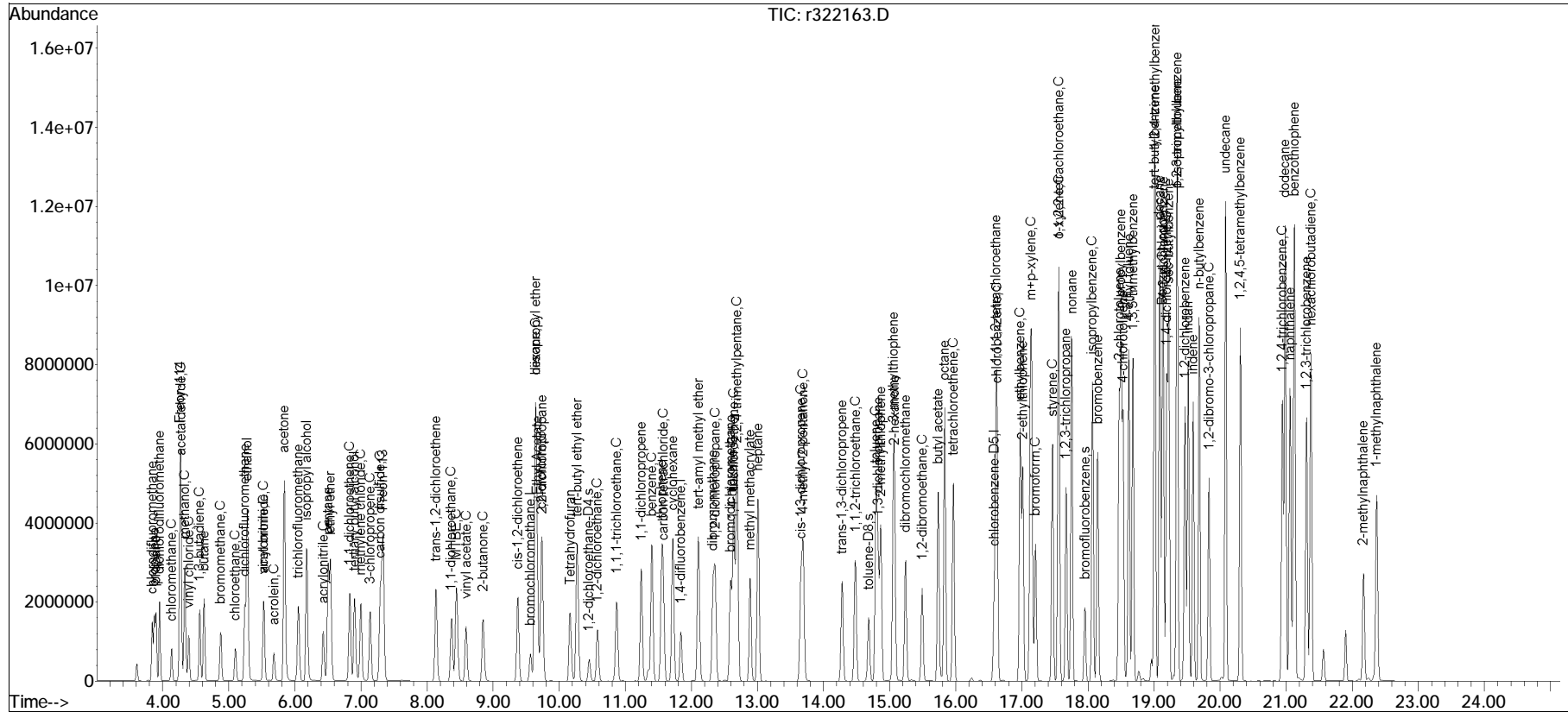
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	19.592	115	4386855	64.694	ppbV	98
111) 1,2-dibromo-3-chloropr...	19.833	75	1578885	62.001	ppbV	93
112) undecane	20.083	57	5027054	60.276	ppbV	97
113) 1,2,4,5-tetramethylben...	20.308	119	5739197	74.244	ppbV	94
114) dodecane	20.983	57	4857318	53.481	ppbV	98
115) 1,2,4-trichlorobenzene	20.942	180	3117435	61.904	ppbV	98
116) naphthalene	21.058	128	7573396	58.031	ppbV	99
117) 1,2,3-trichlorobenzene	21.308	180	3019049	59.732	ppbV	99
118) benzothiophene	21.125	134	12289770	71.844	ppbV	97
119) hexachlorobutadiene	21.375	225	2443296	52.883	ppbV	94
120) 2-methylnaphthalene	22.167	142	2032788	100.477	ppbV	99
121) 1-methylnaphthalene	22.367	142	3542936	68.857	ppbV	99

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

Sub List : Default - All compounds listed 22\05\0516T\_I\r322161.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
Data File : r322163.D  
Acq On : 17 May 2022 3:19 AM  
Operator : AIRPIANO3:TS  
Sample : ITO15-LLSTD050  
Misc : WG1639636  
ALS Vial : 0 Sample Multiplier: 1

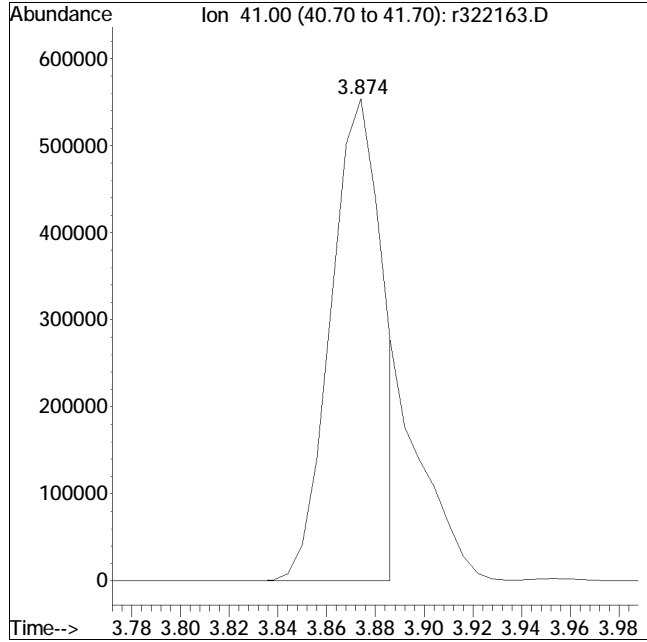
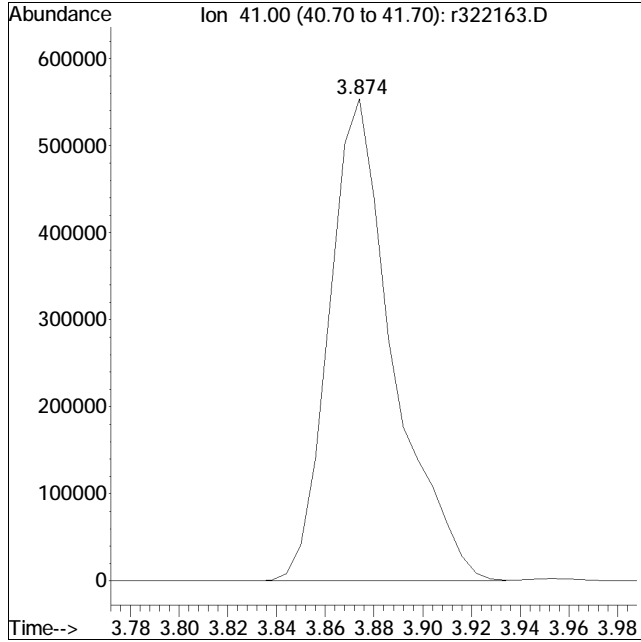
Quant Time: May 17 15:44:54 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 08:03:54 2022  
Response via : Initial Calibration



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322163.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/17/2020 0:3: 9 Instrument :  
Sample : ITO15-LLSTD050 Quant Date : 5/17/2022 8:06 am

Compound #3: propylene



Original Peak Response = 1014411

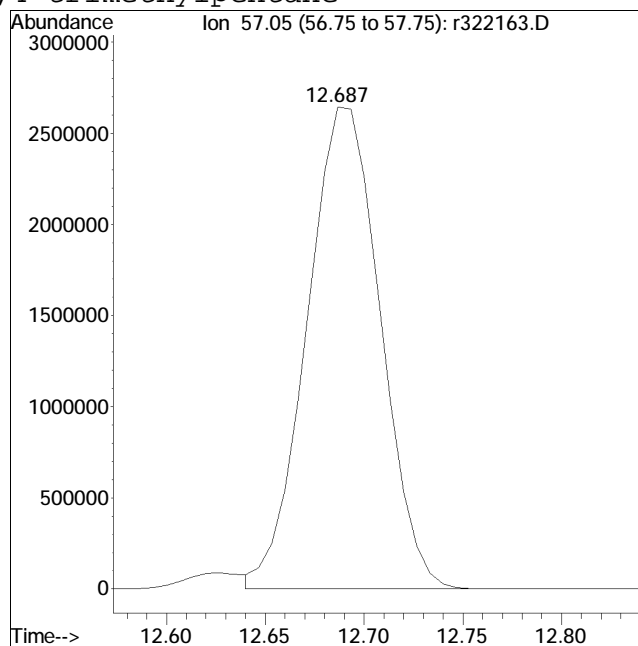
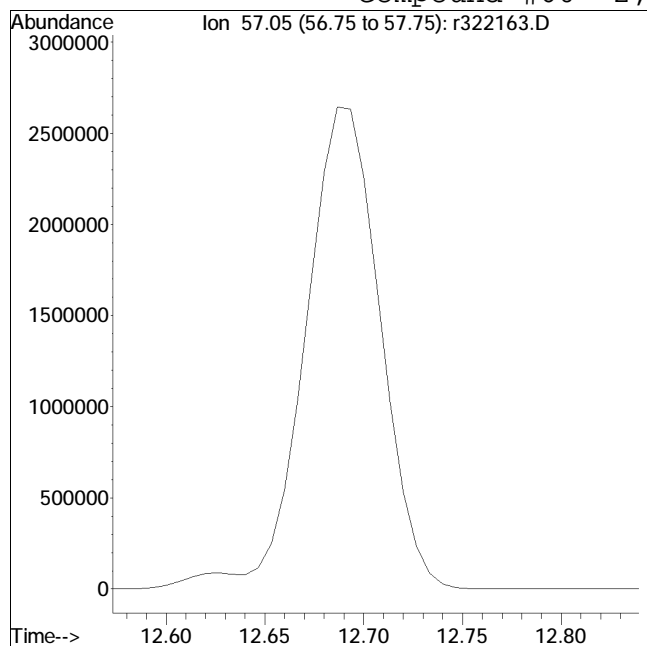
Manual Peak Response = 822902 M6

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

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322163.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/17/2020 0:3: 9 Instrument :  
Sample : ITO15-LLSTD050 Quant Date : 5/17/2022 8:06 am

Compound #60: 2,2,4-trimethylpentane



Original Peak Response =

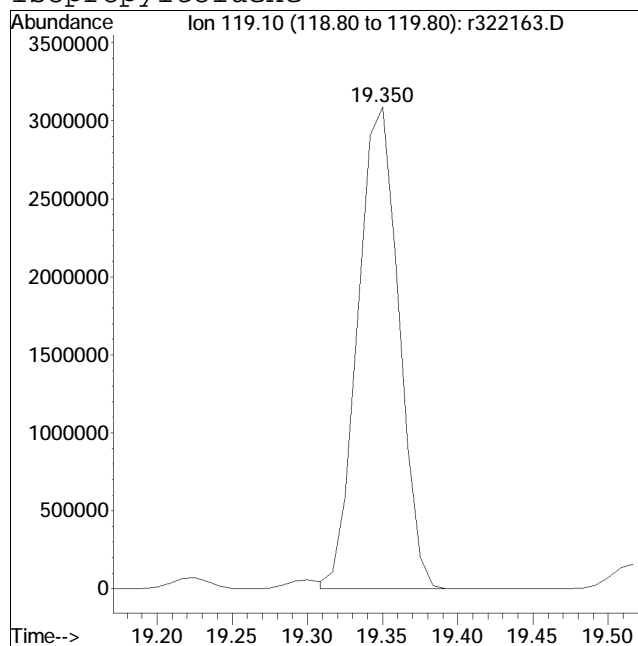
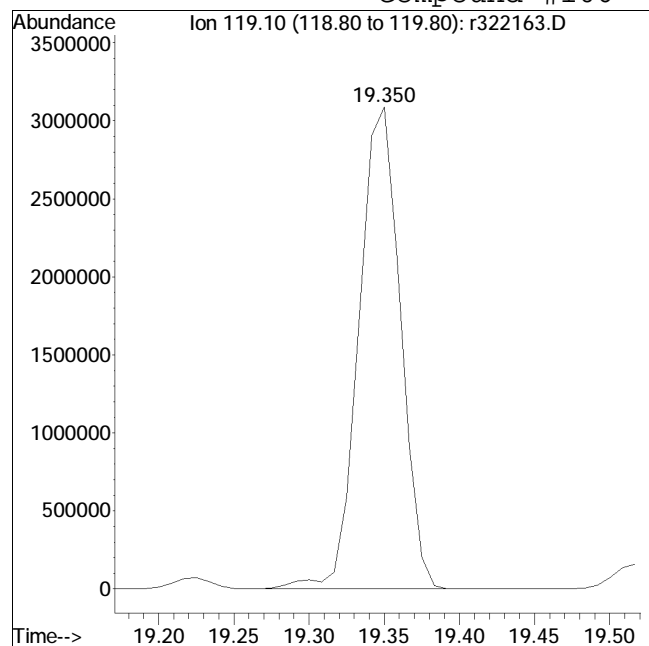
Manual Peak Response = 6820979 M6

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

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322163.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/17/2020 0:3: 9 Instrument :  
Sample : ITO15-LLSTD050 Quant Date : 5/17/2022 8:06 am

Compound #106: p-isopropyltoluene



Original Peak Response = 5947253

Manual Peak Response = 5856198 M6

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322164.D  
 Acq On : 17 May 2022 4:02 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-LLSTD100  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:51:21 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 08:03:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) bromochloromethane	9.567	49	504144	10.000	ppbV	0.00
Standard Area = 424706			Recovery = 118.70%			
43) 1,4-difluorobenzene	11.840	114	1439448	10.000	ppbV	0.00
Standard Area = 1294364			Recovery = 111.21%			
67) chlorobenzene-D5	16.575	54	217565	10.000	ppbV	0.00
Standard Area = 203329			Recovery = 107.00%			
<b>System Monitoring Compounds</b>						
47) 1,2-dichloroethane-D4	10.450	65	409789	9.073	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 90.73%			
69) toluene-D8	14.683	98	1482017	10.547	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.47%			
90) bromofluorobenzene	17.950	95	961267	10.780	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 107.80%			
<b>Target Compounds</b>						
2) chlorodifluoromethane	3.838	51	3060087	114.058	ppbV	97
3) propylene	3.874	41	1709048M6	122.341	ppbV	
4) propane	3.898	29	2360530	128.466	ppbV	97
5) dichlorodifluoromethane	3.952	85	3079843	91.945	ppbV	99
6) chloromethane	4.132	50	1668322	109.714	ppbV	98
7) Freon-114	4.258	85	4123050	95.298	ppbV	97
8) methanol	4.336	31	4554070	369.079	ppbV	95
9) vinyl chloride	4.396	62	2378367	118.102	ppbV	98
10) 1,3-butadiene	4.558	54	1865751	117.003	ppbV	97
11) butane	4.624	43	3191007	117.298	ppbV	99
12) acetaldehyde	4.276	29	3302646	396.282	ppbV #	77
13) bromomethane	4.876	94	1837224	115.163	ppbV	99
14) chloroethane	5.098	64	1284155	128.286	ppbV	100
15) ethanol	5.290	31	8093711	485.691	ppbV	87
16) dichlorofluoromethane	5.240	67	4071948	106.919	ppbV	99
17) vinyl bromide	5.530	106	1817989	118.532	ppbV	97
18) acrolein	5.680	56	1176340	120.515	ppbV #	94
19) acetone	5.843	43	9820166	482.063	ppbV #	91
20) acetonitrile	5.527	41	2007053	121.244	ppbV	97
21) trichlorofluoromethane	6.050	101	3303383	108.846	ppbV	100
22) isopropyl alcohol	6.183	45	8693444	313.703	ppbV #	97
23) acrylonitrile	6.430	53	2308780	141.375	ppbV	98
24) pentane	6.500	43	4896756	141.912	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322164.D  
 Acq On : 17 May 2022 4:02 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-LLSTD100  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:51:21 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 08:03:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	6.537	31	4614122	164.772	ppbV	97
26) 1,1-dichloroethene	6.830	61	3273102	125.955	ppbV	96
27) tertiary butyl alcohol	6.908	59	4942596	148.498	ppbV	94
28) methylene chloride	6.998	49	2619489	98.605	ppbV	93
29) 3-chloropropene	7.136	41	3301465	136.198	ppbV	95
30) carbon disulfide	7.292	76	7121611	120.691	ppbV	98
31) Freon 113	7.328	101	3876751	117.906	ppbV	97
32) trans-1,2-dichloroethene	8.133	61	3459948	130.762	ppbV	97
33) 1,1-dichloroethane	8.367	63	4201325	134.049	ppbV	98
34) MTBE	8.442	73	5920556	122.831	ppbV	94
35) vinyl acetate	8.592	43	5172821	151.987	ppbV	95
36) 2-butanone	8.850	43	4862098	126.296	ppbV	97
37) cis-1,2-dichloroethene	9.375	61	3100460	130.495	ppbV	97
38) Ethyl Acetate	9.675	61	978865	148.761	ppbV	64
39) chloroform	9.733	83	3732386	113.539	ppbV	97
40) Tetrahydrofuran	10.158	42	3126138	135.778	ppbV	99
41) 2,2-dichloropropane	9.742	77	3105915	115.821	ppbV #	88
42) 1,2-dichloroethane	10.583	62	2241190	113.903	ppbV	94
44) hexane	9.633	57	4123304	124.469	ppbV	81
45) diisopropyl ether	9.642	87	2557032	140.803	ppbV	79
46) tert-butyl ethyl ether	10.267	59	7686031	135.709	ppbV	94
48) 1,1,1-trichloroethane	10.867	97	3142946	127.044	ppbV	97
49) 1,1-dichloropropene	11.240	75	3584840	133.312	ppbV	94
50) benzene	11.400	78	8019121	129.755	ppbV	99
51) thiophene	11.553	84	5138098	136.718	ppbV	98
52) carbon tetrachloride	11.573	117	2810656	115.550	ppbV	99
53) cyclohexane	11.720	56	4870380	145.696	ppbV	97
54) tert-amyl methyl ether	12.107	73	7201580	132.696	ppbV	98
55) dibromomethane	12.327	93	2220439	127.402	ppbV	99
56) 1,2-dichloropropane	12.360	63	2838778	142.252	ppbV #	95
57) bromodichloromethane	12.593	83	4128315	127.598	ppbV	99
58) 1,4-dioxane	12.620	88	2009384	147.846	ppbV	94
59) trichloroethene	12.640	130	3360779	127.778	ppbV	98
60) 2,2,4-trimethylpentane	12.693	57	13018228	130.428	ppbV	98
61) methyl methacrylate	12.887	41	3091162	144.653	ppbV	95
62) heptane	13.013	43	4925861	132.940	ppbV	97
63) cis-1,3-dichloropropene	13.658	75	4113685	138.239	ppbV	95
64) 4-methyl-2-pentanone	13.692	43	5825451	130.212	ppbV	92
65) trans-1,3-dichloropropene	14.283	75	3855700	139.642	ppbV	96
66) 1,1,2-trichloroethane	14.483	97	2922429	135.398	ppbV	95

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322164.D  
 Acq On : 17 May 2022 4:02 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-LLSTD100  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:51:21 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 08:03:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	14.792	91	8288443	127.618	ppbV	99
70) 2-methylthiophene	14.867	97	6944209	130.508	ppbV	99
71) 1,3-dichloropropane	14.825	76	4587252	133.819	ppbV	97
72) 2-hexanone	15.075	43	5367363	129.162	ppbV	95
73) 3-methylthiophene	15.058	97	6881901	126.532	ppbV	98
74) dibromochloromethane	15.242	129	3892118	123.606	ppbV	97
75) 1,2-dibromoethane	15.492	107	4084653	125.707	ppbV	99
76) butyl acetate	15.733	73	1518370	143.794	ppbV	91
77) octane	15.833	85	4002018	139.248	ppbV	92
78) tetrachloroethene	15.967	166	3921310	121.350	ppbV	97
79) 1,1,1,2-tetrachloroethane	16.608	131	2900300	117.229	ppbV	97
80) chlorobenzene	16.625	112	6688743	116.634	ppbV	99
81) ethylbenzene	16.975	91	9883670	123.582	ppbV	93
82) 2-ethylthiophene	17.017	97	7595805	120.701	ppbV	95
83) m+p-xylene	17.142	91	14785867	220.510	ppbV	94
84) bromoform	17.208	173	3646049	120.448	ppbV	97
85) styrene	17.458	104	7471220	124.652	ppbV	97
86) 1,1,2,2-tetrachloroethane	17.558	83	5404880	105.542	ppbV	100
87) o-xylene	17.558	91	6800881	99.865	ppbV	88
88) 1,2,3-trichloropropane	17.675	75	5301397	127.996	ppbV #	95
89) nonane	17.758	43	6832964	122.819	ppbV	96
91) isopropylbenzene	18.067	105	10630061	108.287	ppbV	89
92) bromobenzene	18.150	77	6577060	119.264	ppbV	97
93) 2-chlorotoluene	18.475	126	3642778	127.353	ppbV	75
94) n-propylbenzene	18.500	120	4101712	122.341	ppbV	68
95) 4-chlorotoluene	18.533	126	3611144	126.175	ppbV	82
96) 4-ethyl toluene	18.617	105	11103480	106.777	ppbV	92
97) 1,3,5-trimethylbenzene	18.683	105	9109580	90.854	ppbV	91
98) tert-butylbenzene	19.008	119	7923495	85.142	ppbV #	86
99) 1,2,4-trimethylbenzene	19.017	105	7357736	83.990	ppbV	92
100) decane	19.092	57	7700332	107.336	ppbV	93
101) Benzyl Chloride	19.125	91	7051576	133.520	ppbV #	88
102) 1,3-dichlorobenzene	19.142	146	6457705	99.188	ppbV	96
103) 1,4-dichlorobenzene	19.192	146	6454159	103.641	ppbV	96
104) sec-butylbenzene	19.225	105	12209124	94.027	ppbV #	85
105) 1,2,3-trimethylbenzene	19.358	105	6667105	86.639	ppbV	99
106) p-isopropyltoluene	19.350	119	8912078M6	78.519	ppbV	
107) 1,2-dichlorobenzene	19.467	146	6495104	109.115	ppbV	97
108) n-butylbenzene	19.683	91	9569551	101.367	ppbV #	85
109) indan	19.517	117	8575543	100.539	ppbV	97



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322164.D  
 Acq On : 17 May 2022 4:02 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-LLSTD100  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:51:21 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 08:03:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	19.592	115	7517413	110.862	ppbV	98
111) 1,2-dibromo-3-chloropr...	19.833	75	2679929	105.239	ppbV	88
112) undecane	20.083	57	8145884	97.673	ppbV #	91
113) 1,2,4,5-tetramethylben...	20.308	119	9365886	121.161	ppbV	88
114) dodecane	20.983	57	8000283	88.087	ppbV	92
115) 1,2,4-trichlorobenzene	20.942	180	5568052	110.568	ppbV	98
116) naphthalene	21.058	128	13029701	99.841	ppbV	99
117) 1,2,3-trichlorobenzene	21.308	180	5434280	107.520	ppbV	98
118) benzothiophene	21.125	134	18505194	108.179	ppbV #	95
119) hexachlorobutadiene	21.375	225	4067453	88.038	ppbV	90
120) 2-methylnaphthalene	22.167	142	4294546	212.275	ppbV	99
121) 1-methylnaphthalene	22.367	142	6839812	132.934	ppbV	98

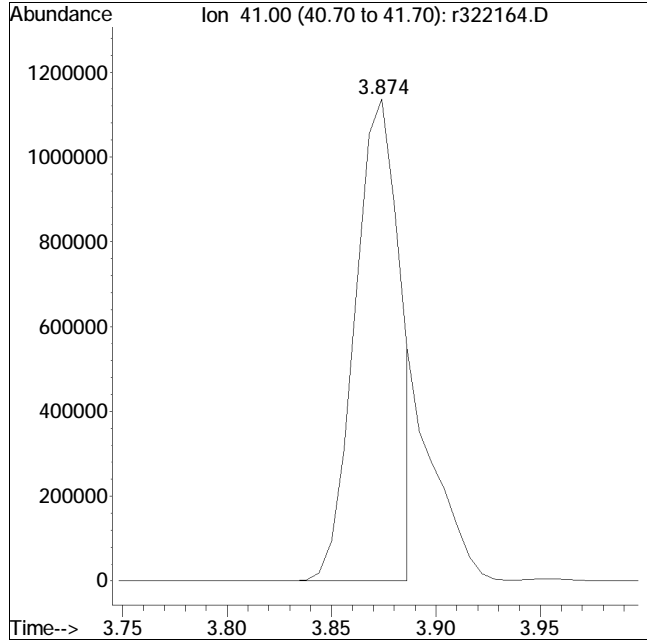
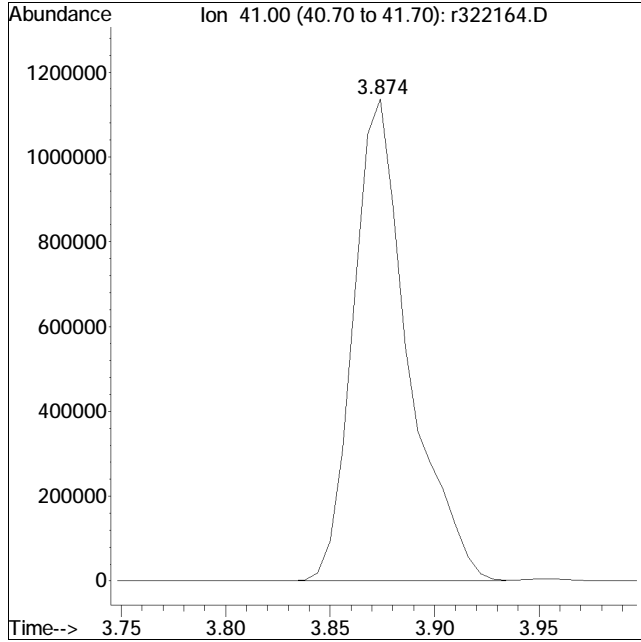
(#) = qualifier out of range (m) = manual integration (+) = signals summed



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322164.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/17/2020 0:4: 2 Instrument :  
Sample : ITO15-LLSTD100 Quant Date : 5/17/2022 8:06 am

Compound #3: propylene



Original Peak Response = 2090485

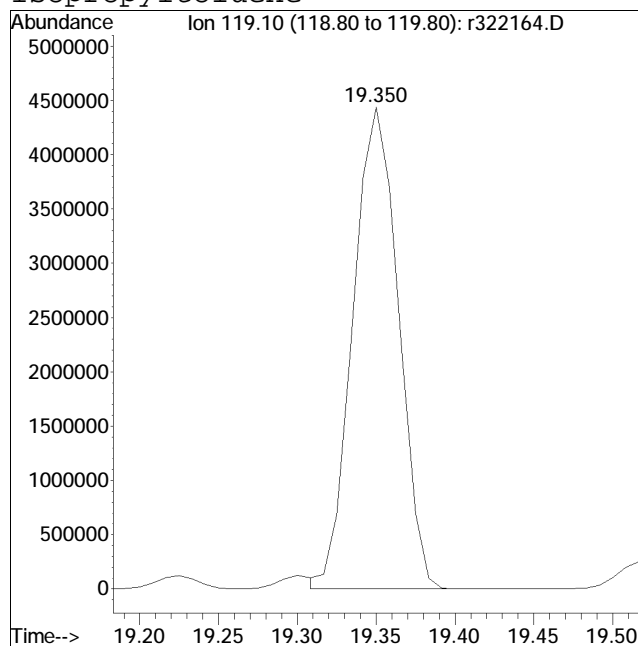
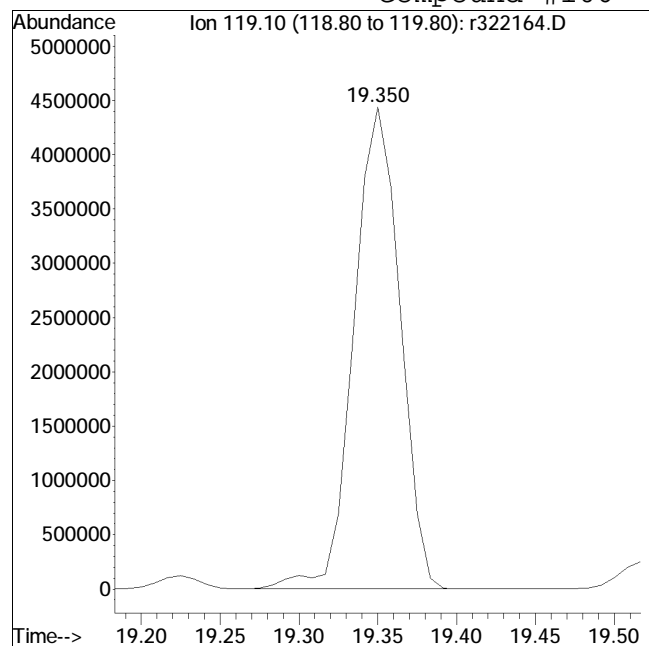
Manual Peak Response = 1709048 M6

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

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322164.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/17/2020 0:4: 2 Instrument :  
Sample : ITO15-LLSTD100 Quant Date : 5/17/2022 8:06 am

Compound #106: p-isopropyltoluene



Original Peak Response = 9091171

Manual Peak Response = 8912078 M6

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

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322167.D  
 Acq On : 17 May 2022 11:14 AM  
 Operator : AIRPIANO3:TS  
 Sample : CTO15-LLSTD010  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:57:20 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 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	106	0.00
2	chlorodifluoromethane	10.000	9.918	0.8	128	0.00
3	propylene	10.000	12.213	-22.1	171	0.00
4	propane	10.000	10.688	-6.9	145	0.00
5	dichlorodifluoromethane	10.000	10.038	-0.4	126	0.00
6 C	chloromethane	10.000	10.213	-2.1	136	0.00
7	Freon-114	10.000	10.997	-10.0	139	0.00
8 C	methanol	50.000	36.586	26.8	82	0.00
9 C	vinyl chloride	10.000	11.429	-14.3	149	0.00
10 C	1,3-butadiene	10.000	11.367	-13.7	151	0.00
11	butane	10.000	9.952	0.5	140	0.00
13 C	bromomethane	10.000	11.348	-13.5	149	0.00
14 C	chloroethane	10.000	11.637	-16.4	156	0.00
15	ethanol	50.000	48.375	3.3	120	0.00
16	dichlorofluoromethane	10.000	11.003	-10.0	135	0.00
17 C	vinyl bromide	10.000	11.320	-13.2	148	0.00
18 C	acrolein	10.000	6.973	30.3#	130	0.00
19	acetone	50.000	51.383	-2.8	148	0.00
20 C	acetonitrile	10.000	9.595	4.0	145	0.00
21	trichlorofluoromethane	10.000	11.338	-13.4	143	0.00
22	isopropyl alcohol	25.000	31.068	-24.3	158	0.00
23 C	acrylonitrile	10.000	11.534	-15.3	157	0.00
24	pentane	10.000	11.005	-10.1	152	0.00
25	ethyl ether	10.000	13.634	-36.3#	192	0.00
26 C	1,1-dichloroethene	10.000	12.387	-23.9	162	0.00
27	tertiary butyl alcohol	10.000	12.472	-24.7	165	-0.01
28 C	methylene chloride	10.000	9.541	4.6	120	0.00
29 C	3-chloropropene	10.000	13.085	-30.9#	173	0.00
30 C	carbon disulfide	10.000	10.937	-9.4	142	0.00
31	Freon 113	10.000	11.870	-18.7	155	0.00
32	trans-1,2-dichloroethene	10.000	12.241	-22.4	161	0.00
33 C	1,1-dichloroethane	10.000	12.531	-25.3	167	0.00
34 C	MTBE	10.000	11.646	-16.5	151	0.00
35 C	vinyl acetate	10.000	10.897	-9.0	153	0.00
36 C	2-butanone	10.000	10.773	-7.7	149	-0.02
37	cis-1,2-dichloroethene	10.000	12.704	-27.0	166	0.00
38	Ethyl Acetate	10.000	13.227	-32.3#	175	0.00
39 C	chloroform	10.000	11.978	-19.8	153	0.00
40	Tetrahydrofuran	10.000	11.562	-15.6	155	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322167.D  
 Acq On : 17 May 2022 11:14 AM  
 Operator : AIRPIANO3:TS  
 Sample : CTO15-LLSTD010  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:57:20 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 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	10.855	-8.6	135	0.00
42 C	1,2-dichloroethane	10.000	10.852	-8.5	144	0.00
43 I	1,4-difluorobenzene	10.000	10.000	0.0	106	0.00
44 C	hexane	10.000	12.332	-23.3	161	0.00
45	diisopropyl ether	10.000	11.700	-17.0	155	0.00
46	tert-butyl ethyl ether	10.000	11.926	-19.3	154	0.00
47 s	1,2-dichloroethane-D4	10.000	9.505	4.9	98	0.00
48 C	1,1,1-trichloroethane	10.000	11.640	-16.4	154	0.00
49	1,1-dichloropropene	10.000	11.193	-11.9	146	0.00
50 C	benzene	10.000	10.446	-4.5	151	0.00
52 C	carbon tetrachloride	10.000	11.593	-15.9	145	0.00
53	cyclohexane	10.000	12.596	-26.0	170	0.00
54	tert-amyl methyl ether	10.000	10.991	-9.9	143	0.00
55	dibromomethane	10.000	11.302	-13.0	153	0.00
56 C	1,2-dichloropropane	10.000	12.626	-26.3	170	0.00
57	bromodichloromethane	10.000	12.088	-20.9	157	-0.01
58 C	1,4-dioxane	10.000	12.934	-29.3	173	-0.01
59 C	trichloroethene	10.000	12.061	-20.6	157	0.00
60 C	2,2,4-trimethylpentane	10.000	12.684	-26.8	170	0.00
61	methyl methacrylate	10.000	12.136	-21.4	162	-0.01
62	heptane	10.000	11.497	-15.0	155	0.00
63 C	cis-1,3-dichloropropene	10.000	12.582	-25.8	161	0.00
64 C	4-methyl-2-pentanone	10.000	11.838	-18.4	152	-0.02
65	trans-1,3-dichloropropene	10.000	11.018	-10.2	137	0.00
66 C	1,1,2-trichloroethane	10.000	12.406	-24.1	164	-0.02
67 I	chlorobenzene-D5	10.000	10.000	0.0	104	0.00
68 C	toluene	10.000	12.407	-24.1	162	0.00
69 s	toluene-D8	10.000	10.312	-3.1	107	0.00
71	1,3-dichloropropane	10.000	10.716	-7.2	140	0.00
72	2-hexanone	10.000	11.851	-18.5	146	0.00
74	dibromochloromethane	10.000	13.006	-30.1#	162	0.00
75 C	1,2-dibromoethane	10.000	11.822	-18.2	149	0.00
76	butyl acetate	10.000	11.378	-13.8	139	0.00
77	octane	10.000	11.656	-16.6	151	0.00
78 C	tetrachloroethene	10.000	12.267	-22.7	156	0.00
79	1,1,1,2-tetrachloroethane	10.000	12.032	-20.3	148	0.00
80 C	chlorobenzene	10.000	11.903	-19.0	151	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322167.D  
 Acq On : 17 May 2022 11:14 AM  
 Operator : AIRPIANO3:TS  
 Sample : CTO15-LLSTD010  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:57:20 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 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)
81 C	ethylbenzene	10.000	12.855	-28.6	164	0.00
83 C	m+p-xylene	20.000	25.675	-28.4	159	0.00
84 C	bromoform	10.000	13.263	-32.6#	160	0.00
85 C	styrene	10.000	11.999	-20.0	148	0.00
86 C	1,1,2,2-tetrachloroethane	10.000	13.189	-31.9#	159	0.00
87 C	o-xylene	10.000	12.934	-29.3	158	0.00
88	1,2,3-trichloropropane	10.000	10.926	-9.3	139	0.00
89	nonane	10.000	10.880	-8.8	139	0.00
90 s	bromofluorobenzene	10.000	10.283	-2.8	106	0.00
91 C	isopropylbenzene	10.000	11.413	-14.1	143	0.00
92	bromobenzene	10.000	11.260	-12.6	142	0.00
93	2-chlorotoluene	10.000	11.528	-15.3	146	0.00
94	n-propylbenzene	10.000	11.845	-18.5	148	0.00
95	4-chlorotoluene	10.000	11.658	-16.6	146	0.00
96	4-ethyl toluene	10.000	11.818	-18.2	144	0.00
97	1,3,5-trimethylbenzene	10.000	11.167	-11.7	129	0.00
98	tert-butylbenzene	10.000	12.059	-20.6	142	0.00
99	1,2,4-trimethylbenzene	10.000	12.658	-26.6	146	0.00
100	decane	10.000	12.456	-24.6	151	0.00
101 C	Benzyl Chloride	10.000	15.796	-58.0#	171	0.00
102	1,3-dichlorobenzene	10.000	12.217	-22.2	144	0.00
103 C	1,4-dichlorobenzene	10.000	12.308	-23.1	147	0.00
104	sec-butylbenzene	10.000	11.413	-14.1	136	0.00
106	p-isopropyltoluene	10.000	11.805	-18.0	135	0.00
107	1,2-dichlorobenzene	10.000	12.299	-23.0	148	0.00
108	n-butylbenzene	10.000	12.890	-28.9	152	0.00
111 C	1,2-dibromo-3-chloropropane	10.000	11.943	-19.4	132	0.00
112	undecane	10.000	12.898	-29.0	148	0.00
114	dodecane	10.000	12.649	-26.5	133	0.00
115 C	1,2,4-trichlorobenzene	10.000	12.886	-28.9	145	0.00
116	naphthalene	10.000	12.703	-27.0	142	0.00
117	1,2,3-trichlorobenzene	10.000	12.296	-23.0	140	0.00
119 C	hexachlorobutadiene	10.000	12.495	-24.9	144	0.00

\* Evaluation of CC level amount vs concentration.

(#) = Out of Range SPCC's out = 0 CCC's out = 5

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322167.D  
 Acq On : 17 May 2022 11:14 AM  
 Operator : AIRPIANO3:TS  
 Sample : CTO15-LLSTD010  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:57:20 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) bromochloromethane	9.558	49	451482	10.000	ppbV	0.00	
Standard Area =	424706		Recovery =	106.30%			
43) 1,4-difluorobenzene	11.833	114	1367867	10.000	ppbV	0.00	
Standard Area =	1294364		Recovery =	105.68%			
67) chlorobenzene-D5	16.575	54	211425	10.000	ppbV	0.00	
Standard Area =	203329		Recovery =	103.98%			
System Monitoring Compounds							
47) 1,2-dichloroethane-D4	10.442	65	398852	9.505	ppbV	0.00	
Spiked Amount	10.000	Range 70 - 130	Recovery =	95.05%			
69) toluene-D8	14.675	98	1407701	10.312	ppbV	0.00	
Spiked Amount	10.000	Range 70 - 130	Recovery =	103.12%			
90) bromofluorobenzene	17.950	95	884318	10.283	ppbV	0.00	
Spiked Amount	10.000	Range 70 - 130	Recovery =	102.83%			
Target Compounds							
							Qvalue
2) chlorodifluoromethane	3.844	51	290296	9.918	ppbV		97
3) propylene	3.874	41	201379M6	12.213	ppbV		
4) propane	3.898	29	224389	10.688	ppbV		97
5) dichlorodifluoromethane	3.952	85	356453	10.038	ppbV		99
6) chloromethane	4.138	50	174347	10.213	ppbV		99
7) Freon-114	4.264	85	507537	10.997	ppbV		98
8) methanol	4.330	31	426726	36.586	ppbV		95
9) vinyl chloride	4.396	62	252277	11.429	ppbV		99
10) 1,3-butadiene	4.558	54	202361	11.367	ppbV		97
11) butane	4.624	43	321738	9.952	ppbV		99
13) bromomethane	4.876	94	200263	11.348	ppbV		99
14) chloroethane	5.098	64	131499	11.637	ppbV		100
15) ethanol	5.270	31	839094	48.375	ppbV		95
16) dichlorofluoromethane	5.240	67	431972	11.003	ppbV		99
17) vinyl bromide	5.527	106	190750	11.320	ppbV		97
18) acrolein	5.680	56	107250	6.973	ppbV		96
19) acetone	5.837	43	1270875	51.383	ppbV		95
20) acetonitrile	5.520	41	201780	9.595	ppbV		99
21) trichlorofluoromethane	6.050	101	366155	11.338	ppbV		98
22) isopropyl alcohol	6.170	45	924655	31.068	ppbV		98
23) acrylonitrile	6.423	53	215996	11.534	ppbV		98
24) pentane	6.500	43	442183	11.005	ppbV		99
25) ethyl ether	6.537	31	453684	13.634	ppbV		94



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322167.D  
 Acq On : 17 May 2022 11:14 AM  
 Operator : AIRPIANO3:TS  
 Sample : CTO15-LLSTD010  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:57:20 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
26) 1,1-dichloroethene	6.824	61	354572	12.387	ppbV	98
27) tertiary butyl alcohol	6.896	59	461863	12.472	ppbV	94
28) methylene chloride	6.992	49	268766	9.541	ppbV	93
29) 3-chloropropene	7.136	41	352815	13.085	ppbV	96
30) carbon disulfide	7.286	76	705999	10.937	ppbV	97
31) Freon 113	7.328	101	428538	11.870	ppbV	98
32) trans-1,2-dichloroethene	8.133	61	358361	12.241	ppbV	99
33) 1,1-dichloroethane	8.367	63	439776	12.531	ppbV	100
34) MTBE	8.442	73	611236	11.646	ppbV	95
35) vinyl acetate	8.583	43	437542	10.897	ppbV	97
36) 2-butanone	8.842	43	484505	10.773	ppbV	98
37) cis-1,2-dichloroethene	9.367	61	331952	12.704	ppbV	99
38) Ethyl Acetate	9.667	61	96887	13.227	ppbV	74
39) chloroform	9.717	83	423238	11.978	ppbV	97
40) Tetrahydrofuran	10.167	42	300142	11.562	ppbV	99
41) 2,2-dichloropropane	9.733	77	304689	10.855	ppbV	94
42) 1,2-dichloroethane	10.567	62	239467	10.852	ppbV	98
44) hexane	9.633	57	480838	12.332	ppbV	91
45) diisopropyl ether	9.633	87	253651	11.700	ppbV	86
46) tert-butyl ethyl ether	10.267	59	783769	11.926	ppbV	100
48) 1,1,1-trichloroethane	10.858	97	343438	11.640	ppbV	99
49) 1,1-dichloropropene	11.233	75	353500	11.193	ppbV	99
50) benzene	11.393	78	836469	10.446	ppbV	99
52) carbon tetrachloride	11.567	117	317442	11.593	ppbV	98
53) cyclohexane	11.713	56	510803	12.596	ppbV	97
54) tert-amyl methyl ether	12.100	73	698306	10.991	ppbV	98
55) dibromomethane	12.320	93	239217	11.302	ppbV	97
56) 1,2-dichloropropane	12.353	63	304753	12.626	ppbV	97
57) bromodichloromethane	12.580	83	458000	12.088	ppbV	99
58) 1,4-dioxane	12.620	88	211560	12.934	ppbV	98
59) trichloroethene	12.633	130	371858	12.061	ppbV	99
60) 2,2,4-trimethylpentane	12.680	57	1528565M6	12.684	ppbV	
61) methyl methacrylate	12.880	41	312153	12.136	ppbV	97
62) heptane	13.000	43	516661	11.497	ppbV	94
63) cis-1,3-dichloropropene	13.650	75	431360	12.582	ppbV	98
64) 4-methyl-2-pentanone	13.683	43	609479	11.838	ppbV	93
65) trans-1,3-dichloropropene	14.275	75	340456	11.018	ppbV	99
66) 1,1,2-trichloroethane	14.467	97	318208	12.406	ppbV	99
68) toluene	14.783	91	985428	12.407	ppbV	99
71) 1,3-dichloropropane	14.817	76	447368	10.716	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
 Data File : r322167.D  
 Acq On : 17 May 2022 11:14 AM  
 Operator : AIRPIANO3:TS  
 Sample : CTO15-LLSTD010  
 Misc : WG1639636  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:57:20 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
 Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
72) 2-hexanone	15.067	43	566460	11.851	ppbV	94
74) dibromochloromethane	15.233	129	475855	13.006	ppbV	99
75) 1,2-dibromoethane	15.483	107	452132	11.822	ppbV	100
76) butyl acetate	15.733	73	137448	11.378	ppbV	90
77) octane	15.825	85	405607	11.656	ppbV	93
78) tetrachloroethene	15.958	166	472009	12.267	ppbV	99
79) 1,1,1,2-tetrachloroethane	16.600	131	342374	12.032	ppbV	98
80) chlorobenzene	16.617	112	811487	11.903	ppbV	99
81) ethylbenzene	16.967	91	1225047	12.855	ppbV	94
83) m+p-xylene	17.133	91	1998670	25.675	ppbV	95
84) bromoform	17.200	173	451426	13.263	ppbV	99
85) styrene	17.458	104	831197	11.999	ppbV	99
86) 1,1,2,2-tetrachloroethane	17.550	83	762200	13.189	ppbV	100
87) o-xylene	17.550	91	1003666	12.934	ppbV	96
88) 1,2,3-trichloropropane	17.667	75	536797	10.926	ppbV	98
89) nonane	17.750	43	724724	10.880	ppbV	92
91) isopropylbenzene	18.067	105	1309861	11.413	ppbV	96
92) bromobenzene	18.142	77	732118	11.260	ppbV	96
93) 2-chlorotoluene	18.467	126	389228	11.528	ppbV	91
94) n-propylbenzene	18.492	120	464781	11.845	ppbV	97
95) 4-chlorotoluene	18.525	126	391102	11.658	ppbV	96
96) 4-ethyl toluene	18.617	105	1395659	11.818	ppbV	97
97) 1,3,5-trimethylbenzene	18.675	105	1207736	11.167	ppbV	95
98) tert-butylbenzene	19.000	119	1233791	12.059	ppbV	100
99) 1,2,4-trimethylbenzene	19.008	105	1199278	12.658	ppbV	95
100) decane	19.075	57	1011247	12.456	ppbV	92
101) Benzyl Chloride	19.117	91	845699	15.796	ppbV	100
102) 1,3-dichlorobenzene	19.133	146	874109	12.217	ppbV	98
103) 1,4-dichlorobenzene	19.183	146	856245	12.308	ppbV	98
104) sec-butylbenzene	19.217	105	1654846	11.413	ppbV	98
106) p-isopropyltoluene	19.342	119	1429233	11.805	ppbV	98
107) 1,2-dichlorobenzene	19.458	146	823459	12.299	ppbV	96
108) n-butylbenzene	19.683	91	1337083	12.890	ppbV	96
111) 1,2-dibromo-3-chloropr...	19.825	75	314715	11.943	ppbV	92
112) undecane	20.075	57	1156520	12.898	ppbV	94
114) dodecane	20.983	57	1130951	12.649	ppbV	94
115) 1,2,4-trichlorobenzene	20.933	180	681731	12.886	ppbV	98
116) naphthalene	21.050	128	1737847	12.703	ppbV	99
117) 1,2,3-trichlorobenzene	21.300	180	660283	12.296	ppbV	98
119) hexachlorobutadiene	21.367	225	620192	12.495	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
Data File : r322167.D  
Acq On : 17 May 2022 11:14 AM  
Operator : AIRPIANO3:TS  
Sample : CT015-LLSTD010  
Misc : WG1639636  
ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:57:20 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 15:52:12 2022  
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\r322161.D  
Sub List : Default-ICV-AP2 - All compounds listed

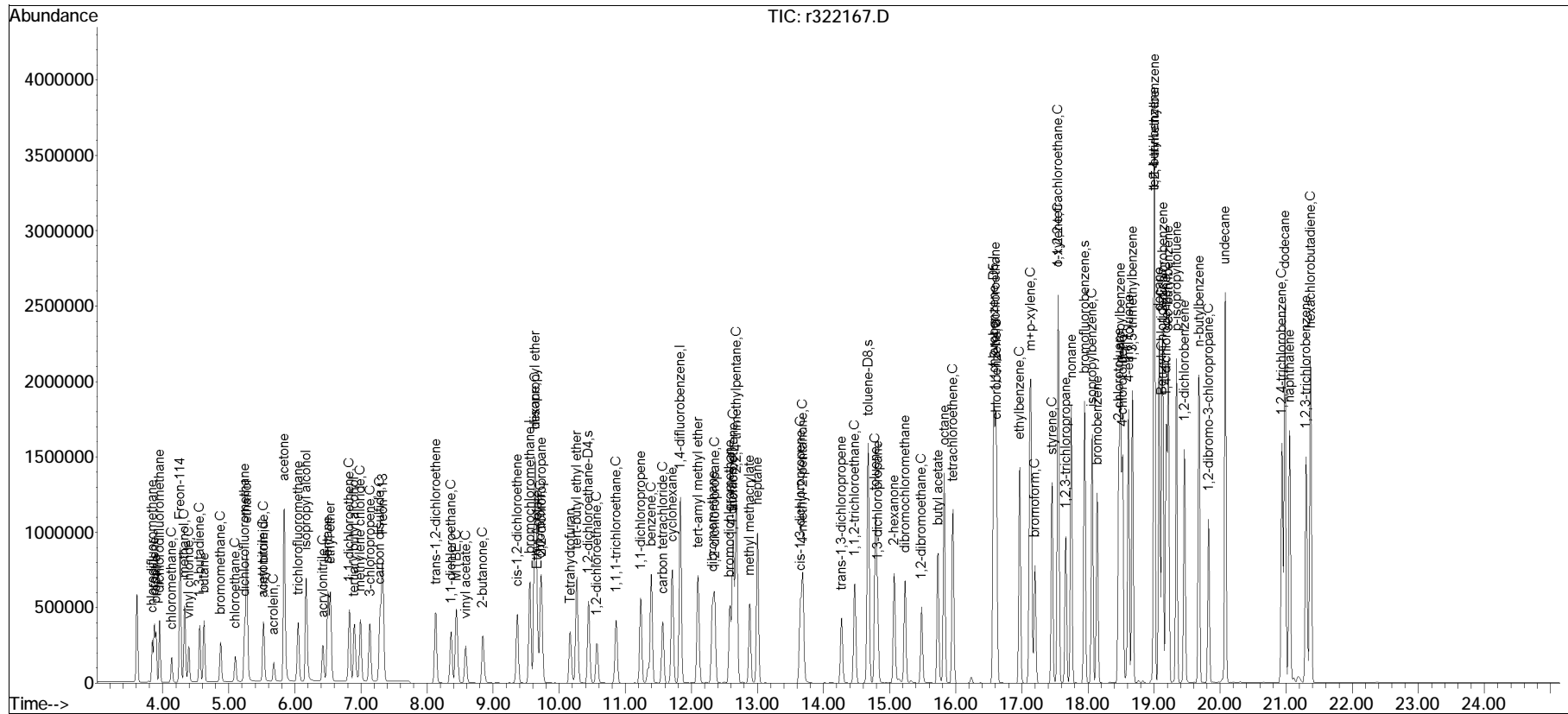
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
----------	------	------	----------	------	-------	----------

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

Sub List : Default-ICV-AP2 - All compounds listed16T\_I\r322161.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\  
Data File : r322167.D  
Acq On : 17 May 2022 11:14 AM  
Operator : AIRPIANO3:TS  
Sample : CTO15-LLSTD010  
Misc : WG1639636  
ALS Vial : 0 Sample Multiplier: 1

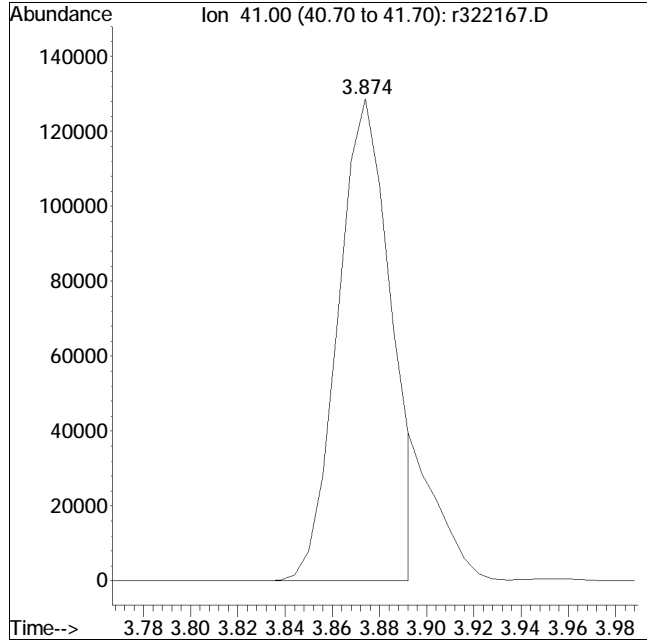
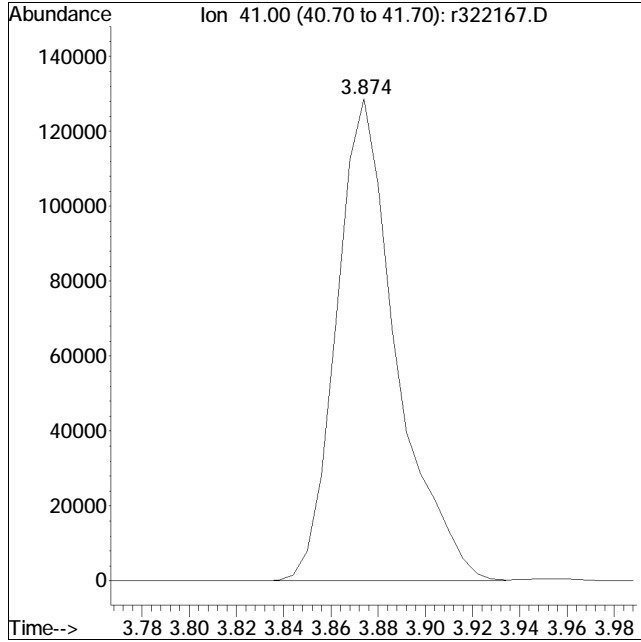
Quant Time: May 17 15:57:20 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516T\_I\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 15:52:12 2022  
Response via : Initial Calibration



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322167.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/17/2020 0:1: 4 Instrument :  
Sample : CTO15-LLSTD010 Quant Date : 5/17/2022 3:56 pm

Compound #3: propylene



Original Peak Response = 227396

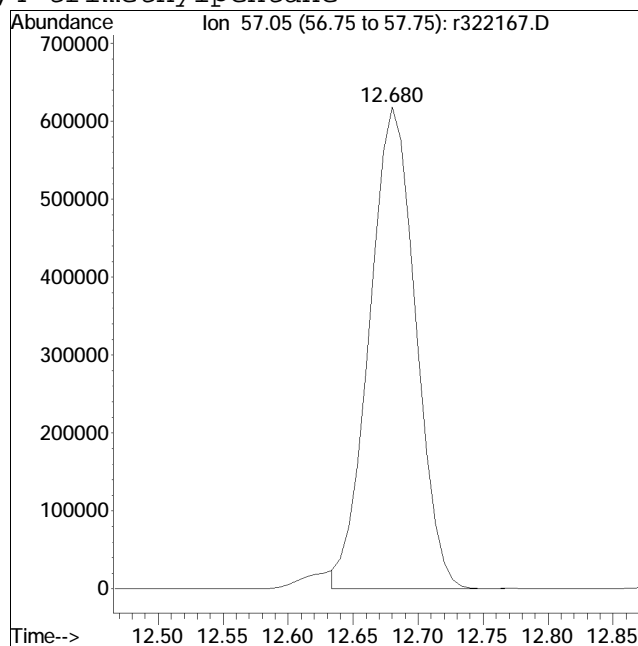
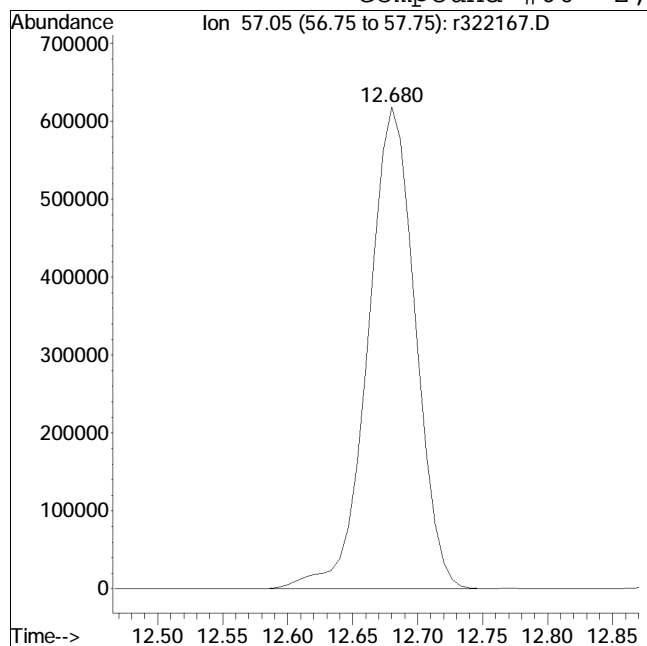
Manual Peak Response = 201379 M6

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

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322167.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/17/2020 0:1: 4 Instrument :  
Sample : CT015-LLSTD010 Quant Date : 5/17/2022 3:56 pm

Compound #60: 2,2,4-trimethylpentane



Original Peak Response = 1566812

Manual Peak Response = 1528565 M6

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

# **Continuing Calibration**

# Calibration Verification Summary

## Form 7

### Air Volatiles

Client : Langan Engineering & Environmental  
 Project Name : 57-00, 57-05 47TH ST  
 Instrument ID : AIRPIANO3  
 Lab File ID : R322194  
 Sample No : WG1640147-2  
 Channel :

Lab Number : L2225590  
 Project Number : 100965503  
 Calibration Date : 05/18/22 13:48  
 Init. Calib. Date(s) : 05/16/22 05/17/22  
 Init. Calib. Times : 23:12 04:02

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
bromochloromethane	1	1	-	0	30	104	-0.03
chlorodifluoromethane	0.648	0.671	-	-3.5	30	132	-0.02
propylene	0.365	0.418	-	-14.5	30	157	-0.02
propane	0.465	0.464	-	0.2	30	133	-0.01
dichlorodifluoromethane	0.787	0.895	-	-13.7	30	141	-0.01
chloromethane	0.378	0.417	-	-10.3	30	144	-0.02
Freon-114	1.022	1.206	-	-18	30	147	-0.02
methanol	0.258	0.199	-	22.9	30	85	-0.02
vinyl chloride	0.489	0.566	-	-15.7	30	148	-0.02
1,3-butadiene	0.394	0.477	-	-21.1	30	157	-0.02
butane	0.716	0.725	-	-1.3	30	140	-0.02
bromomethane	0.391	0.452	-	-15.6	30	149	-0.02
chloroethane	0.25	0.285	-	-14	30	150	-0.02
ethanol	0.384	0.441	-	-14.8	30	139	-0.02
dichlorofluoromethane	0.87	1.015	-	-16.7	30	140	-0.02
vinyl bromide	0.373	0.427	-	-14.5	30	147	-0.02
acrolein	0.341	0.247	-	27.6	30	133	-0.02
acetone	0.548	0.611	-	-11.5	30	158	-0.03
acetonitrile	0.466	0.426	-	8.6	30	135	-0.02
trichlorofluoromethane	0.715	0.863	-	-20.7	30	150	-0.02
isopropyl alcohol	0.659	0.85	-	-29	30	161	-0.03
acrylonitrile	0.415	0.45	-	-8.4	30	145	-0.03
pentane	0.89	0.951	-	-6.9	30	145	-0.02
ethyl ether	0.737	0.747	-	-1.4	30	140	-0.02
1,1-dichloroethene	0.634	0.74	-	-16.7	30	150	-0.02
tertiary butyl alcohol	0.82	0.982	-	-19.8	30	155	-0.03
methylene chloride	0.624	0.606	-	2.9	30	120	-0.02
3-chloropropene	0.597	0.757	-	-26.8	30	164	-0.03
carbon disulfide	1.43	1.574	-	-10.1	30	140	-0.02
Freon 113	0.8	0.948	-	-18.5	30	152	-0.03
trans-1,2-dichloroethene	0.648	0.72	-	-11.1	30	143	-0.03
1,1-dichloroethane	0.777	0.882	-	-13.5	30	148	-0.03
MTBE	1.163	1.398	-	-20.2	30	153	-0.02
vinyl acetate	0.889	0.97	-	-9.1	30	150	-0.03
2-butanone	0.996	1.08	-	-8.4	30	148	-0.03
cis-1,2-dichloroethene	0.579	0.672	-	-16.1	30	149	-0.03
Ethyl Acetate	0.162	0.192	-	-18.5	30	154	-0.03
chloroform	0.783	0.937	-	-19.7	30	150	-0.03
Tetrahydrofuran	0.575	0.647	-	-12.5	30	148	-0.03
2,2-dichloropropane	0.622	0.73	-	-17.4	30	143	-0.03
1,2-dichloroethane	0.489	0.543	-	-11	30	145	-0.02
1,4-difluorobenzene	1	1	-	0	30	103	-0.03
hexane	0.285	0.318	-	-11.6	30	143	-0.03

\* Value outside of QC limits.





# Calibration Verification Summary

## Form 7

### Air Volatiles

Client : Langan Engineering & Environmental  
 Project Name : 57-00, 57-05 47TH ST  
 Instrument ID : AIRPIANO3  
 Lab File ID : R322194  
 Sample No : WG1640147-2  
 Channel :

Lab Number : L2225590  
 Project Number : 100965503  
 Calibration Date : 05/18/22 13:48  
 Init. Calib. Date(s) : 05/16/22 05/17/22  
 Init. Calib. Times : 23:12 04:02

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
diisopropyl ether	0.158	0.174	-	-10.1	30	142	-.03
tert-butyl ethyl ether	0.48	0.534	-	-11.3	30	140	-.03
1,1,1-trichloroethane	0.216	0.252	-	-16.7	30	152	-.03
1,1-dichloropropene	0.231	0.264	-	-14.3	30	146	-.03
benzene	0.585	0.597	-	-2.1	30	144	-.03
carbon tetrachloride	0.2	0.247	-	-23.5	30	151	-.03
cyclohexane	0.296	0.334	-	-12.8	30	149	-.03
tert-amyl methyl ether	0.464	0.518	-	-11.6	30	142	-.03
dibromomethane	0.155	0.165	-	-6.5	30	141	-.03
1,2-dichloropropane	0.176	0.2	-	-13.6	30	149	-.03
bromodichloromethane	0.277	0.33	-	-19.1	30	151	-.03
1,4-dioxane	0.12	0.141	-	-17.5	30	154	-.03
trichloroethene	0.225	0.263	-	-16.9	30	149	-.03
2,2,4-trimethylpentane	0.881	1.037	-	-17.7	30	154	-.02
methyl methacrylate	0.188	0.229	-	-21.8	30	159	-.03
heptane	0.329	0.38	-	-15.5	30	152	-.02
cis-1,3-dichloropropene	0.251	0.318	-	-26.7	30	159	-.03
4-methyl-2-pentanone	0.376	0.454	-	-20.7	30	151	-.03
trans-1,3-dichloropropene	0.226	0.256	-	-13.3	30	138	-.03
1,1,2-trichloroethane	0.188	0.221	-	-17.6	30	152	-.02
chlorobenzene-D5	1	1	-	0	30	102	-.02
toluene	3.757	4.294	-	-14.3	30	146	-.02
1,3-dichloropropane	1.975	2.155	-	-9.1	30	139	-.02
2-hexanone	2.261	2.735	-	-21	30	146	-.02
dibromochloromethane	1.73	2.221	-	-28.4	30	156	-.03
1,2-dibromoethane	1.809	2.174	-	-20.2	30	148	-.03
butyl acetate	0.571	0.653	-	-14.4	30	137	-.02
octane	1.646	1.798	-	-9.2	30	138	-.03
tetrachloroethene	1.82	2.162	-	-18.8	30	148	-.02
1,1,1,2-tetrachloroethane	1.346	1.59	-	-18.1	30	142	-.03
chlorobenzene	3.224	3.794	-	-17.7	30	146	-.02
ethylbenzene	4.507	5.356	-	-18.8	30	148	-.02
m+p-xylene	3.682	4.416	-	-19.9	30	146	-.02
bromoform	1.61	2.129	-	-32.2*	30	156	-.02
styrene	3.276	3.996	-	-22	30	148	-.02
1,1,2,2-tetrachloroethane	2.733	3.382	-	-23.7	30	146	-.02
o-xylene	3.67	4.508	-	-22.8	30	147	-.02
1,2,3-trichloropropane	2.324	2.58	-	-11	30	138	-.02
nonane	3.151	3.469	-	-10.1	30	138	-.02
isopropylbenzene	5.429	6.37	-	-17.3	30	144	-.02
bromobenzene	3.075	3.492	-	-13.6	30	140	-.02
2-chlorotoluene	1.597	1.774	-	-11.1	30	137	-.02
n-propylbenzene	1.856	2.132	-	-14.9	30	141	-.02

\* Value outside of QC limits.



# Calibration Verification Summary

## Form 7

### Air Volatiles

Client : Langan Engineering & Environmental	Lab Number : L2225590
Project Name : 57-00, 57-05 47TH ST	Project Number : 100965503
Instrument ID : AIRPIANO3	Calibration Date : 05/18/22 13:48
Lab File ID : R322194	Init. Calib. Date(s) : 05/16/22      05/17/22
Sample No : WG1640147-2	Init. Calib. Times : 23:12      04:02
Channel :	

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
4-chlorotoluene	1.587	1.776	-	-11.9	30	137	-.02
4-ethyl toluene	5.586	6.774	-	-21.3	30	144	-.02
1,3,5-trimethylbenzene	5.116	5.855	-	-14.4	30	129	-.02
tert-butylbenzene	4.839	5.737	-	-18.6	30	136	-.02
1,2,4-trimethylbenzene	4.481	5.799	-	-29.4	30	147	-.02
decane	3.84	4.425	-	-15.2	30	137	-.02
Benzyl Chloride	2.532	3.759	-	-48.5*	30	158	-.02
1,3-dichlorobenzene	3.384	4.234	-	-25.1	30	144	-.02
1,4-dichlorobenzene	3.29	4.127	-	-25.4	30	147	-.02
sec-butylbenzene	6.858	8.018	-	-16.9	30	137	-.02
p-isopropyltoluene	5.726	6.677	-	-16.6	30	130	-.02
1,2-dichlorobenzene	3.167	3.934	-	-24.2	30	146	-.02
n-butylbenzene	4.906	6.016	-	-22.6	30	141	-.02
1,2-dibromo-3-chloropropan	1.246	1.591	-	-27.7	30	138	-.02
undecane	4.241	5.121	-	-20.7	30	136	-.02
dodecane	4.229	4.963	-	-17.4	30	121	-.02
1,2,4-trichlorobenzene	2.502	3.244	-	-29.7	30	143	-.02
naphthalene	6.471	8.05	-	-24.4	30	137	-.02
1,2,3-trichlorobenzene	2.54	3.134	-	-23.4	30	137	-.02
hexachlorobutadiene	2.348	3.02	-	-28.6	30	145	-.02

\* Value outside of QC limits.



# Calibration Verification Summary

## Form 7

### Air Volatiles

Client : Langan Engineering & Environmental  
 Project Name : 57-00, 57-05 47TH ST  
 Instrument ID : AIRPIANO3  
 Lab File ID : R322225  
 Sample No : WG1640711-2  
 Channel :

Lab Number : L2225590  
 Project Number : 100965503  
 Calibration Date : 05/19/22 14:23  
 Init. Calib. Date(s) : 05/16/22 05/17/22  
 Init. Calib. Times : 23:12 04:02

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
bromochloromethane	1	1	-	0	30	104	-.02
chlorodifluoromethane	0.648	0.702	-	-8.3	30	137	0
propylene	0.365	0.416	-	-14	30	155	0
propane	0.465	0.476	-	-2.4	30	135	0
dichlorodifluoromethane	0.787	0.844	-	-7.2	30	132	0
chloromethane	0.378	0.387	-	-2.4	30	133	-.01
Freon-114	1.022	1.125	-	-10.1	30	136	0
methanol	0.258	0.208	-	19.4	30	88	-.01
vinyl chloride	0.489	0.524	-	-7.2	30	136	0
1,3-butadiene	0.394	0.489	-	-24.1	30	160	-.01
butane	0.716	0.752	-	-5	30	144	0
bromomethane	0.391	0.418	-	-6.9	30	137	0
chloroethane	0.25	0.262	-	-4.8	30	137	0
ethanol	0.384	0.452	-	-17.7	30	142	0
dichlorofluoromethane	0.87	1.036	-	-19.1	30	142	-.01
vinyl bromide	0.373	0.436	-	-16.9	30	149	-.01
acrolein	0.341	0.259	-	24	30	138	-.01
acetone	0.548	0.672	-	-22.6	30	172	-.01
acetonitrile	0.466	0.446	-	4.3	30	141	-.01
trichlorofluoromethane	0.715	0.811	-	-13.4	30	140	-.01
isopropyl alcohol	0.659	0.867	-	-31.6*	30	163	-.02
acrylonitrile	0.415	0.468	-	-12.8	30	150	-.02
pentane	0.89	1	-	-12.4	30	151	0
ethyl ether	0.737	0.769	-	-4.3	30	143	-.01
1,1-dichloroethene	0.634	0.693	-	-9.3	30	139	-.01
tertiary butyl alcohol	0.82	1.007	-	-22.8	30	158	-.02
methylene chloride	0.624	0.571	-	8.5	30	112	-.01
3-chloropropene	0.597	0.778	-	-30.3*	30	168	-.02
carbon disulfide	1.43	1.616	-	-13	30	143	-.01
Freon 113	0.8	0.891	-	-11.4	30	142	-.01
trans-1,2-dichloroethene	0.648	0.732	-	-13	30	145	0
1,1-dichloroethane	0.777	0.831	-	-6.9	30	138	0
MTBE	1.163	1.444	-	-24.2	30	156	-.02
vinyl acetate	0.889	1.027	-	-15.5	30	158	-.02
2-butanone	0.996	1.126	-	-13.1	30	153	-.02
cis-1,2-dichloroethene	0.579	0.628	-	-8.5	30	138	-.02
Ethyl Acetate	0.162	0.196	-	-21	30	155	-.02
chloroform	0.783	0.875	-	-11.7	30	139	0
Tetrahydrofuran	0.575	0.67	-	-16.5	30	152	-.02
2,2-dichloropropane	0.622	0.781	-	-25.6	30	152	-.02
1,2-dichloroethane	0.489	0.514	-	-5.1	30	136	0
1,4-difluorobenzene	1	1	-	0	30	103	-.01
hexane	0.285	0.326	-	-14.4	30	146	-.02

\* Value outside of QC limits.



# Calibration Verification Summary

## Form 7

### Air Volatiles

Client : Langan Engineering & Environmental  
 Project Name : 57-00, 57-05 47TH ST  
 Instrument ID : AIRPIANO3  
 Lab File ID : R322225  
 Sample No : WG1640711-2  
 Channel :

Lab Number : L2225590  
 Project Number : 100965503  
 Calibration Date : 05/19/22 14:23  
 Init. Calib. Date(s) : 05/16/22 05/17/22  
 Init. Calib. Times : 23:12 04:02

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
diisopropyl ether	0.158	0.18	-	-13.9	30	147	0
tert-butyl ethyl ether	0.48	0.555	-	-15.6	30	145	-.02
1,1,1-trichloroethane	0.216	0.24	-	-11.1	30	144	0
1,1-dichloropropene	0.231	0.276	-	-19.5	30	152	-.01
benzene	0.585	0.557	-	4.8	30	134	-.01
carbon tetrachloride	0.2	0.235	-	-17.5	30	143	-.01
cyclohexane	0.296	0.344	-	-16.2	30	152	-.01
tert-amyl methyl ether	0.464	0.546	-	-17.7	30	149	-.01
dibromomethane	0.155	0.173	-	-11.6	30	147	-.01
1,2-dichloropropane	0.176	0.188	-	-6.8	30	139	-.01
bromodichloromethane	0.277	0.338	-	-22	30	155	-.01
1,4-dioxane	0.12	0.141	-	-17.5	30	154	-.01
trichloroethene	0.225	0.247	-	-9.8	30	139	-.01
2,2,4-trimethylpentane	0.881	1.06	-	-20.3	30	158	0
methyl methacrylate	0.188	0.242	-	-28.7	30	168	-.01
heptane	0.329	0.397	-	-20.7	30	159	0
cis-1,3-dichloropropene	0.251	0.299	-	-19.1	30	149	-.02
4-methyl-2-pentanone	0.376	0.47	-	-25	30	156	-.02
trans-1,3-dichloropropene	0.226	0.239	-	-5.8	30	128	-.02
1,1,2-trichloroethane	0.188	0.209	-	-11.2	30	144	-.02
chlorobenzene-D5	1	1	-	0	30	104	0
toluene	3.757	3.961	-	-5.4	30	137	0
1,3-dichloropropane	1.975	2.209	-	-11.8	30	145	-.02
2-hexanone	2.261	2.791	-	-23.4	30	151	0
dibromochloromethane	1.73	2.291	-	-32.4*	30	164	0
1,2-dibromoethane	1.809	2.034	-	-12.4	30	141	0
butyl acetate	0.571	0.679	-	-18.9	30	145	0
octane	1.646	1.83	-	-11.2	30	144	0
tetrachloroethene	1.82	1.98	-	-8.8	30	138	0
1,1,1,2-tetrachloroethane	1.346	1.639	-	-21.8	30	149	0
chlorobenzene	3.224	3.524	-	-9.3	30	139	-.02
ethylbenzene	4.507	4.942	-	-9.7	30	139	0
m+p-xylene	3.682	4.077	-	-10.7	30	137	0
bromoform	1.61	2.191	-	-36.1*	30	163	-.02
styrene	3.276	3.701	-	-13	30	139	0
1,1,2,2-tetrachloroethane	2.733	3.104	-	-13.6	30	137	0
o-xylene	3.67	4.19	-	-14.2	30	139	0
1,2,3-trichloropropane	2.324	2.653	-	-14.2	30	144	0
nonane	3.151	3.557	-	-12.9	30	144	0
isopropylbenzene	5.429	6.499	-	-19.7	30	149	0
bromobenzene	3.075	3.553	-	-15.5	30	145	0
2-chlorotoluene	1.597	1.817	-	-13.8	30	143	0
n-propylbenzene	1.856	2.16	-	-16.4	30	145	0

\* Value outside of QC limits.



# Calibration Verification Summary

## Form 7

### Air Volatiles

Client	: Langan Engineering & Environmental	Lab Number	: L2225590
Project Name	: 57-00, 57-05 47TH ST	Project Number	: 100965503
Instrument ID	: AIRPIANO3	Calibration Date	: 05/19/22 14:23
Lab File ID	: R322225	Init. Calib. Date(s)	: 05/16/22      05/17/22
Sample No	: WG1640711-2	Init. Calib. Times	: 23:12      04:02
Channel	:		

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
4-chlorotoluene	1.587	1.817	-	-14.5	30	143	0
4-ethyl toluene	5.586	6.876	-	-23.1	30	149	0
1,3,5-trimethylbenzene	5.116	5.441	-	-6.4	30	122	0
tert-butylbenzene	4.839	5.779	-	-19.4	30	140	0
1,2,4-trimethylbenzene	4.481	5.34	-	-19.2	30	137	0
decane	3.84	4.488	-	-16.9	30	141	0
Benzyl Chloride	2.532	3.813	-	-50.6*	30	163	0
1,3-dichlorobenzene	3.384	3.949	-	-16.7	30	137	-.02
1,4-dichlorobenzene	3.29	3.773	-	-14.7	30	137	0
sec-butylbenzene	6.858	8.243	-	-20.2	30	143	0
p-isopropyltoluene	5.726	6.761	-	-18.1	30	134	-.02
1,2-dichlorobenzene	3.167	3.635	-	-14.8	30	138	0
n-butylbenzene	4.906	6.146	-	-25.3	30	147	0
1,2-dibromo-3-chloropropan	1.246	1.652	-	-32.6*	30	146	0
undecane	4.241	5.194	-	-22.5	30	140	0
dodecane	4.229	5.234	-	-23.8	30	130	0
1,2,4-trichlorobenzene	2.502	3.115	-	-24.5	30	139	0
naphthalene	6.471	8.584	-	-32.7*	30	148	0
1,2,3-trichlorobenzene	2.54	3.351	-	-31.9*	30	149	0
hexachlorobutadiene	2.348	2.751	-	-17.2	30	134	0

\* Value outside of QC limits.



Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
 Data File : r322194.D  
 Acq On : 18 May 2022 1:48 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640147-2,3,250,250  
 Misc : WG1640147,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 18 15:34:19 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 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	-0.03
2	chlorodifluoromethane	0.648	0.671	-3.5	132	-0.02
3	propylene	0.365	0.418	-14.5	157#	-0.02
4	propane	0.465	0.464	0.2	133	-0.01
5	dichlorodifluoromethane	0.787	0.895	-13.7	141#	-0.01
6 C	chloromethane	0.378	0.417	-10.3	144#	-0.02
7	Freon-114	1.022	1.206	-18.0	147#	-0.02
8 C	methanol	0.258	0.199	22.9	85	-0.02
9 C	vinyl chloride	0.489	0.566	-15.7	148#	-0.02
10 C	1,3-butadiene	0.394	0.477	-21.1	157#	-0.02
11	butane	0.716	0.725	-1.3	140#	-0.02
13 C	bromomethane	0.391	0.452	-15.6	149#	-0.02
14 C	chloroethane	0.250	0.285	-14.0	150#	-0.02
15	ethanol	0.384	0.441	-14.8	139	-0.02
16	dichlorofluoromethane	0.870	1.015	-16.7	140#	-0.02
17 C	vinyl bromide	0.373	0.427	-14.5	147#	-0.02
18 C	acrolein	0.341	0.247	27.6	133	-0.02
19	acetone	0.548	0.611	-11.5	158#	-0.03
20 C	acetonitrile	0.466	0.426	8.6	135	-0.02
21	trichlorofluoromethane	0.715	0.863	-20.7	150#	-0.02
22	isopropyl alcohol	0.659	0.850	-29.0	161#	-0.03
23 C	acrylonitrile	0.415	0.450	-8.4	145#	-0.03
24	pentane	0.890	0.951	-6.9	145#	-0.02
25	ethyl ether	0.737	0.747	-1.4	140#	-0.02
26 C	1,1-dichloroethene	0.634	0.740	-16.7	150#	-0.02
27	tertiary butyl alcohol	0.820	0.982	-19.8	155#	-0.03
28 C	methylene chloride	0.624	0.606	2.9	120	-0.02
29 C	3-chloropropene	0.597	0.757	-26.8	164#	-0.03
30 C	carbon disulfide	1.430	1.574	-10.1	140#	-0.02
31	Freon 113	0.800	0.948	-18.5	152#	-0.03
32	trans-1,2-dichloroethene	0.648	0.720	-11.1	143#	-0.03
33 C	1,1-dichloroethane	0.777	0.882	-13.5	148#	-0.03
34 C	MTBE	1.163	1.398	-20.2	153#	-0.02
35 C	vinyl acetate	0.889	0.970	-9.1	150#	-0.03
36 C	2-butanone	0.996	1.080	-8.4	148#	-0.03
37	cis-1,2-dichloroethene	0.579	0.672	-16.1	149#	-0.03
38	Ethyl Acetate	0.162	0.192	-18.5	154#	-0.03
39 C	chloroform	0.783	0.937	-19.7	150#	-0.03
40	Tetrahydrofuran	0.575	0.647	-12.5	148#	-0.03

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
 Data File : r322194.D  
 Acq On : 18 May 2022 1:48 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640147-2,3,250,250  
 Misc : WG1640147,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 18 15:34:19 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 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	0.622	0.730	-17.4	143#	-0.03
42 C	1,2-dichloroethane	0.489	0.543	-11.0	145#	-0.02
43 I	1,4-difluorobenzene	1.000	1.000	0.0	103	-0.03
44 C	hexane	0.285	0.318	-11.6	143#	-0.03
45	diisopropyl ether	0.158	0.174	-10.1	142#	-0.03
46	tert-butyl ethyl ether	0.480	0.534	-11.3	140#	-0.03
48 C	1,1,1-trichloroethane	0.216	0.252	-16.7	152#	-0.03
49	1,1-dichloropropene	0.231	0.264	-14.3	146#	-0.03
50 C	benzene	0.585	0.597	-2.1	144#	-0.03
52 C	carbon tetrachloride	0.200	0.247	-23.5	151#	-0.03
53	cyclohexane	0.296	0.334	-12.8	149#	-0.03
54	tert-amyl methyl ether	0.464	0.518	-11.6	142#	-0.03
55	dibromomethane	0.155	0.165	-6.5	141#	-0.03
56 C	1,2-dichloropropane	0.176	0.200	-13.6	149#	-0.03
57	bromodichloromethane	0.277	0.330	-19.1	151#	-0.03
58 C	1,4-dioxane	0.120	0.141	-17.5	154#	-0.03
59 C	trichloroethene	0.225	0.263	-16.9	149#	-0.03
60 C	2,2,4-trimethylpentane	0.881	1.037	-17.7	154#	-0.02
61	methyl methacrylate	0.188	0.229	-21.8	159#	-0.03
62	heptane	0.329	0.380	-15.5	152#	-0.02
63 C	cis-1,3-dichloropropene	0.251	0.318	-26.7	159#	-0.03
64 C	4-methyl-2-pentanone	0.376	0.454	-20.7	151#	-0.03
65	trans-1,3-dichloropropene	0.226	0.256	-13.3	138	-0.03
66 C	1,1,2-trichloroethane	0.188	0.221	-17.6	152#	-0.02
67 I	chlorobenzene-D5	1.000	1.000	0.0	102	-0.02
68 C	toluene	3.757	4.294	-14.3	146#	-0.02
71	1,3-dichloropropane	1.975	2.155	-9.1	139	-0.02
72	2-hexanone	2.261	2.735	-21.0	146#	-0.02
74	dibromochloromethane	1.730	2.221	-28.4	156#	-0.03
75 C	1,2-dibromoethane	1.809	2.174	-20.2	148#	-0.03
76	butyl acetate	0.571	0.653	-14.4	137	-0.02
77	octane	1.646	1.798	-9.2	138	-0.03
78 C	tetrachloroethene	1.820	2.162	-18.8	148#	-0.02
79	1,1,1,2-tetrachloroethane	1.346	1.590	-18.1	142#	-0.03
80 C	chlorobenzene	3.224	3.794	-17.7	146#	-0.02
81 C	ethylbenzene	4.507	5.356	-18.8	148#	-0.02
83 C	m+p-xylene	3.682	4.416	-19.9	146#	-0.02

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
 Data File : r322194.D  
 Acq On : 18 May 2022 1:48 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640147-2,3,250,250  
 Misc : WG1640147,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 18 15:34:19 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 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	1.610	2.129	-32.2#	156#	-0.02
85 C	styrene	3.276	3.996	-22.0	148#	-0.02
86 C	1,1,2,2-tetrachloroethane	2.733	3.382	-23.7	146#	-0.02
87 C	o-xylene	3.670	4.508	-22.8	147#	-0.02
88	1,2,3-trichloropropane	2.324	2.580	-11.0	138	-0.02
89	nonane	3.151	3.469	-10.1	138	-0.02
91 C	isopropylbenzene	5.429	6.370	-17.3	144#	-0.02
92	bromobenzene	3.075	3.492	-13.6	140#	-0.02
93	2-chlorotoluene	1.597	1.774	-11.1	137	-0.02
94	n-propylbenzene	1.856	2.132	-14.9	141#	-0.02
95	4-chlorotoluene	1.587	1.776	-11.9	137	-0.02
96	4-ethyl toluene	5.586	6.774	-21.3	144#	-0.02
97	1,3,5-trimethylbenzene	5.116	5.855	-14.4	129	-0.02
98	tert-butylbenzene	4.839	5.737	-18.6	136	-0.02
99	1,2,4-trimethylbenzene	4.481	5.799	-29.4	147#	-0.02
100	decane	3.840	4.425	-15.2	137	-0.02
101 C	Benzyl Chloride	2.532	3.759	-48.5#	158#	-0.02
102	1,3-dichlorobenzene	3.384	4.234	-25.1	144#	-0.02
103 C	1,4-dichlorobenzene	3.290	4.127	-25.4	147#	-0.02
104	sec-butylbenzene	6.858	8.018	-16.9	137	-0.02
106	p-isopropyltoluene	5.726	6.677	-16.6	130	-0.02
107	1,2-dichlorobenzene	3.167	3.934	-24.2	146#	-0.02
108	n-butylbenzene	4.906	6.016	-22.6	141#	-0.02
111 C	1,2-dibromo-3-chloropropane	1.246	1.591	-27.7	138	-0.02
112	undecane	4.241	5.121	-20.7	136	-0.02
114	dodecane	4.229	4.963	-17.4	121	-0.02
115 C	1,2,4-trichlorobenzene	2.502	3.244	-29.7	143#	-0.02
116	naphthalene	6.471	8.050	-24.4	137	-0.02
117	1,2,3-trichlorobenzene	2.540	3.134	-23.4	137	-0.02
119 C	hexachlorobutadiene	2.348	3.020	-28.6	145#	-0.02

\* Evaluation of CC level amount vs concentration.  
 (#) = Out of Range SPCC's out = 0 CCC's out = 2



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
 Data File : r322194.D  
 Acq On : 18 May 2022 1:48 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640147-2,3,250,250  
 Misc : WG1640147,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 18 15:34:19 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518T\r322194.D  
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) bromochloromethane	9.533	49	443368	10.000	ppbV	-0.03
Standard Area =	443368		Recovery =	100.00%		
43) 1,4-difluorobenzene	11.813	114	1337389	10.000	ppbV	-0.03
Standard Area =	1337389		Recovery =	100.00%		
67) chlorobenzene-D5	16.558	54	206902	10.000	ppbV	-0.02
Standard Area =	206902		Recovery =	100.00%		

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) chlorodifluoromethane	3.826	51	297284	10.343	ppbV	99
3) propylene	3.856	41	185230M6	11.440	ppbV	
4) propane	3.886	29	205764	9.980	ppbV	98
5) dichlorodifluoromethane	3.940	85	396978	11.384	ppbV	100
6) chloromethane	4.120	50	184916	11.030	ppbV	100
7) Freon-114	4.246	85	534671	11.797	ppbV	99
8) methanol	4.312	31	440656	38.471	ppbV	99
9) vinyl chloride	4.378	62	251108	11.585	ppbV	100
10) 1,3-butadiene	4.540	54	211280	12.086	ppbV	99
11) butane	4.606	43	321413	10.124	ppbV	99
13) bromomethane	4.858	94	200311	11.558	ppbV	100
14) chloroethane	5.080	64	126468	11.397	ppbV	100
15) ethanol	5.250	31	977130	57.364	ppbV	99
16) dichlorofluoromethane	5.220	67	450143	11.676	ppbV	99
17) vinyl bromide	5.510	106	189507	11.453	ppbV	98
18) acrolein	5.663	56	109622	7.258	ppbV	98
19) acetone	5.817	43	1354341	55.760	ppbV	99
20) acetonitrile	5.503	41	188884	9.146	ppbV	99
21) trichlorofluoromethane	6.030	101	382644	12.066	ppbV	99
22) isopropyl alcohol	6.150	45	942579	32.250	ppbV	100
23) acrylonitrile	6.403	53	199544	10.850	ppbV	100
24) pentane	6.480	43	421714	10.687	ppbV	100
25) ethyl ether	6.520	31	331147	10.134	ppbV	100
26) 1,1-dichloroethene	6.806	61	327906	11.666	ppbV	100
27) tertiary butyl alcohol	6.878	59	435258	11.969	ppbV	99
28) methylene chloride	6.974	49	268576	9.709	ppbV	99
29) 3-chloropropene	7.112	41	335821	12.683	ppbV	99
30) carbon disulfide	7.268	76	697904	11.009	ppbV	99
31) Freon 113	7.304	101	420286	11.854	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
 Data File : r322194.D  
 Acq On : 18 May 2022 1:48 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640147-2,3,250,250  
 Misc : WG1640147,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 18 15:34:19 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518T\r322194.D  
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) trans-1,2-dichloroethene	8.108	61	319118	11.100	ppbV	99
33) 1,1-dichloroethane	8.342	63	391002	11.345	ppbV	100
34) MTBE	8.425	73	619862	12.026	ppbV	100
35) vinyl acetate	8.567	43	430075	10.907	ppbV	100
36) 2-butanone	8.825	43	478676	10.839	ppbV	100
37) cis-1,2-dichloroethene	9.350	61	297910	11.610	ppbV	99
38) Ethyl Acetate	9.642	61	85126	11.834	ppbV	78
39) chloroform	9.700	83	415380	11.970	ppbV	99
40) Tetrahydrofuran	10.150	42	286753	11.248	ppbV	100
41) 2,2-dichloropropane	9.717	77	323699	11.743	ppbV	98
42) 1,2-dichloroethane	10.550	62	240702	11.107	ppbV	99
44) hexane	9.617	57	424969	11.147	ppbV	95
45) diisopropyl ether	9.617	87	232447	10.966	ppbV	99
46) tert-butyl ethyl ether	10.250	59	714646	11.122	ppbV	100
48) 1,1,1-trichloroethane	10.842	97	337304	11.692	ppbV	99
49) 1,1-dichloropropene	11.213	75	353144	11.436	ppbV	99
50) benzene	11.373	78	798212	10.195	ppbV	100
52) carbon tetrachloride	11.547	117	330237	12.335	ppbV	99
53) cyclohexane	11.693	56	446843	11.270	ppbV	99
54) tert-amyl methyl ether	12.080	73	692653	11.150	ppbV	100
55) dibromomethane	12.300	93	220746	10.667	ppbV	100
56) 1,2-dichloropropane	12.333	63	267835	11.349	ppbV	99
57) bromodichloromethane	12.567	83	440673	11.896	ppbV	100
58) 1,4-dioxane	12.607	88	188511	11.787	ppbV	98
59) trichloroethene	12.613	130	351829	11.672	ppbV	99
60) 2,2,4-trimethylpentane	12.667	57	1386302	11.766	ppbV	100
61) methyl methacrylate	12.867	41	306400	12.184	ppbV	99
62) heptane	12.987	43	507818	11.558	ppbV	100
63) cis-1,3-dichloropropene	13.633	75	424999	12.679	ppbV	99
64) 4-methyl-2-pentanone	13.667	43	606723	12.053	ppbV	99
65) trans-1,3-dichloropropene	14.258	75	342238	11.328	ppbV	99
66) 1,1,2-trichloroethane	14.458	97	295194	11.771	ppbV	99
68) toluene	14.767	91	888344	11.429	ppbV	100
71) 1,3-dichloropropane	14.800	76	445827	10.912	ppbV	99
72) 2-hexanone	15.058	43	565961	12.100	ppbV	97
74) dibromochloromethane	15.217	129	459568	12.836	ppbV	99
75) 1,2-dibromoethane	15.467	107	449743	12.017	ppbV	99
76) butyl acetate	15.717	73	135009	11.421	ppbV	95
77) octane	15.808	85	371938	10.922	ppbV	98
78) tetrachloroethene	15.942	166	447313	11.879	ppbV	100

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
 Data File : r322194.D  
 Acq On : 18 May 2022 1:48 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640147-2,3,250,250  
 Misc : WG1640147,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 18 15:34:19 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518T\r322194.D  
 Sub List : Default-LCS-AP2 - All compounds listed

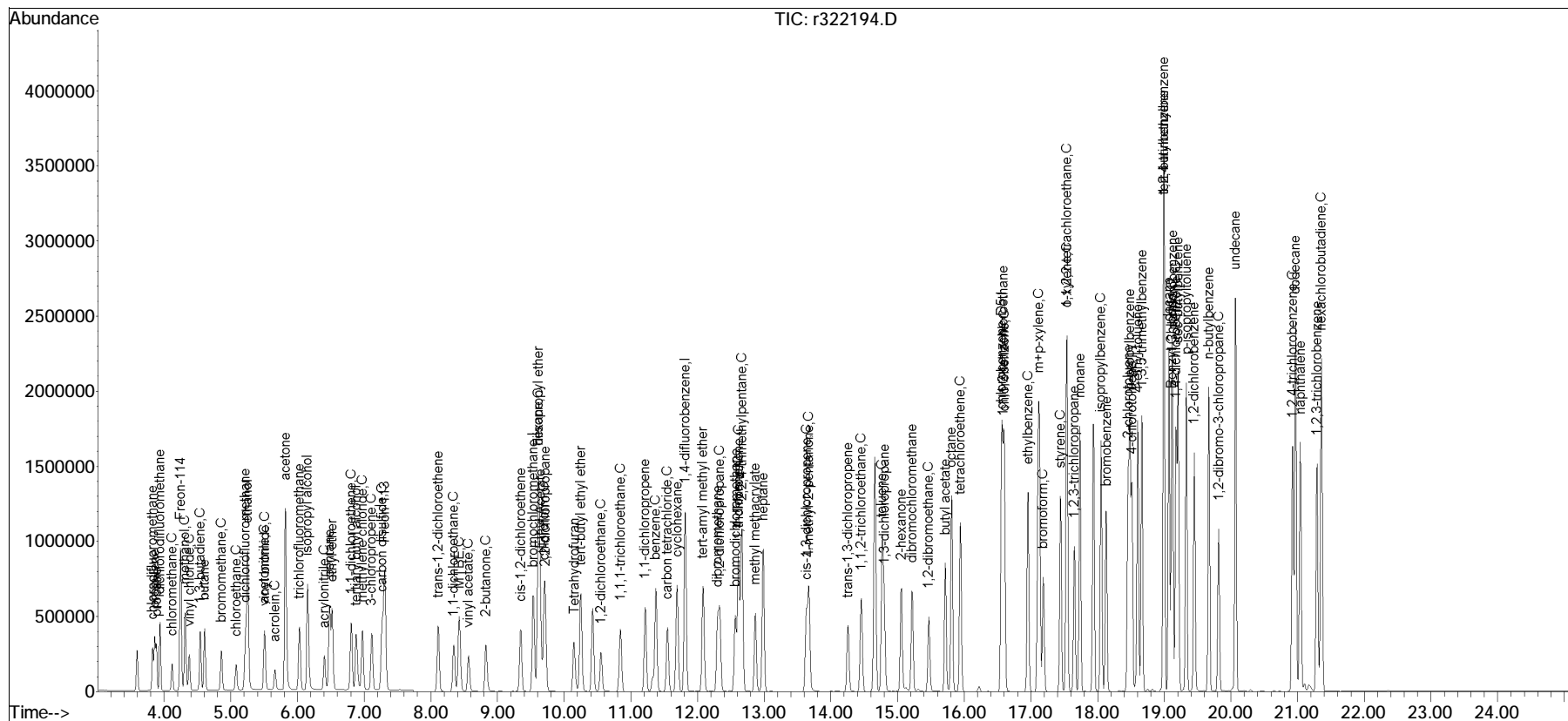
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
79) 1,1,1,2-tetrachloroethane	16.583	131	328979	11.814	ppbV	98
80) chlorobenzene	16.600	112	785081	11.768	ppbV	99
81) ethylbenzene	16.958	91	1108209	11.883	ppbV	100
83) m+p-xylene	17.117	91	1827260	23.986	ppbV	100
84) bromoform	17.183	173	440443	13.223	ppbV	100
85) styrene	17.442	104	826685	12.195	ppbV	100
86) 1,1,2,2-tetrachloroethane	17.542	83	699819	12.374	ppbV	99
87) o-xylene	17.542	91	932618	12.281	ppbV	100
88) 1,2,3-trichloropropane	17.650	75	533888	11.104	ppbV	100
89) nonane	17.733	43	717690	11.010	ppbV	99
91) isopropylbenzene	18.050	105	1318020	11.735	ppbV	100
92) bromobenzene	18.133	77	722454	11.354	ppbV	100
93) 2-chlorotoluene	18.458	126	366987	11.107	ppbV	98
94) n-propylbenzene	18.483	120	441146	11.488	ppbV	97
95) 4-chlorotoluene	18.517	126	367470	11.193	ppbV	100
96) 4-ethyl toluene	18.600	105	1401487	12.127	ppbV	99
97) 1,3,5-trimethylbenzene	18.667	105	1211484	11.446	ppbV	98
98) tert-butylbenzene	18.992	119	1186990	11.855	ppbV	100
99) 1,2,4-trimethylbenzene	18.992	105	1199823	12.941	ppbV	97
100) decane	19.067	57	915542	11.523	ppbV	99
101) Benzyl Chloride	19.108	91	777787	14.845	ppbV	98
102) 1,3-dichlorobenzene	19.125	146	876124	12.513	ppbV	100
103) 1,4-dichlorobenzene	19.175	146	853919	12.543	ppbV	99
104) sec-butylbenzene	19.208	105	1658885	11.691	ppbV	99
106) p-isopropyltoluene	19.333	119	1381463	11.660	ppbV	97
107) 1,2-dichlorobenzene	19.450	146	813985	12.424	ppbV	100
108) n-butylbenzene	19.667	91	1244665	12.262	ppbV	100
111) 1,2-dibromo-3-chloropr...	19.817	75	329106	12.762	ppbV	99
112) undecane	20.067	57	1059455	12.074	ppbV	100
114) dodecane	20.967	57	1026873	11.736	ppbV	99
115) 1,2,4-trichlorobenzene	20.925	180	671092	12.962	ppbV	100
116) naphthalene	21.042	128	1665542	12.440	ppbV	100
117) 1,2,3-trichlorobenzene	21.292	180	648373	12.338	ppbV	99
119) hexachlorobutadiene	21.358	225	624779	12.862	ppbV	100

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

Sub List : Default-LCS-AP2 - All compounds listed18T\r322194.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
Data File : r322194.D  
Acq On : 18 May 2022 1:48 PM  
Operator : AIRPIANO3:TS  
Sample : WG1640147-2,3,250,250  
Misc : WG1640147,ICAL19030  
ALS Vial : 0 Sample Multiplier: 1

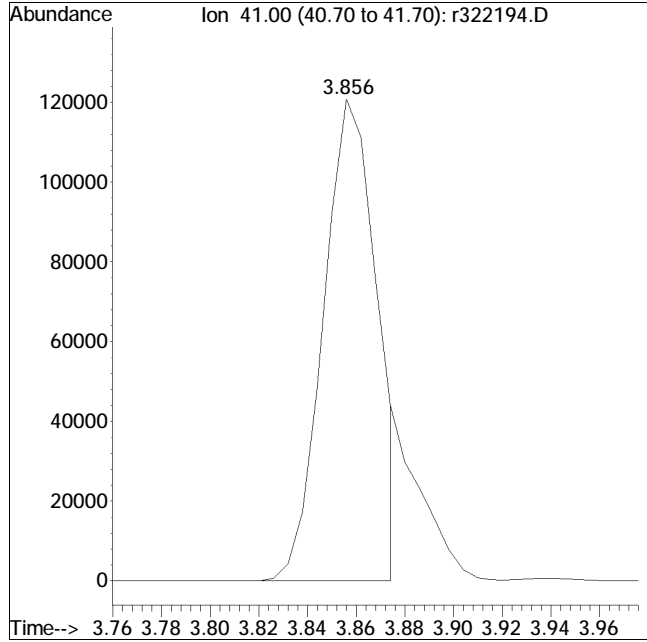
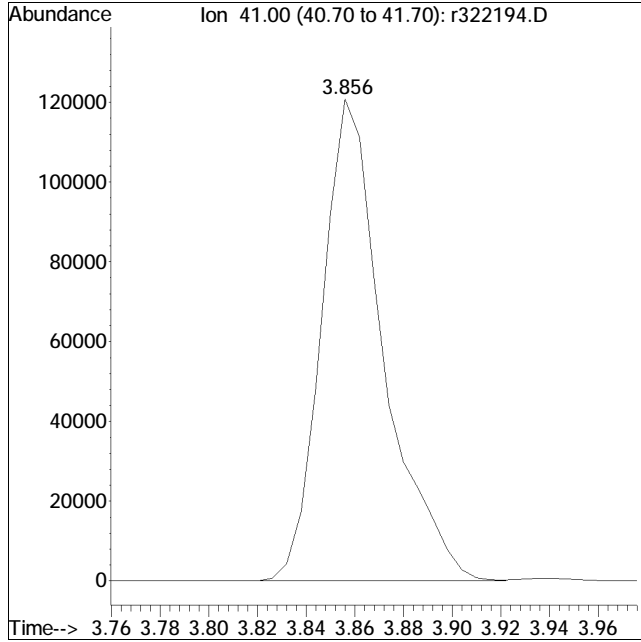
Quant Time: May 18 15:34:19 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 15:52:12 2022  
Response via : Initial Calibration



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322194.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/18/2020 0:1: 8 Instrument :  
Sample : WG1640147-2,3,250,250 Quant Date : 5/18/2022 2:33 pm

Compound #3: propylene



Original Peak Response = 214436

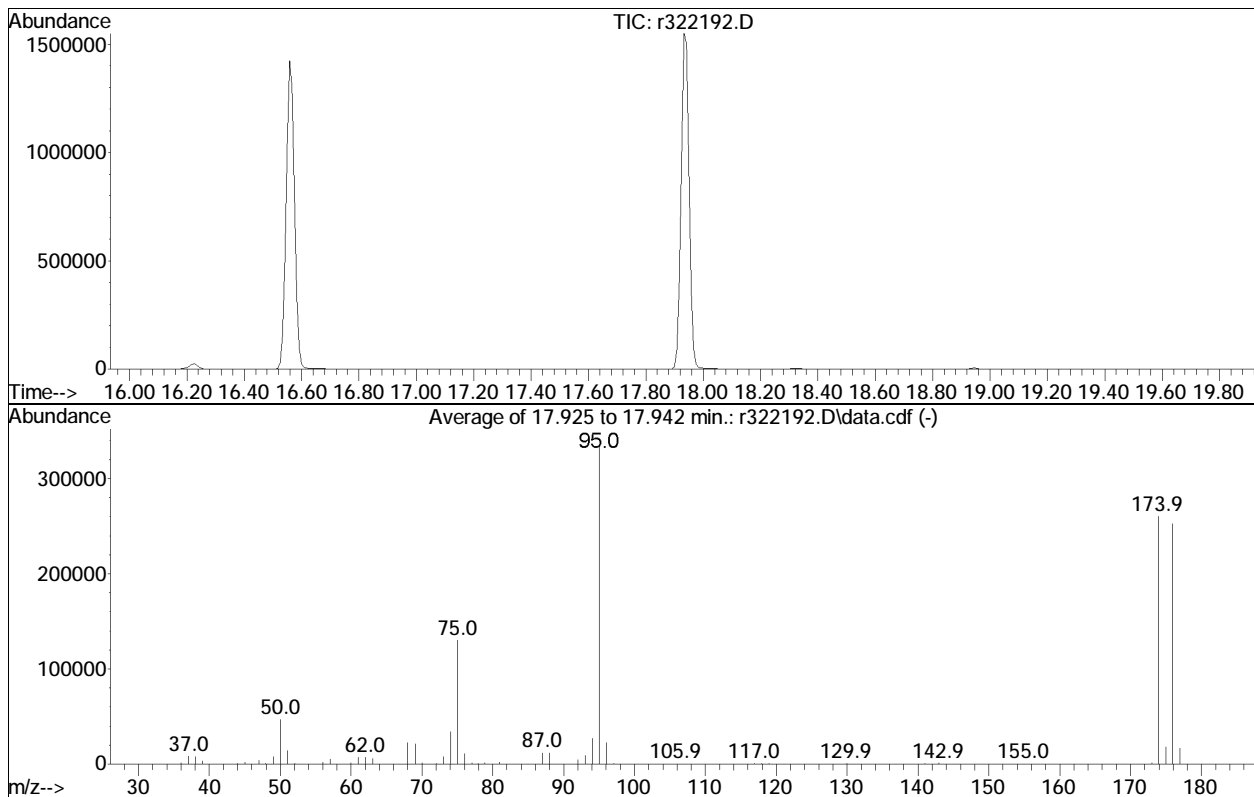
Manual Peak Response = 185230 M6

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

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
 Data File : r322192.D  
 Acq On : 18 May 2022 12:23 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640147-1,3,250,250  
 Misc : WG1640147,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Integration File: rteint.p

Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
 Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 Last Update : Tue May 17 15:52:12 2022



Spectrum Information: Average of 17.925 to 17.942 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	14.1	47343	PASS
75	95	30	66	38.8	130380	PASS
95	95	100	100	100.0	335733	PASS
96	95	5	9	6.7	22599	PASS
173	174	0.00	2	0.6	1637	PASS
174	95	50	120	77.5	260295	PASS
175	174	4	9	7.1	18370	PASS
176	174	93	101	97.2	253053	PASS
177	176	5	9	6.6	16803	PASS

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
 Data File : r322225.D  
 Acq On : 19 May 2022 2:23 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640711-2,3,250,250  
 Misc : WG1640711,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 16:50:01 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 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	-0.02
2	chlorodifluoromethane	0.648	0.702	-8.3	137	0.00
3	propylene	0.365	0.416	-14.0	155#	0.00
4	propane	0.465	0.476	-2.4	135	0.00
5	dichlorodifluoromethane	0.787	0.844	-7.2	132	0.00
6 C	chloromethane	0.378	0.387	-2.4	133	-0.01
7	Freon-114	1.022	1.125	-10.1	136	0.00
8 C	methanol	0.258	0.208	19.4	88	-0.01
9 C	vinyl chloride	0.489	0.524	-7.2	136	0.00
10 C	1,3-butadiene	0.394	0.489	-24.1	160#	-0.01
11	butane	0.716	0.752	-5.0	144#	0.00
13 C	bromomethane	0.391	0.418	-6.9	137	0.00
14 C	chloroethane	0.250	0.262	-4.8	137	0.00
15	ethanol	0.384	0.452	-17.7	142#	0.00
16	dichlorofluoromethane	0.870	1.036	-19.1	142#	-0.01
17 C	vinyl bromide	0.373	0.436	-16.9	149#	-0.01
18 C	acrolein	0.341	0.259	24.0	138	-0.01
19	acetone	0.548	0.672	-22.6	172#	-0.01
20 C	acetonitrile	0.466	0.446	4.3	141#	-0.01
21	trichlorofluoromethane	0.715	0.811	-13.4	140	-0.01
22	isopropyl alcohol	0.659	0.867	-31.6#	163#	-0.02
23 C	acrylonitrile	0.415	0.468	-12.8	150#	-0.02
24	pentane	0.890	1.000	-12.4	151#	0.00
25	ethyl ether	0.737	0.769	-4.3	143#	-0.01
26 C	1,1-dichloroethene	0.634	0.693	-9.3	139	-0.01
27	tertiary butyl alcohol	0.820	1.007	-22.8	158#	-0.02
28 C	methylene chloride	0.624	0.571	8.5	112	-0.01
29 C	3-chloropropene	0.597	0.778	-30.3#	168#	-0.02
30 C	carbon disulfide	1.430	1.616	-13.0	143#	-0.01
31	Freon 113	0.800	0.891	-11.4	142#	-0.01
32	trans-1,2-dichloroethene	0.648	0.732	-13.0	145#	0.00
33 C	1,1-dichloroethane	0.777	0.831	-6.9	138	0.00
34 C	MTBE	1.163	1.444	-24.2	156#	-0.02
35 C	vinyl acetate	0.889	1.027	-15.5	158#	-0.02
36 C	2-butanone	0.996	1.126	-13.1	153#	-0.02
37	cis-1,2-dichloroethene	0.579	0.628	-8.5	138	-0.02
38	Ethyl Acetate	0.162	0.196	-21.0	155#	-0.02
39 C	chloroform	0.783	0.875	-11.7	139	0.00
40	Tetrahydrofuran	0.575	0.670	-16.5	152#	-0.02

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
 Data File : r322225.D  
 Acq On : 19 May 2022 2:23 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640711-2,3,250,250  
 Misc : WG1640711,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 16:50:01 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 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	0.622	0.781	-25.6	152#	-0.02
42 C	1,2-dichloroethane	0.489	0.514	-5.1	136	0.00
43 I	1,4-difluorobenzene	1.000	1.000	0.0	103	-0.01
44 C	hexane	0.285	0.326	-14.4	146#	-0.02
45	diisopropyl ether	0.158	0.180	-13.9	147#	0.00
46	tert-butyl ethyl ether	0.480	0.555	-15.6	145#	-0.02
48 C	1,1,1-trichloroethane	0.216	0.240	-11.1	144#	0.00
49	1,1-dichloropropene	0.231	0.276	-19.5	152#	-0.01
50 C	benzene	0.585	0.557	4.8	134	-0.01
52 C	carbon tetrachloride	0.200	0.235	-17.5	143#	-0.01
53	cyclohexane	0.296	0.344	-16.2	152#	-0.01
54	tert-amyl methyl ether	0.464	0.546	-17.7	149#	-0.01
55	dibromomethane	0.155	0.173	-11.6	147#	-0.01
56 C	1,2-dichloropropane	0.176	0.188	-6.8	139	-0.01
57	bromodichloromethane	0.277	0.338	-22.0	155#	-0.01
58 C	1,4-dioxane	0.120	0.141	-17.5	154#	-0.01
59 C	trichloroethene	0.225	0.247	-9.8	139	-0.01
60 C	2,2,4-trimethylpentane	0.881	1.060	-20.3	158#	0.00
61	methyl methacrylate	0.188	0.242	-28.7	168#	-0.01
62	heptane	0.329	0.397	-20.7	159#	0.00
63 C	cis-1,3-dichloropropene	0.251	0.299	-19.1	149#	-0.02
64 C	4-methyl-2-pentanone	0.376	0.470	-25.0	156#	-0.02
65	trans-1,3-dichloropropene	0.226	0.239	-5.8	128	-0.02
66 C	1,1,2-trichloroethane	0.188	0.209	-11.2	144#	-0.02
67 I	chlorobenzene-D5	1.000	1.000	0.0	104	0.00
68 C	toluene	3.757	3.961	-5.4	137	0.00
71	1,3-dichloropropane	1.975	2.209	-11.8	145#	-0.02
72	2-hexanone	2.261	2.791	-23.4	151#	0.00
74	dibromochloromethane	1.730	2.291	-32.4#	164#	0.00
75 C	1,2-dibromoethane	1.809	2.034	-12.4	141#	0.00
76	butyl acetate	0.571	0.679	-18.9	145#	0.00
77	octane	1.646	1.830	-11.2	144#	0.00
78 C	tetrachloroethene	1.820	1.980	-8.8	138	0.00
79	1,1,1,2-tetrachloroethane	1.346	1.639	-21.8	149#	0.00
80 C	chlorobenzene	3.224	3.524	-9.3	139	-0.02
81 C	ethylbenzene	4.507	4.942	-9.7	139	0.00
83 C	m+p-xylene	3.682	4.077	-10.7	137	0.00



Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
 Data File : r322225.D  
 Acq On : 19 May 2022 2:23 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640711-2,3,250,250  
 Misc : WG1640711,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 16:50:01 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 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	1.610	2.191	-36.1#	163#	-0.02
85 C	styrene	3.276	3.701	-13.0	139	0.00
86 C	1,1,2,2-tetrachloroethane	2.733	3.104	-13.6	137	0.00
87 C	o-xylene	3.670	4.190	-14.2	139	0.00
88	1,2,3-trichloropropane	2.324	2.653	-14.2	144#	0.00
89	nonane	3.151	3.557	-12.9	144#	0.00
91 C	isopropylbenzene	5.429	6.499	-19.7	149#	0.00
92	bromobenzene	3.075	3.553	-15.5	145#	0.00
93	2-chlorotoluene	1.597	1.817	-13.8	143#	0.00
94	n-propylbenzene	1.856	2.160	-16.4	145#	0.00
95	4-chlorotoluene	1.587	1.817	-14.5	143#	0.00
96	4-ethyl toluene	5.586	6.876	-23.1	149#	0.00
97	1,3,5-trimethylbenzene	5.116	5.441	-6.4	122	0.00
98	tert-butylbenzene	4.839	5.779	-19.4	140	0.00
99	1,2,4-trimethylbenzene	4.481	5.340	-19.2	137	0.00
100	decane	3.840	4.488	-16.9	141#	0.00
101 C	Benzyl Chloride	2.532	3.813	-50.6#	163#	0.00
102	1,3-dichlorobenzene	3.384	3.949	-16.7	137	-0.02
103 C	1,4-dichlorobenzene	3.290	3.773	-14.7	137	0.00
104	sec-butylbenzene	6.858	8.243	-20.2	143#	0.00
106	p-isopropyltoluene	5.726	6.761	-18.1	134	-0.02
107	1,2-dichlorobenzene	3.167	3.635	-14.8	138	0.00
108	n-butylbenzene	4.906	6.146	-25.3	147#	0.00
111 C	1,2-dibromo-3-chloropropane	1.246	1.652	-32.6#	146#	0.00
112	undecane	4.241	5.194	-22.5	140#	0.00
114	dodecane	4.229	5.234	-23.8	130	0.00
115 C	1,2,4-trichlorobenzene	2.502	3.115	-24.5	139	0.00
116	naphthalene	6.471	8.584	-32.7#	148#	0.00
117	1,2,3-trichlorobenzene	2.540	3.351	-31.9#	149#	0.00
119 C	hexachlorobutadiene	2.348	2.751	-17.2	134	0.00

\* Evaluation of CC level amount vs concentration.  
 (#) = Out of Range SPCC's out = 0 CCC's out = 4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
 Data File : r322225.D  
 Acq On : 19 May 2022 2:23 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640711-2,3,250,250  
 Misc : WG1640711,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 16:50:01 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0519T\r322225.D  
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) bromochloromethane	9.550	49	440035	10.000	ppbV	-0.02
Standard Area =	440035		Recovery =	100.00%		
43) 1,4-difluorobenzene	11.827	114	1334123	10.000	ppbV	-0.01
Standard Area =	1334123		Recovery =	100.00%		
67) chlorobenzene-D5	16.575	54	210666	10.000	ppbV	0.00
Standard Area =	210666		Recovery =	100.00%		

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) chlorodifluoromethane	3.838	51	308782	10.824	ppbV	99
3) propylene	3.868	41	182838M6	11.377	ppbV	
4) propane	3.892	29	209676	10.247	ppbV	99
5) dichlorodifluoromethane	3.946	85	371430	10.732	ppbV	100
6) chloromethane	4.126	50	170329	10.237	ppbV	99
7) Freon-114	4.258	85	495249	11.010	ppbV	100
8) methanol	4.324	31	457108	40.210	ppbV	100
9) vinyl chloride	4.390	62	230565	10.717	ppbV	99
10) 1,3-butadiene	4.552	54	215283	12.408	ppbV	98
11) butane	4.618	43	330781	10.498	ppbV	100
13) bromomethane	4.870	94	184081	10.702	ppbV	100
14) chloroethane	5.092	64	115264	10.466	ppbV	100
15) ethanol	5.263	31	995008	58.856	ppbV	99
16) dichlorofluoromethane	5.230	67	455710	11.910	ppbV	99
17) vinyl bromide	5.517	106	191879	11.684	ppbV	100
18) acrolein	5.673	56	113815	7.592	ppbV	98
19) acetone	5.830	43	1478577	61.336	ppbV	97
20) acetonitrile	5.513	41	196401	9.582	ppbV	99
21) trichlorofluoromethane	6.040	101	356694	11.333	ppbV	99
22) isopropyl alcohol	6.160	45	953568	32.873	ppbV	100
23) acrylonitrile	6.413	53	206005	11.286	ppbV	99
24) pentane	6.493	43	440101	11.238	ppbV	99
25) ethyl ether	6.530	31	338182	10.427	ppbV	100
26) 1,1-dichloroethene	6.818	61	304748	10.924	ppbV	99
27) tertiary butyl alcohol	6.890	59	443136	12.278	ppbV	100
28) methylene chloride	6.986	49	251394	9.157	ppbV	100
29) 3-chloropropene	7.124	41	342365M4	13.028	ppbV	
30) carbon disulfide	7.280	76	711031	11.301	ppbV	100
31) Freon 113	7.322	101	391992	11.140	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
 Data File : r322225.D  
 Acq On : 19 May 2022 2:23 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640711-2,3,250,250  
 Misc : WG1640711,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 16:50:01 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0519T\r322225.D  
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) trans-1,2-dichloroethene	8.125	61	322303	11.296	ppbV	99
33) 1,1-dichloroethane	8.358	63	365512	10.686	ppbV	100
34) MTBE	8.433	73	635425	12.422	ppbV	100
35) vinyl acetate	8.575	43	452103	11.552	ppbV	100
36) 2-butanone	8.842	43	495671	11.308	ppbV	99
37) cis-1,2-dichloroethene	9.358	61	276553	10.860	ppbV	99
38) Ethyl Acetate	9.658	61	86052	12.054	ppbV	91
39) chloroform	9.717	83	385011	11.179	ppbV	98
40) Tetrahydrofuran	10.158	42	294942	11.657	ppbV	100
41) 2,2-dichloropropane	9.725	77	343701	12.563	ppbV	97
42) 1,2-dichloroethane	10.567	62	226166	10.515	ppbV	99
44) hexane	9.625	57	435200	11.444	ppbV	97
45) diisopropyl ether	9.633	87	239561	11.330	ppbV	96
46) tert-butyl ethyl ether	10.258	59	740343	11.550	ppbV	99
48) 1,1,1-trichloroethane	10.858	97	320093	11.123	ppbV	99
49) 1,1-dichloropropene	11.227	75	368344	11.958	ppbV	100
50) benzene	11.387	78	743208	9.516	ppbV	100
52) carbon tetrachloride	11.560	117	313476	11.737	ppbV	98
53) cyclohexane	11.707	56	458348	11.589	ppbV	99
54) tert-amyl methyl ether	12.093	73	727965	11.747	ppbV	100
55) dibromomethane	12.313	93	230300	11.156	ppbV	99
56) 1,2-dichloropropane	12.347	63	250251	10.630	ppbV	100
57) bromodichloromethane	12.580	83	450826	12.199	ppbV	100
58) 1,4-dioxane	12.620	88	188082	11.789	ppbV	98
59) trichloroethene	12.627	130	329061	10.943	ppbV	99
60) 2,2,4-trimethylpentane	12.680	57	1414077	12.031	ppbV	99
61) methyl methacrylate	12.880	41	322301	12.847	ppbV	100
62) heptane	13.000	43	529248	12.075	ppbV	99
63) cis-1,3-dichloropropene	13.642	75	398857	11.928	ppbV	99
64) 4-methyl-2-pentanone	13.683	43	626569	12.478	ppbV	99
65) trans-1,3-dichloropropene	14.267	75	318810	10.578	ppbV	100
66) 1,1,2-trichloroethane	14.467	97	278872	11.147	ppbV	98
68) toluene	14.783	91	834472	10.544	ppbV	99
71) 1,3-dichloropropane	14.808	76	465321	11.186	ppbV	100
72) 2-hexanone	15.067	43	587877	12.344	ppbV	96
74) dibromochloromethane	15.233	129	482609	13.238	ppbV	98
75) 1,2-dibromoethane	15.483	107	428530	11.246	ppbV	99
76) butyl acetate	15.725	73	143044	11.884	ppbV	97
77) octane	15.825	85	385476	11.117	ppbV	98
78) tetrachloroethene	15.950	166	417190	10.881	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
 Data File : r322225.D  
 Acq On : 19 May 2022 2:23 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640711-2,3,250,250  
 Misc : WG1640711,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 16:50:01 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0519T\r322225.D  
 Sub List : Default-LCS-AP2 - All compounds listed

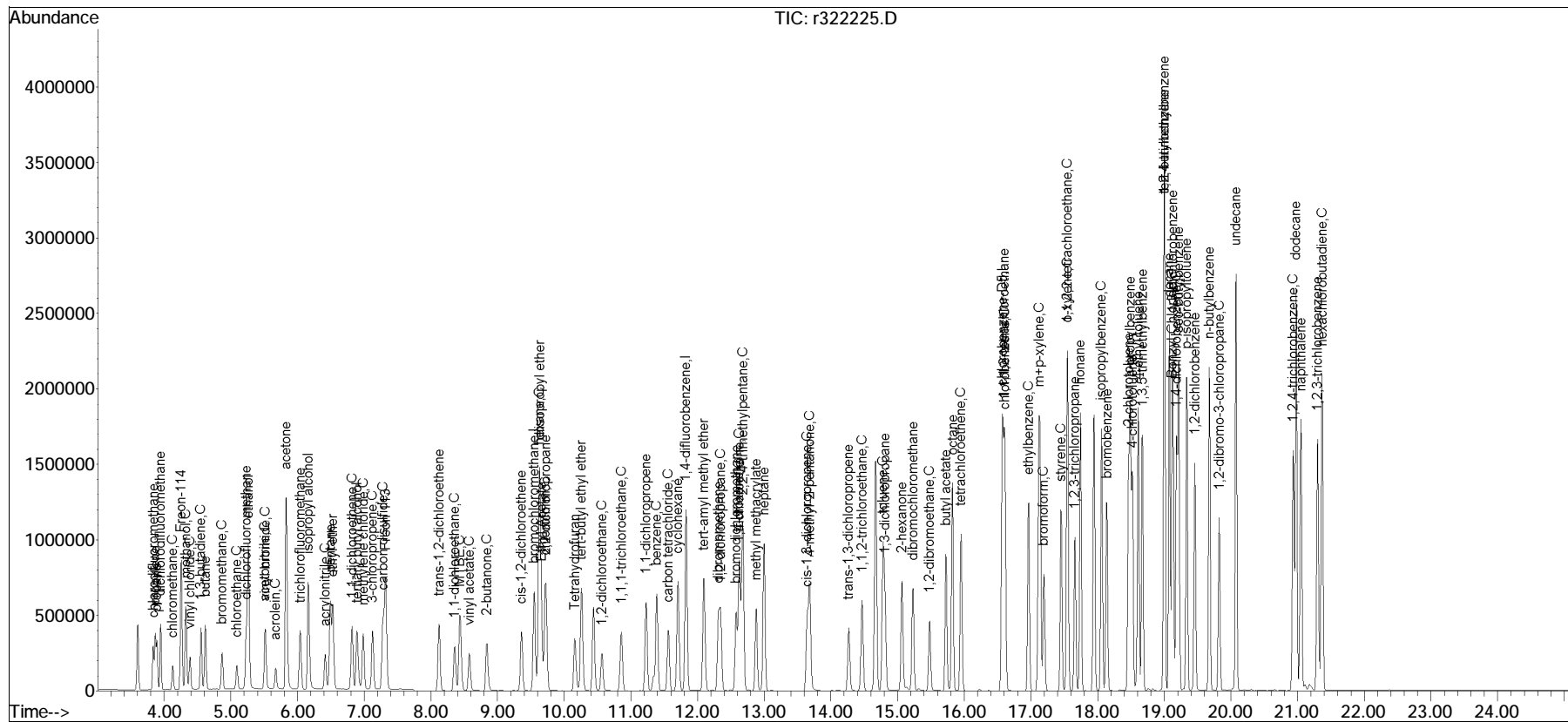
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
79) 1,1,1,2-tetrachloroethane	16.600	131	345305	12.179	ppbV	100
80) chlorobenzene	16.608	112	742373	10.929	ppbV	98
81) ethylbenzene	16.967	91	1041118	10.965	ppbV	100
83) m+p-xylene	17.125	91	1717566	22.143	ppbV	99
84) bromoform	17.192	173	461636	13.612	ppbV	100
85) styrene	17.450	104	779669	11.296	ppbV	99
86) 1,1,2,2-tetrachloroethane	17.550	83	653948	11.357	ppbV	100
87) o-xylene	17.550	91	882605	11.415	ppbV	100
88) 1,2,3-trichloropropane	17.658	75	558852	11.416	ppbV	100
89) nonane	17.742	43	749384	11.291	ppbV	98
91) isopropylbenzene	18.058	105	1369083	11.972	ppbV	100
92) bromobenzene	18.142	77	748519	11.554	ppbV	97
93) 2-chlorotoluene	18.467	126	382786	11.378	ppbV	100
94) n-propylbenzene	18.492	120	455002	11.638	ppbV	99
95) 4-chlorotoluene	18.525	126	382750	11.450	ppbV	97
96) 4-ethyl toluene	18.608	105	1448471	12.309	ppbV	99
97) 1,3,5-trimethylbenzene	18.675	105	1146218	10.636	ppbV	100
98) tert-butylbenzene	19.000	119	1217377	11.941	ppbV	99
99) 1,2,4-trimethylbenzene	19.000	105	1125044	11.918	ppbV	99
100) decane	19.075	57	945469	11.687	ppbV	99
101) Benzyl Chloride	19.117	91	803365	15.059	ppbV	98
102) 1,3-dichlorobenzene	19.125	146	831907	11.669	ppbV	97
103) 1,4-dichlorobenzene	19.183	146	794943	11.468	ppbV	100
104) sec-butylbenzene	19.217	105	1736451	12.019	ppbV	100
106) p-isopropyltoluene	19.333	119	1424392	11.807	ppbV	95
107) 1,2-dichlorobenzene	19.458	146	765814	11.480	ppbV	100
108) n-butylbenzene	19.675	91	1294696	12.527	ppbV	99
111) 1,2-dibromo-3-chloropr...	19.825	75	348010	13.254	ppbV	99
112) undecane	20.075	57	1094279	12.248	ppbV	99
114) dodecane	20.975	57	1102547	12.376	ppbV	99
115) 1,2,4-trichlorobenzene	20.933	180	656308	12.450	ppbV	100
116) naphthalene	21.050	128	1808365	13.266	ppbV	100
117) 1,2,3-trichlorobenzene	21.300	180	705963	13.194	ppbV	99
119) hexachlorobutadiene	21.367	225	579628	11.720	ppbV	100

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

Sub List : Default-LCS-AP2 - All compounds listed19T\r322225.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
Data File : r322225.D  
Acq On : 19 May 2022 2:23 PM  
Operator : AIRPIANO3:TS  
Sample : WG1640711-2,3,250,250  
Misc : WG1640711,ICAL19030  
ALS Vial : 0 Sample Multiplier: 1

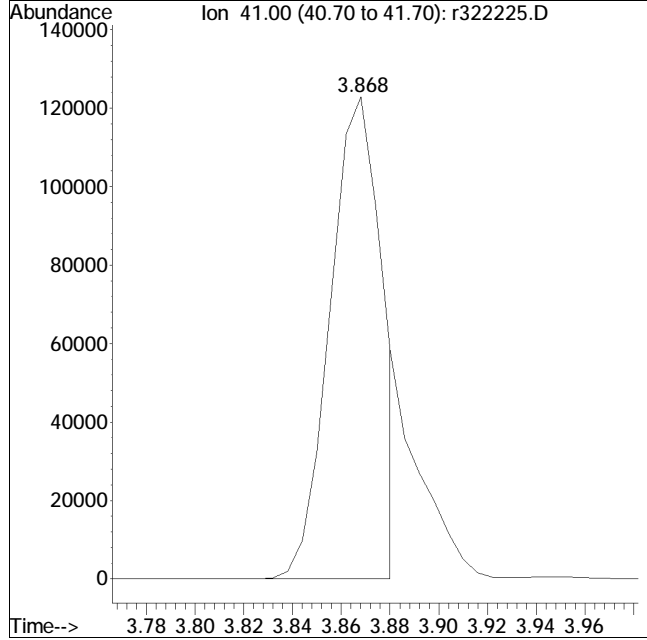
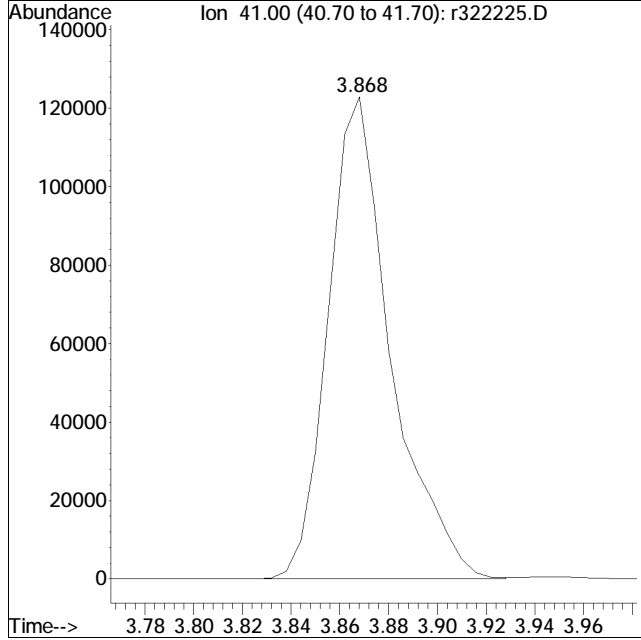
Quant Time: May 19 16:50:01 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 15:52:12 2022  
Response via : Initial Calibration



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322225.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:2: 3 Instrument :  
Sample : WG1640711-2,3,250,250 Quant Date : 5/19/2022 3:42 pm

Compound #3: propylene



Original Peak Response = 219524

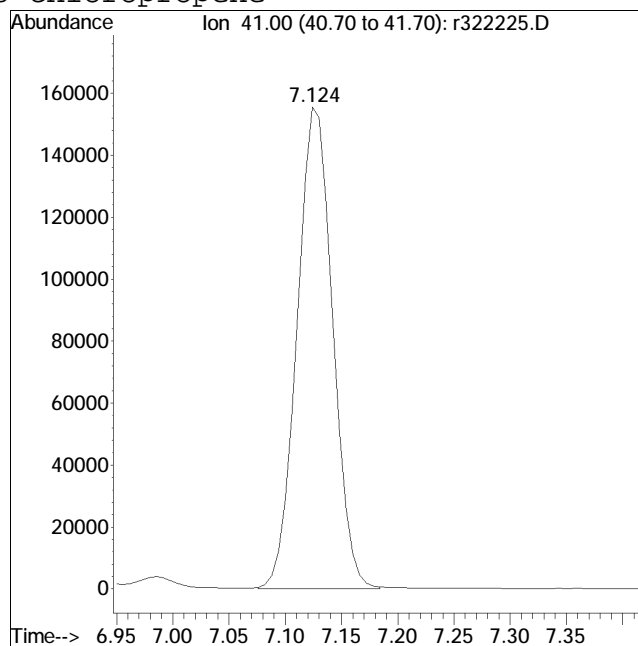
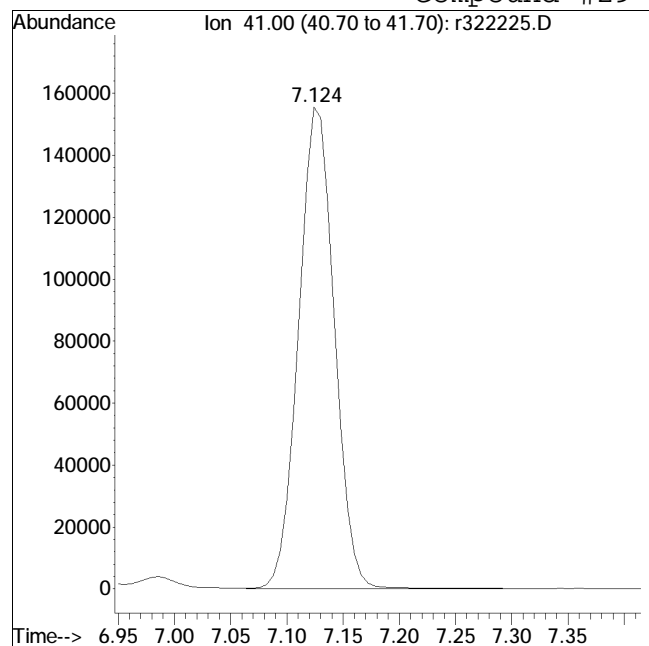
Manual Peak Response = 182838 M6

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

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322225.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:2: 3 Instrument :  
Sample : WG1640711-2,3,250,250 Quant Date : 5/19/2022 3:42 pm

Compound #29: 3-chloropropene



Original Peak Response = 342824

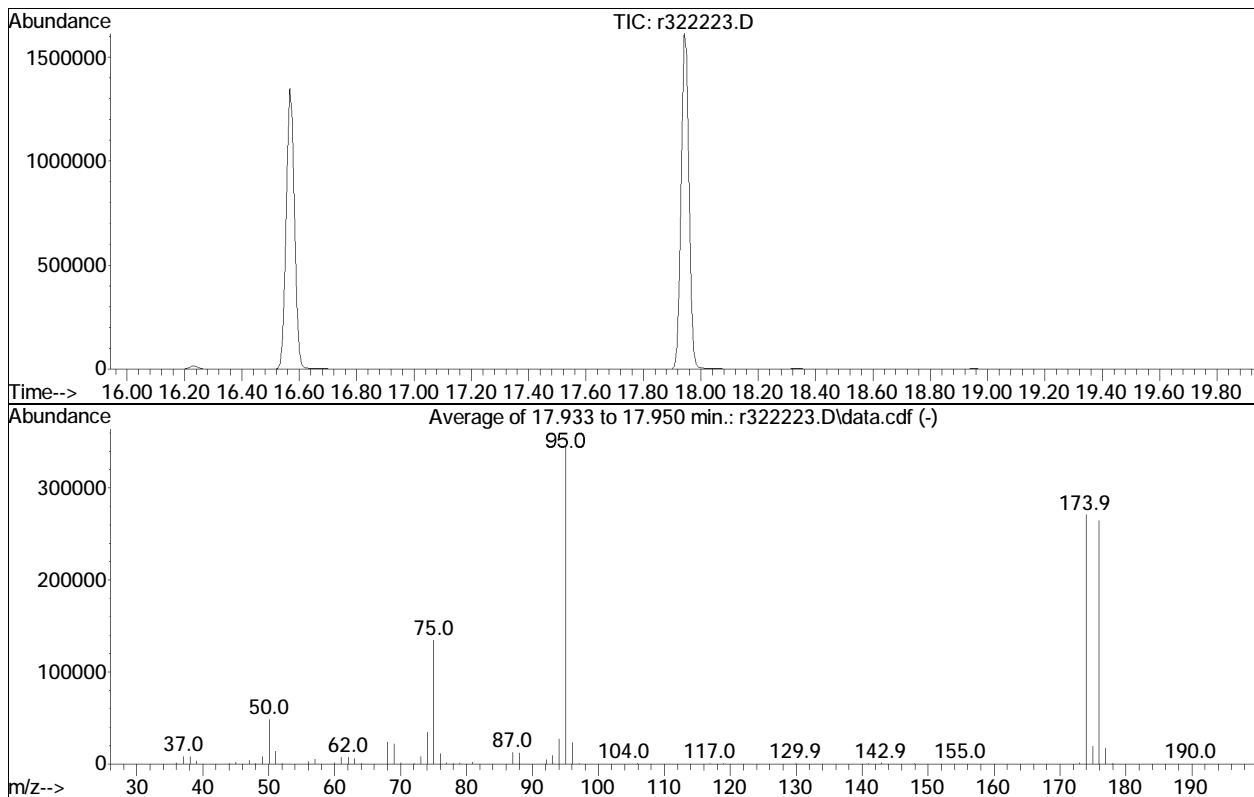
Manual Peak Response = 342365 M4

M4 = Poor automated baseline construction.

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
 Data File : r322223.D  
 Acq On : 19 May 2022 12:57 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640711-1,3,250,250  
 Misc : WG1640711,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Integration File: rteint.p

Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
 Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 Last Update : Tue May 17 15:52:12 2022



Spectrum Information: Average of 17.933 to 17.950 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	14.0	48506	PASS
75	95	30	66	38.8	134615	PASS
95	95	100	100	100.0	347046	PASS
96	95	5	9	6.7	23264	PASS
173	174	0.00	2	0.6	1669	PASS
174	95	50	120	78.2	271322	PASS
175	174	4	9	7.2	19505	PASS
176	174	93	101	97.4	264354	PASS
177	176	5	9	6.6	17408	PASS



# **Volatiles Raw QC Data**

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
 Data File : r322196.D  
 Acq On : 18 May 2022 4:03 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640147-4,3,250,250  
 Misc : WG1640147,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 18 22:24:23 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518T\r322194.D  
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) bromochloromethane	9.542	49	424037	10.000	ppbV	-0.03
Standard Area =	443368		Recovery =	95.64%		
43) 1,4-difluorobenzene	11.820	114	1254640	10.000	ppbV	-0.02
Standard Area =	1337389		Recovery =	93.81%		
67) chlorobenzene-D5	16.567	54	194102	10.000	ppbV	-0.02
Standard Area =	206902		Recovery =	93.81%		

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	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	5.287	31	2070	0.127	ppbV	91
17) vinyl bromide	0.000		0	N.D.		
19) acetone	5.867	43	2745	0.118	ppbV #	88
21) trichlorofluoromethane	0.000		0	N.D.		
22) isopropyl alcohol	6.197		0	N.D.		
26) 1,1-dichloroethene	0.000		0	N.D.		
27) tertiary butyl alcohol	0.000		0	N.D.		
28) methylene chloride	6.986		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	8.900		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 : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
 Data File : r322196.D  
 Acq On : 18 May 2022 4:03 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640147-4,3,250,250  
 Misc : WG1640147,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 18 22:24:23 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518T\r322194.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	11.380		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	12.667		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	0.000		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	0.000		0		N.D.	
83) m+p-xylene	0.000		0		N.D.	
84) bromoform	0.000		0		N.D.	
85) styrene	0.000		0		N.D.	
86) 1,1,2,2-tetrachloroethane	0.000		0		N.D.	
87) o-xylene	0.000		0		N.D.	
96) 4-ethyl toluene	0.000		0		N.D.	
97) 1,3,5-trimethylbenzene	0.000		0		N.D.	
99) 1,2,4-trimethylbenzene	0.000		0		N.D.	
101) Benzyl Chloride	0.000		0		N.D.	
102) 1,3-dichlorobenzene	0.000		0		N.D.	
103) 1,4-dichlorobenzene	0.000		0		N.D.	
107) 1,2-dichlorobenzene	0.000		0		N.D.	
115) 1,2,4-trichlorobenzene	20.942		0		N.D.	
119) hexachlorobutadiene	0.000		0		N.D.	

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
Data File : r322196.D  
Acq On : 18 May 2022 4:03 PM  
Operator : AIRPIANO3:TS  
Sample : WG1640147-4,3,250,250  
Misc : WG1640147,ICAL19030  
ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 18 22:24:23 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 15:52:12 2022  
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518T\r322194.D  
Sub List : Default-LCS-AP2 - All compounds listed

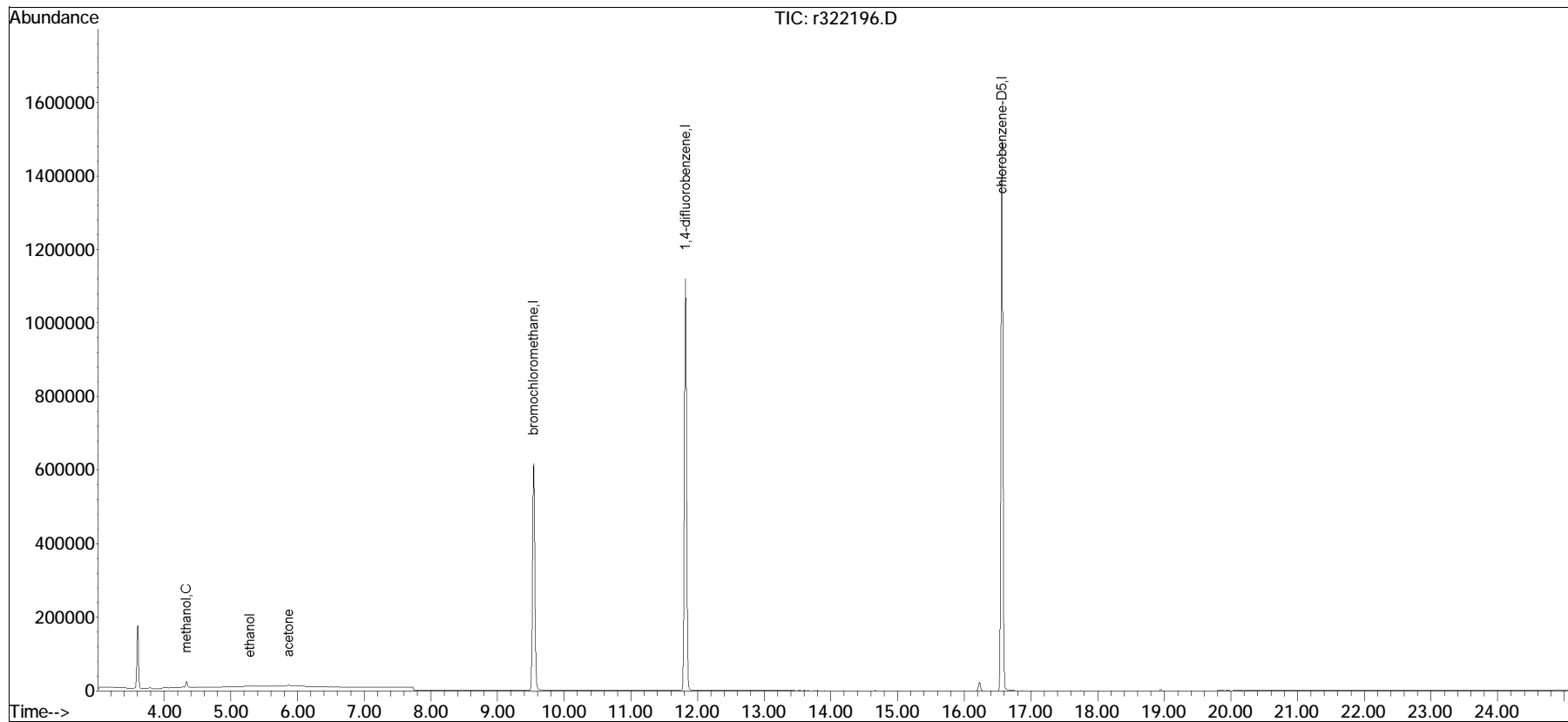
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
----------	------	------	----------	------	-------	----------

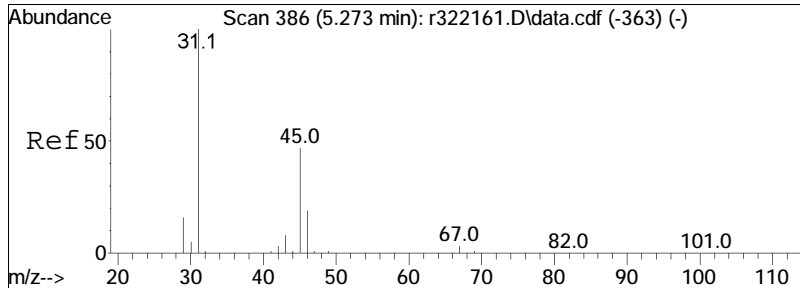
-----

Sub List : Default-LCS-AP2 - All compounds listed18T\r322194.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
Data File : r322196.D  
Acq On : 18 May 2022 4:03 PM  
Operator : AIRPIANO3:TS  
Sample : WG1640147-4,3,250,250  
Misc : WG1640147,ICAL19030  
ALS Vial : 0 Sample Multiplier: 1

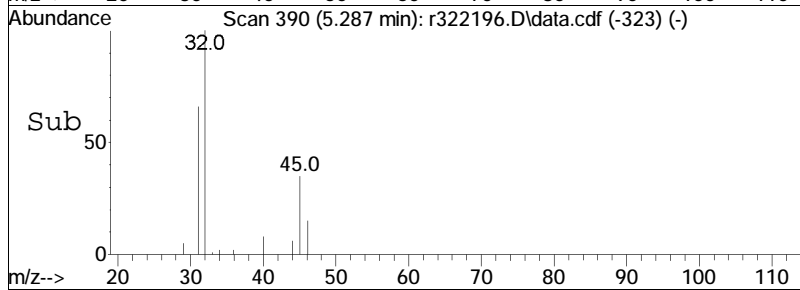
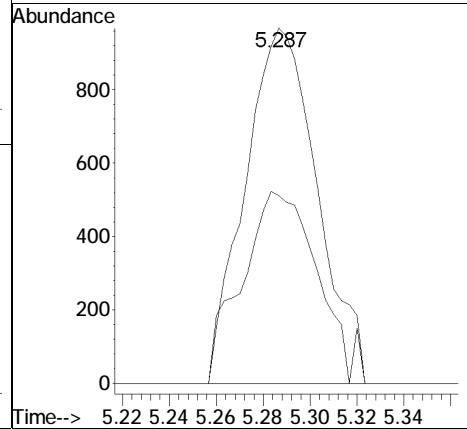
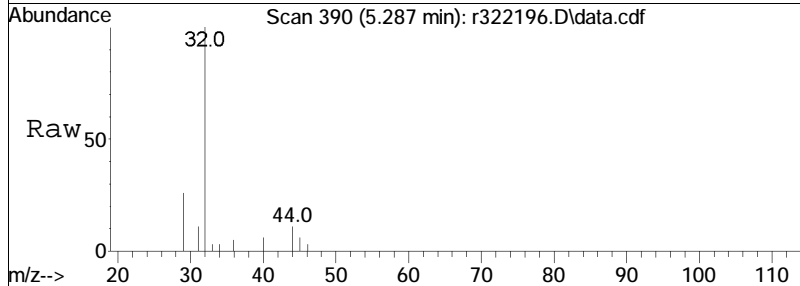
Quant Time: May 18 22:24:23 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 15:52:12 2022  
Response via : Initial Calibration

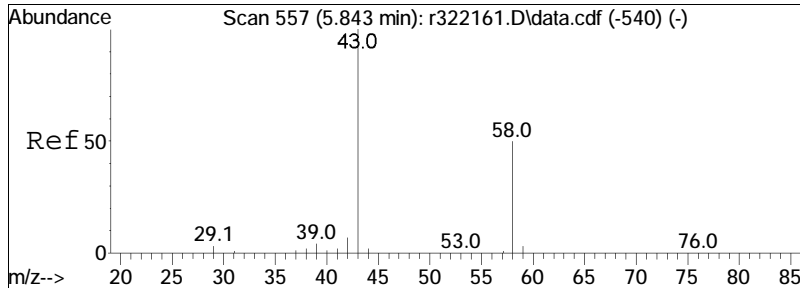




#15  
 ethanol  
 Concen: 0.13 ppbV  
 RT: 5.287 min Scan# 390  
 Delta R.T. 0.013 min  
 Lab File: r322196.D  
 Acq: 18 May 2022 4:03 PM

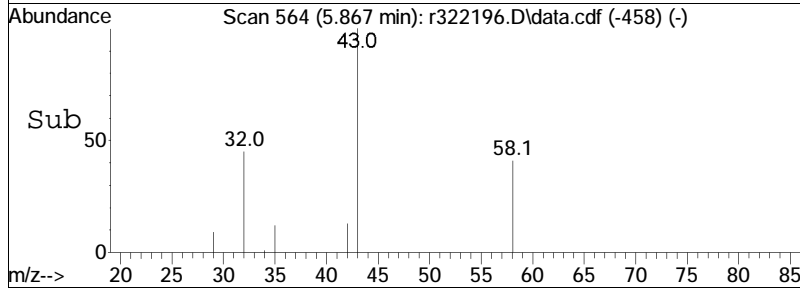
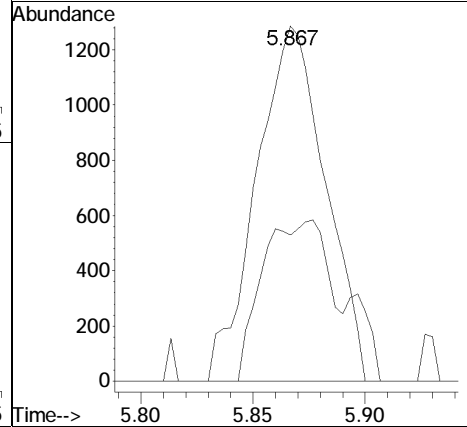
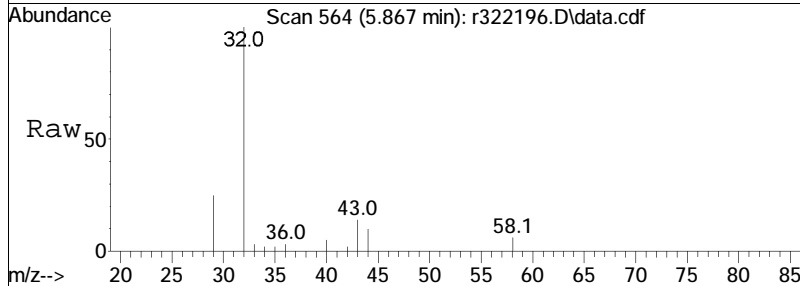
Tgt Ion: 31 Resp: 2070  
 Ion Ratio Lower Upper  
 31 100  
 45 52.8 37.6 56.4





#19  
 acetone  
 Concen: 0.12 ppbV  
 RT: 5.867 min Scan# 564  
 Delta R.T. 0.023 min  
 Lab File: r322196.D  
 Acq: 18 May 2022 4:03 PM

Tgt Ion:	Resp:	Lower	Upper
43	100		
58	41.1	39.8	59.8
57	0.0	1.0	1.6#



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322196.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/18/2020 0:4: 3 Instrument :  
Sample : WG1640147-4,3,250,250 Quant Date : 5/18/2022 10:23 pm

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



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
 Data File : r322227.D  
 Acq On : 19 May 2022 4:38 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640711-4,3,250,250  
 Misc : WG1640711,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 22:13:49 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0519T\r322225.D  
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) bromochloromethane	9.550	49	434797	10.000	ppbV	-0.02
Standard Area =	440035		Recovery =		98.81%	
43) 1,4-difluorobenzene	11.827	114	1286028	10.000	ppbV	-0.01
Standard Area =	1334123		Recovery =		96.40%	
67) chlorobenzene-D5	16.575	54	193158	10.000	ppbV	0.00
Standard Area =	210666		Recovery =		91.69%	

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	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	5.287	31	2255	0.135	ppbV	95
17) vinyl bromide	0.000		0		N.D.	
19) acetone	5.863	43	2295	0.096	ppbV #	92
21) trichlorofluoromethane	0.000		0		N.D.	
22) isopropyl alcohol	6.207		0		N.D.	
26) 1,1-dichloroethene	0.000		0		N.D.	
27) tertiary butyl alcohol	0.000		0		N.D.	
28) methylene chloride	6.986		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	0.000		0		N.D.	
37) cis-1,2-dichloroethene	0.000		0		N.D.	
38) Ethyl Acetate	0.000		0		N.D.	
39) chloroform	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 : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
 Data File : r322227.D  
 Acq On : 19 May 2022 4:38 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640711-4,3,250,250  
 Misc : WG1640711,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 22:13:49 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0519T\r322225.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	11.387		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	12.680		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	0.000		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	0.000		0		N.D.	
83) m+p-xylene	0.000		0		N.D.	
84) bromoform	0.000		0		N.D.	
85) styrene	0.000		0		N.D.	
86) 1,1,2,2-tetrachloroethane	0.000		0		N.D.	
87) o-xylene	0.000		0		N.D.	
96) 4-ethyl toluene	0.000		0		N.D.	
97) 1,3,5-trimethylbenzene	0.000		0		N.D.	
99) 1,2,4-trimethylbenzene	0.000		0		N.D.	
101) Benzyl Chloride	0.000		0		N.D.	
102) 1,3-dichlorobenzene	0.000		0		N.D.	
103) 1,4-dichlorobenzene	0.000		0		N.D.	
107) 1,2-dichlorobenzene	0.000		0		N.D.	
115) 1,2,4-trichlorobenzene	20.950		0		N.D.	
119) hexachlorobutadiene	0.000		0		N.D.	

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
Data File : r322227.D  
Acq On : 19 May 2022 4:38 PM  
Operator : AIRPIANO3:TS  
Sample : WG1640711-4,3,250,250  
Misc : WG1640711,ICAL19030  
ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 22:13:49 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 15:52:12 2022  
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0519T\r322225.D  
Sub List : Default-LCS-AP2 - All compounds listed

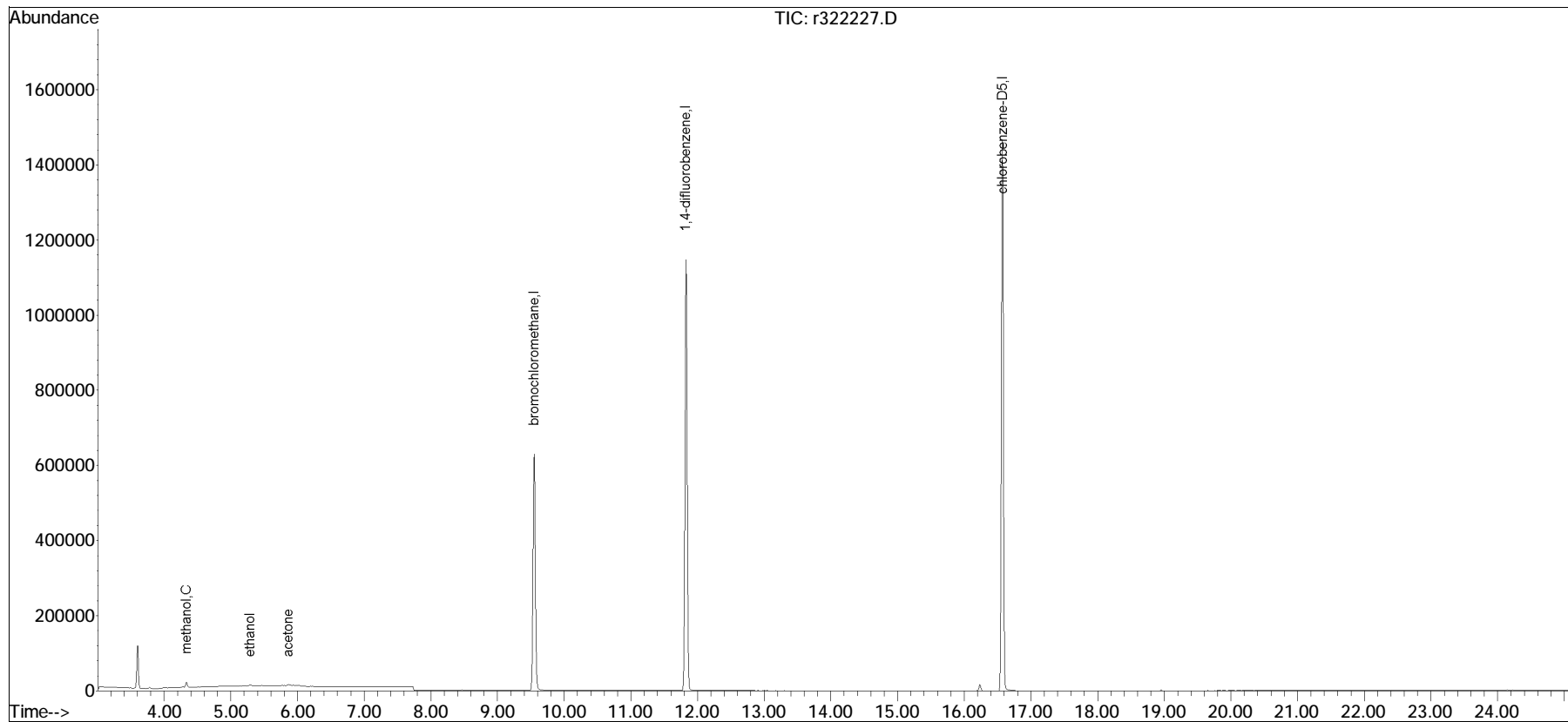
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
----------	------	------	----------	------	-------	----------

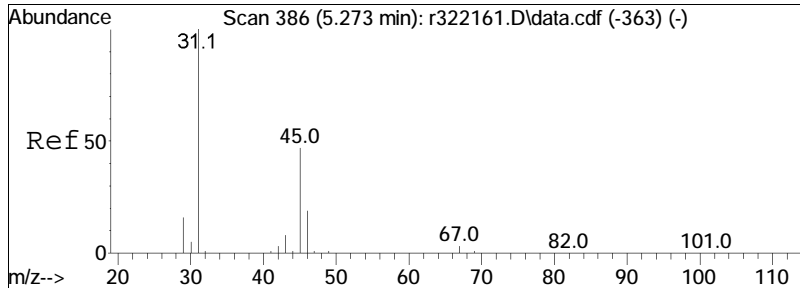
-----

Sub List : Default-LCS-AP2 - All compounds listed19T\r322225.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
Data File : r322227.D  
Acq On : 19 May 2022 4:38 PM  
Operator : AIRPIANO3:TS  
Sample : WG1640711-4,3,250,250  
Misc : WG1640711,ICAL19030  
ALS Vial : 0 Sample Multiplier: 1

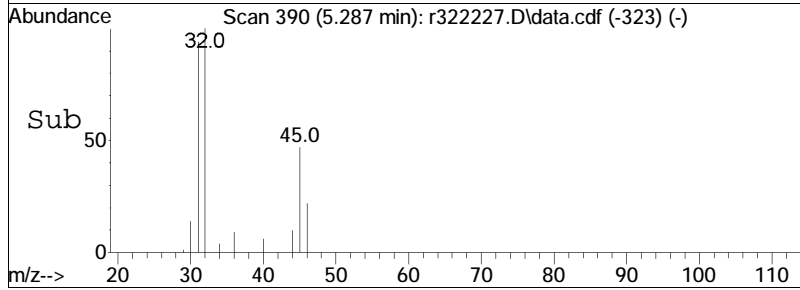
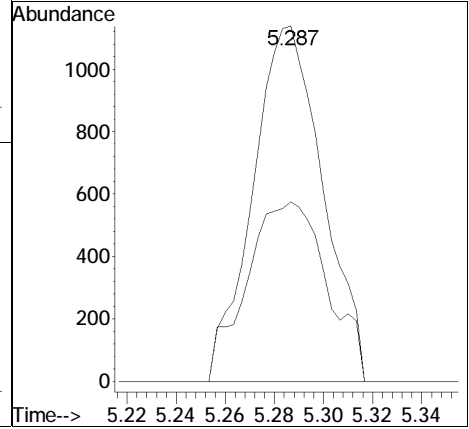
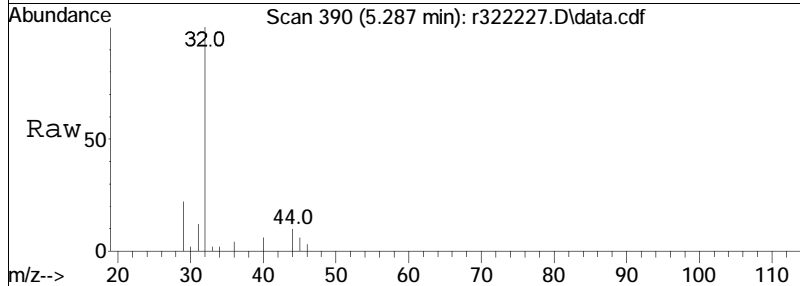
Quant Time: May 19 22:13:49 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 15:52:12 2022  
Response via : Initial Calibration

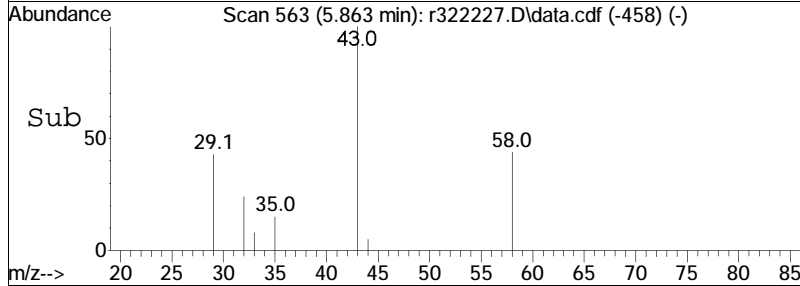
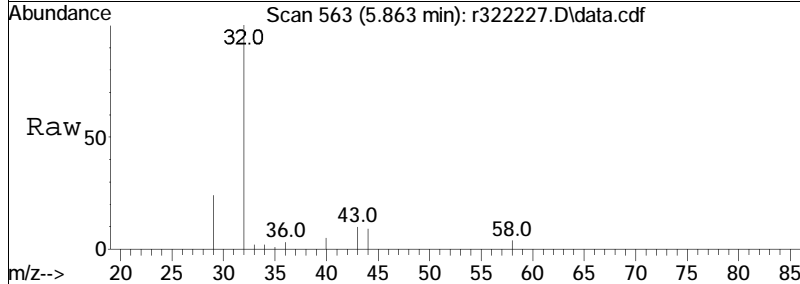
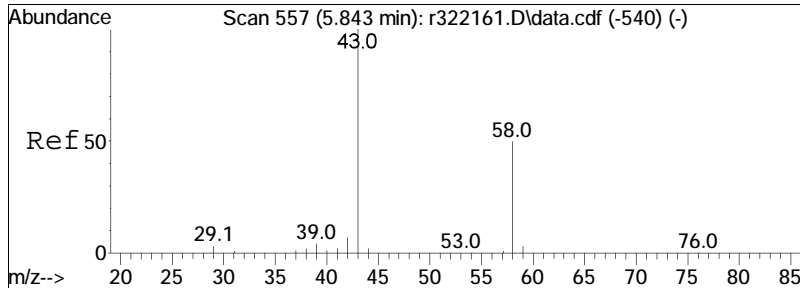




#15  
 ethanol  
 Concen: 0.13 ppbV  
 RT: 5.287 min Scan# 390  
 Delta R.T. 0.013 min  
 Lab File: r322227.D  
 Acq: 19 May 2022 4:38 PM

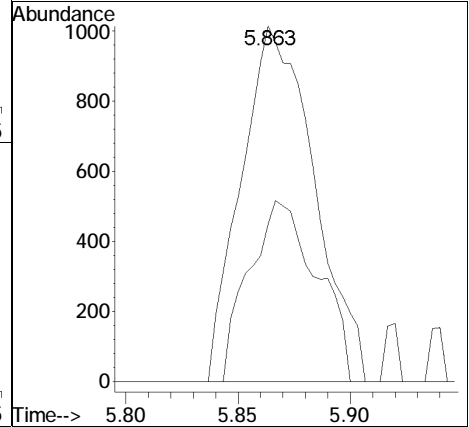
Tgt Ion	Ratio	Lower	Upper
31	100		
45	50.5	37.6	56.4





#19  
 acetone  
 Concen: 0.10 ppbV  
 RT: 5.863 min Scan# 563  
 Delta R.T. 0.020 min  
 Lab File: r322227.D  
 Acq: 19 May 2022 4:38 PM

Tgt Ion:	43	Resp:	2295
Ion Ratio	Lower	Upper	
43	100		
58	44.3	39.8	59.8
57	0.0	1.0	1.6#



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322227.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:4: 8 Instrument :  
Sample : WG1640711-4,3,250,250 Quant Date : 5/19/2022 10:13 pm

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

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
 Data File : r322194.D  
 Acq On : 18 May 2022 1:48 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640147-3,3,250,250  
 Misc : WG1640147,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 18 15:34:19 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 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	104	-0.03
2	chlorodifluoromethane	10.000	10.343	-3.4	132	-0.02
3	propylene	10.000	11.440	-14.4	157	-0.02
4	propane	10.000	9.980	0.2	133	-0.01
5	dichlorodifluoromethane	10.000	11.384	-13.8	141	-0.01
6 C	chloromethane	10.000	11.030	-10.3	144	-0.02
7	Freon-114	10.000	11.797	-18.0	147	-0.02
8 C	methanol	50.000	38.471	23.1	85	-0.02
9 C	vinyl chloride	10.000	11.585	-15.9	148	-0.02
10 C	1,3-butadiene	10.000	12.086	-20.9	157	-0.02
11	butane	10.000	10.124	-1.2	140	-0.02
13 C	bromomethane	10.000	11.558	-15.6	149	-0.02
14 C	chloroethane	10.000	11.397	-14.0	150	-0.02
15	ethanol	50.000	57.364	-14.7	139	-0.02
16	dichlorofluoromethane	10.000	11.676	-16.8	140	-0.02
17 C	vinyl bromide	10.000	11.453	-14.5	147	-0.02
18 C	acrolein	10.000	7.258	27.4	133	-0.02
19	acetone	50.000	55.760	-11.5	158	-0.03
20 C	acetonitrile	10.000	9.146	8.5	135	-0.02
21	trichlorofluoromethane	10.000	12.066	-20.7	150	-0.02
22	isopropyl alcohol	25.000	32.250	-29.0	161	-0.03
23 C	acrylonitrile	10.000	10.850	-8.5	145	-0.03
24	pentane	10.000	10.687	-6.9	145	-0.02
25	ethyl ether	10.000	10.134	-1.3	140	-0.02
26 C	1,1-dichloroethene	10.000	11.666	-16.7	150	-0.02
27	tertiary butyl alcohol	10.000	11.969	-19.7	155	-0.03
28 C	methylene chloride	10.000	9.709	2.9	120	-0.02
29 C	3-chloropropene	10.000	12.683	-26.8	164	-0.03
30 C	carbon disulfide	10.000	11.009	-10.1	140	-0.02
31	Freon 113	10.000	11.854	-18.5	152	-0.03
32	trans-1,2-dichloroethene	10.000	11.100	-11.0	143	-0.03
33 C	1,1-dichloroethane	10.000	11.345	-13.5	148	-0.03
34 C	MTBE	10.000	12.026	-20.3	153	-0.02
35 C	vinyl acetate	10.000	10.907	-9.1	150	-0.03
36 C	2-butanone	10.000	10.839	-8.4	148	-0.03
37	cis-1,2-dichloroethene	10.000	11.610	-16.1	149	-0.03
38	Ethyl Acetate	10.000	11.834	-18.3	154	-0.03
39 C	chloroform	10.000	11.970	-19.7	150	-0.03
40	Tetrahydrofuran	10.000	11.248	-12.5	148	-0.03



Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
 Data File : r322194.D  
 Acq On : 18 May 2022 1:48 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640147-3,3,250,250  
 Misc : WG1640147,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 18 15:34:19 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 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	11.743	-17.4	143	-0.03
42 C	1,2-dichloroethane	10.000	11.107	-11.1	145	-0.02
43 I	1,4-difluorobenzene	10.000	10.000	0.0	103	-0.03
44 C	hexane	10.000	11.147	-11.5	143	-0.03
45	diisopropyl ether	10.000	10.966	-9.7	142	-0.03
46	tert-butyl ethyl ether	10.000	11.122	-11.2	140	-0.03
48 C	1,1,1-trichloroethane	10.000	11.692	-16.9	152	-0.03
49	1,1-dichloropropene	10.000	11.436	-14.4	146	-0.03
50 C	benzene	10.000	10.195	-2.0	144	-0.03
52 C	carbon tetrachloride	10.000	12.335	-23.4	151	-0.03
53	cyclohexane	10.000	11.270	-12.7	149	-0.03
54	tert-amyl methyl ether	10.000	11.150	-11.5	142	-0.03
55	dibromomethane	10.000	10.667	-6.7	141	-0.03
56 C	1,2-dichloropropane	10.000	11.349	-13.5	149	-0.03
57	bromodichloromethane	10.000	11.896	-19.0	151	-0.03
58 C	1,4-dioxane	10.000	11.787	-17.9	154	-0.03
59 C	trichloroethene	10.000	11.672	-16.7	149	-0.03
60 C	2,2,4-trimethylpentane	10.000	11.766	-17.7	154	-0.02
61	methyl methacrylate	10.000	12.184	-21.8	159	-0.03
62	heptane	10.000	11.558	-15.6	152	-0.02
63 C	cis-1,3-dichloropropene	10.000	12.679	-26.8	159	-0.03
64 C	4-methyl-2-pentanone	10.000	12.053	-20.5	151	-0.03
65	trans-1,3-dichloropropene	10.000	11.328	-13.3	138	-0.03
66 C	1,1,2-trichloroethane	10.000	11.771	-17.7	152	-0.02
67 I	chlorobenzene-D5	10.000	10.000	0.0	102	-0.02
68 C	toluene	10.000	11.429	-14.3	146	-0.02
71	1,3-dichloropropane	10.000	10.912	-9.1	139	-0.02
72	2-hexanone	10.000	12.100	-21.0	146	-0.02
74	dibromochloromethane	10.000	12.836	-28.4	156	-0.03
75 C	1,2-dibromoethane	10.000	12.017	-20.2	148	-0.03
76	butyl acetate	10.000	11.421	-14.2	137	-0.02
77	octane	10.000	10.922	-9.2	138	-0.03
78 C	tetrachloroethene	10.000	11.879	-18.8	148	-0.02
79	1,1,1,2-tetrachloroethane	10.000	11.814	-18.1	142	-0.03
80 C	chlorobenzene	10.000	11.768	-17.7	146	-0.02
81 C	ethylbenzene	10.000	11.883	-18.8	148	-0.02
83 C	m+p-xylene	20.000	23.986	-19.9	146	-0.02

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
 Data File : r322194.D  
 Acq On : 18 May 2022 1:48 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640147-3,3,250,250  
 Misc : WG1640147,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 18 15:34:19 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

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

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
84 C	bromoform	10.000	13.223	-32.2#	156	-0.02
85 C	styrene	10.000	12.195	-22.0	148	-0.02
86 C	1,1,2,2-tetrachloroethane	10.000	12.374	-23.7	146	-0.02
87 C	o-xylene	10.000	12.281	-22.8	147	-0.02
88	1,2,3-trichloropropane	10.000	11.104	-11.0	138	-0.02
89	nonane	10.000	11.010	-10.1	138	-0.02
91 C	isopropylbenzene	10.000	11.735	-17.3	144	-0.02
92	bromobenzene	10.000	11.354	-13.5	140	-0.02
93	2-chlorotoluene	10.000	11.107	-11.1	137	-0.02
94	n-propylbenzene	10.000	11.488	-14.9	141	-0.02
95	4-chlorotoluene	10.000	11.193	-11.9	137	-0.02
96	4-ethyl toluene	10.000	12.127	-21.3	144	-0.02
97	1,3,5-trimethylbenzene	10.000	11.446	-14.5	129	-0.02
98	tert-butylbenzene	10.000	11.855	-18.6	136	-0.02
99	1,2,4-trimethylbenzene	10.000	12.941	-29.4	147	-0.02
100	decane	10.000	11.523	-15.2	137	-0.02
101 C	Benzyl Chloride	10.000	14.845	-48.5#	158	-0.02
102	1,3-dichlorobenzene	10.000	12.513	-25.1	144	-0.02
103 C	1,4-dichlorobenzene	10.000	12.543	-25.4	147	-0.02
104	sec-butylbenzene	10.000	11.691	-16.9	137	-0.02
106	p-isopropyltoluene	10.000	11.660	-16.6	130	-0.02
107	1,2-dichlorobenzene	10.000	12.424	-24.2	146	-0.02
108	n-butylbenzene	10.000	12.262	-22.6	141	-0.02
111 C	1,2-dibromo-3-chloropropane	10.000	12.762	-27.6	138	-0.02
112	undecane	10.000	12.074	-20.7	136	-0.02
114	dodecane	10.000	11.736	-17.4	121	-0.02
115 C	1,2,4-trichlorobenzene	10.000	12.962	-29.6	143	-0.02
116	naphthalene	10.000	12.440	-24.4	137	-0.02
117	1,2,3-trichlorobenzene	10.000	12.338	-23.4	137	-0.02
119 C	hexachlorobutadiene	10.000	12.862	-28.6	145	-0.02

\* Evaluation of CC level amount vs concentration.  
 (#) = Out of Range SPCC's out = 0 CCC's out = 2

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
 Data File : r322194.D  
 Acq On : 18 May 2022 1:48 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640147-3,3,250,250  
 Misc : WG1640147,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 18 15:34:19 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518T\r322194.D  
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) bromochloromethane	9.533	49	443368	10.000	ppbV	-0.03
Standard Area =	443368		Recovery =	100.00%		
43) 1,4-difluorobenzene	11.813	114	1337389	10.000	ppbV	-0.03
Standard Area =	1337389		Recovery =	100.00%		
67) chlorobenzene-D5	16.558	54	206902	10.000	ppbV	-0.02
Standard Area =	206902		Recovery =	100.00%		

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) dichlorodifluoromethane	3.940	85	396978	11.384	ppbV	100
6) chloromethane	4.120	50	184916	11.030	ppbV	100
7) Freon-114	4.246	85	534671	11.797	ppbV	99
9) vinyl chloride	4.378	62	251108	11.585	ppbV	100
10) 1,3-butadiene	4.540	54	211280	12.086	ppbV	99
13) bromomethane	4.858	94	200311	11.558	ppbV	100
14) chloroethane	5.080	64	126468	11.397	ppbV	100
15) ethanol	5.250	31	977130	57.364	ppbV	99
17) vinyl bromide	5.510	106	189507	11.453	ppbV	98
19) acetone	5.817	43	1354341	55.760	ppbV	99
21) trichlorofluoromethane	6.030	101	382644	12.066	ppbV	99
22) isopropyl alcohol	6.150	45	942579	32.250	ppbV	100
26) 1,1-dichloroethene	6.806	61	327906	11.666	ppbV	100
27) tertiary butyl alcohol	6.878	59	435258	11.969	ppbV	99
28) methylene chloride	6.974	49	268576	9.709	ppbV	99
29) 3-chloropropene	7.112	41	335821	12.683	ppbV	99
30) carbon disulfide	7.268	76	697904	11.009	ppbV	99
31) Freon 113	7.304	101	420286	11.854	ppbV	99
32) trans-1,2-dichloroethene	8.108	61	319118	11.100	ppbV	99
33) 1,1-dichloroethane	8.342	63	391002	11.345	ppbV	100
34) MTBE	8.425	73	619862	12.026	ppbV	100
36) 2-butanone	8.825	43	478676	10.839	ppbV	100
37) cis-1,2-dichloroethene	9.350	61	297910	11.610	ppbV	99
38) Ethyl Acetate	9.642	61	85126	11.834	ppbV	78
39) chloroform	9.700	83	415380	11.970	ppbV	99
40) Tetrahydrofuran	10.150	42	286753	11.248	ppbV	100
42) 1,2-dichloroethane	10.550	62	240702	11.107	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
 Data File : r322194.D  
 Acq On : 18 May 2022 1:48 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640147-3,3,250,250  
 Misc : WG1640147,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 18 15:34:19 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518T\r322194.D  
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) hexane	9.617	57	424969	11.147	ppbV	95
48) 1,1,1-trichloroethane	10.842	97	337304	11.692	ppbV	99
50) benzene	11.373	78	798212	10.195	ppbV	100
52) carbon tetrachloride	11.547	117	330237	12.335	ppbV	99
53) cyclohexane	11.693	56	446843	11.270	ppbV	99
56) 1,2-dichloropropane	12.333	63	267835	11.349	ppbV	99
57) bromodichloromethane	12.567	83	440673	11.896	ppbV	100
58) 1,4-dioxane	12.607	88	188511	11.787	ppbV	98
59) trichloroethene	12.613	130	351829	11.672	ppbV	99
60) 2,2,4-trimethylpentane	12.667	57	1386302	11.766	ppbV	100
62) heptane	12.987	43	507818	11.558	ppbV	100
63) cis-1,3-dichloropropene	13.633	75	424999	12.679	ppbV	99
64) 4-methyl-2-pentanone	13.667	43	606723	12.053	ppbV	99
65) trans-1,3-dichloropropene	14.258	75	342238	11.328	ppbV	99
66) 1,1,2-trichloroethane	14.458	97	295194	11.771	ppbV	99
68) toluene	14.767	91	888344	11.429	ppbV	100
72) 2-hexanone	15.058	43	565961	12.100	ppbV	97
74) dibromochloromethane	15.217	129	459568	12.836	ppbV	99
75) 1,2-dibromoethane	15.467	107	449743	12.017	ppbV	99
78) tetrachloroethene	15.942	166	447313	11.879	ppbV	100
80) chlorobenzene	16.600	112	785081	11.768	ppbV	99
81) ethylbenzene	16.958	91	1108209	11.883	ppbV	100
83) m+p-xylene	17.117	91	1827260	23.986	ppbV	100
84) bromoform	17.183	173	440443	13.223	ppbV	100
85) styrene	17.442	104	826685	12.195	ppbV	100
86) 1,1,2,2-tetrachloroethane	17.542	83	699819	12.374	ppbV	99
87) o-xylene	17.542	91	932618	12.281	ppbV	100
96) 4-ethyl toluene	18.600	105	1401487	12.127	ppbV	99
97) 1,3,5-trimethylbenzene	18.667	105	1211484	11.446	ppbV	98
99) 1,2,4-trimethylbenzene	18.992	105	1199823	12.941	ppbV	97
101) Benzyl Chloride	19.108	91	777787	14.845	ppbV	98
102) 1,3-dichlorobenzene	19.125	146	876124	12.513	ppbV	100
103) 1,4-dichlorobenzene	19.175	146	853919	12.543	ppbV	99
107) 1,2-dichlorobenzene	19.450	146	813985	12.424	ppbV	100
115) 1,2,4-trichlorobenzene	20.925	180	671092	12.962	ppbV	100
119) hexachlorobutadiene	21.358	225	624779	12.862	ppbV	100

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
Data File : r322194.D  
Acq On : 18 May 2022 1:48 PM  
Operator : AIRPIANO3:TS  
Sample : WG1640147-3,3,250,250  
Misc : WG1640147,ICAL19030  
ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 18 15:34:19 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 15:52:12 2022  
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518T\r322194.D  
Sub List : Default-LCS-AP2 - All compounds listed

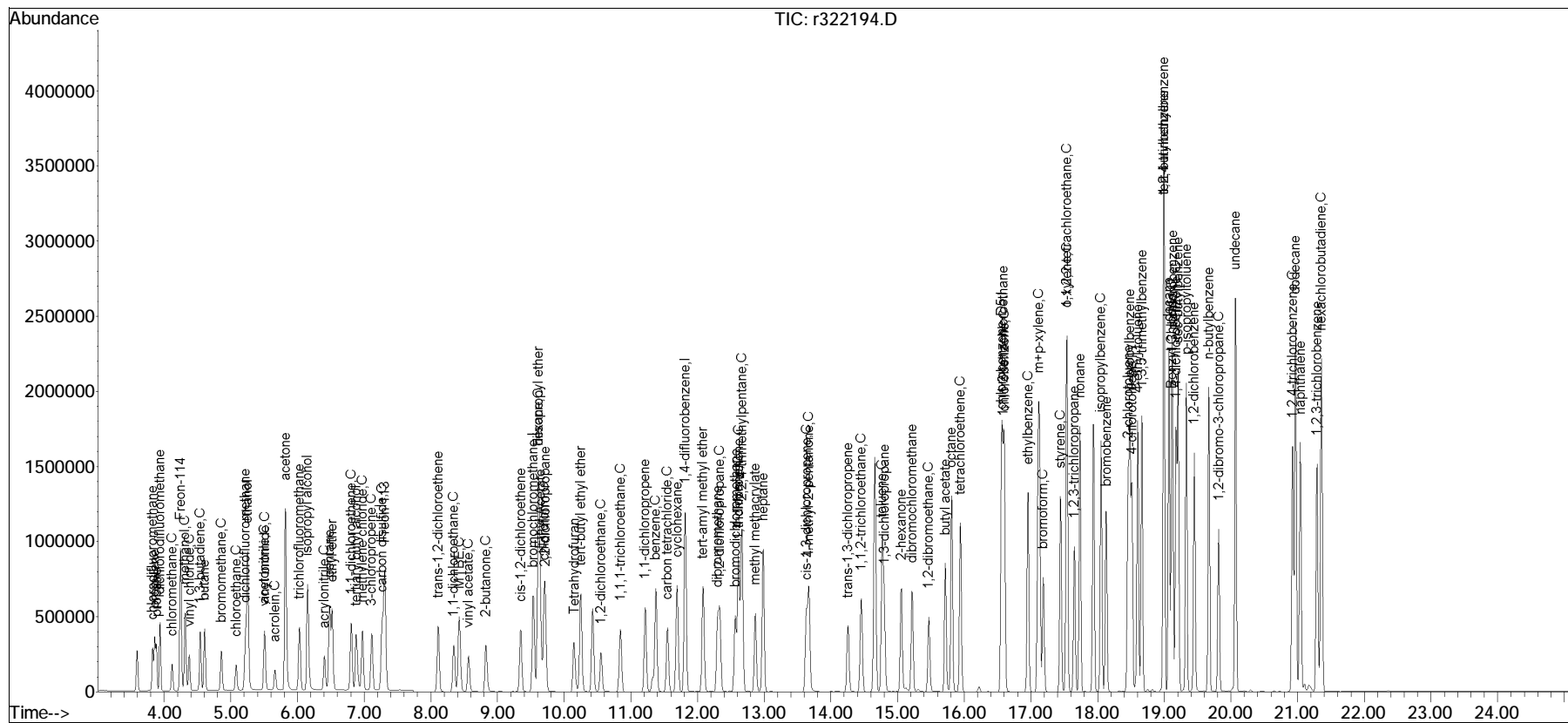
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
----------	------	------	----------	------	-------	----------

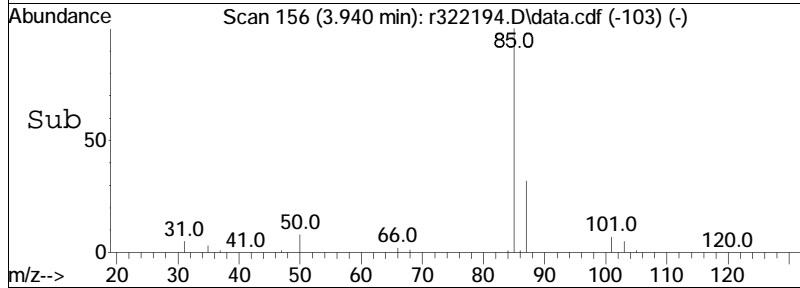
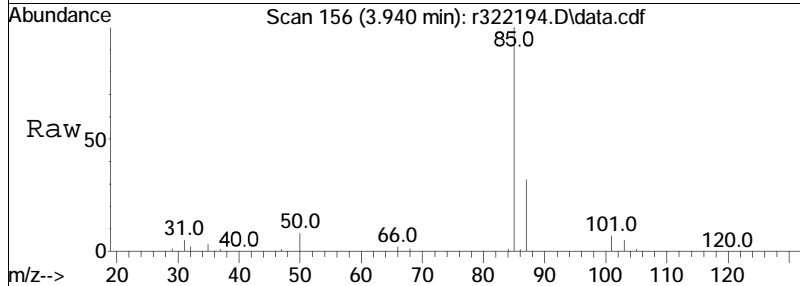
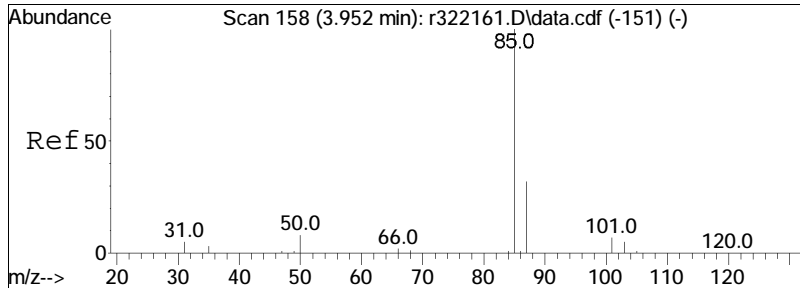
-----

Sub List : Default-LCS-AP2 - All compounds listed18T\r322194.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
Data File : r322194.D  
Acq On : 18 May 2022 1:48 PM  
Operator : AIRPIANO3:TS  
Sample : WG1640147-3,3,250,250  
Misc : WG1640147,ICAL19030  
ALS Vial : 0 Sample Multiplier: 1

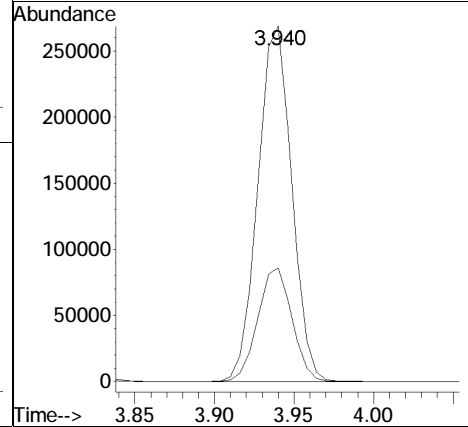
Quant Time: May 18 15:34:19 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 15:52:12 2022  
Response via : Initial Calibration

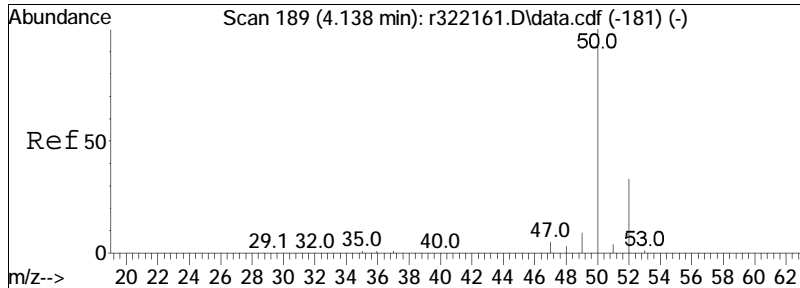




#5  
dichlorodifluoromethane  
Concen: 11.38 ppbV  
RT: 3.940 min Scan# 156  
Delta R.T. -0.012 min  
Lab File: r322194.D  
Acq: 18 May 2022 1:48 PM

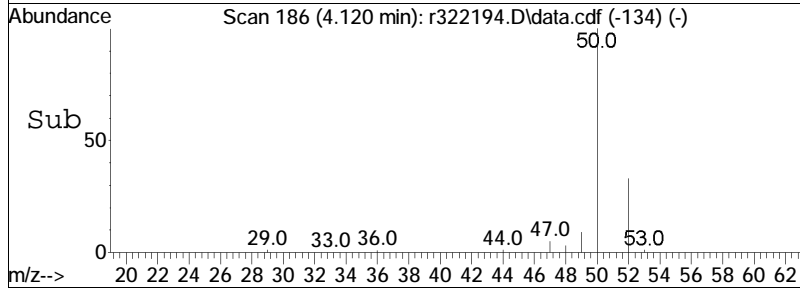
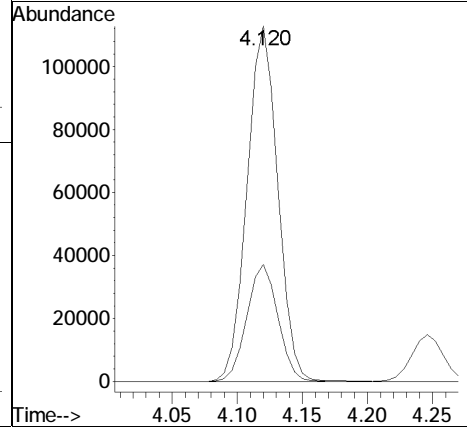
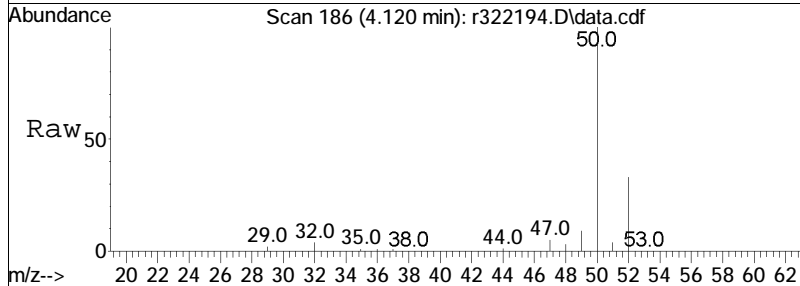
Tgt Ion:	85	Resp:	396978
Ion Ratio	100	Lower	Upper
87	32.0	25.8	38.6



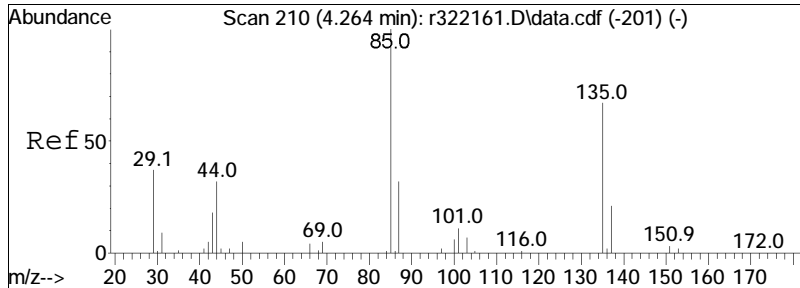


#6  
 chloromethane  
 Concen: 11.03 ppbV  
 RT: 4.120 min Scan# 186  
 Delta R.T. -0.018 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

Tgt Ion	Resp	Lower	Upper
50	100		
52	32.9	26.3	39.5

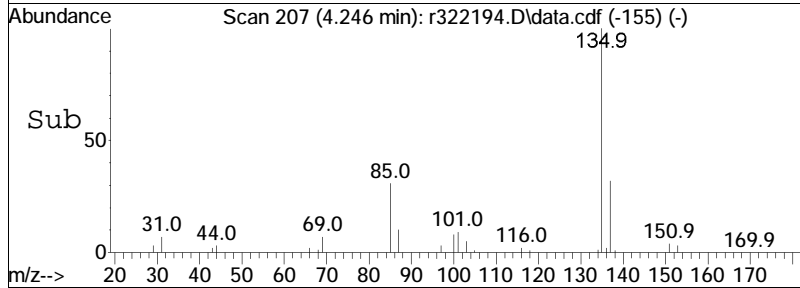
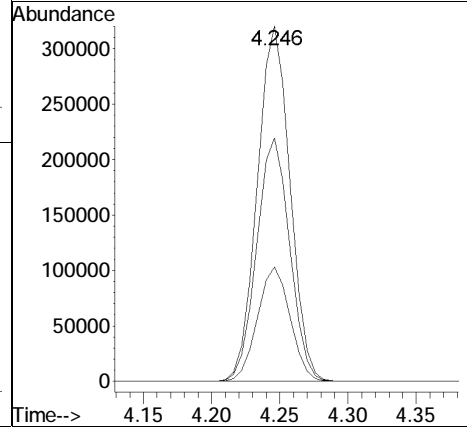
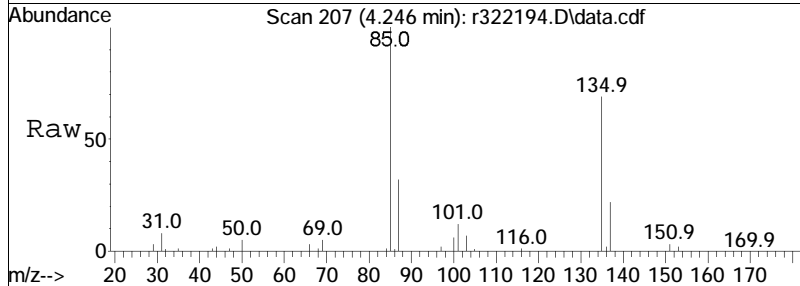


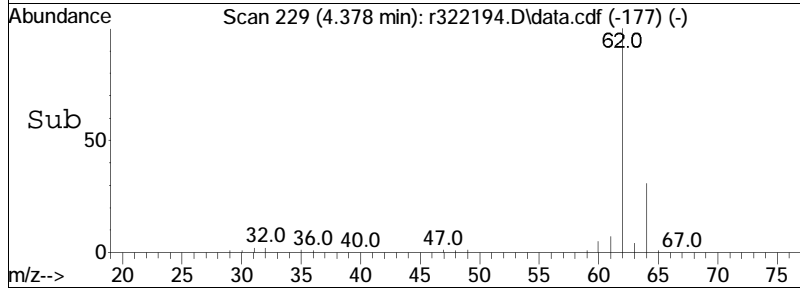
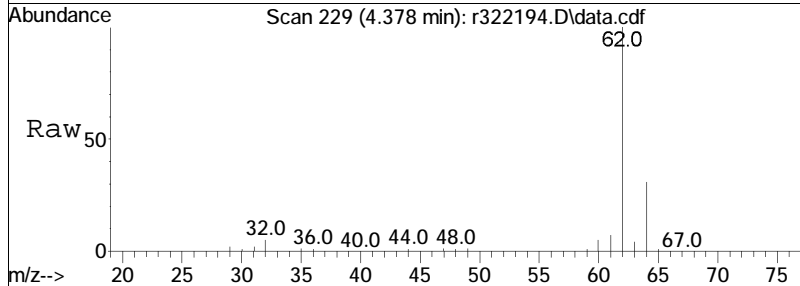
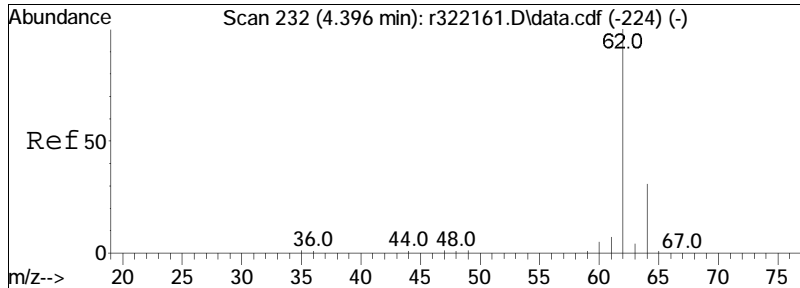




#7  
 Freon-114  
 Concen: 11.80 ppbV  
 RT: 4.246 min Scan# 207  
 Delta R.T. -0.018 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

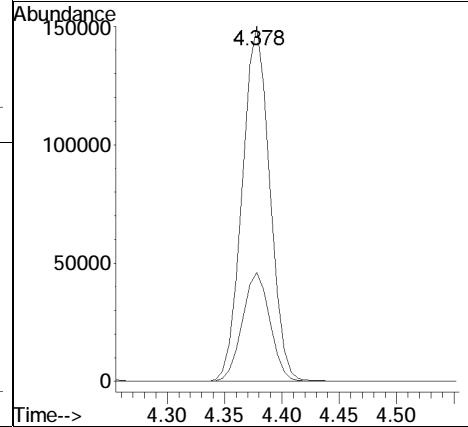
Tgt Ion	Resp	Lower	Upper
85	100		
87	32.2	25.7	38.5
135	68.5	53.8	80.6

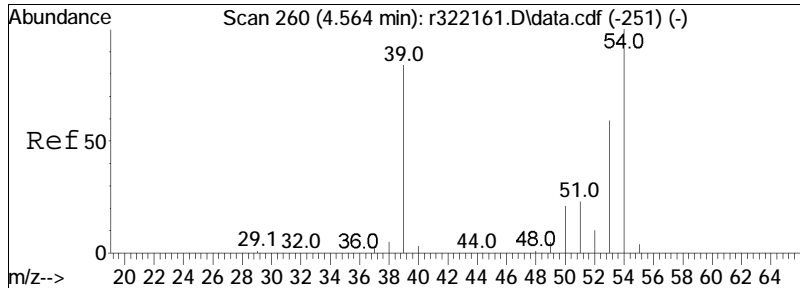




#9  
 vinyl chloride  
 Concen: 11.58 ppbV  
 RT: 4.378 min Scan# 229  
 Delta R.T. -0.018 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

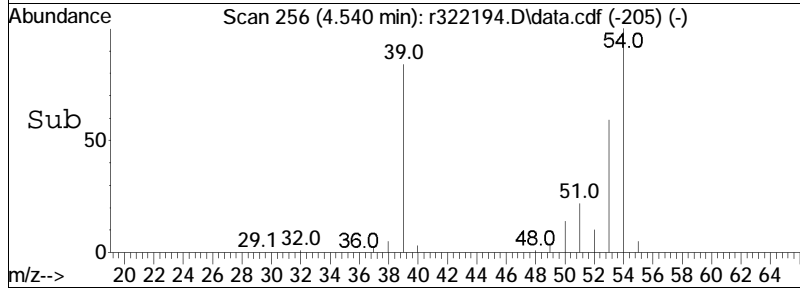
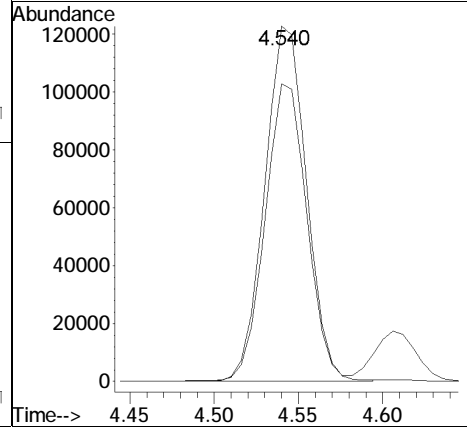
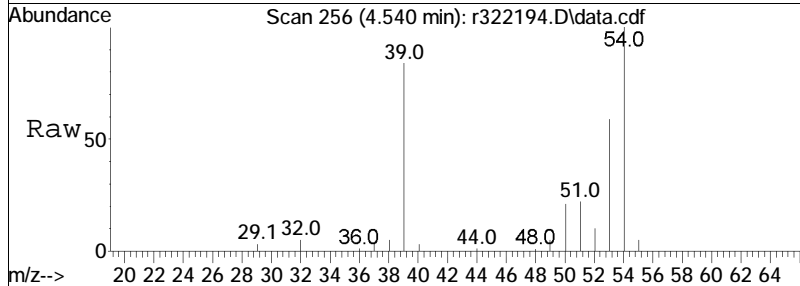
Tgt Ion:	Resp:		
Ion Ratio	Lower	Upper	
62	100		
64	30.7	24.4	36.6

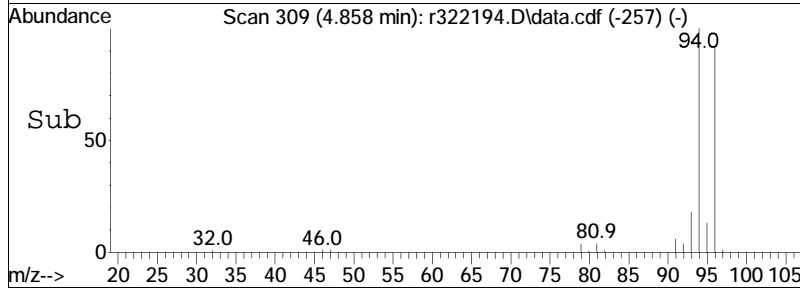
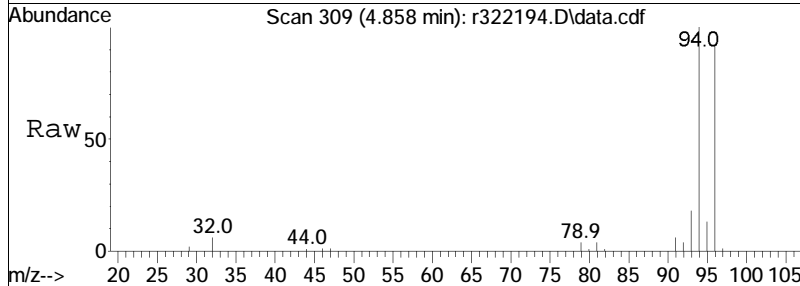
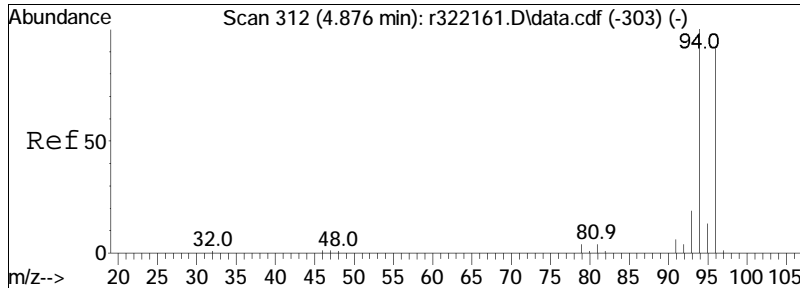




#10  
 1,3-butadiene  
 Concen: 12.09 ppbV  
 RT: 4.540 min Scan# 256  
 Delta R.T. -0.024 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

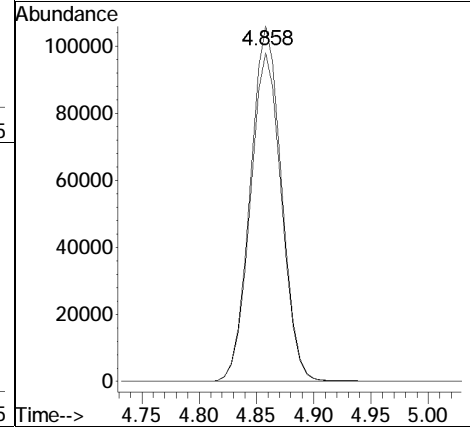
Tgt Ion	Resp	Lower	Upper
54	100		
39	83.8	67.8	101.8

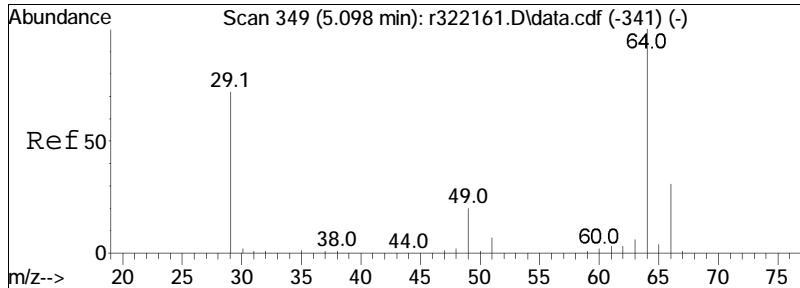




#13  
 bromomethane  
 Concen: 11.56 ppbV  
 RT: 4.858 min Scan# 309  
 Delta R.T. -0.018 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

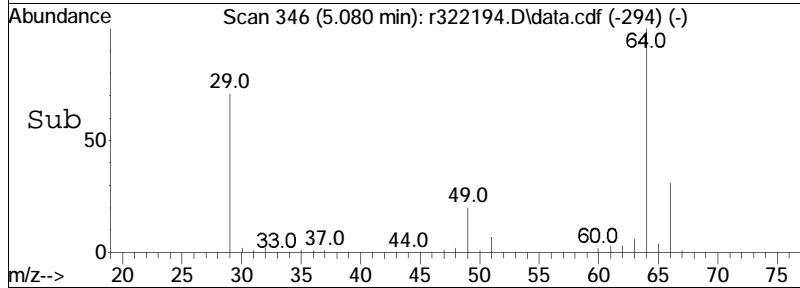
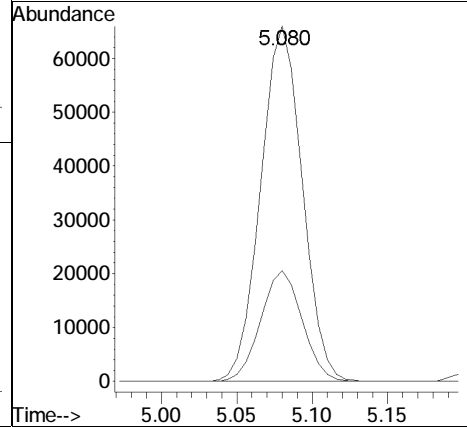
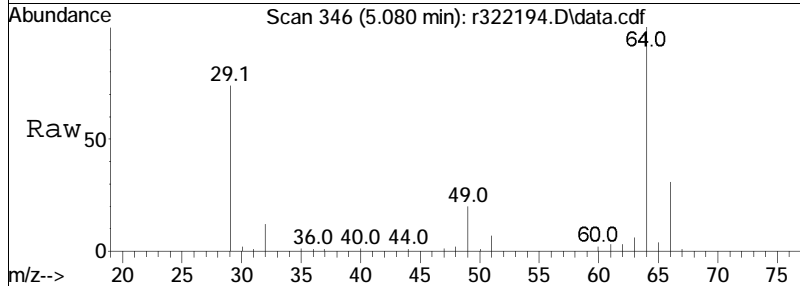
Tgt Ion:	94	Resp:	200311
Ion Ratio	Lower	Upper	
94	100		
96	92.5	73.8	110.6

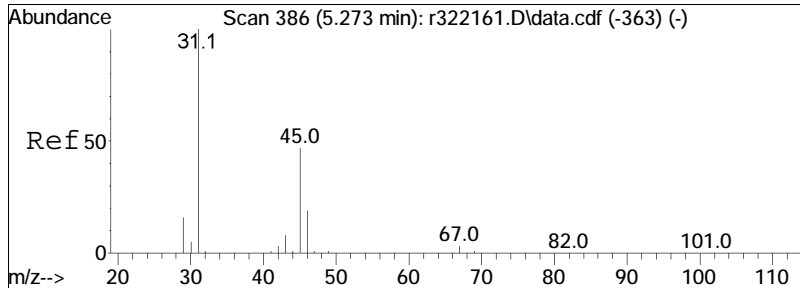




#14  
 chloroethane  
 Concen: 11.40 ppbV  
 RT: 5.080 min Scan# 346  
 Delta R.T. -0.018 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

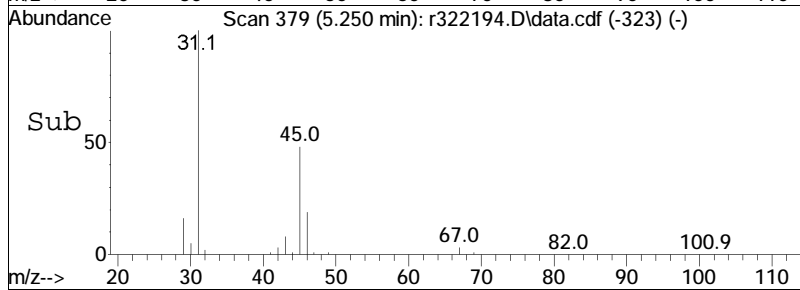
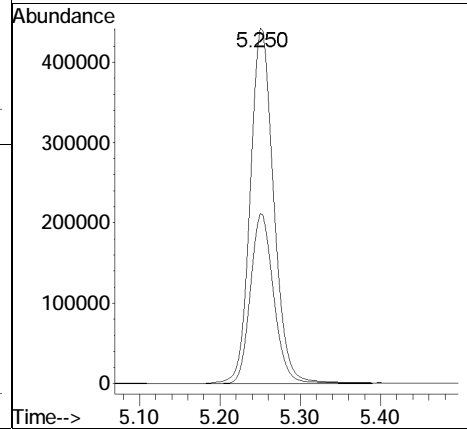
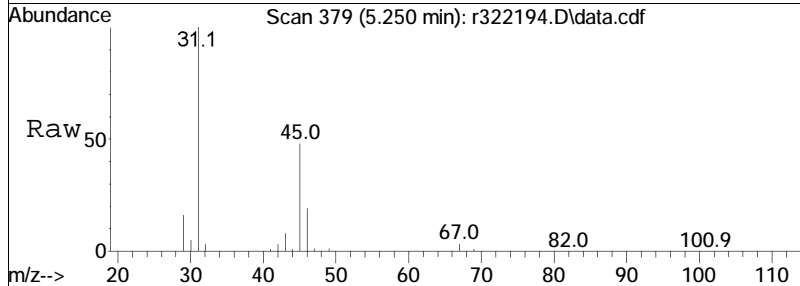
Tgt Ion: 64 Resp: 126468  
 Ion Ratio Lower Upper  
 64 100  
 66 31.2 24.9 37.3

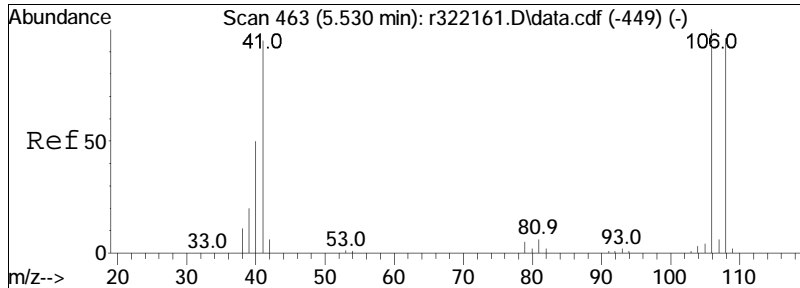




#15  
 ethanol  
 Concen: 57.36 ppbV  
 RT: 5.250 min Scan# 379  
 Delta R.T. -0.023 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

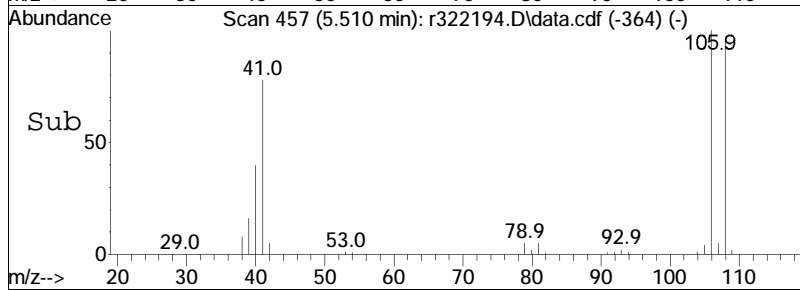
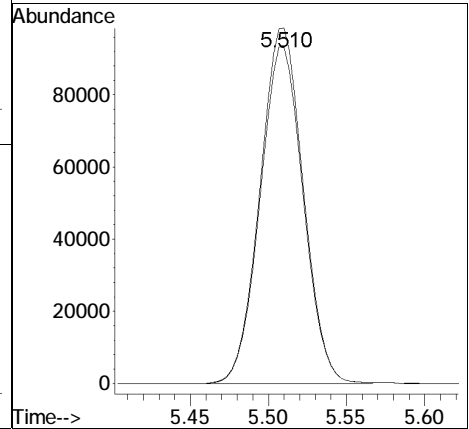
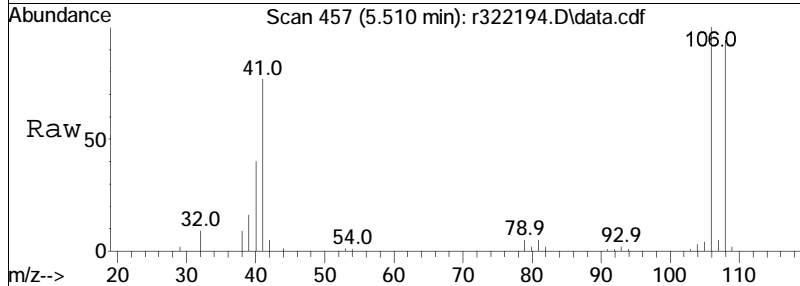
Tgt Ion:	31	Resp:	977130
Ion Ratio	Lower	Upper	
31	100		
45	47.8	37.6	56.4

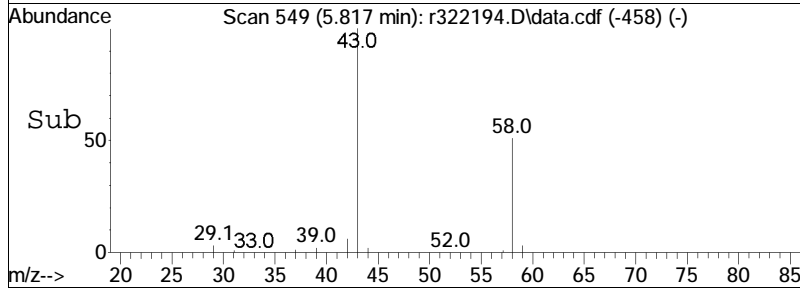
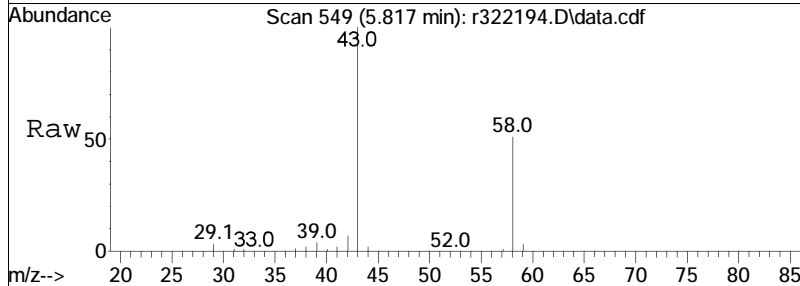
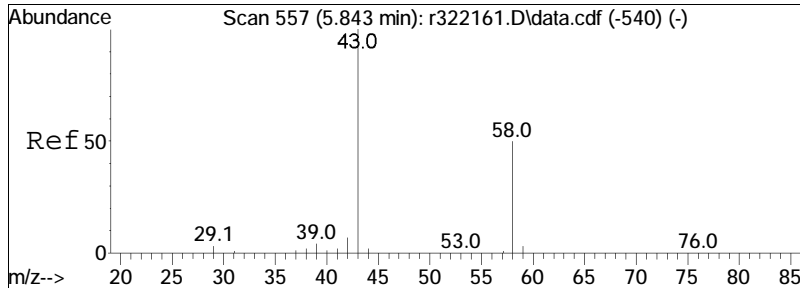




#17  
 vinyl bromide  
 Concen: 11.45 ppbV  
 RT: 5.510 min Scan# 457  
 Delta R.T. -0.020 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

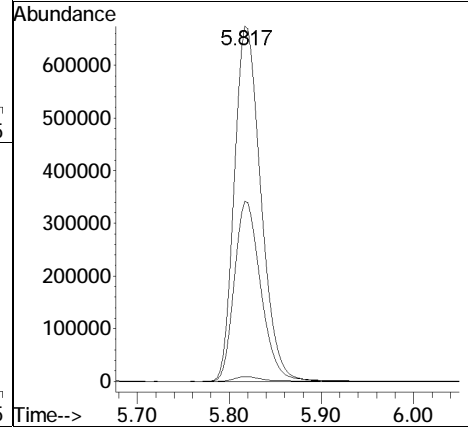
Tgt Ion	Resp	Lower	Upper
106	189507		
106	100		
108	94.5	76.9	115.3



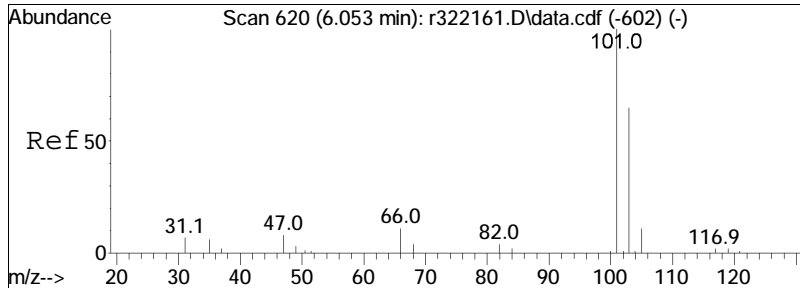


#19  
 acetone  
 Concen: 55.76 ppbV  
 RT: 5.817 min Scan# 549  
 Delta R.T. -0.027 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
43	100		
58	50.7	39.8	59.8
57	1.4	1.0	1.6

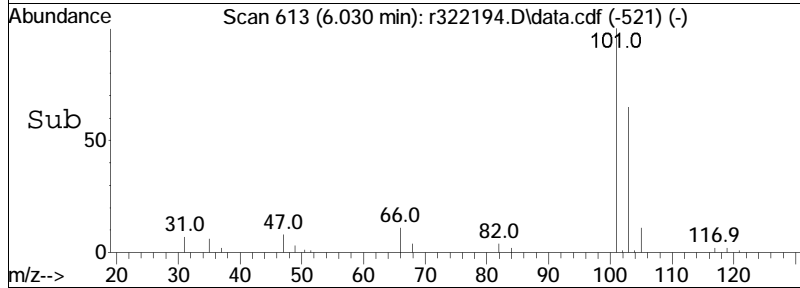
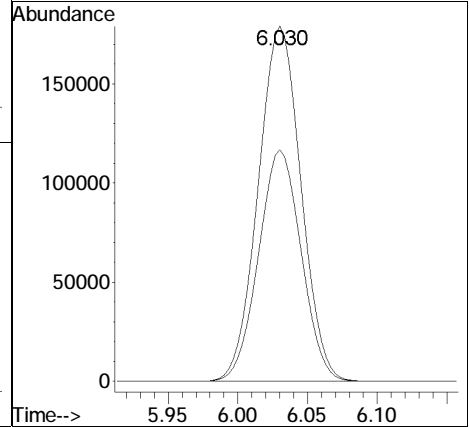
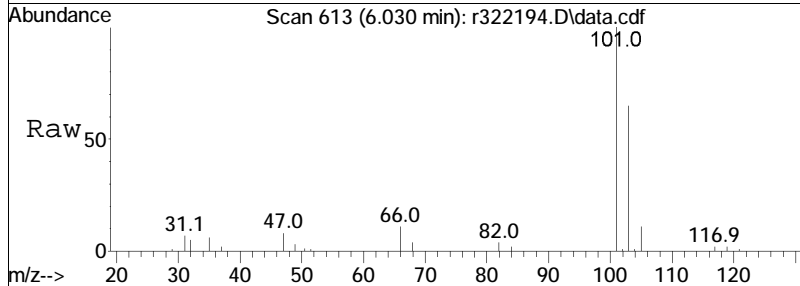


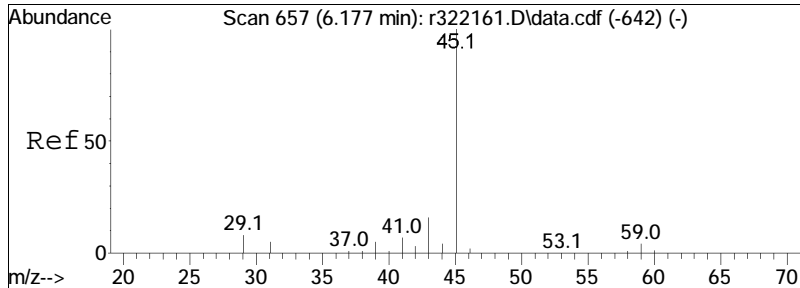




#21  
 trichlorofluoromethane  
 Concen: 12.07 ppbV  
 RT: 6.030 min Scan# 613  
 Delta R.T. -0.023 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

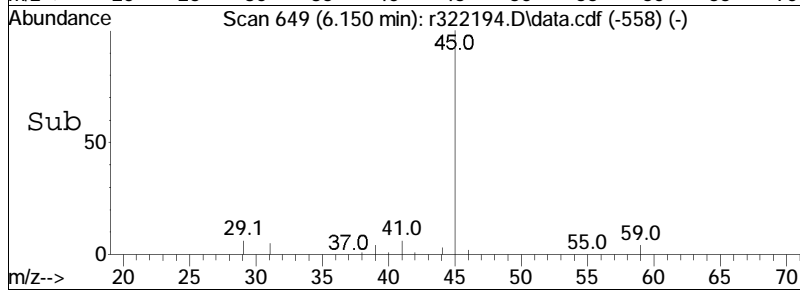
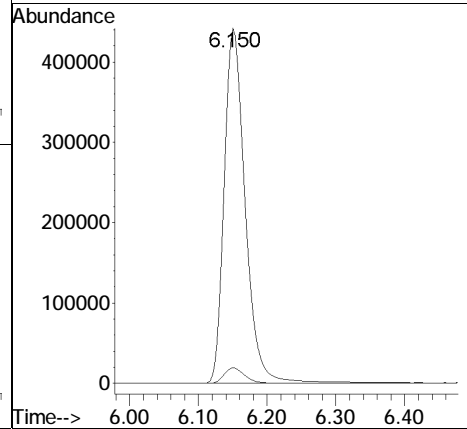
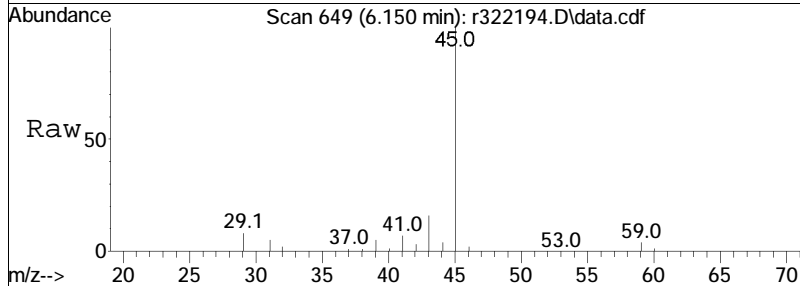
Tgt Ion	Resp	Lower	Upper
101	100		
103	65.2	51.8	77.6

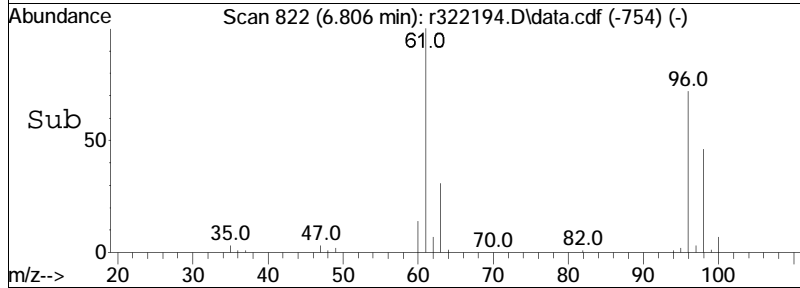
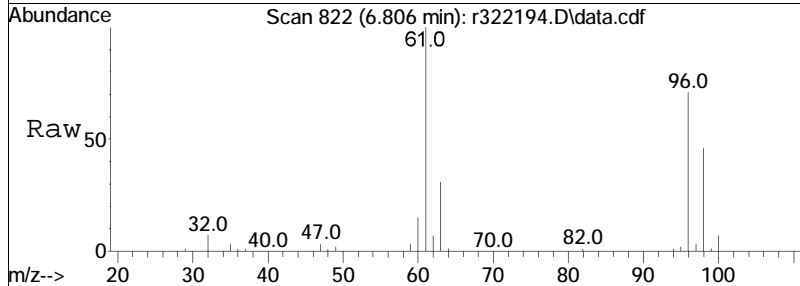
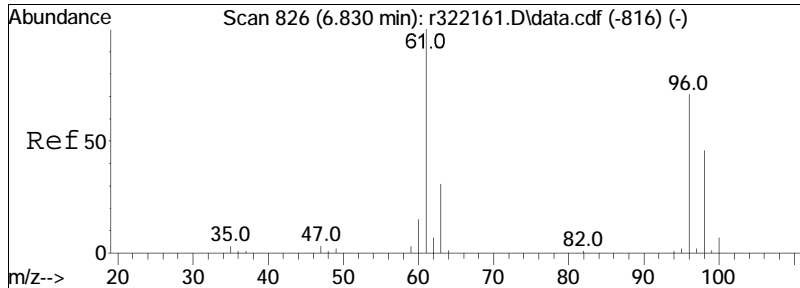




#22  
 isopropyl alcohol  
 Concen: 32.25 ppbV  
 RT: 6.150 min Scan# 649  
 Delta R.T. -0.027 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

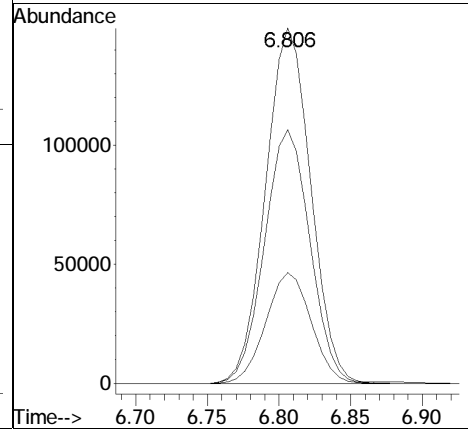
Tgt Ion:	45	59	Resp:	942579
Ion Ratio	100	4.4	Lower	Upper
			3.5	5.3

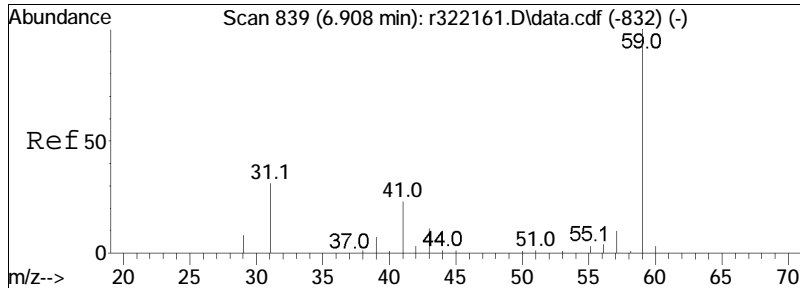




#26  
 1,1-dichloroethene  
 Concen: 11.67 ppbV  
 RT: 6.806 min Scan# 822  
 Delta R.T. -0.024 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

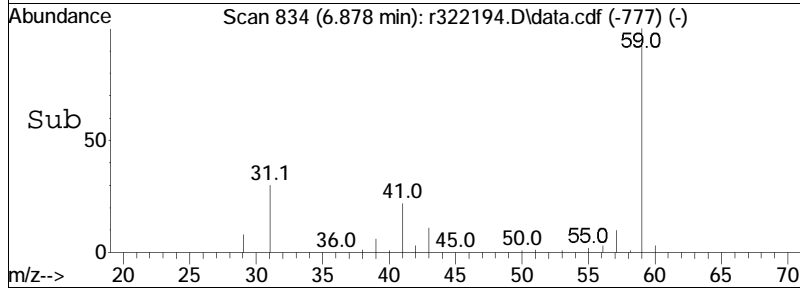
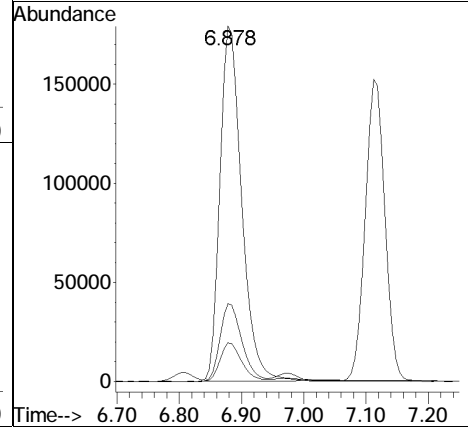
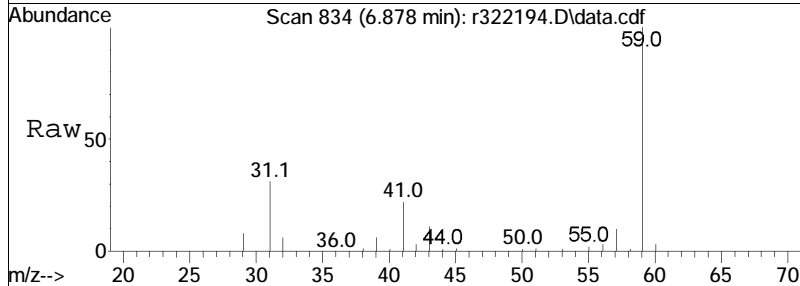
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
61	100		
96	71.4	56.9	85.3
63	31.2	25.0	37.4

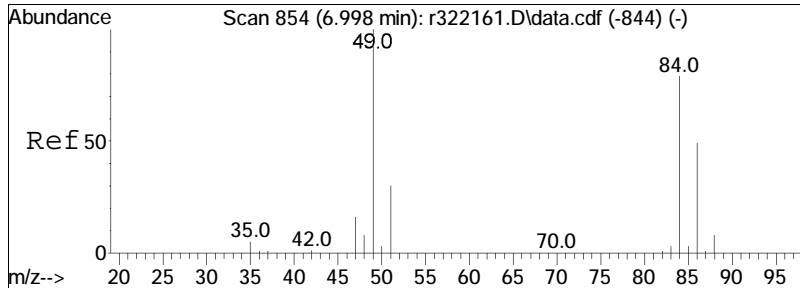




#27  
 tertiary butyl alcohol  
 Concen: 11.97 ppbV  
 RT: 6.878 min Scan# 834  
 Delta R.T. -0.030 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

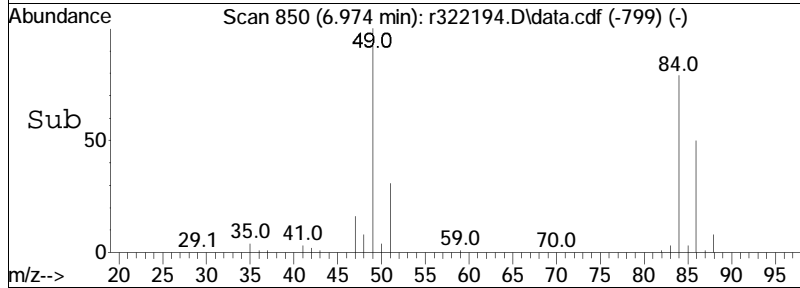
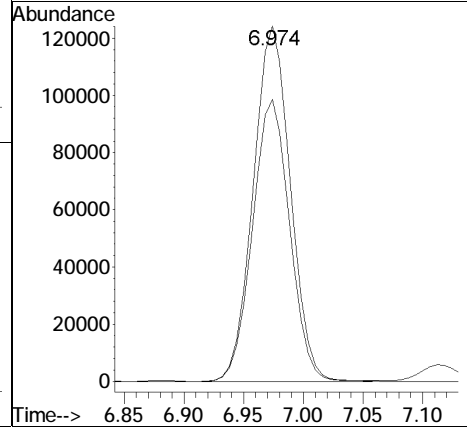
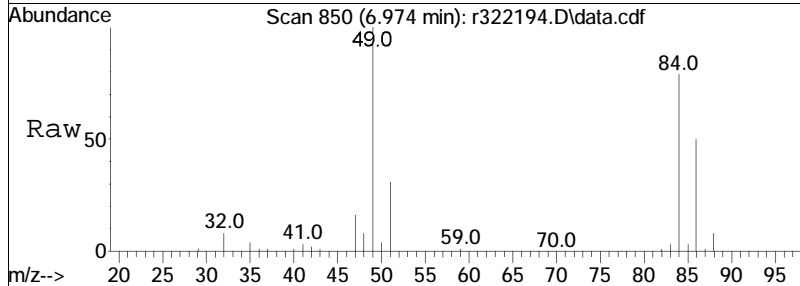
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
59	100		
41	21.9	18.2	27.2
43	10.9	8.9	13.3

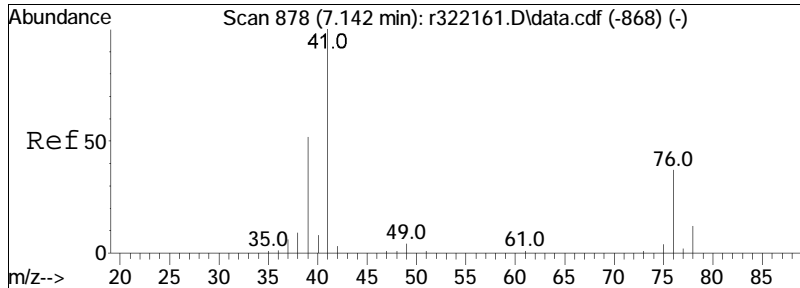




#28  
 methylene chloride  
 Concen: 9.71 ppbV  
 RT: 6.974 min Scan# 850  
 Delta R.T. -0.024 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

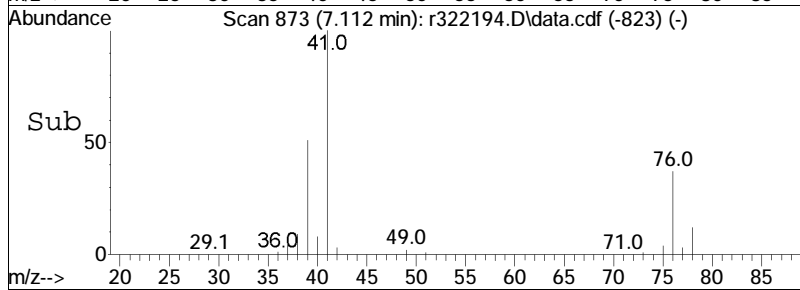
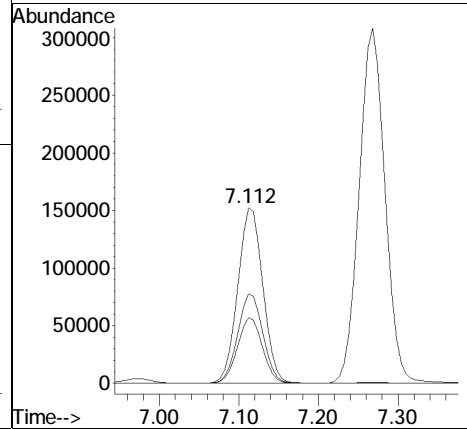
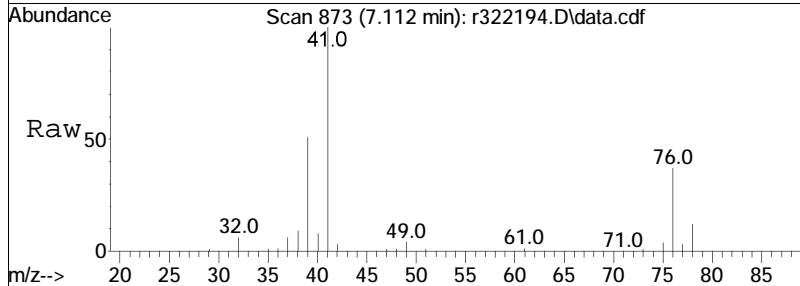
Tgt Ion:	49	84	Resp:	268576
Ion Ratio	100	79.3	Lower	Upper
			63.0	94.6

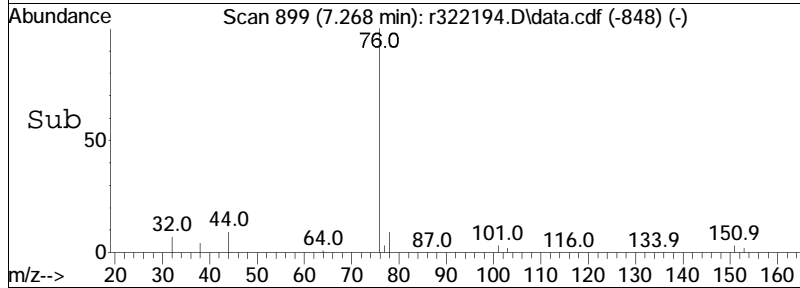
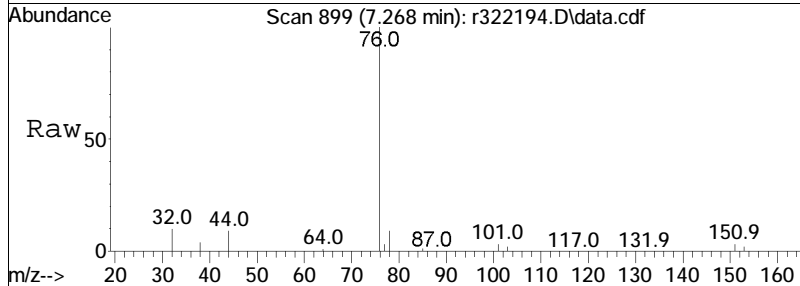
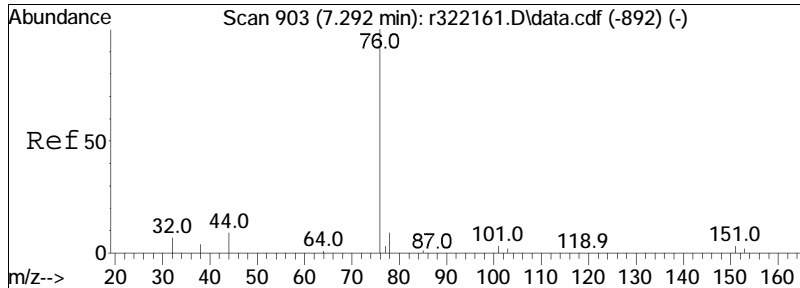




#29  
 3-chloropropene  
 Concen: 12.68 ppbV  
 RT: 7.112 min Scan# 873  
 Delta R.T. -0.030 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

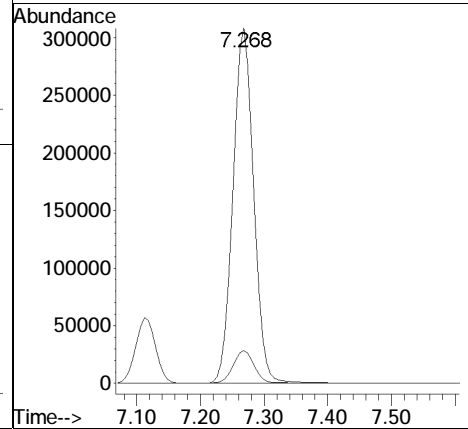
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
41	100		
39	51.0	41.4	62.0
76	37.4	29.4	44.2

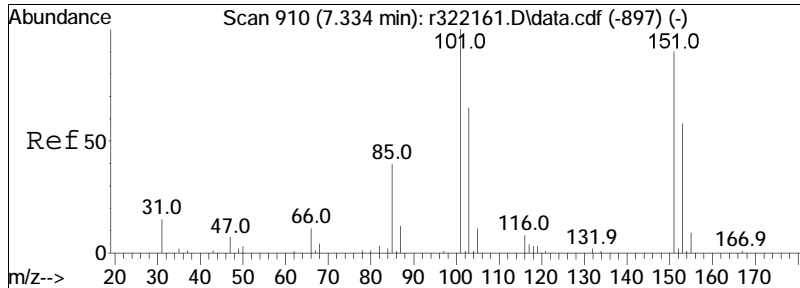




#30  
 carbon disulfide  
 Concen: 11.01 ppbV  
 RT: 7.268 min Scan# 899  
 Delta R.T. -0.024 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

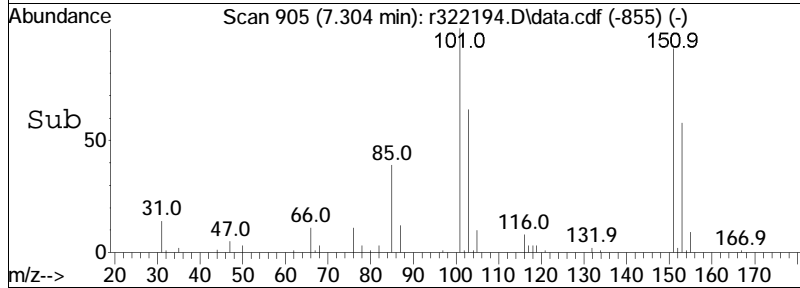
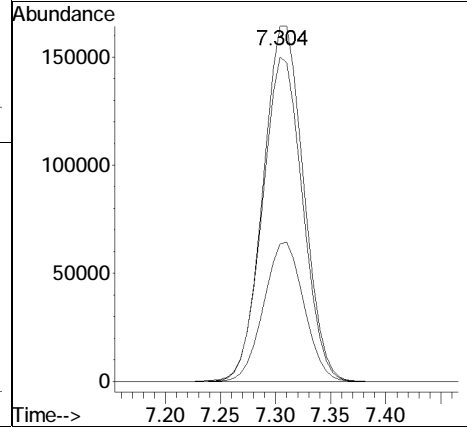
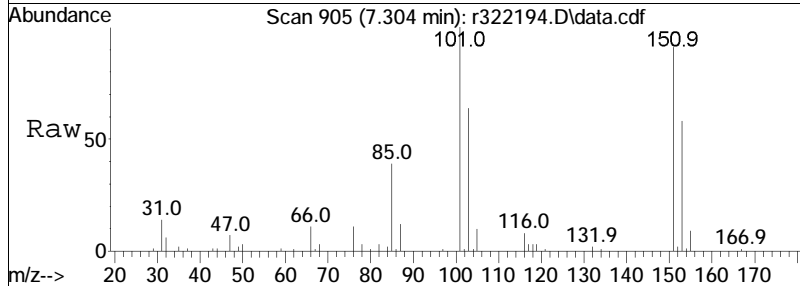
Tgt Ion:	76	Resp:	697904
Ion Ratio	100	Lower	Upper
44	9.3	7.6	11.4



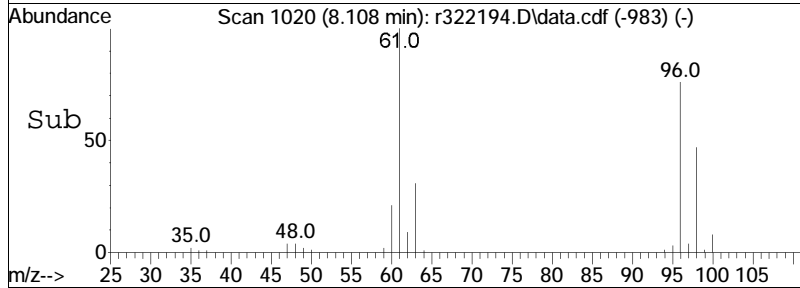
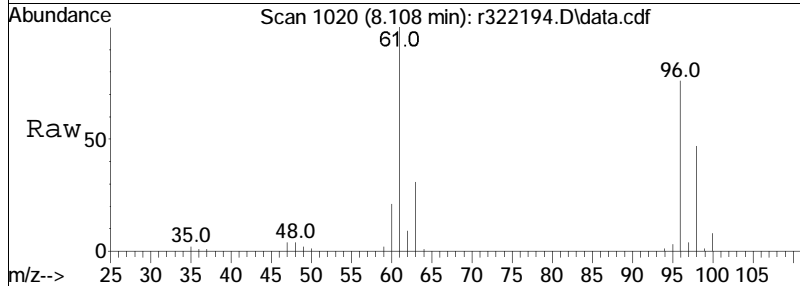
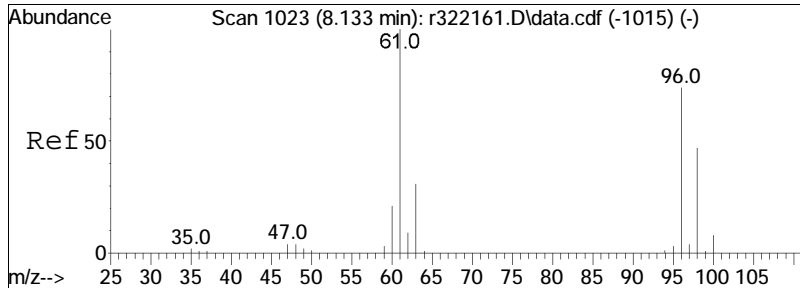


#31  
 Freon 113  
 Concen: 11.85 ppbV  
 RT: 7.304 min Scan# 905  
 Delta R.T. -0.030 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

Tgt Ion	Ratio	Lower	Upper
101	100		
85	38.7	31.8	47.8
151	91.3	72.2	108.4

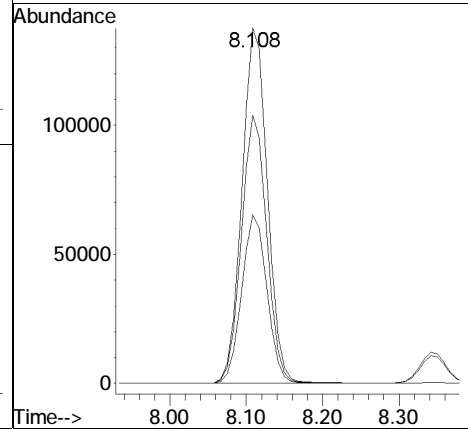


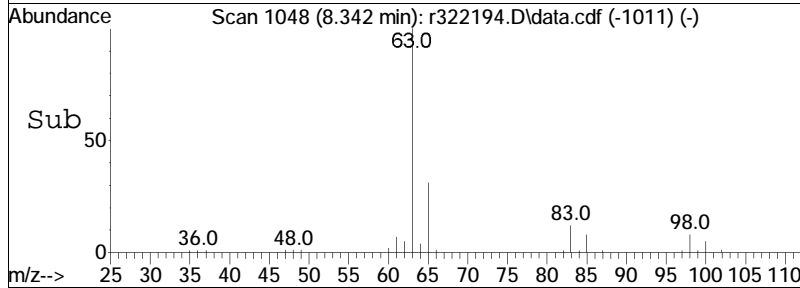
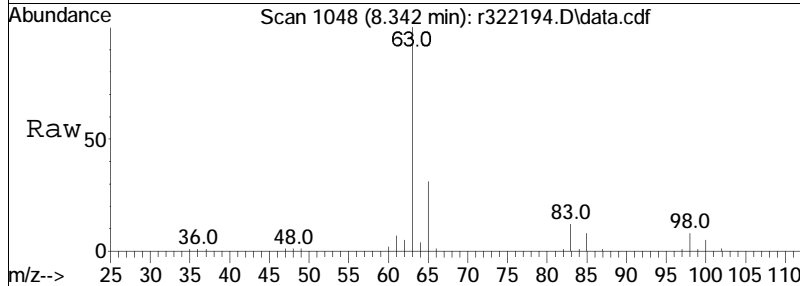
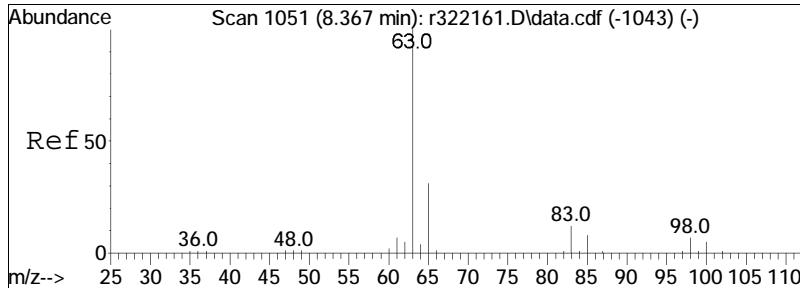




#32  
 trans-1,2-dichloroethene  
 Concen: 11.10 ppbV  
 RT: 8.108 min Scan# 1020  
 Delta R.T. -0.025 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

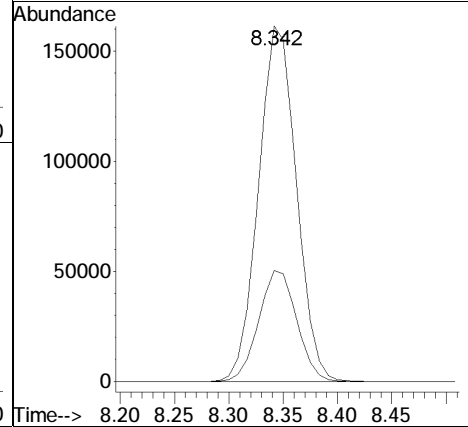
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
61	100		
96	75.5	59.4	89.2
98	47.4	37.7	56.5

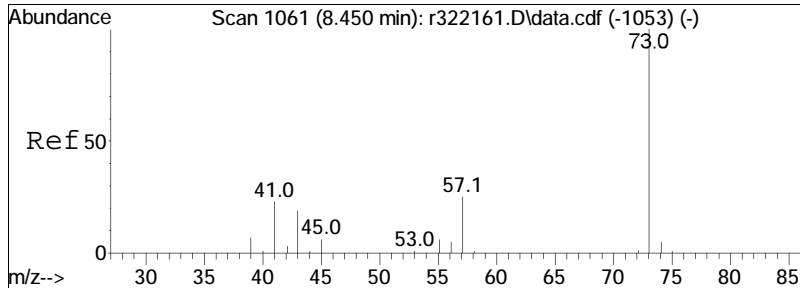




#33  
 1,1-dichloroethane  
 Concen: 11.35 ppbV  
 RT: 8.342 min Scan# 1048  
 Delta R.T. -0.025 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

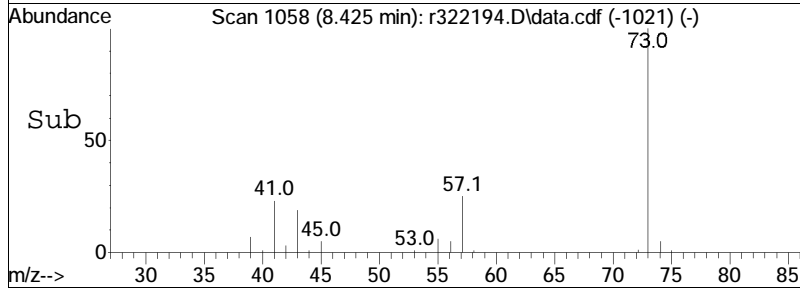
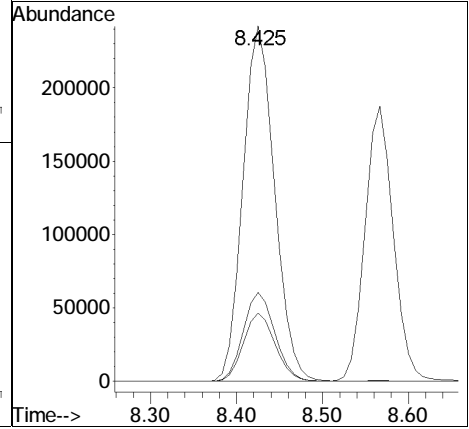
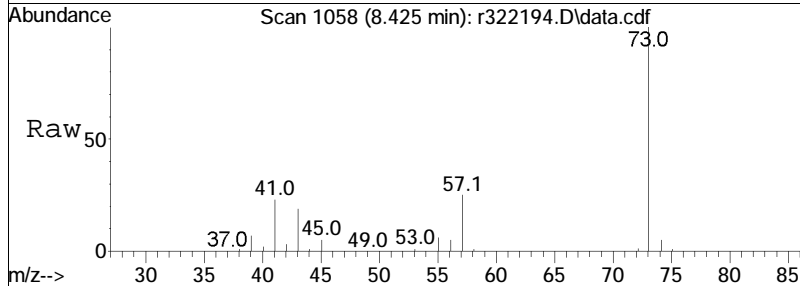
Tgt Ion:	63	Resp:	391002
Ion Ratio	Lower	Upper	
63	100		
65	31.2	24.9	37.3

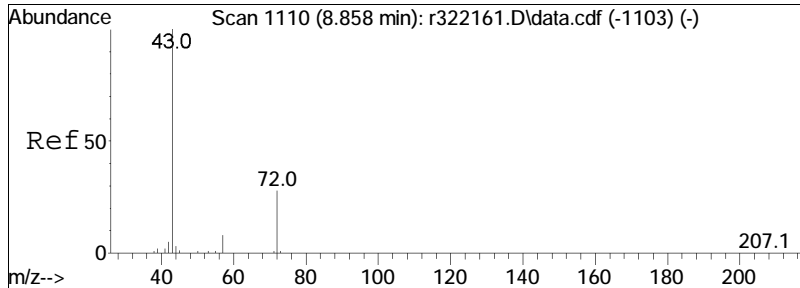




#34  
 MTBE  
 Concen: 12.03 ppbV  
 RT: 8.425 min Scan# 1058  
 Delta R.T. -0.025 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

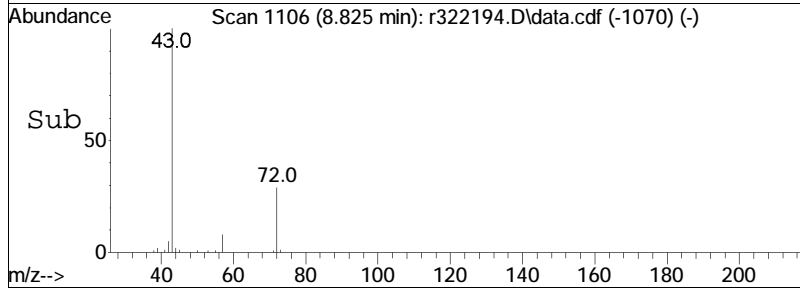
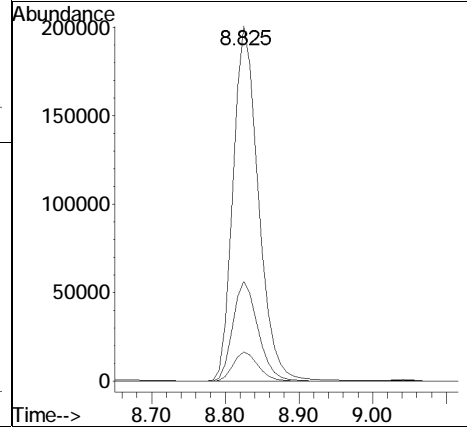
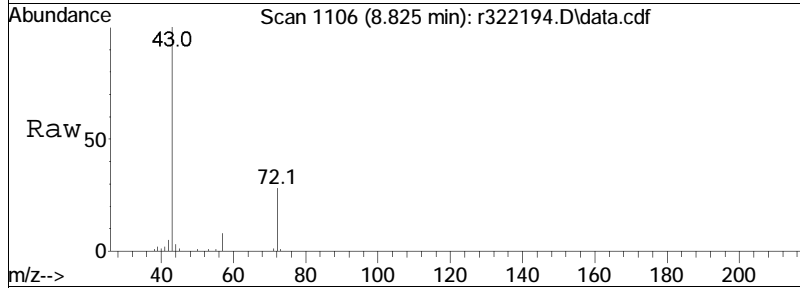
Tgt Ion	Resp	Lower	Upper
73	100		
57	25.0	20.2	30.2
43	19.3	15.5	23.3

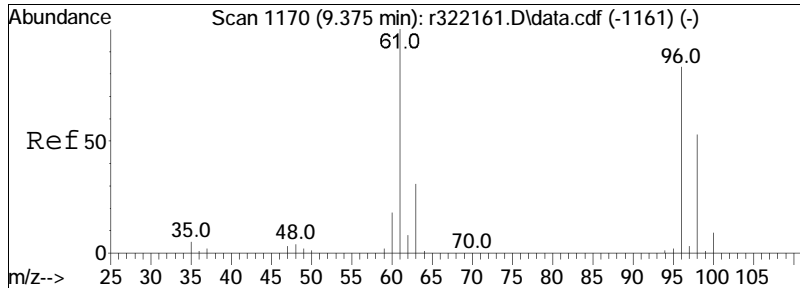




#36  
 2-butanone  
 Concen: 10.84 ppbV  
 RT: 8.825 min Scan# 1106  
 Delta R.T. -0.033 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

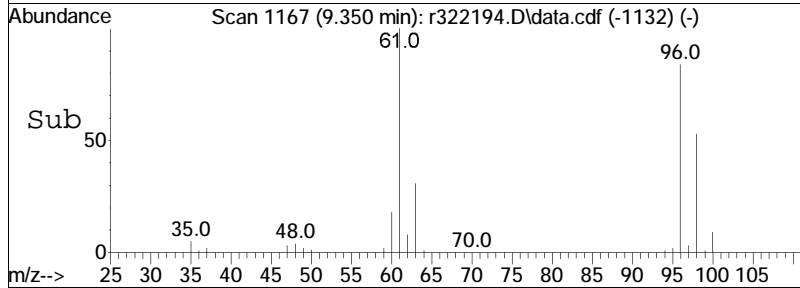
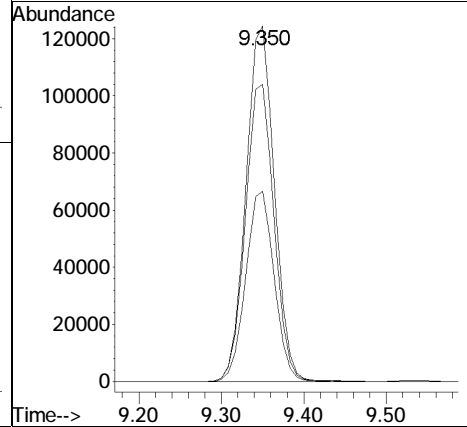
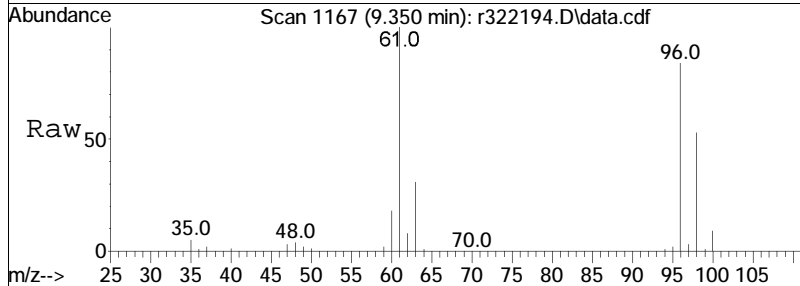
Tgt Ion	Resp	Lower	Upper
43	478676		
72	28.2	22.6	33.8
57	8.3	6.6	10.0

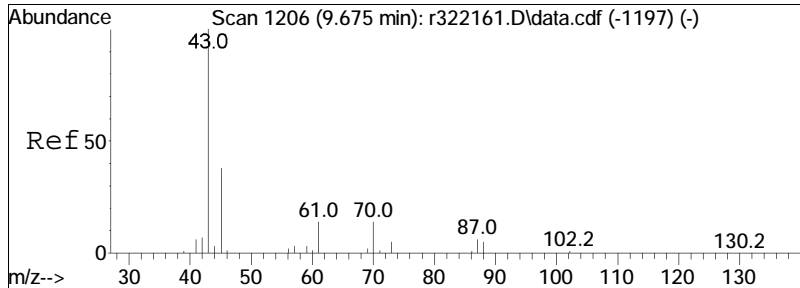




#37  
 cis-1,2-dichloroethene  
 Concen: 11.61 ppbV  
 RT: 9.350 min Scan# 1167  
 Delta R.T. -0.025 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

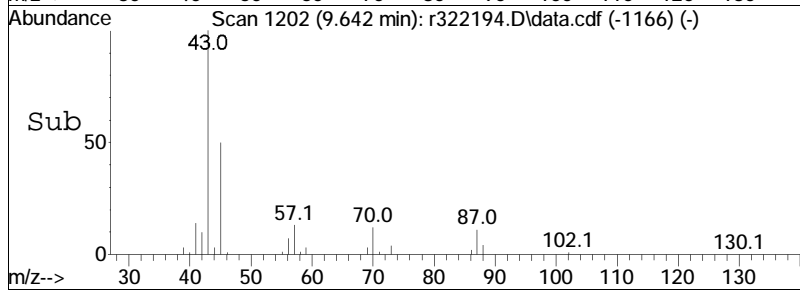
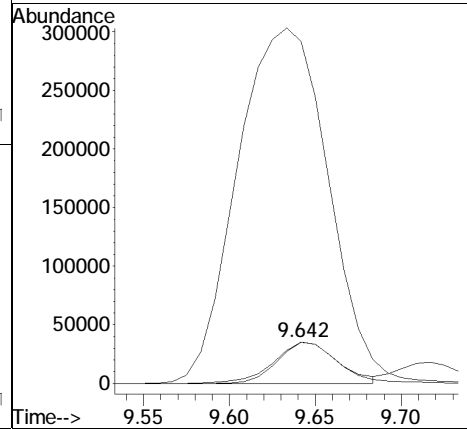
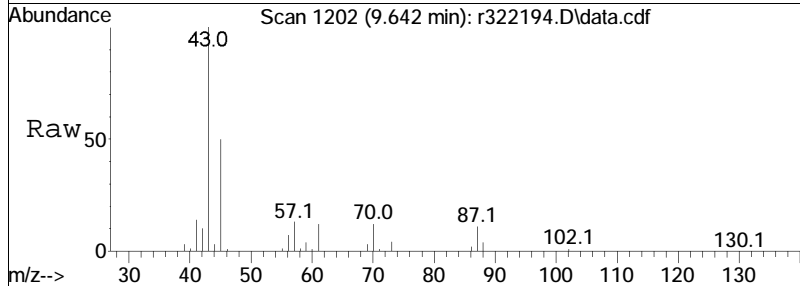
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
61	100		
96	83.6	66.4	99.6
98	53.5	42.5	63.7

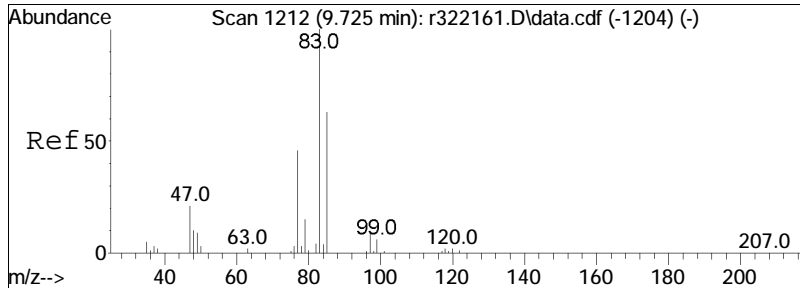




#38  
 Ethyl Acetate  
 Concen: 11.83 ppbV  
 RT: 9.642 min Scan# 1202  
 Delta R.T. -0.033 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

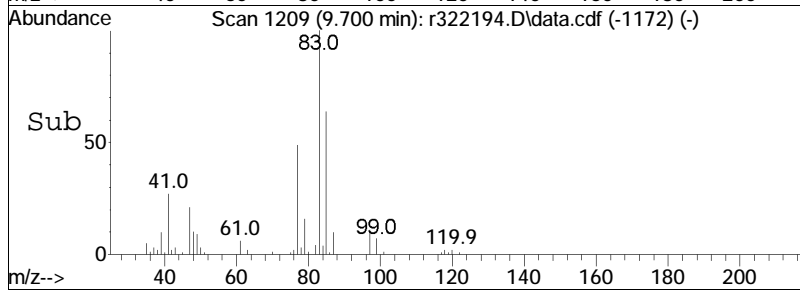
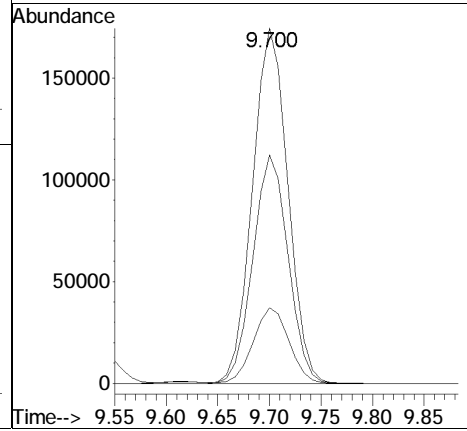
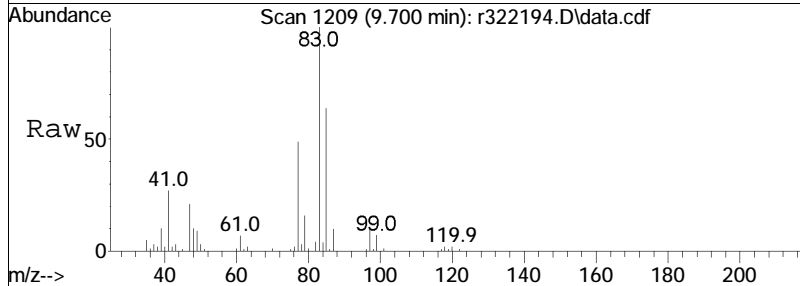
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
61	100		
70	100.5	78.8	118.2
43	830.3	593.4	890.0

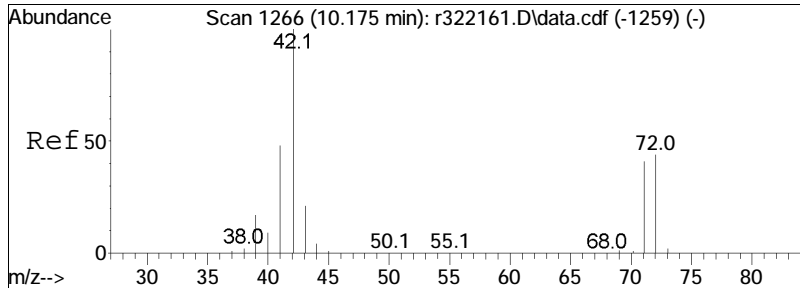




#39  
 chloroform  
 Concen: 11.97 ppbV  
 RT: 9.700 min Scan# 1209  
 Delta R.T. -0.025 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

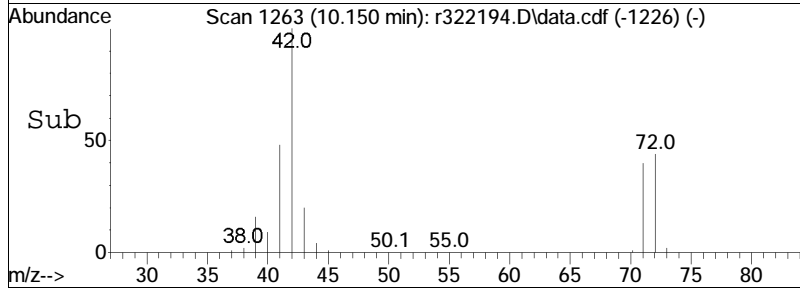
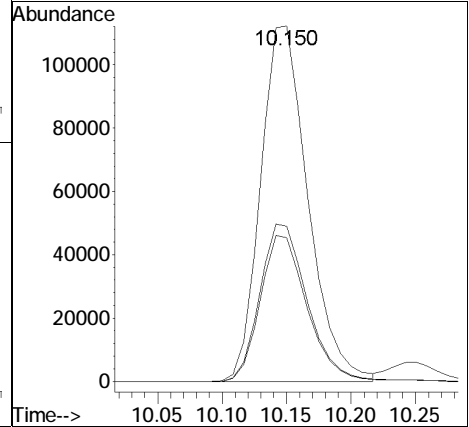
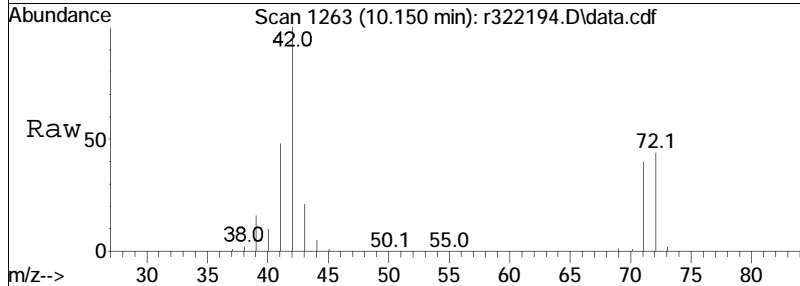
Tgt Ion:	83	Resp:	415380
Ion Ratio	Lower	Upper	
83	100		
85	64.3	50.4	75.6
47	21.3	16.9	25.3



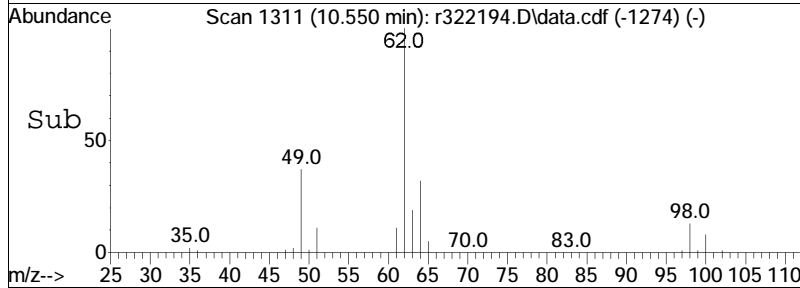
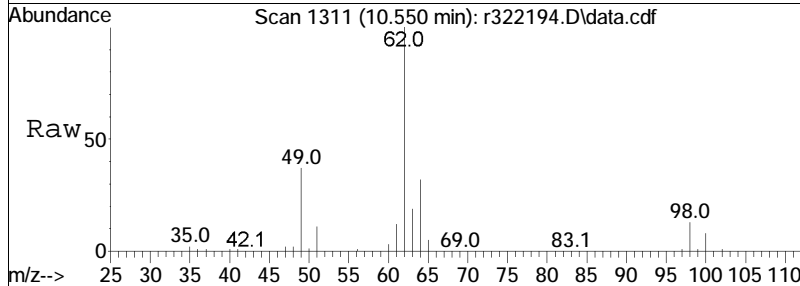
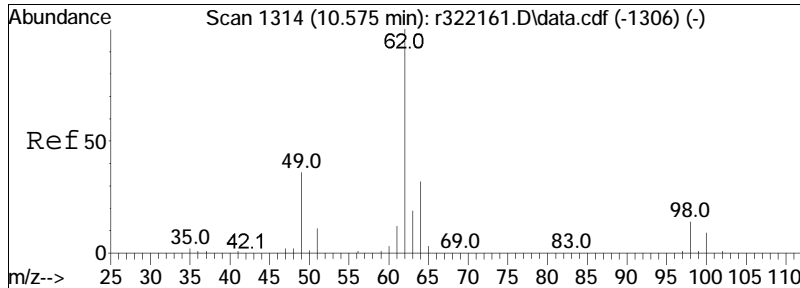


#40  
 Tetrahydrofuran  
 Concen: 11.25 ppbV  
 RT: 10.150 min Scan# 1263  
 Delta R.T. -0.025 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
42	100		
71	40.4	32.4	48.6
72	43.7	35.2	52.8

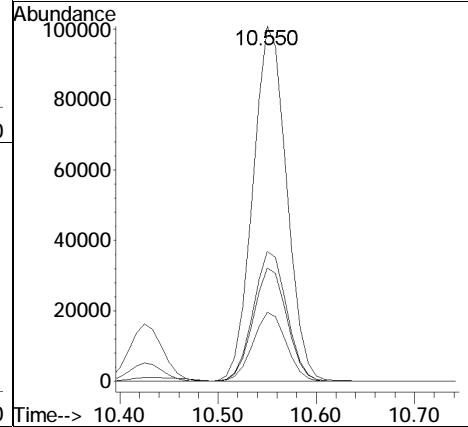


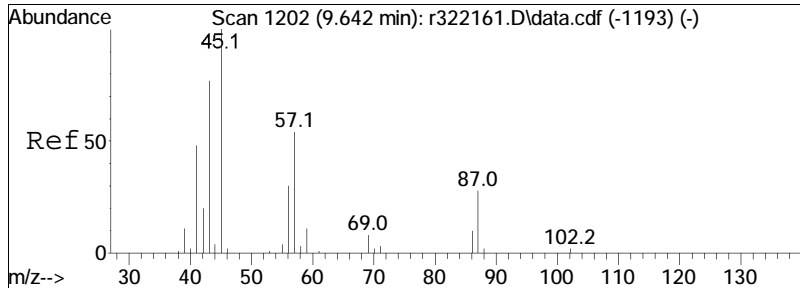




#42  
 1,2-dichloroethane  
 Concen: 11.11 ppbV  
 RT: 10.550 min Scan# 1311  
 Delta R.T. -0.025 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

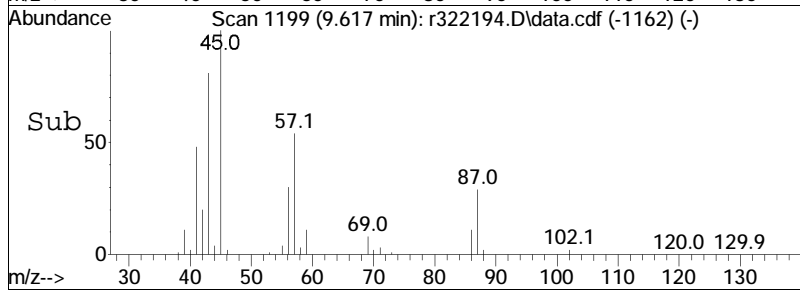
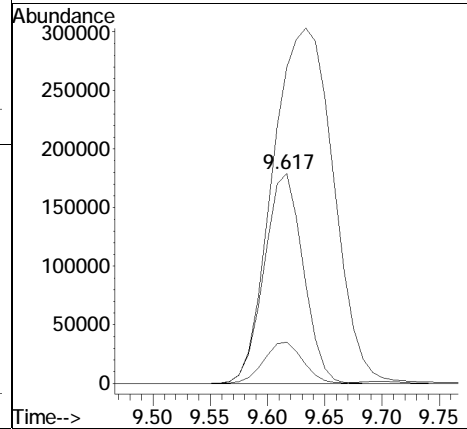
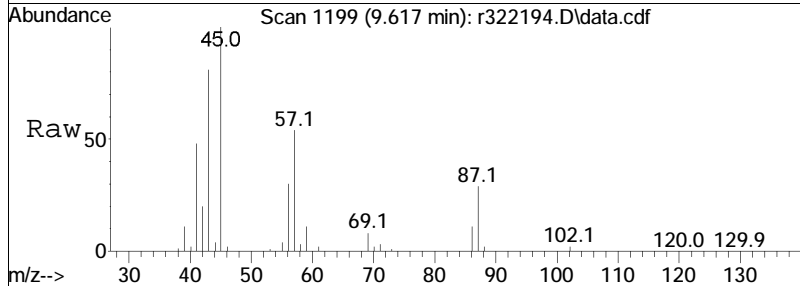
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
62	100		
64	31.9	25.6	38.4
49	36.6	28.6	42.8
63	19.4	15.4	23.2

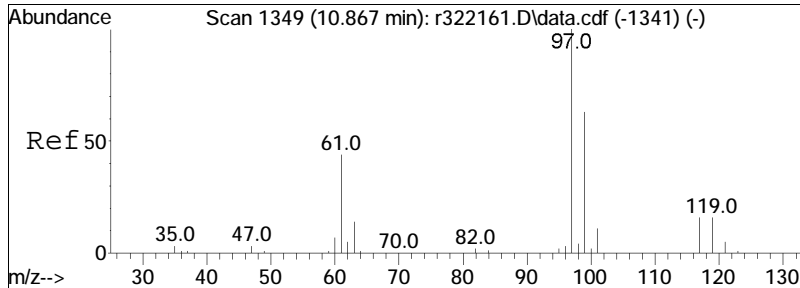




#44  
 hexane  
 Concen: 11.15 ppbV  
 RT: 9.617 min Scan# 1199  
 Delta R.T. -0.025 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

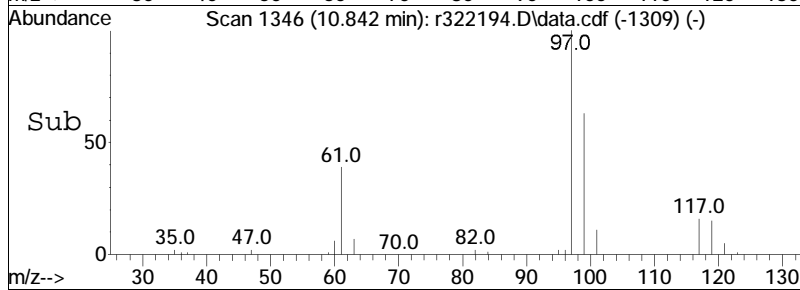
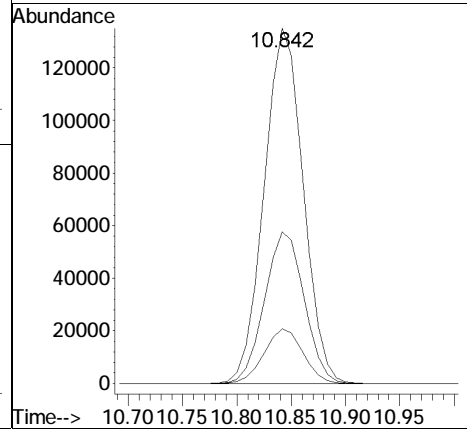
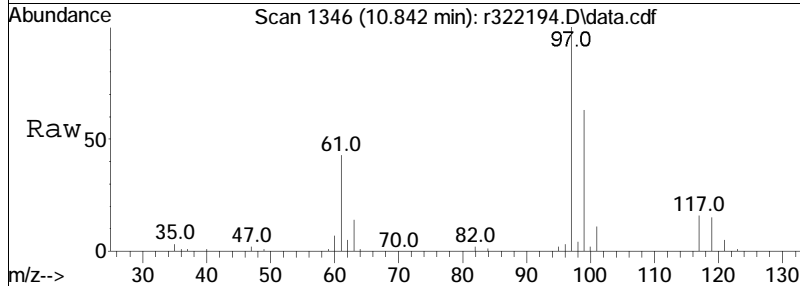
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
57	100		
43	150.4	115.0	172.6
86	19.7	15.5	23.3

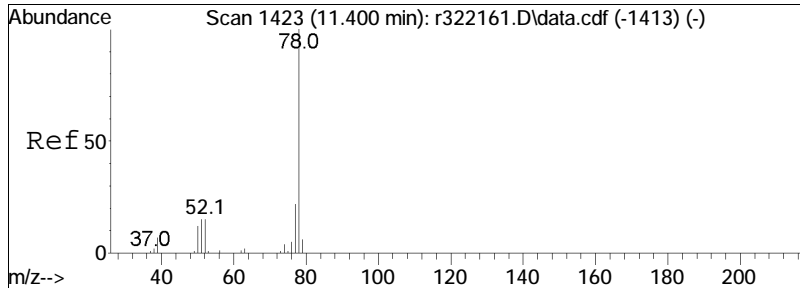




#48  
 1,1,1-trichloroethane  
 Concen: 11.69 ppbV  
 RT: 10.842 min Scan# 1346  
 Delta R.T. -0.025 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

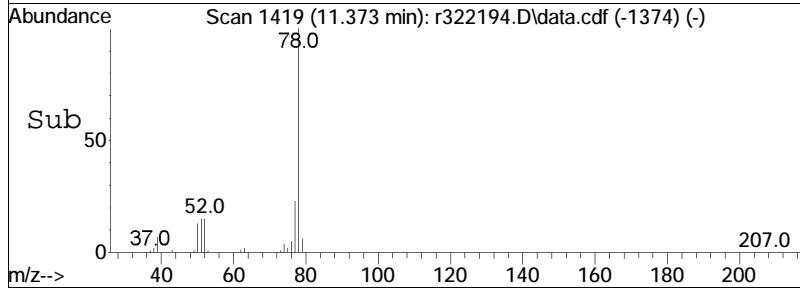
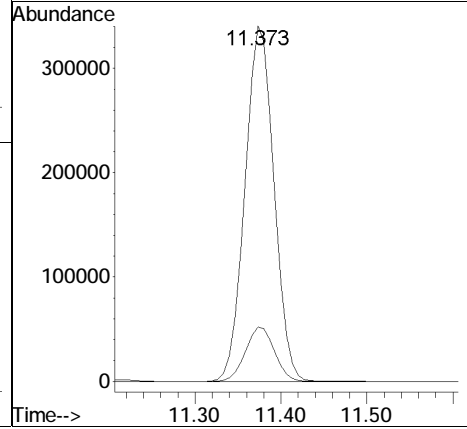
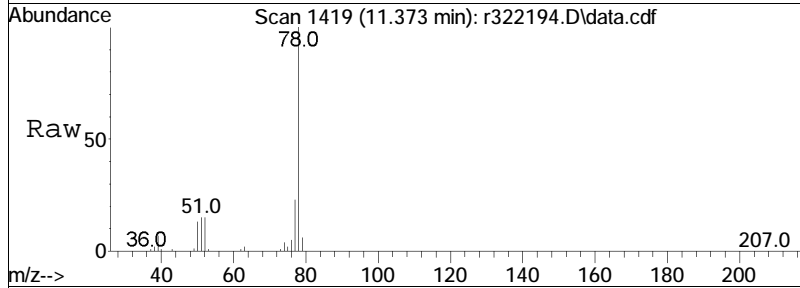
Tgt Ion:	Resp:		
Ion Ratio	Lower	Upper	
97	100		
61	42.7	35.1	52.7
119	15.4	12.5	18.7

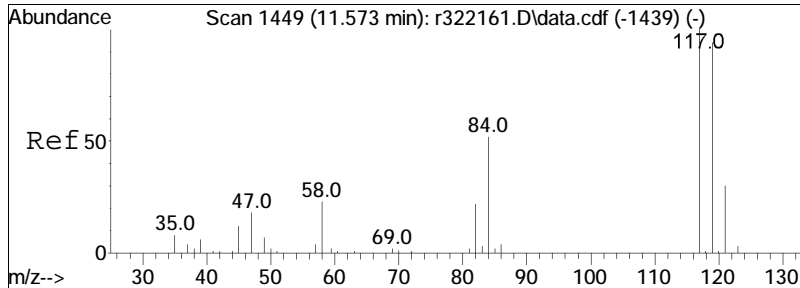




#50  
 benzene  
 Concen: 10.20 ppbV  
 RT: 11.373 min Scan# 1419  
 Delta R.T. -0.027 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

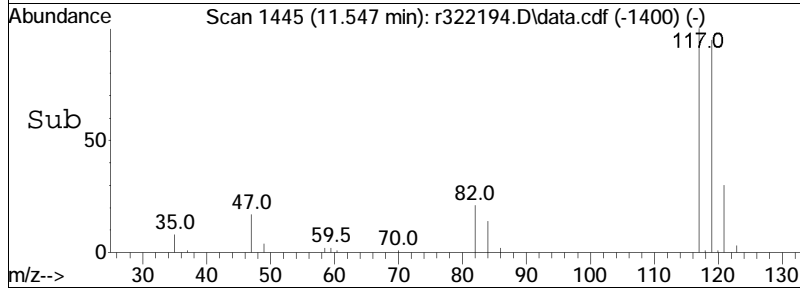
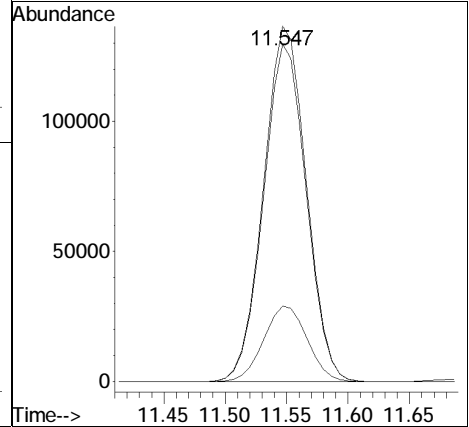
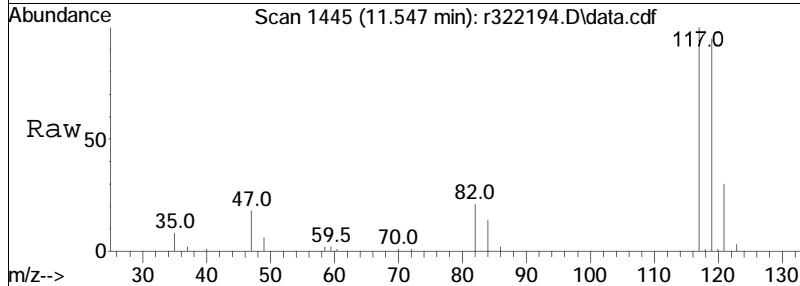
Tgt Ion:	78	Resp:	798212
Ion Ratio	100	Lower	Upper
52	15.3	12.2	18.2

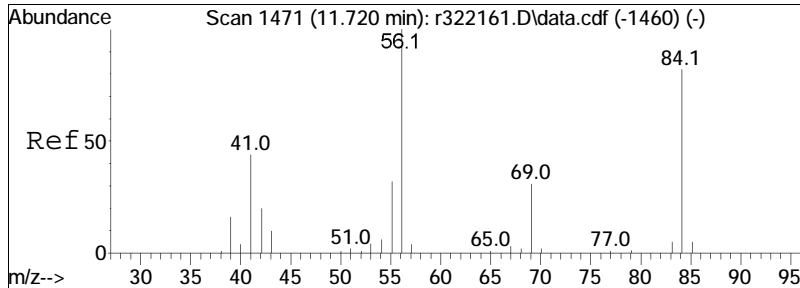




#52  
 carbon tetrachloride  
 Concen: 12.33 ppbV  
 RT: 11.547 min Scan# 1445  
 Delta R.T. -0.027 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

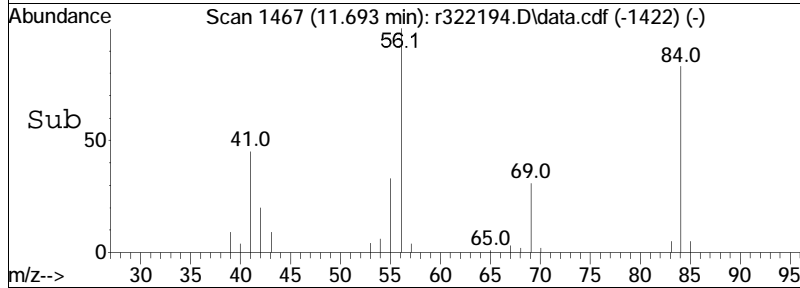
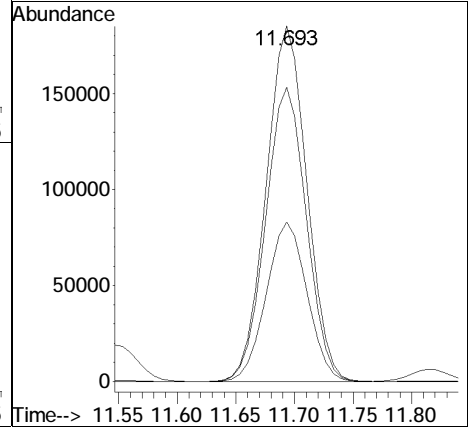
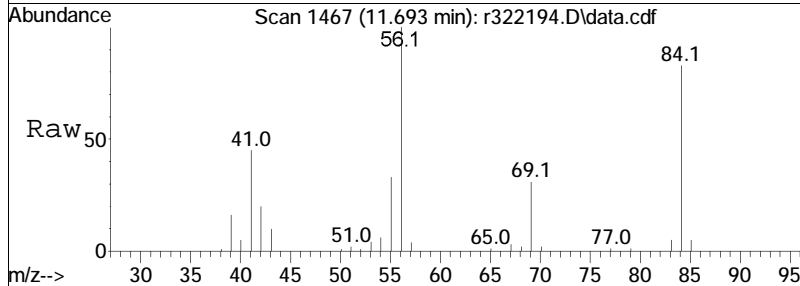
Tgt Ion	Resp	Lower	Upper
117	100		
119	94.9	75.6	113.4
82	21.2	17.8	26.6

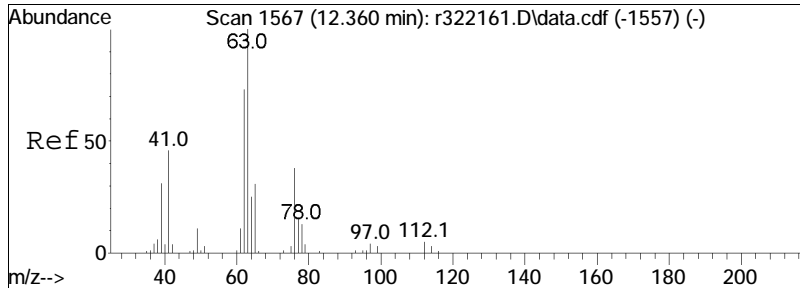




#53  
 cyclohexane  
 Concen: 11.27 ppbV  
 RT: 11.693 min Scan# 1467  
 Delta R.T. -0.027 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

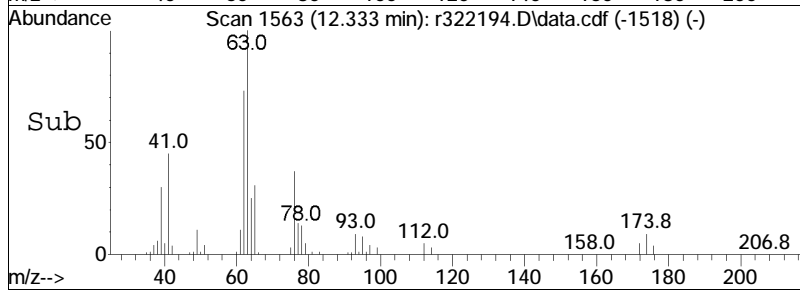
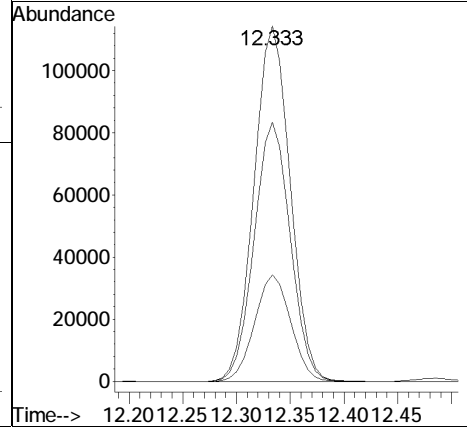
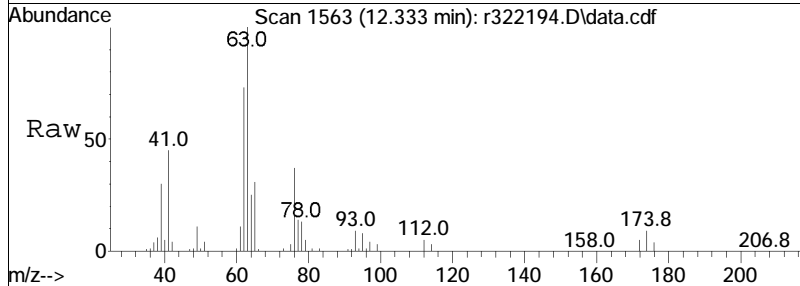
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
56	100		
84	82.8	65.4	98.0
41	44.9	35.4	53.2

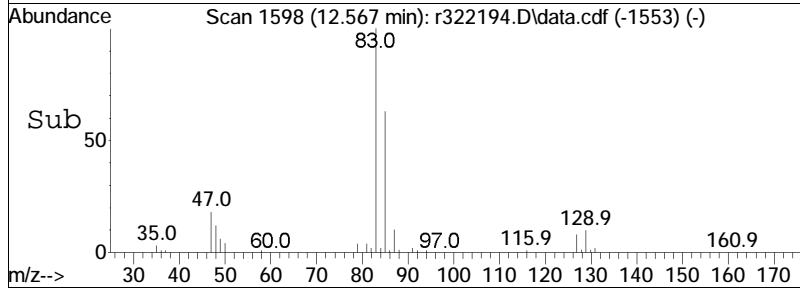
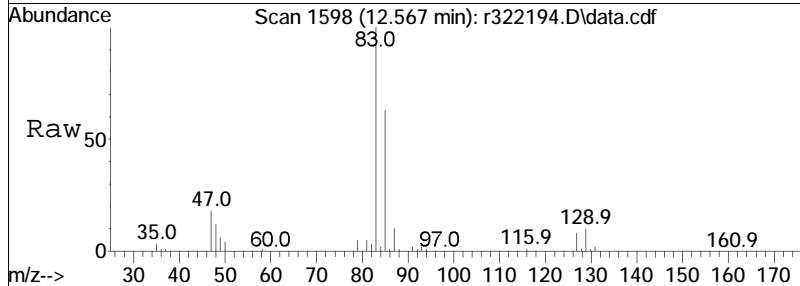
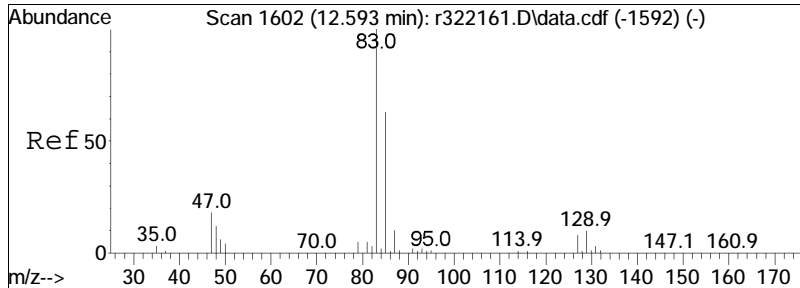




#56  
 1,2-dichloropropane  
 Concen: 11.35 ppbV  
 RT: 12.333 min Scan# 1563  
 Delta R.T. -0.027 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

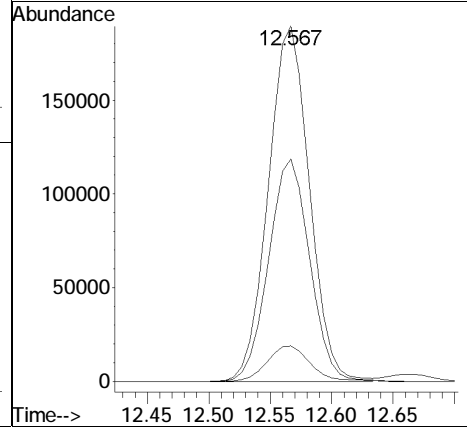
Tgt Ion	Resp	Lower	Upper
63	100		
62	73.0	58.7	88.1
39	30.0	24.4	36.6



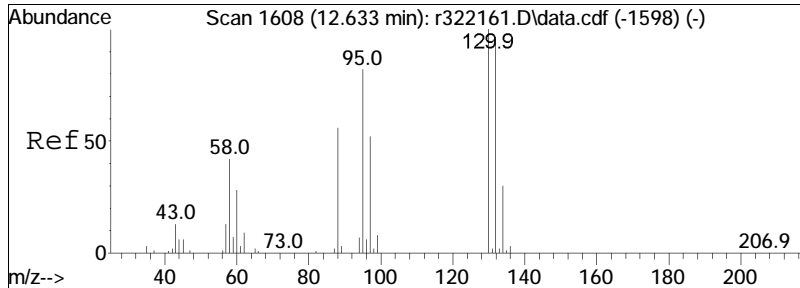


#57  
 bromodichloromethane  
 Concen: 11.90 ppbV  
 RT: 12.567 min Scan# 1598  
 Delta R.T. -0.027 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

Tgt Ion:	83	85	129	Resp:	440673	Lower	Upper
Ion Ratio	100	62.6	10.0			50.3	75.5
						8.1	12.1

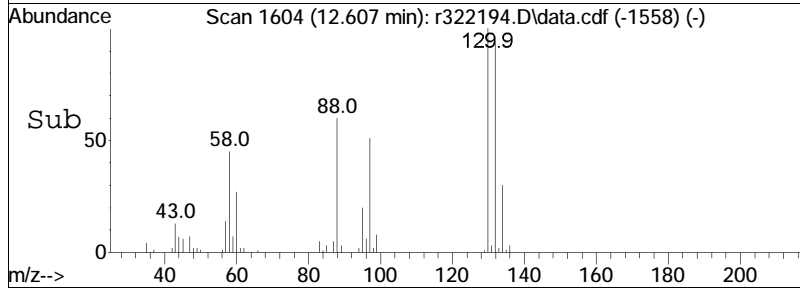
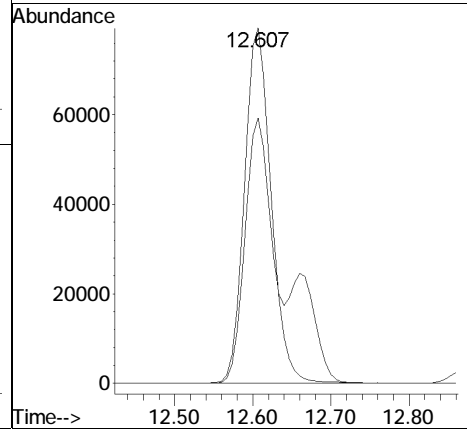
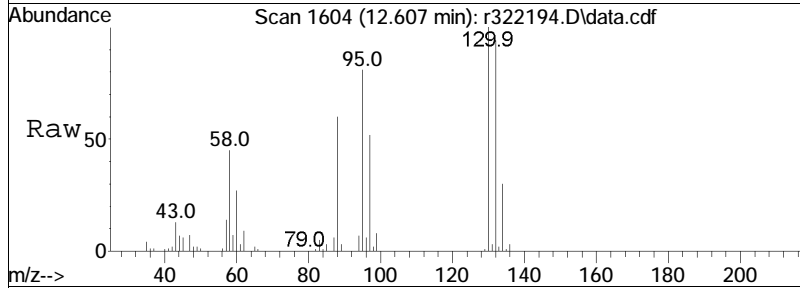


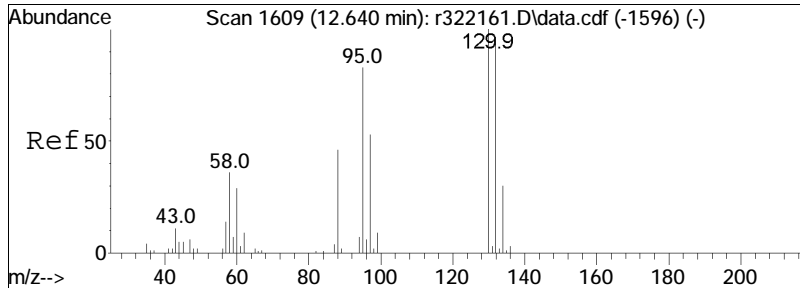




#58  
 1,4-dioxane  
 Concen: 11.79 ppbV  
 RT: 12.607 min Scan# 1604  
 Delta R.T. -0.027 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

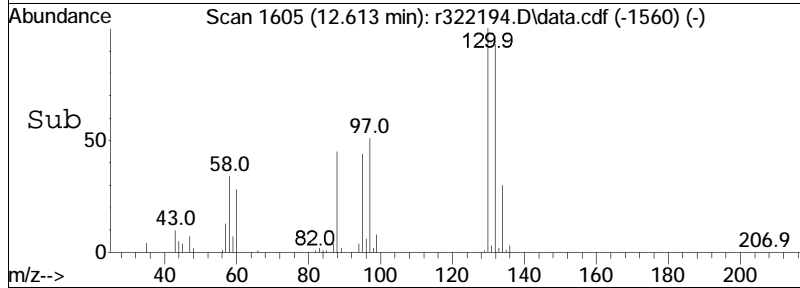
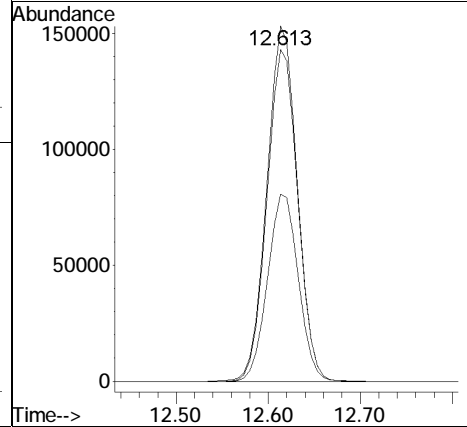
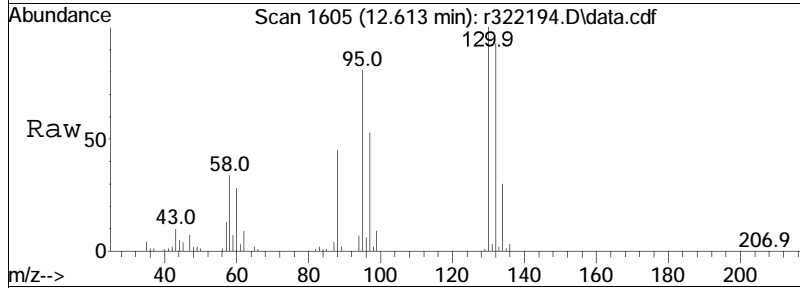
Tgt Ion:	88	Resp:	188511
Ion Ratio	Lower	Upper	
88	100		
58	74.7	61.2	91.8

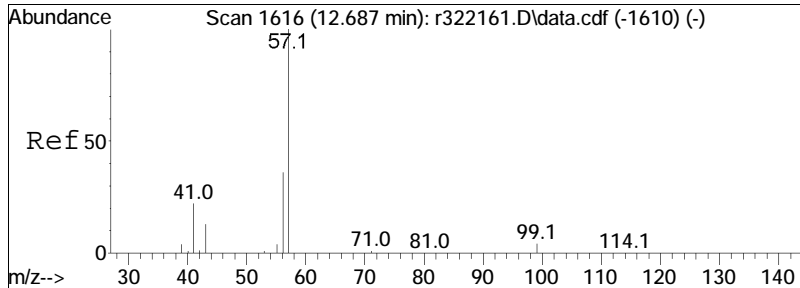




#59  
 trichloroethene  
 Concen: 11.67 ppbV  
 RT: 12.613 min Scan# 1605  
 Delta R.T. -0.027 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

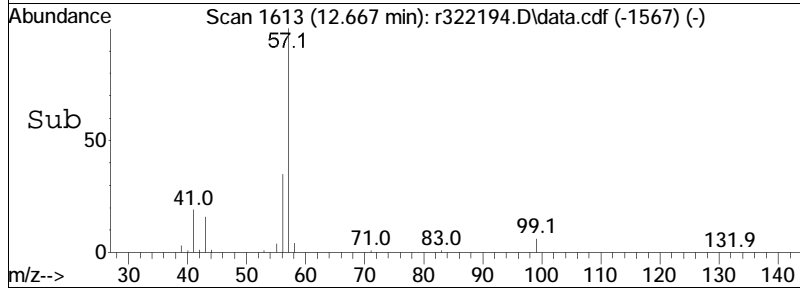
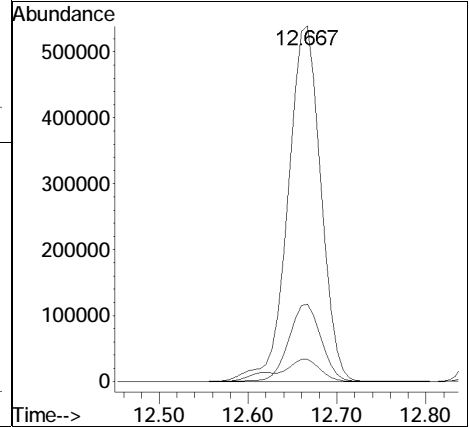
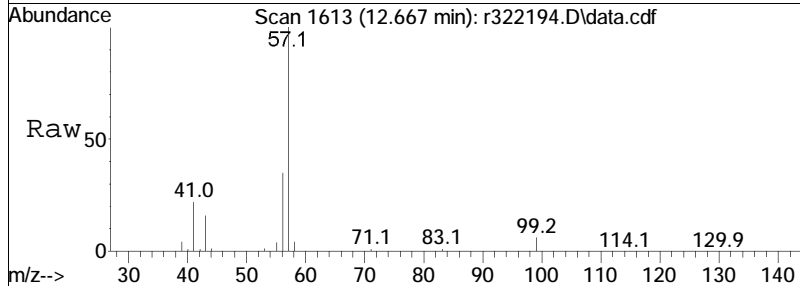
Tgt Ion	Ratio	Lower	Upper
130	100		
132	93.4	76.2	114.2
97	52.7	42.6	63.8

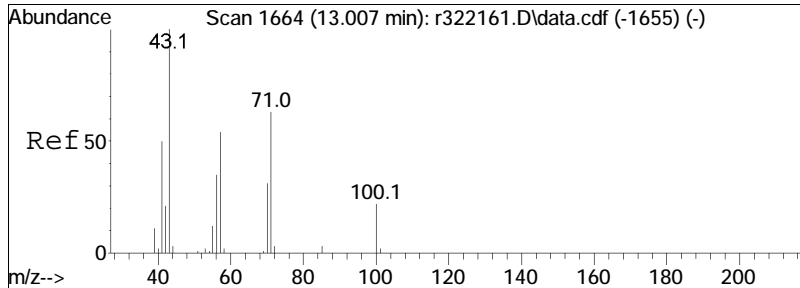




#60  
 2,2,4-trimethylpentane  
 Concen: 11.77 ppbV  
 RT: 12.667 min Scan# 1613  
 Delta R.T. -0.020 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

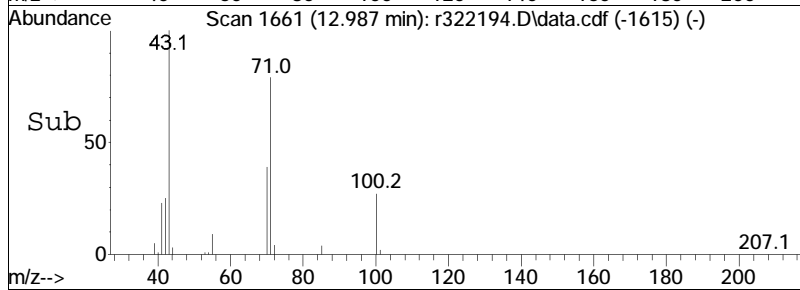
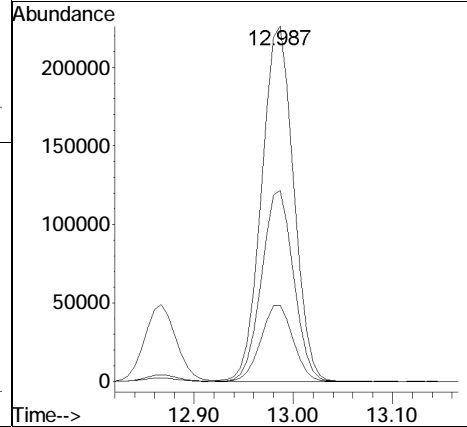
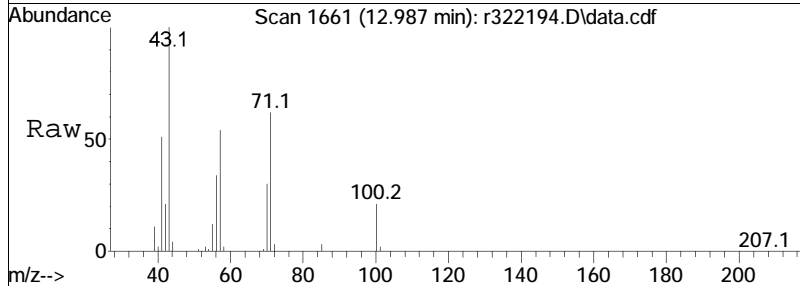
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
57	100		
99	6.2	5.0	7.4
41	21.7	17.4	26.2

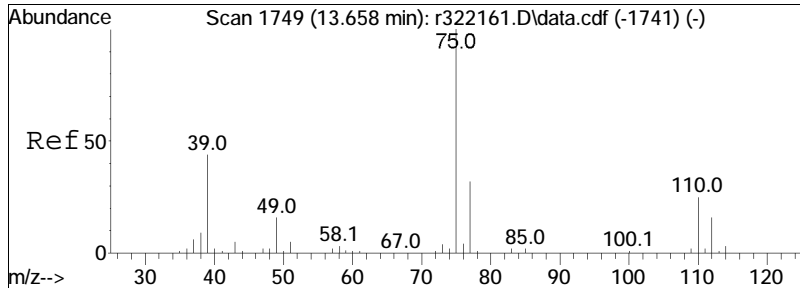




#62  
 heptane  
 Concen: 11.56 ppbV  
 RT: 12.987 min Scan# 1661  
 Delta R.T. -0.020 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

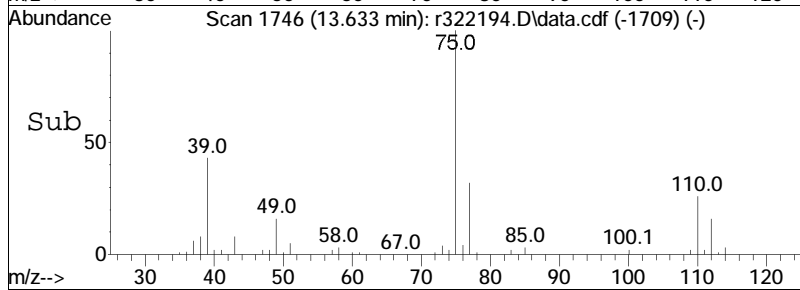
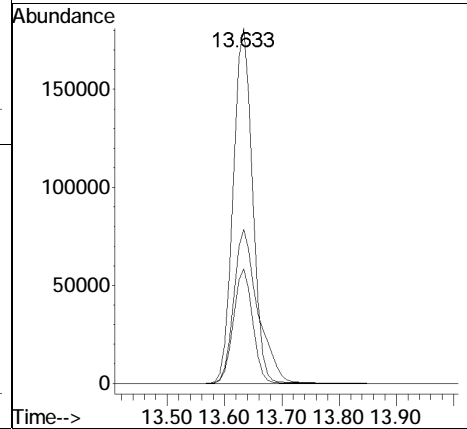
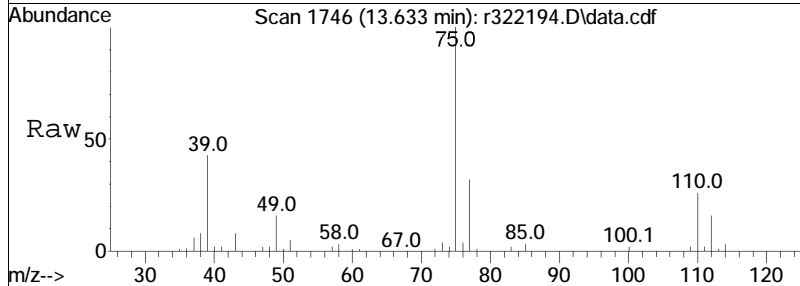
Tgt Ion	Ratio	Lower	Upper
43	100		
57	53.7	43.0	64.4
100	21.5	17.6	26.4

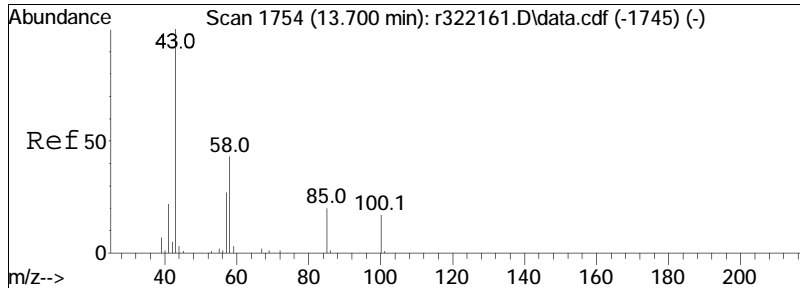




#63  
 cis-1,3-dichloropropene  
 Concen: 12.68 ppbV  
 RT: 13.633 min Scan# 1746  
 Delta R.T. -0.025 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

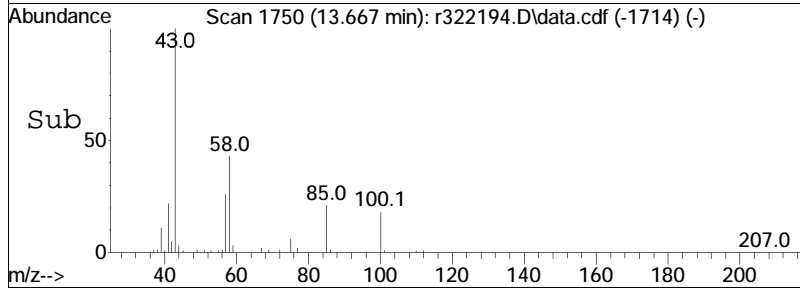
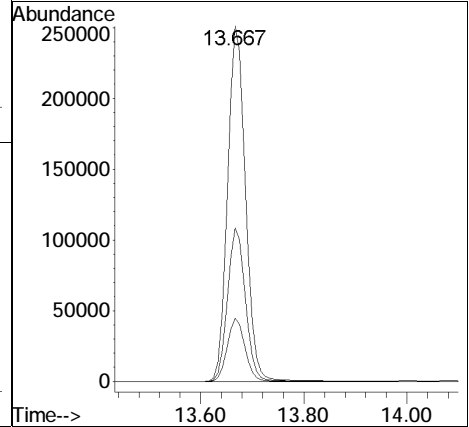
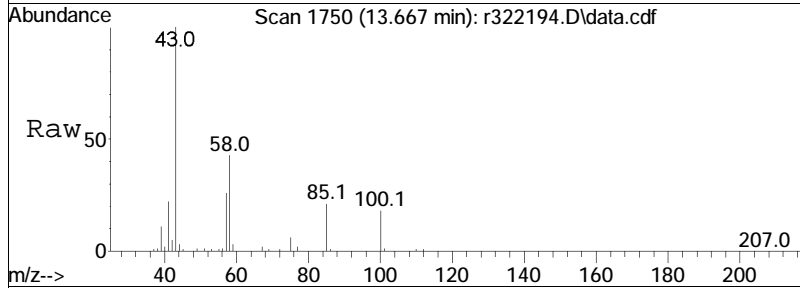
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
75	100		
39	43.4	35.1	52.7
77	32.2	25.5	38.3

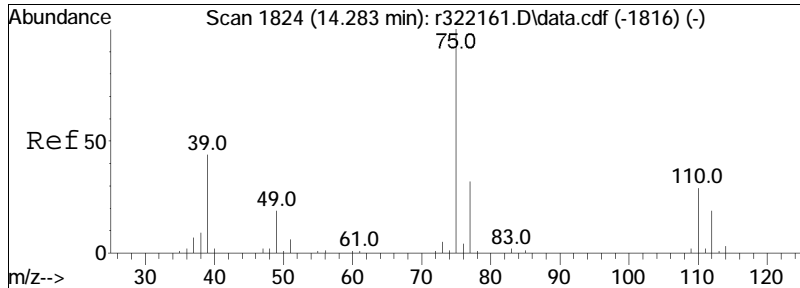




#64  
 4-methyl-2-pentanone  
 Concen: 12.05 ppbV  
 RT: 13.667 min Scan# 1750  
 Delta R.T. -0.033 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

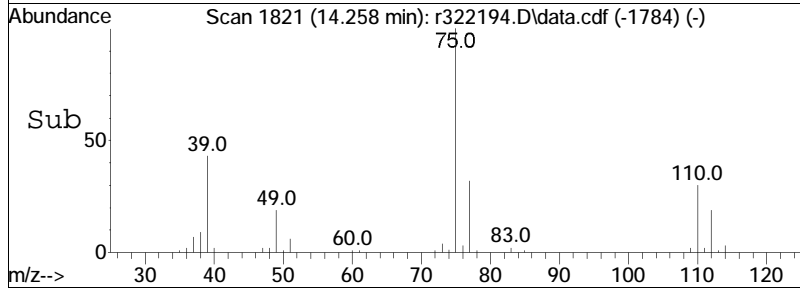
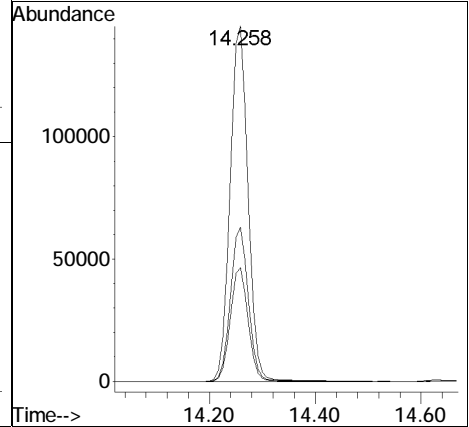
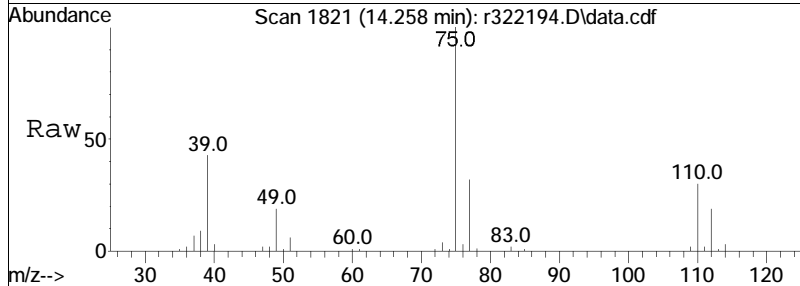
Tgt Ion:	Resp:		
Ion Ratio	Lower	Upper	
43	100		
58	43.2	34.3	51.5
100	17.8	13.8	20.6

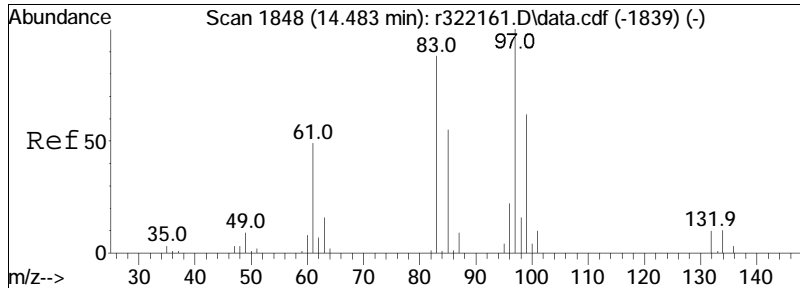




#65  
 trans-1,3-dichloropropene  
 Concen: 11.33 ppbV  
 RT: 14.258 min Scan# 1821  
 Delta R.T. -0.025 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

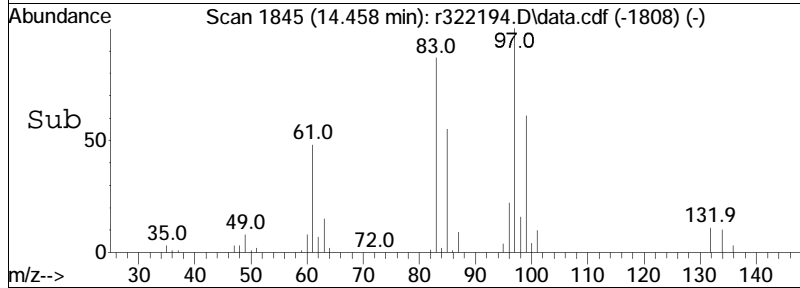
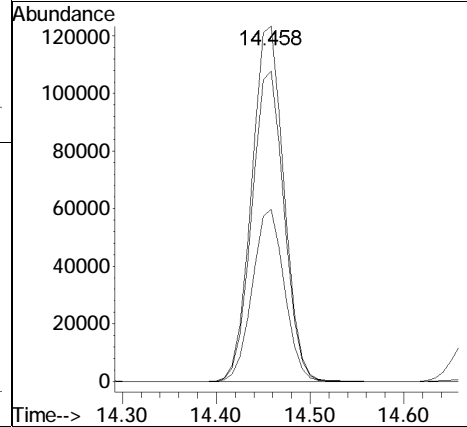
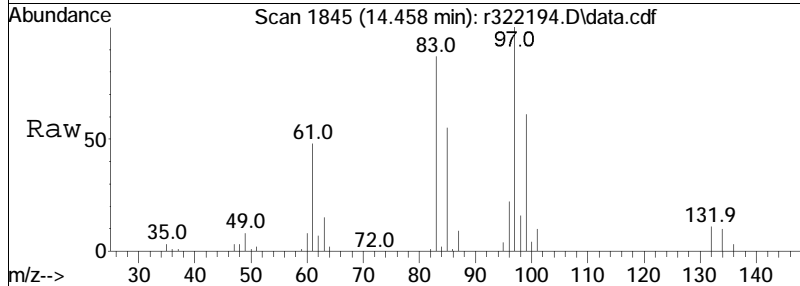
Tgt Ion	Resp	Lower	Upper
75	100		
77	32.0	25.8	38.6
39	43.4	35.4	53.0



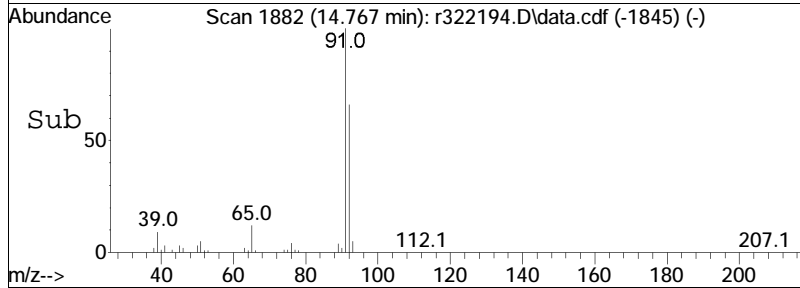
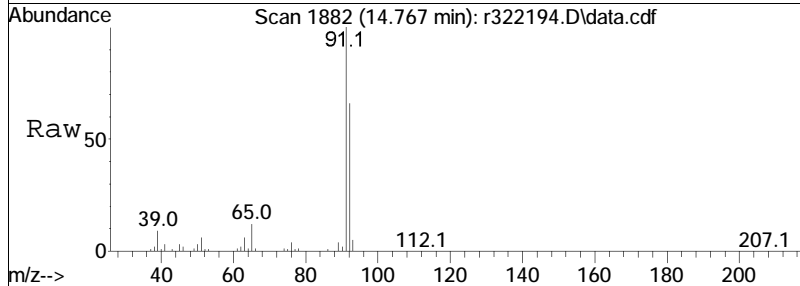
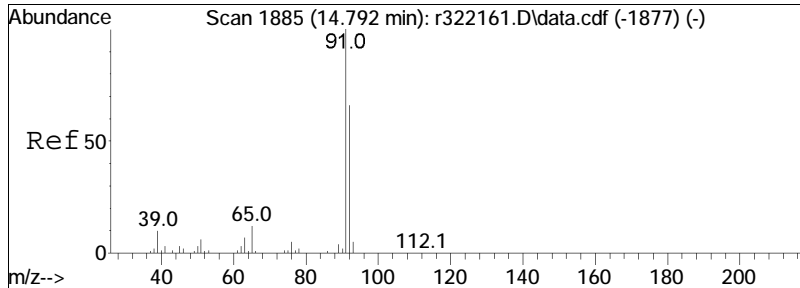


#66  
 1,1,2-trichloroethane  
 Concen: 11.77 ppbV  
 RT: 14.458 min Scan# 1845  
 Delta R.T. -0.025 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

Tgt Ion	Resp	Lower	Upper
97	100		
83	87.4	70.2	105.2
61	48.4	39.2	58.8

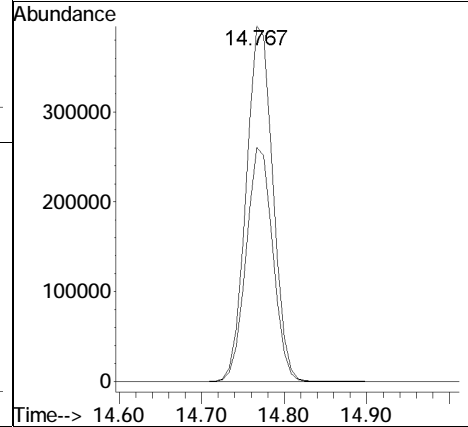


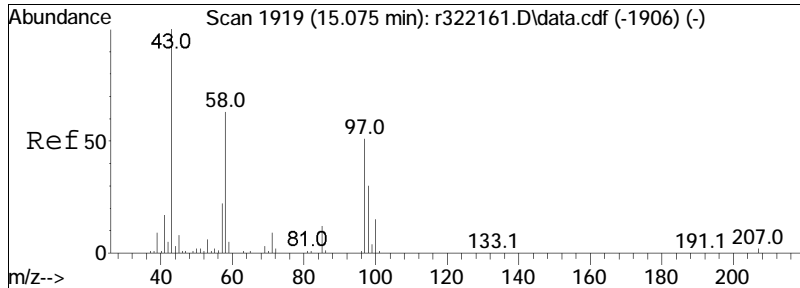




#68  
 toluene  
 Concen: 11.43 ppbV  
 RT: 14.767 min Scan# 1882  
 Delta R.T. -0.025 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

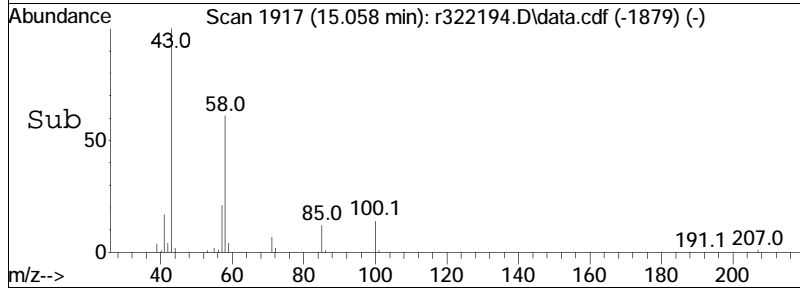
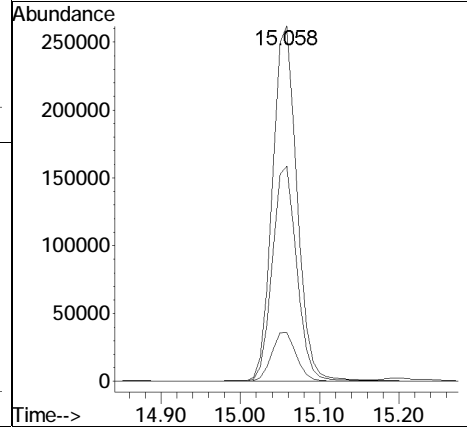
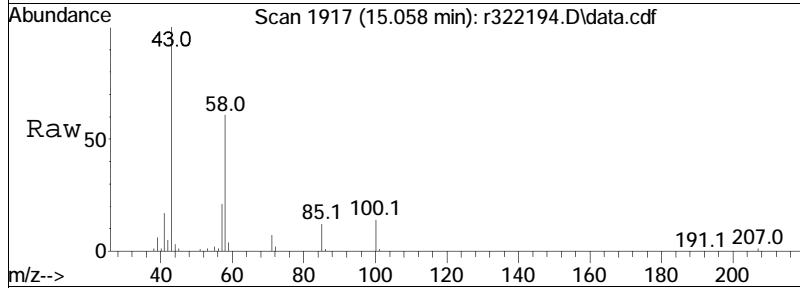
Tgt Ion: 91 Resp: 888344  
 Ion Ratio Lower Upper  
 91 100  
 92 65.9 52.7 79.1

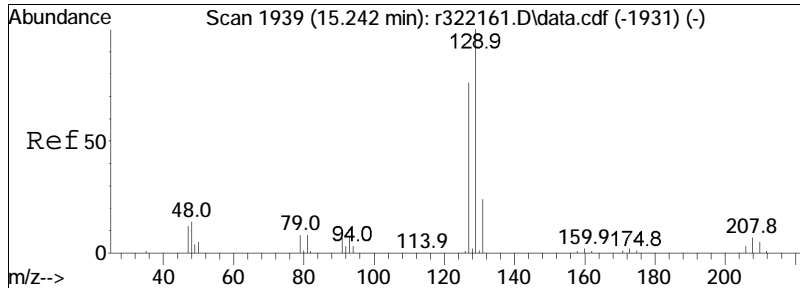




#72  
 2-hexanone  
 Concen: 12.10 ppbV  
 RT: 15.058 min Scan# 1917  
 Delta R.T. -0.017 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

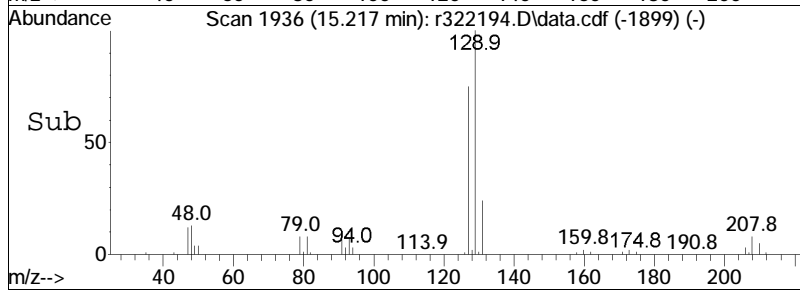
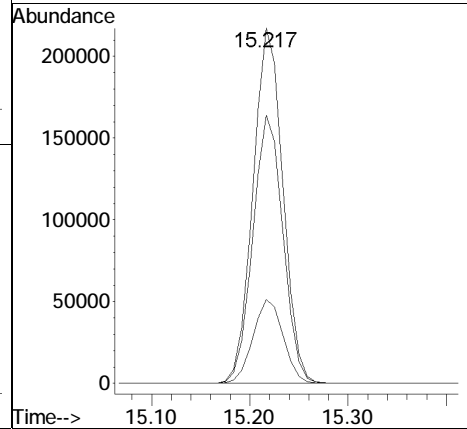
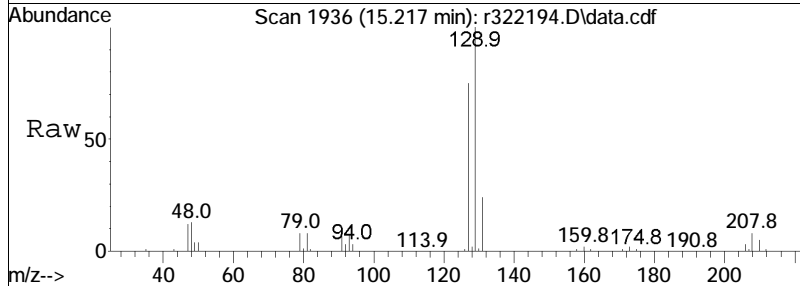
Tgt Ion	Ratio	Lower	Upper
43	100		
58	60.5	50.5	75.7
100	13.8	12.2	18.2

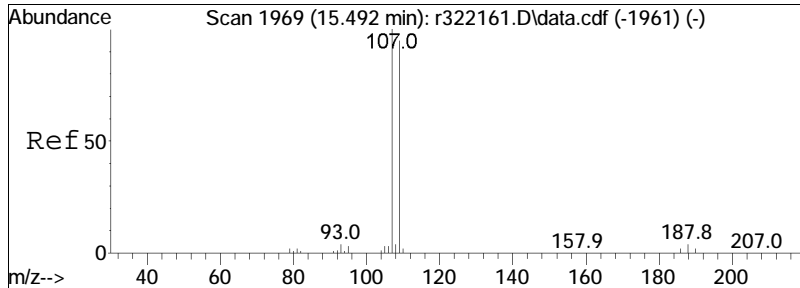




#74  
 dibromochloromethane  
 Concen: 12.84 ppbV  
 RT: 15.217 min Scan# 1936  
 Delta R.T. -0.025 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

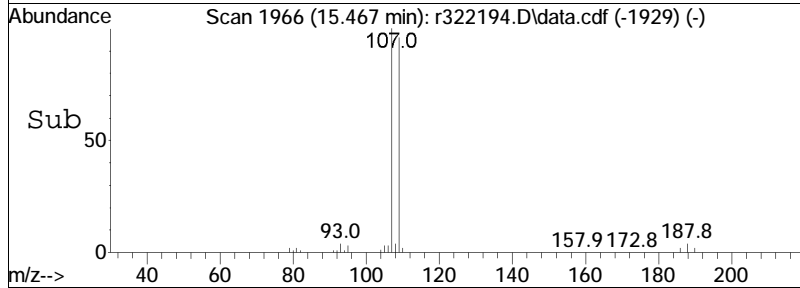
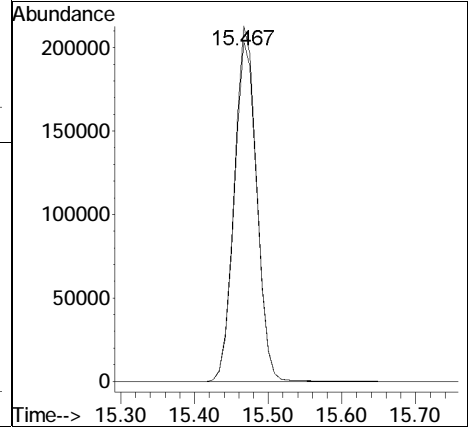
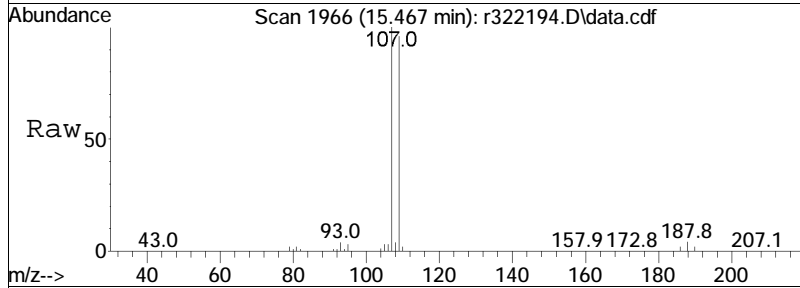
Tgt Ion	Resp	Lower	Upper
129	459568		
129	100		
127	75.5	60.6	91.0
131	23.6	19.5	29.3

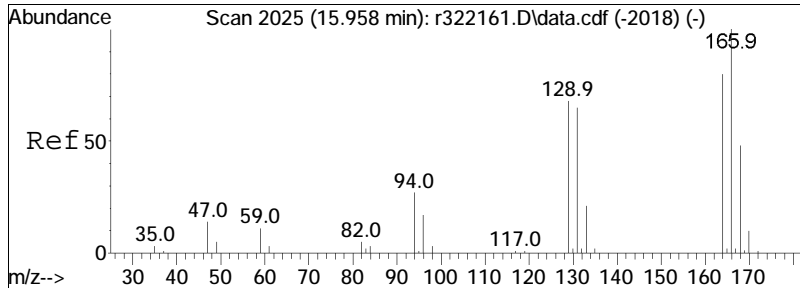




#75  
 1,2-dibromoethane  
 Concen: 12.02 ppbV  
 RT: 15.467 min Scan# 1966  
 Delta R.T. -0.025 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

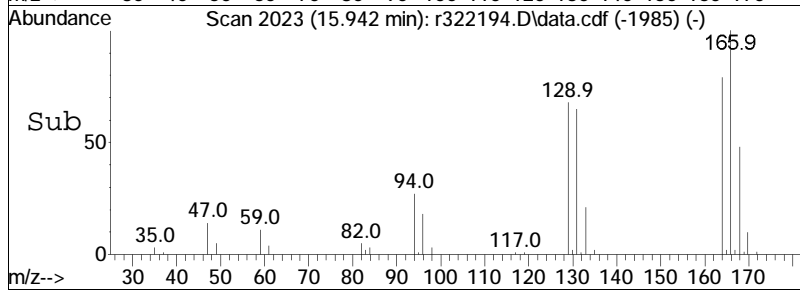
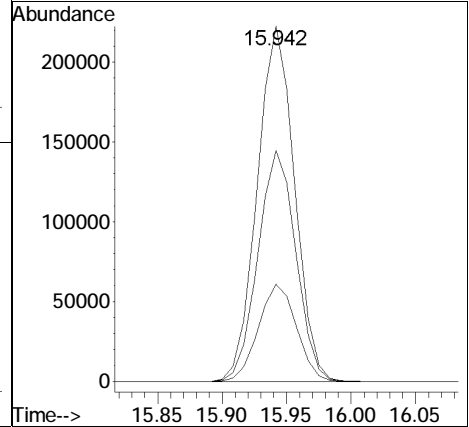
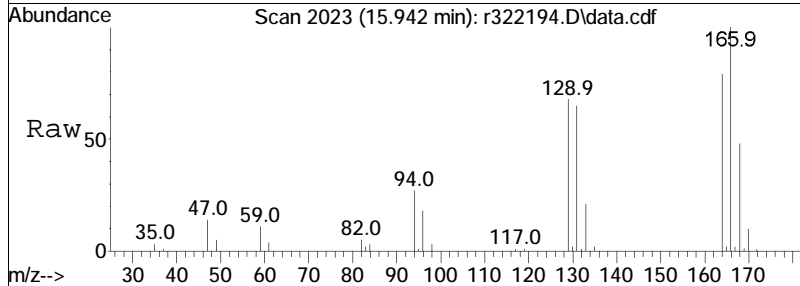
Tgt Ion	Resp	Lower	Upper
107	100		
109	95.7	75.6	113.4

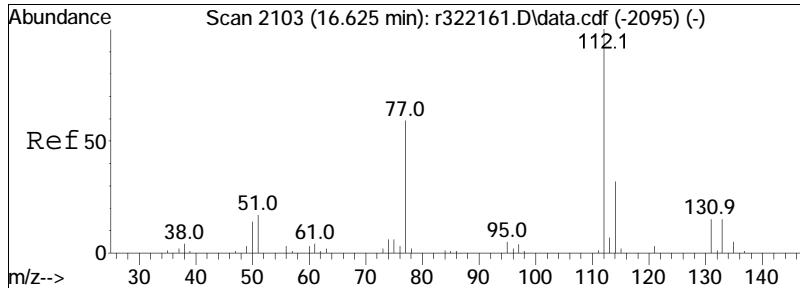




#78  
 tetrachloroethene  
 Concen: 11.88 ppbV  
 RT: 15.942 min Scan# 2023  
 Delta R.T. -0.017 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

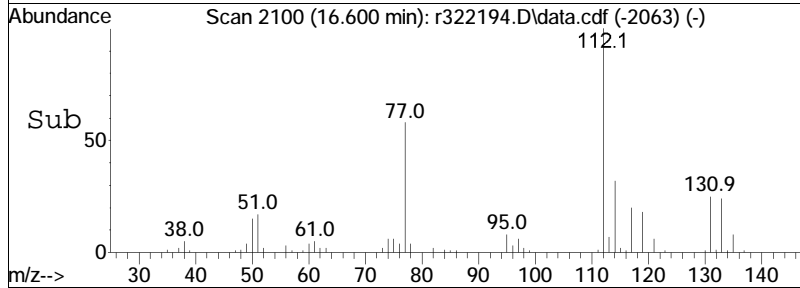
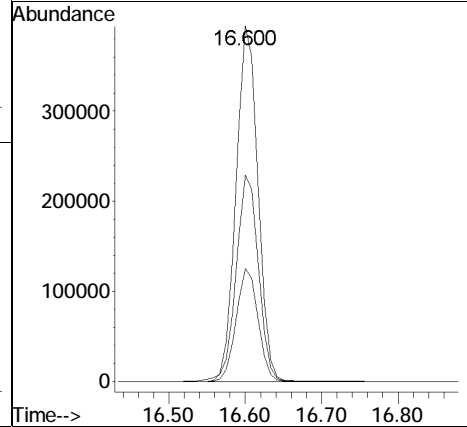
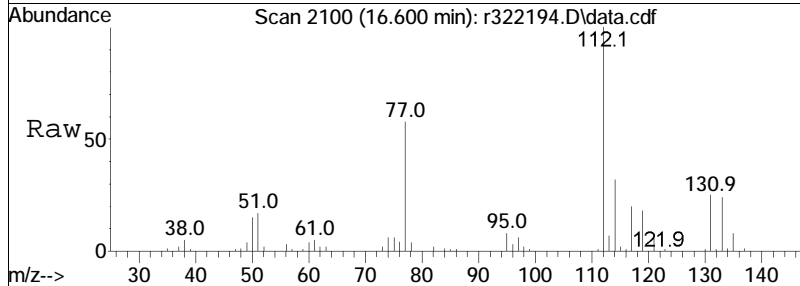
Tgt Ion	Resp	Lower	Upper
166	100		
131	65.0	51.8	77.6
94	27.3	21.8	32.8

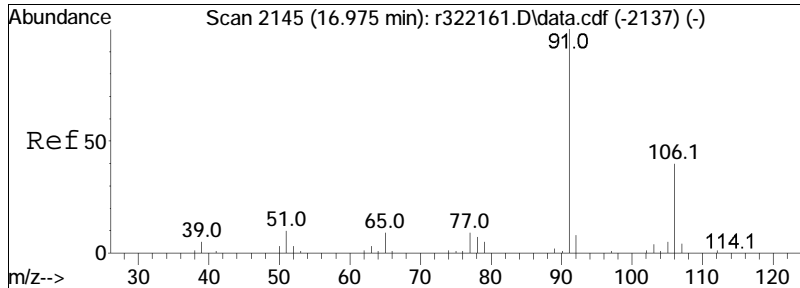




#80  
 chlorobenzene  
 Concen: 11.77 ppbV  
 RT: 16.600 min Scan# 2100  
 Delta R.T. -0.025 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

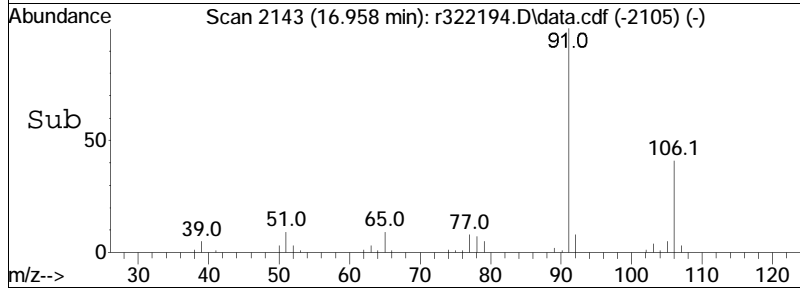
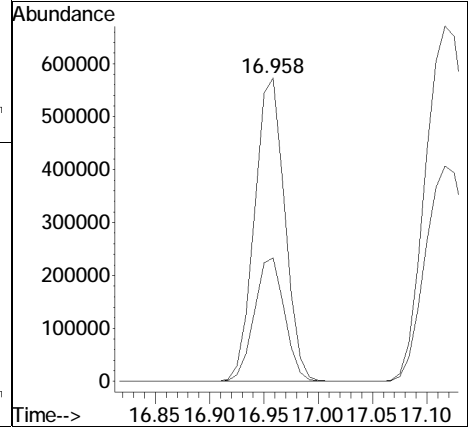
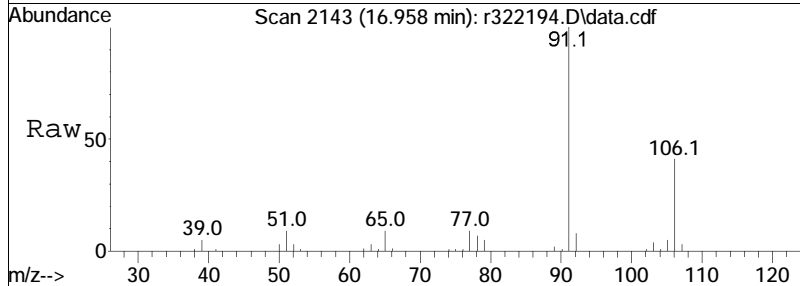
Tgt Ion	Ratio	Lower	Upper
112	100		
114	31.8	25.2	37.8
77	58.0	47.1	70.7

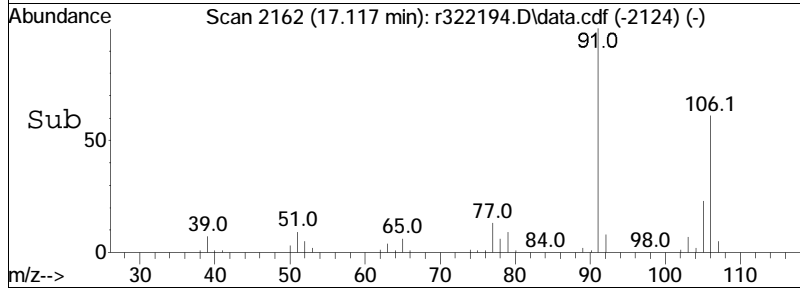
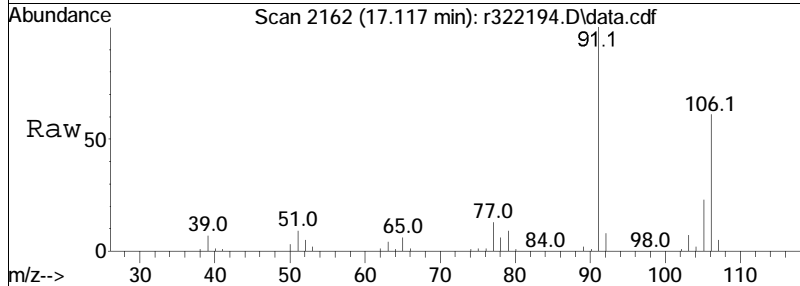
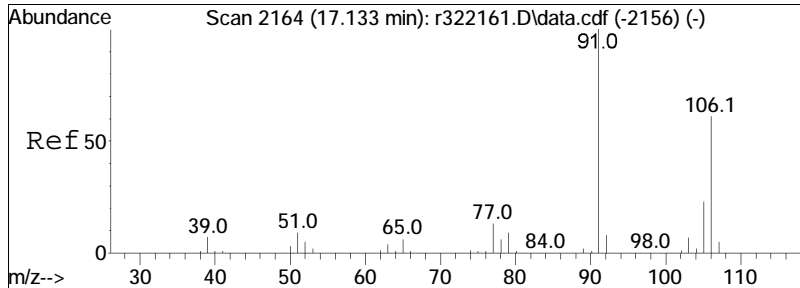




#81  
 ethylbenzene  
 Concen: 11.88 ppbV  
 RT: 16.958 min Scan# 2143  
 Delta R.T. -0.017 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

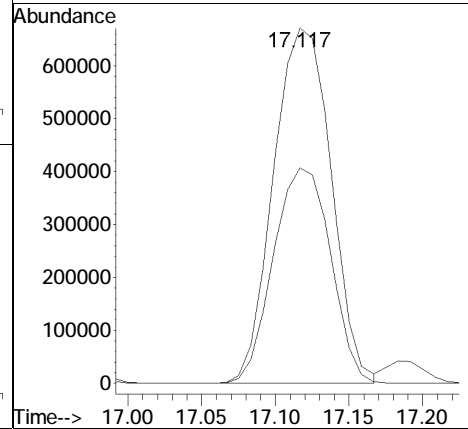
Tgt Ion: 91 Resp: 1108209  
 Ion Ratio Lower Upper  
 91 100  
 106 40.6 32.4 48.6



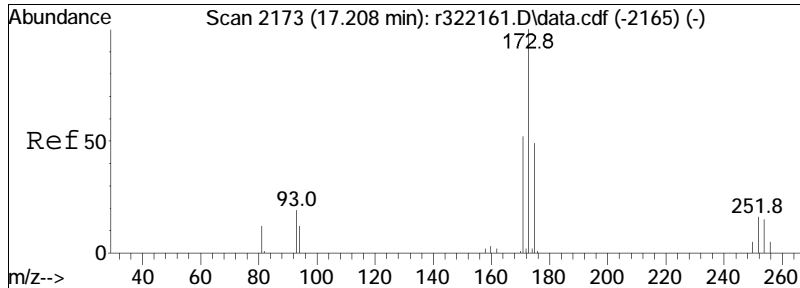


#83  
 m+p-xylene  
 Concen: 23.99 ppbV  
 RT: 17.117 min Scan# 2162  
 Delta R.T. -0.017 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

Tgt Ion: 91 Resp: 1827260  
 Ion Ratio Lower Upper  
 91 100  
 106 60.6 48.4 72.6

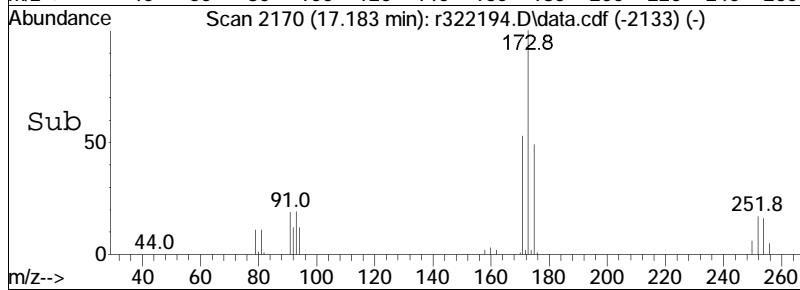
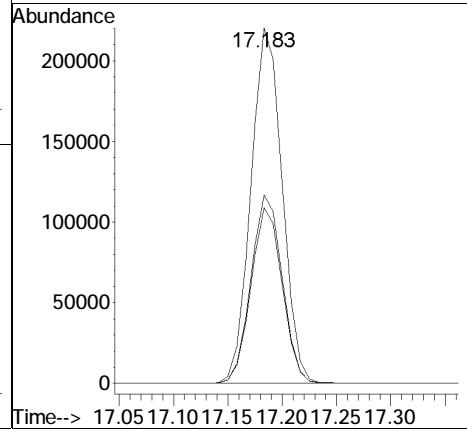
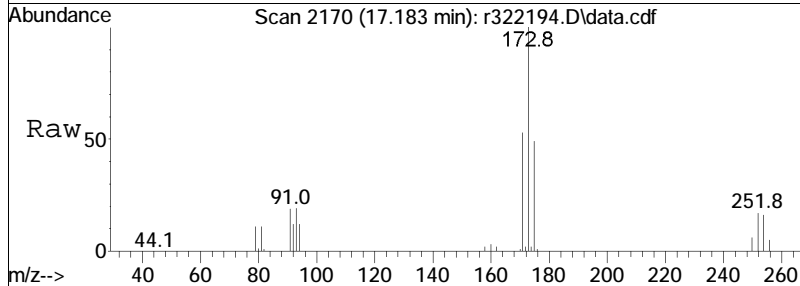


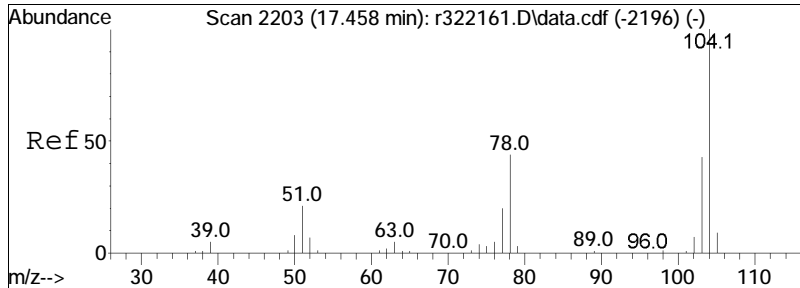




#84  
 bromoform  
 Concen: 13.22 ppbV  
 RT: 17.183 min Scan# 2170  
 Delta R.T. -0.025 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

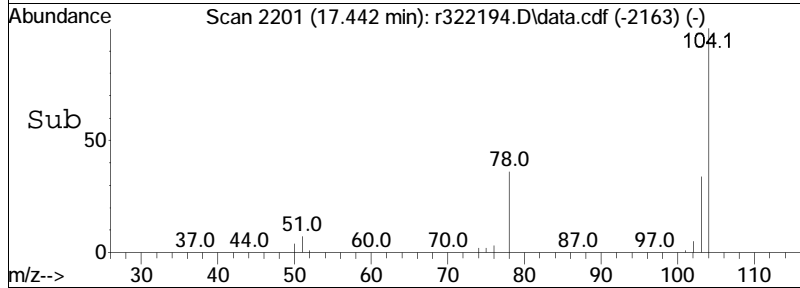
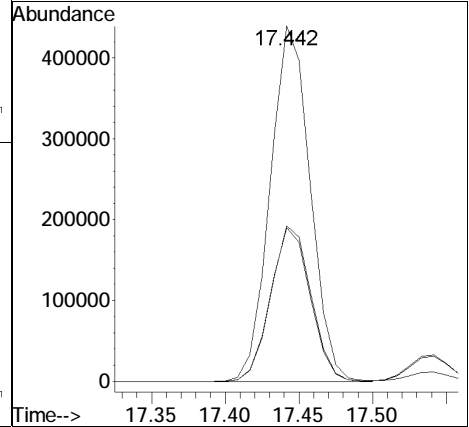
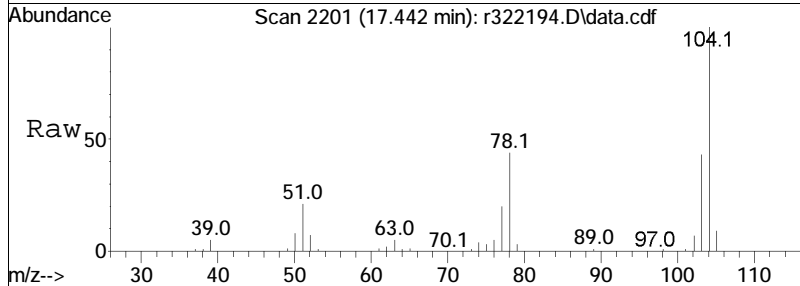
Tgt Ion	Ratio	Lower	Upper
173	100		
175	49.4	39.5	59.3
171	53.0	41.9	62.9

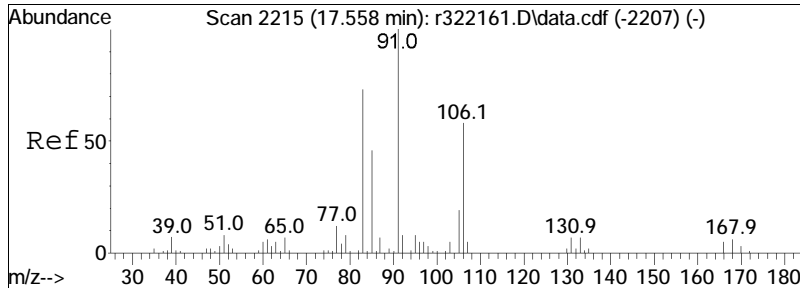




#85  
 styrene  
 Concen: 12.19 ppbV  
 RT: 17.442 min Scan# 2201  
 Delta R.T. -0.017 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

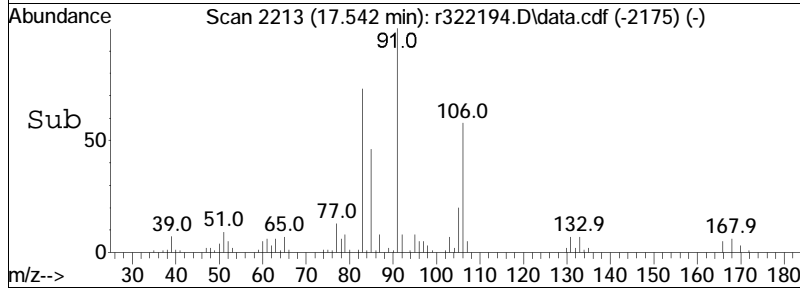
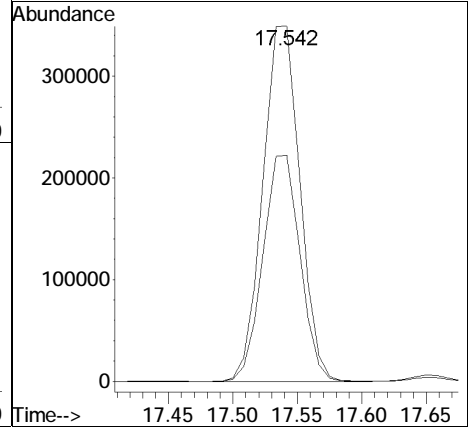
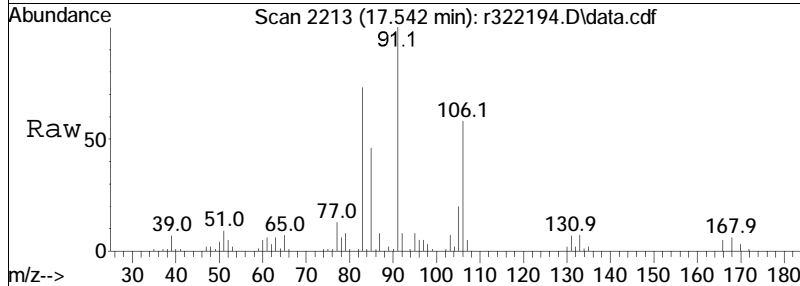
Tgt Ion	Ratio	Lower	Upper
104	100		
103	43.3	34.4	51.6
78	43.8	35.1	52.7

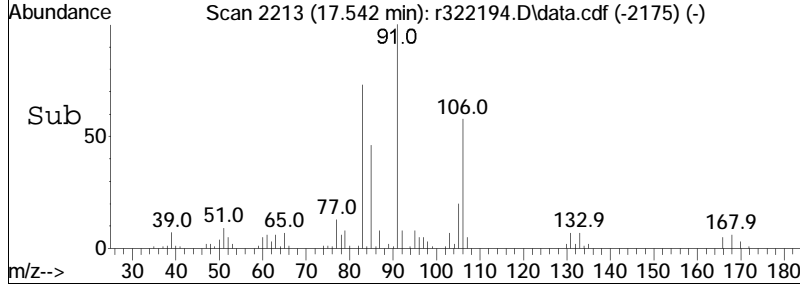
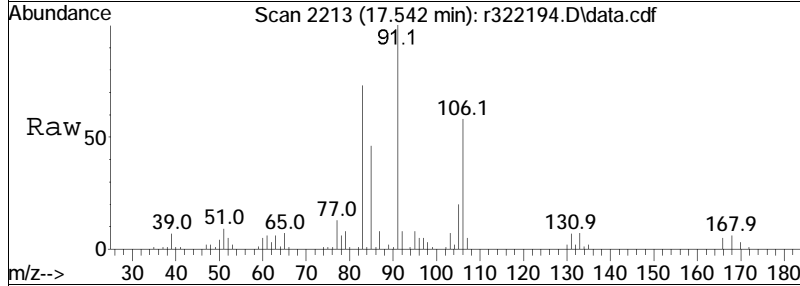
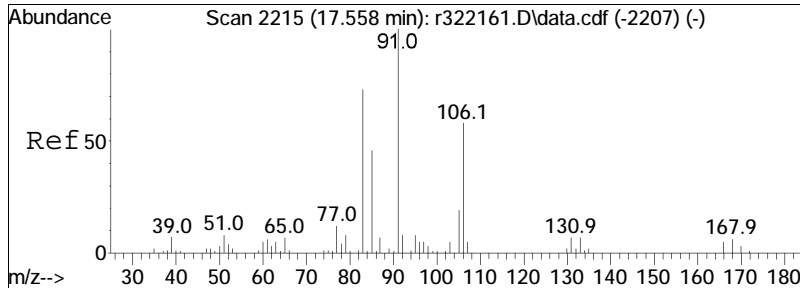




#86  
 1,1,2,2-tetrachloroethane  
 Concen: 12.37 ppbV  
 RT: 17.542 min Scan# 2213  
 Delta R.T. -0.017 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

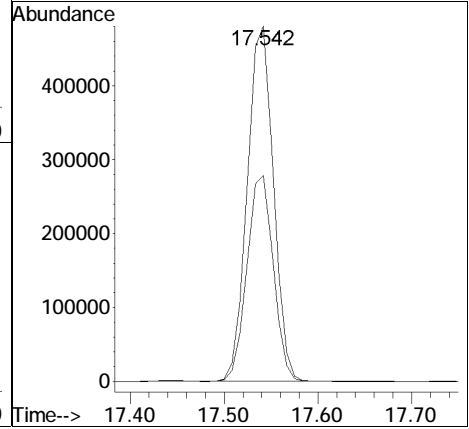
Tgt Ion: 83 Resp: 699819  
 Ion Ratio Lower Upper  
 83 100  
 85 63.6 50.6 75.8

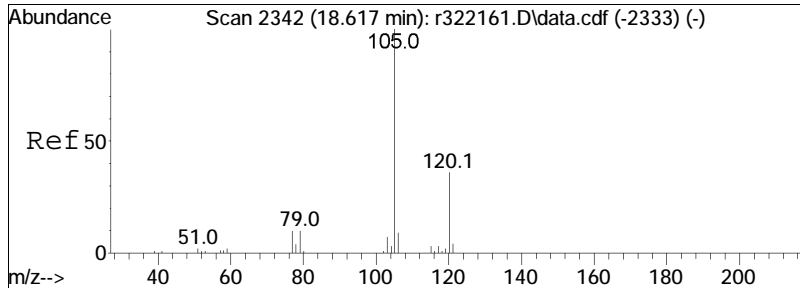




#87  
 o-xylene  
 Concen: 12.28 ppbV  
 RT: 17.542 min Scan# 2213  
 Delta R.T. -0.017 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

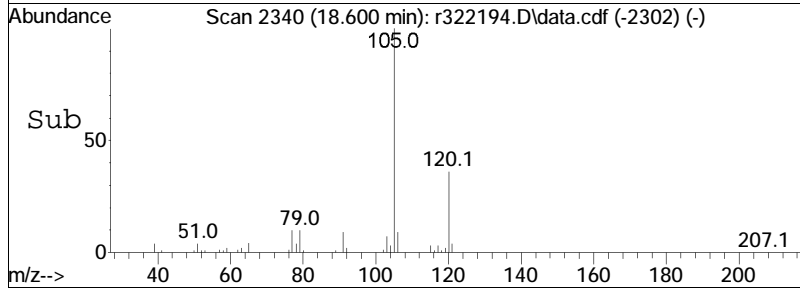
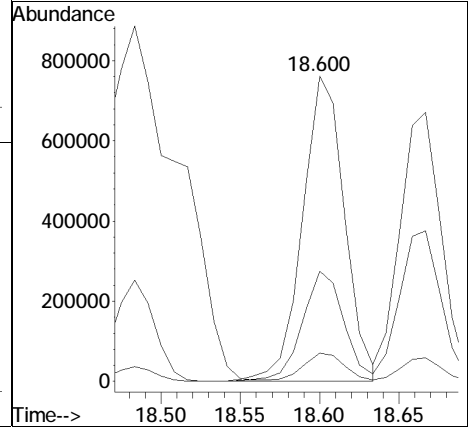
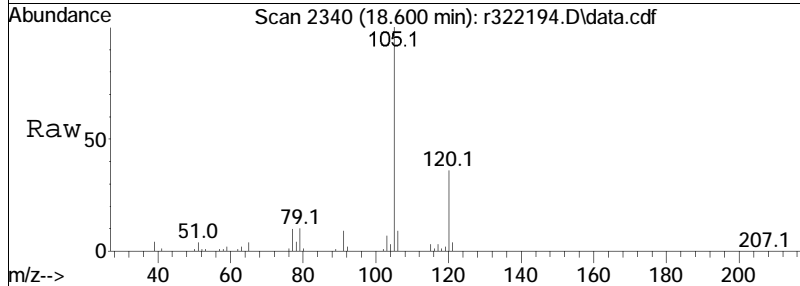
Tgt Ion:	91	Resp:	932618
Ion Ratio	Lower	Upper	
91	100		
106	58.0	46.4	69.6

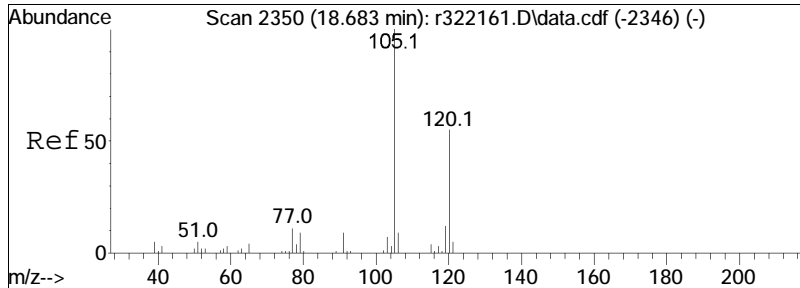




#96  
 4-ethyl toluene  
 Concen: 12.13 ppbV  
 RT: 18.600 min Scan# 2340  
 Delta R.T. -0.017 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

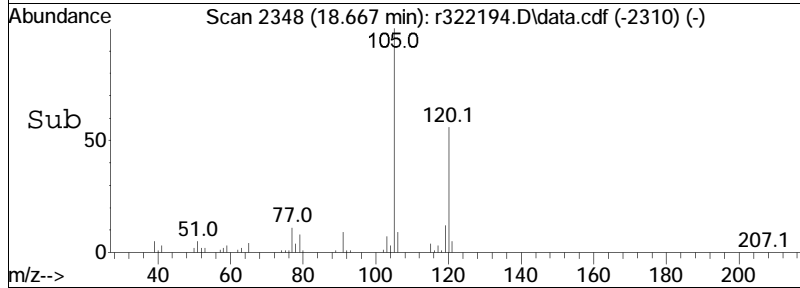
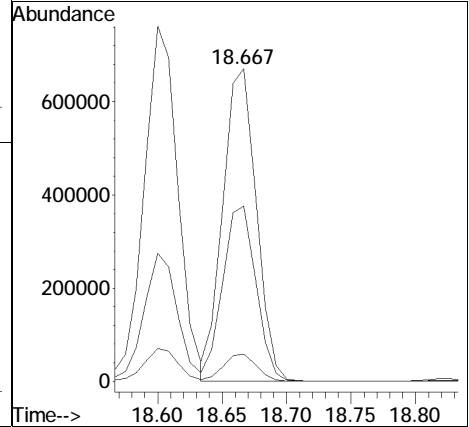
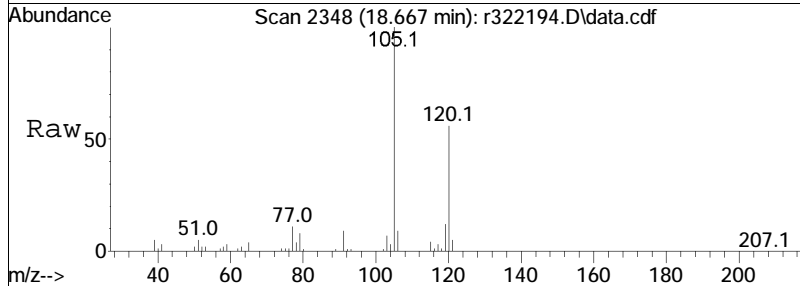
Tgt Ion	Ratio	Lower	Upper
105	100		
120	36.1	28.6	42.8
91	9.3	7.4	11.2

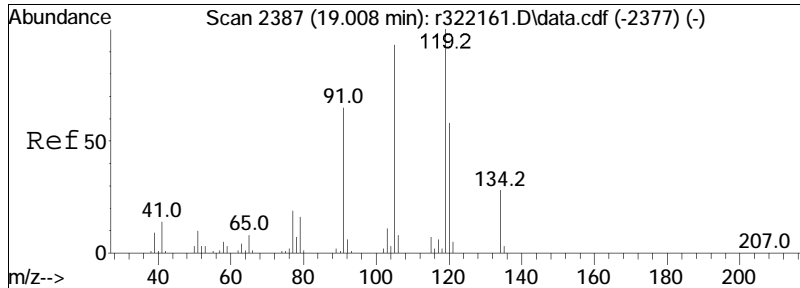




#97  
 1,3,5-trimethylbenzene  
 Concen: 11.45 ppbV  
 RT: 18.667 min Scan# 2348  
 Delta R.T. -0.017 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

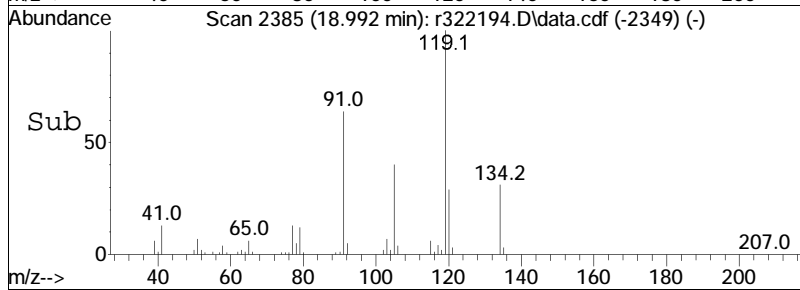
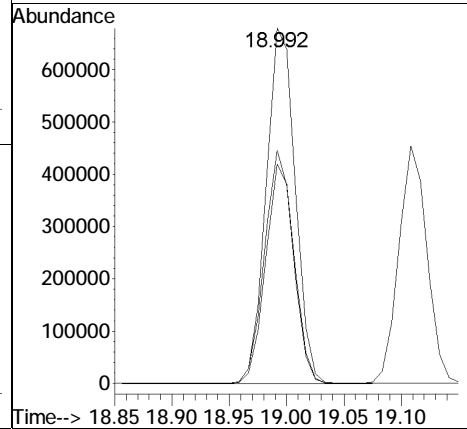
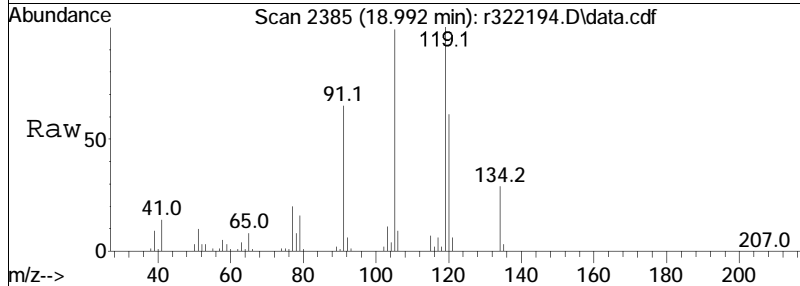
Tgt Ion	Resp	Lower	Upper
105	100		
120	56.0	43.7	65.5
91	8.8	7.0	10.4

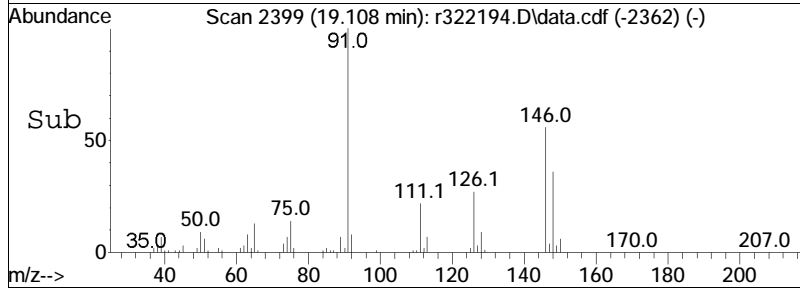
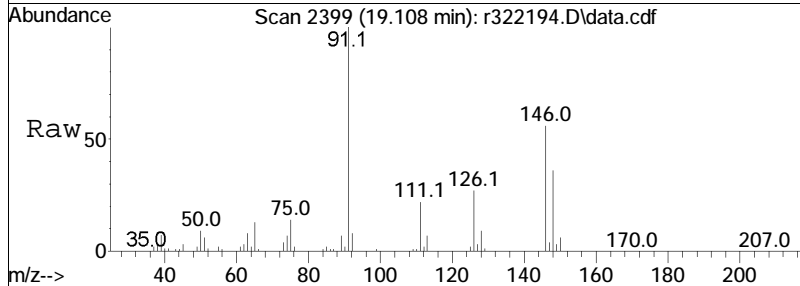
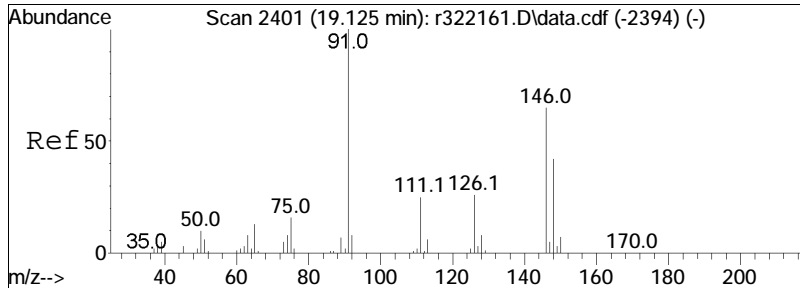




#99  
 1,2,4-trimethylbenzene  
 Concen: 12.94 ppbV  
 RT: 18.992 min Scan# 2385  
 Delta R.T. -0.017 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

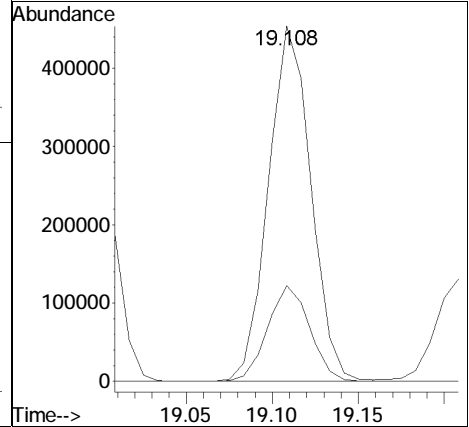
Tgt Ion	Ratio	Lower	Upper
105	100		
120	61.7	49.4	74.2
91	65.6	55.8	83.8



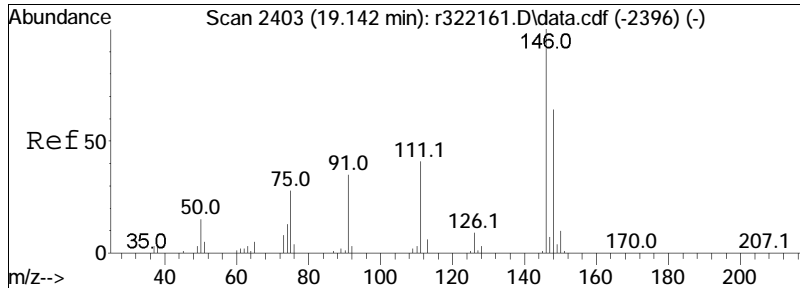


#101  
 Benzyl Chloride  
 Concen: 14.85 ppbV  
 RT: 19.108 min Scan# 2399  
 Delta R.T. -0.017 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

Tgt Ion: 91 Resp: 777787  
 Ion Ratio Lower Upper  
 91 100  
 126 27.0 20.9 31.3

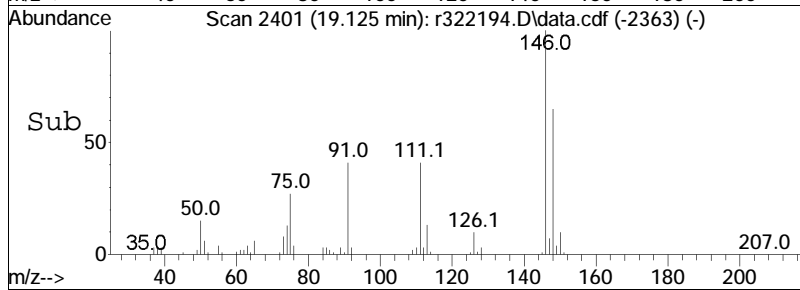
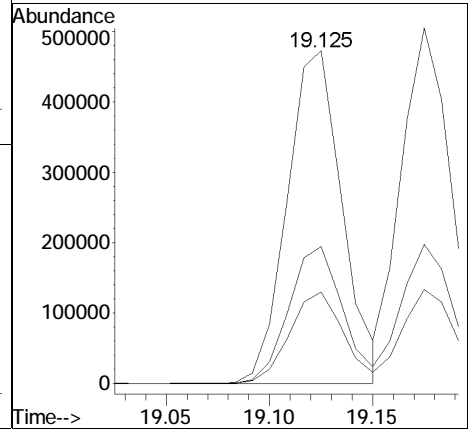
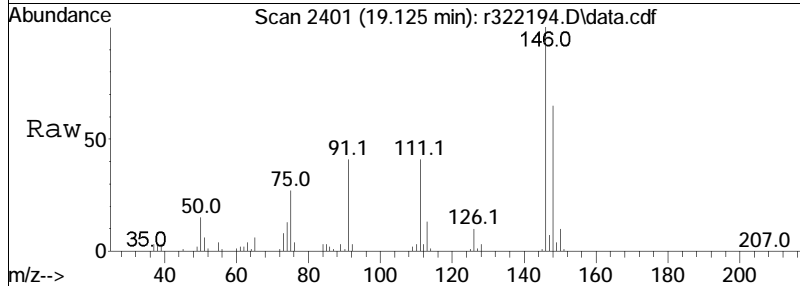


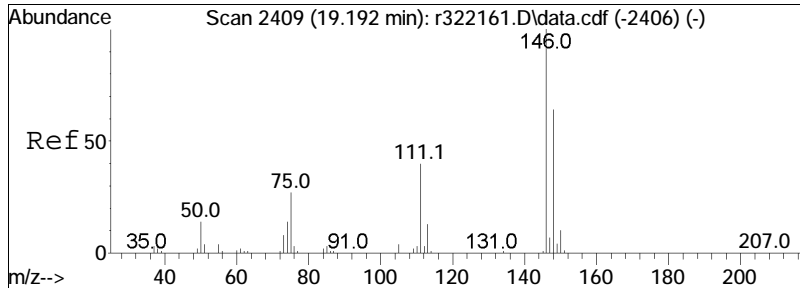




#102  
 1,3-dichlorobenzene  
 Concen: 12.51 ppbV  
 RT: 19.125 min Scan# 2401  
 Delta R.T. -0.017 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

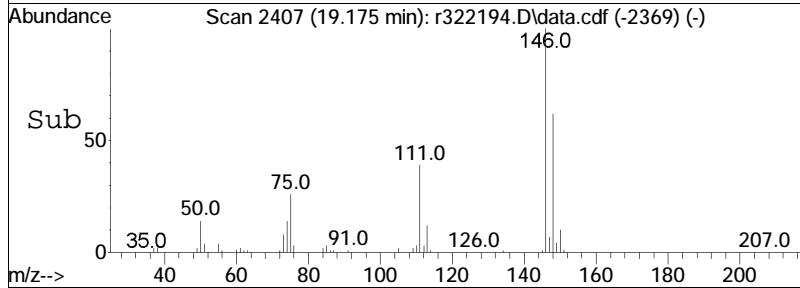
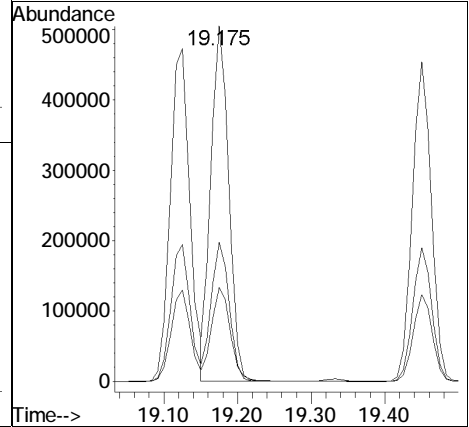
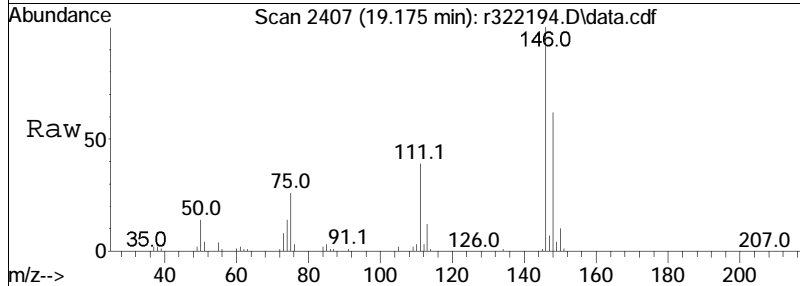
Tgt Ion	Ratio	Lower	Upper
146	100		
111	41.1	32.8	49.2
75	27.5	22.2	33.2

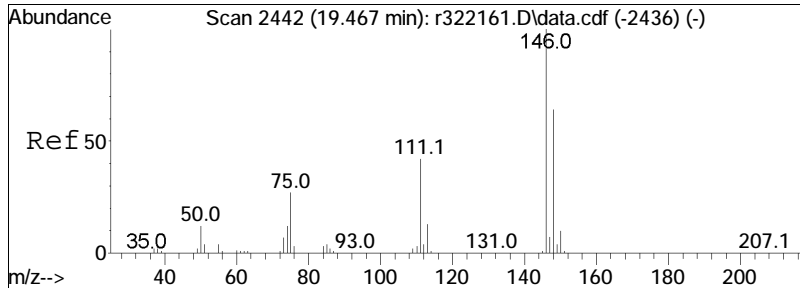




#103  
 1,4-dichlorobenzene  
 Concen: 12.54 ppbV  
 RT: 19.175 min Scan# 2407  
 Delta R.T. -0.017 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

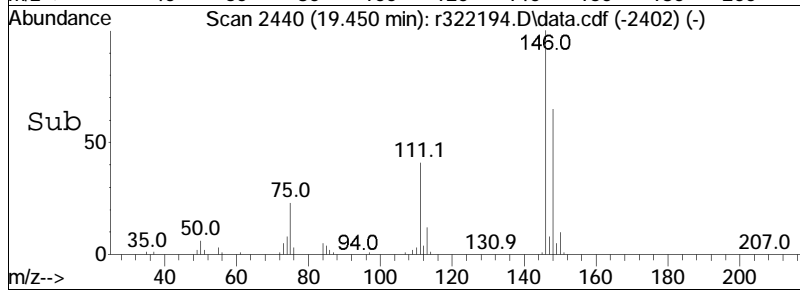
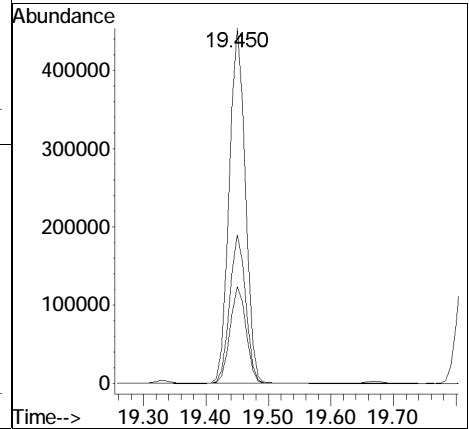
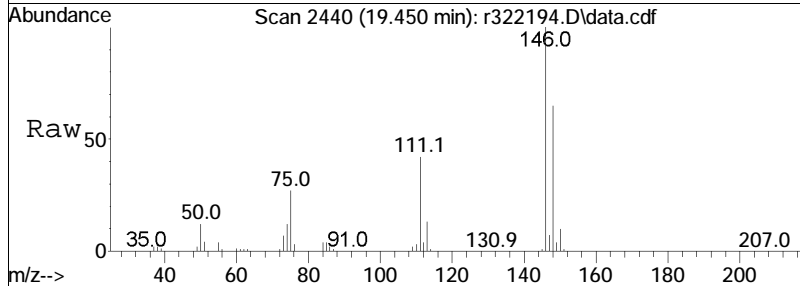
Tgt Ion	Ratio	Lower	Upper
146	100		
111	39.1	31.4	47.2
75	26.4	21.7	32.5

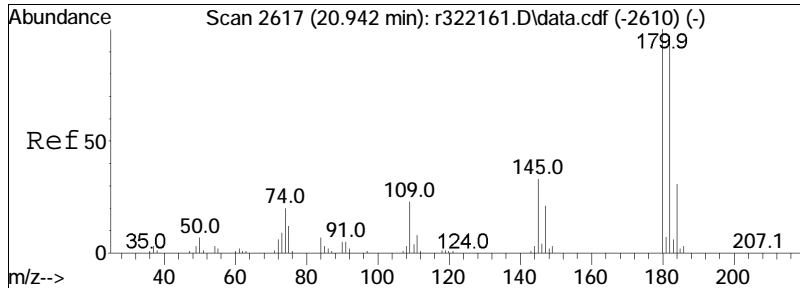




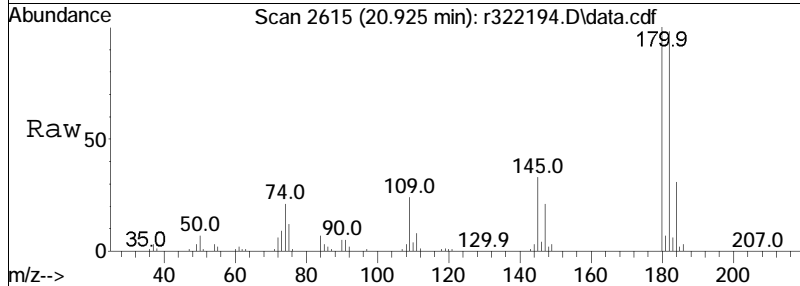
#107  
 1,2-dichlorobenzene  
 Concen: 12.42 ppbV  
 RT: 19.450 min Scan# 2440  
 Delta R.T. -0.017 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

Tgt Ion	Ratio	Lower	Upper
146	100		
111	41.9	33.4	50.2
75	27.2	21.8	32.8

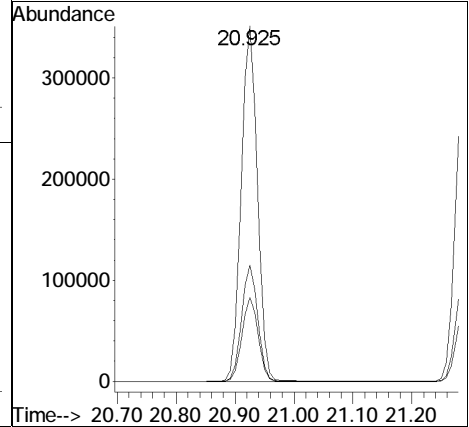
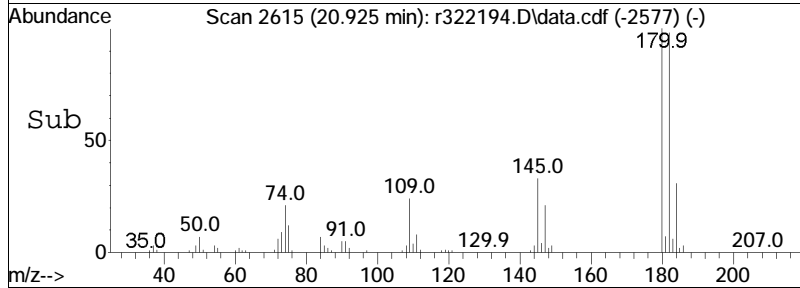


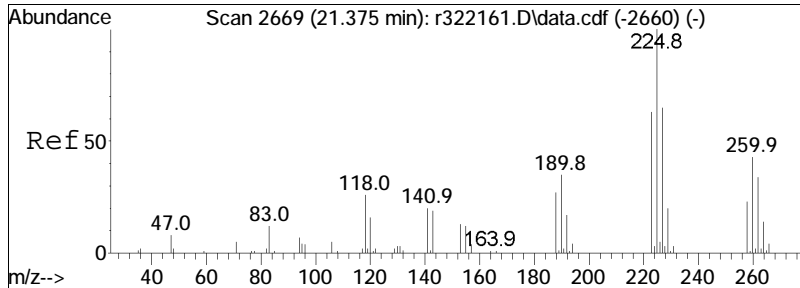


#115  
 1,2,4-trichlorobenzene  
 Concen: 12.96 ppbV  
 RT: 20.925 min Scan# 2615  
 Delta R.T. -0.017 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM



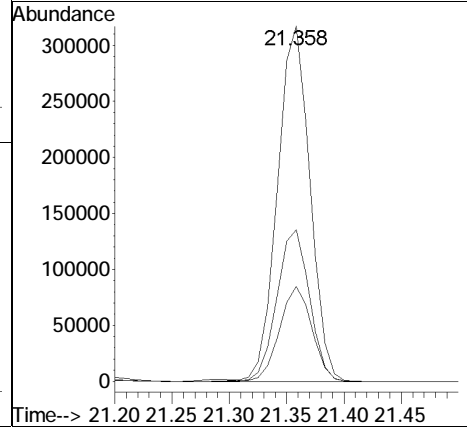
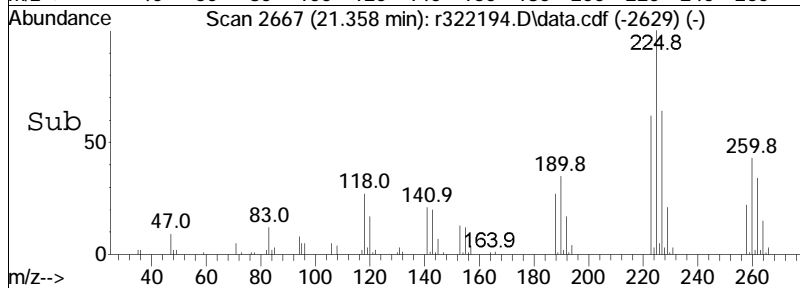
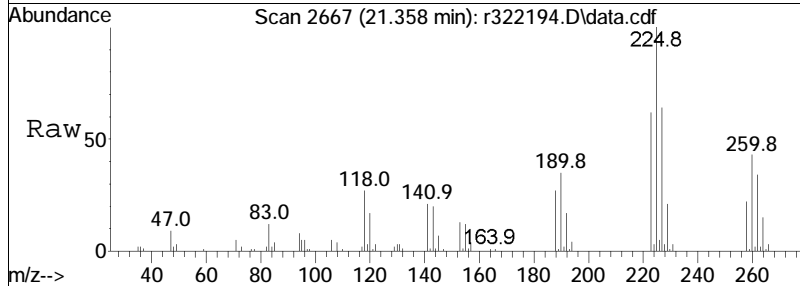
Tgt Ion	Resp	Lower	Upper
180	100		
145	32.7	26.3	39.5
109	23.7	18.6	28.0





#119  
 hexachlorobutadiene  
 Concen: 12.86 ppbV  
 RT: 21.358 min Scan# 2667  
 Delta R.T. -0.017 min  
 Lab File: r322194.D  
 Acq: 18 May 2022 1:48 PM

Tgt Ion	Ratio	Lower	Upper
225	100		
260	42.7	34.3	51.5
118	26.8	21.2	31.8



Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
 Data File : r322225.D  
 Acq On : 19 May 2022 2:23 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640711-3,3,250,250  
 Misc : WG1640711,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 16:50:01 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 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	104	-0.02
2	chlorodifluoromethane	10.000	10.824	-8.2	137	0.00
3	propylene	10.000	11.377	-13.8	155	0.00
4	propane	10.000	10.247	-2.5	135	0.00
5	dichlorodifluoromethane	10.000	10.732	-7.3	132	0.00
6 C	chloromethane	10.000	10.237	-2.4	133	-0.01
7	Freon-114	10.000	11.010	-10.1	136	0.00
8 C	methanol	50.000	40.210	19.6	88	-0.01
9 C	vinyl chloride	10.000	10.717	-7.2	136	0.00
10 C	1,3-butadiene	10.000	12.408	-24.1	160	-0.01
11	butane	10.000	10.498	-5.0	144	0.00
13 C	bromomethane	10.000	10.702	-7.0	137	0.00
14 C	chloroethane	10.000	10.466	-4.7	137	0.00
15	ethanol	50.000	58.856	-17.7	142	0.00
16	dichlorofluoromethane	10.000	11.910	-19.1	142	-0.01
17 C	vinyl bromide	10.000	11.684	-16.8	149	-0.01
18 C	acrolein	10.000	7.592	24.1	138	-0.01
19	acetone	50.000	61.336	-22.7	172	-0.01
20 C	acetonitrile	10.000	9.582	4.2	141	-0.01
21	trichlorofluoromethane	10.000	11.333	-13.3	140	-0.01
22	isopropyl alcohol	25.000	32.873	-31.5#	163	-0.02
23 C	acrylonitrile	10.000	11.286	-12.9	150	-0.02
24	pentane	10.000	11.238	-12.4	151	0.00
25	ethyl ether	10.000	10.427	-4.3	143	-0.01
26 C	1,1-dichloroethene	10.000	10.924	-9.2	139	-0.01
27	tertiary butyl alcohol	10.000	12.278	-22.8	158	-0.02
28 C	methylene chloride	10.000	9.157	8.4	112	-0.01
29 C	3-chloropropene	10.000	13.028	-30.3#	168	-0.02
30 C	carbon disulfide	10.000	11.301	-13.0	143	-0.01
31	Freon 113	10.000	11.140	-11.4	142	-0.01
32	trans-1,2-dichloroethene	10.000	11.296	-13.0	145	0.00
33 C	1,1-dichloroethane	10.000	10.686	-6.9	138	0.00
34 C	MTBE	10.000	12.422	-24.2	156	-0.02
35 C	vinyl acetate	10.000	11.552	-15.5	158	-0.02
36 C	2-butanone	10.000	11.308	-13.1	153	-0.02
37	cis-1,2-dichloroethene	10.000	10.860	-8.6	138	-0.02
38	Ethyl Acetate	10.000	12.054	-20.5	155	-0.02
39 C	chloroform	10.000	11.179	-11.8	139	0.00
40	Tetrahydrofuran	10.000	11.657	-16.6	152	-0.02

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
 Data File : r322225.D  
 Acq On : 19 May 2022 2:23 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640711-3,3,250,250  
 Misc : WG1640711,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 16:50:01 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 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	12.563	-25.6	152	-0.02
42 C	1,2-dichloroethane	10.000	10.515	-5.2	136	0.00
43 I	1,4-difluorobenzene	10.000	10.000	0.0	103	-0.01
44 C	hexane	10.000	11.444	-14.4	146	-0.02
45	diisopropyl ether	10.000	11.330	-13.3	147	0.00
46	tert-butyl ethyl ether	10.000	11.550	-15.5	145	-0.02
48 C	1,1,1-trichloroethane	10.000	11.123	-11.2	144	0.00
49	1,1-dichloropropene	10.000	11.958	-19.6	152	-0.01
50 C	benzene	10.000	9.516	4.8	134	-0.01
52 C	carbon tetrachloride	10.000	11.737	-17.4	143	-0.01
53	cyclohexane	10.000	11.589	-15.9	152	-0.01
54	tert-amyl methyl ether	10.000	11.747	-17.5	149	-0.01
55	dibromomethane	10.000	11.156	-11.6	147	-0.01
56 C	1,2-dichloropropane	10.000	10.630	-6.3	139	-0.01
57	bromodichloromethane	10.000	12.199	-22.0	155	-0.01
58 C	1,4-dioxane	10.000	11.789	-17.9	154	-0.01
59 C	trichloroethene	10.000	10.943	-9.4	139	-0.01
60 C	2,2,4-trimethylpentane	10.000	12.031	-20.3	158	0.00
61	methyl methacrylate	10.000	12.847	-28.5	168	-0.01
62	heptane	10.000	12.075	-20.7	159	0.00
63 C	cis-1,3-dichloropropene	10.000	11.928	-19.3	149	-0.02
64 C	4-methyl-2-pentanone	10.000	12.478	-24.8	156	-0.02
65	trans-1,3-dichloropropene	10.000	10.578	-5.8	128	-0.02
66 C	1,1,2-trichloroethane	10.000	11.147	-11.5	144	-0.02
67 I	chlorobenzene-D5	10.000	10.000	0.0	104	0.00
68 C	toluene	10.000	10.544	-5.4	137	0.00
71	1,3-dichloropropane	10.000	11.186	-11.9	145	-0.02
72	2-hexanone	10.000	12.344	-23.4	151	0.00
74	dibromochloromethane	10.000	13.238	-32.4#	164	0.00
75 C	1,2-dibromoethane	10.000	11.246	-12.5	141	0.00
76	butyl acetate	10.000	11.884	-18.8	145	0.00
77	octane	10.000	11.117	-11.2	144	0.00
78 C	tetrachloroethene	10.000	10.881	-8.8	138	0.00
79	1,1,1,2-tetrachloroethane	10.000	12.179	-21.8	149	0.00
80 C	chlorobenzene	10.000	10.929	-9.3	139	-0.02
81 C	ethylbenzene	10.000	10.965	-9.6	139	0.00
83 C	m+p-xylene	20.000	22.143	-10.7	137	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
 Data File : r322225.D  
 Acq On : 19 May 2022 2:23 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640711-3,3,250,250  
 Misc : WG1640711,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 16:50:01 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

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

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
84 C	bromoform	10.000	13.612	-36.1#	163	-0.02
85 C	styrene	10.000	11.296	-13.0	139	0.00
86 C	1,1,2,2-tetrachloroethane	10.000	11.357	-13.6	137	0.00
87 C	o-xylene	10.000	11.415	-14.1	139	0.00
88	1,2,3-trichloropropane	10.000	11.416	-14.2	144	0.00
89	nonane	10.000	11.291	-12.9	144	0.00
91 C	isopropylbenzene	10.000	11.972	-19.7	149	0.00
92	bromobenzene	10.000	11.554	-15.5	145	0.00
93	2-chlorotoluene	10.000	11.378	-13.8	143	0.00
94	n-propylbenzene	10.000	11.638	-16.4	145	0.00
95	4-chlorotoluene	10.000	11.450	-14.5	143	0.00
96	4-ethyl toluene	10.000	12.309	-23.1	149	0.00
97	1,3,5-trimethylbenzene	10.000	10.636	-6.4	122	0.00
98	tert-butylbenzene	10.000	11.941	-19.4	140	0.00
99	1,2,4-trimethylbenzene	10.000	11.918	-19.2	137	0.00
100	decane	10.000	11.687	-16.9	141	0.00
101 C	Benzyl Chloride	10.000	15.059	-50.6#	163	0.00
102	1,3-dichlorobenzene	10.000	11.669	-16.7	137	-0.02
103 C	1,4-dichlorobenzene	10.000	11.468	-14.7	137	0.00
104	sec-butylbenzene	10.000	12.019	-20.2	143	0.00
106	p-isopropyltoluene	10.000	11.807	-18.1	134	-0.02
107	1,2-dichlorobenzene	10.000	11.480	-14.8	138	0.00
108	n-butylbenzene	10.000	12.527	-25.3	147	0.00
111 C	1,2-dibromo-3-chloropropane	10.000	13.254	-32.5#	146	0.00
112	undecane	10.000	12.248	-22.5	140	0.00
114	dodecane	10.000	12.376	-23.8	130	0.00
115 C	1,2,4-trichlorobenzene	10.000	12.450	-24.5	139	0.00
116	naphthalene	10.000	13.266	-32.7#	148	0.00
117	1,2,3-trichlorobenzene	10.000	13.194	-31.9#	149	0.00
119 C	hexachlorobutadiene	10.000	11.720	-17.2	134	0.00

\* Evaluation of CC level amount vs concentration.  
 (#) = Out of Range SPCC's out = 0 CCC's out = 4



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
 Data File : r322225.D  
 Acq On : 19 May 2022 2:23 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640711-3,3,250,250  
 Misc : WG1640711,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 16:50:01 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0519T\r322225.D  
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) bromochloromethane	9.550	49	440035	10.000	ppbV	-0.02
Standard Area =	440035		Recovery =	100.00%		
43) 1,4-difluorobenzene	11.827	114	1334123	10.000	ppbV	-0.01
Standard Area =	1334123		Recovery =	100.00%		
67) chlorobenzene-D5	16.575	54	210666	10.000	ppbV	0.00
Standard Area =	210666		Recovery =	100.00%		

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) dichlorodifluoromethane	3.946	85	371430	10.732	ppbV	100
6) chloromethane	4.126	50	170329	10.237	ppbV	99
7) Freon-114	4.258	85	495249	11.010	ppbV	100
9) vinyl chloride	4.390	62	230565	10.717	ppbV	99
10) 1,3-butadiene	4.552	54	215283	12.408	ppbV	98
13) bromomethane	4.870	94	184081	10.702	ppbV	100
14) chloroethane	5.092	64	115264	10.466	ppbV	100
15) ethanol	5.263	31	995008	58.856	ppbV	99
17) vinyl bromide	5.517	106	191879	11.684	ppbV	100
19) acetone	5.830	43	1478577	61.336	ppbV	97
21) trichlorofluoromethane	6.040	101	356694	11.333	ppbV	99
22) isopropyl alcohol	6.160	45	953568	32.873	ppbV	100
26) 1,1-dichloroethene	6.818	61	304748	10.924	ppbV	99
27) tertiary butyl alcohol	6.890	59	443136	12.278	ppbV	100
28) methylene chloride	6.986	49	251394	9.157	ppbV	100
29) 3-chloropropene	7.124	41	342365M4	13.028	ppbV	
30) carbon disulfide	7.280	76	711031	11.301	ppbV	100
31) Freon 113	7.322	101	391992	11.140	ppbV	98
32) trans-1,2-dichloroethene	8.125	61	322303	11.296	ppbV	99
33) 1,1-dichloroethane	8.358	63	365512	10.686	ppbV	100
34) MTBE	8.433	73	635425	12.422	ppbV	100
36) 2-butanone	8.842	43	495671	11.308	ppbV	99
37) cis-1,2-dichloroethene	9.358	61	276553	10.860	ppbV	99
38) Ethyl Acetate	9.658	61	86052	12.054	ppbV	91
39) chloroform	9.717	83	385011	11.179	ppbV	98
40) Tetrahydrofuran	10.158	42	294942	11.657	ppbV	100
42) 1,2-dichloroethane	10.567	62	226166	10.515	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
 Data File : r322225.D  
 Acq On : 19 May 2022 2:23 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640711-3,3,250,250  
 Misc : WG1640711,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 16:50:01 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0519T\r322225.D  
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) hexane	9.625	57	435200	11.444	ppbV	97
48) 1,1,1-trichloroethane	10.858	97	320093	11.123	ppbV	99
50) benzene	11.387	78	743208	9.516	ppbV	100
52) carbon tetrachloride	11.560	117	313476	11.737	ppbV	98
53) cyclohexane	11.707	56	458348	11.589	ppbV	99
56) 1,2-dichloropropane	12.347	63	250251	10.630	ppbV	100
57) bromodichloromethane	12.580	83	450826	12.199	ppbV	100
58) 1,4-dioxane	12.620	88	188082	11.789	ppbV	98
59) trichloroethene	12.627	130	329061	10.943	ppbV	99
60) 2,2,4-trimethylpentane	12.680	57	1414077	12.031	ppbV	99
62) heptane	13.000	43	529248	12.075	ppbV	99
63) cis-1,3-dichloropropene	13.642	75	398857	11.928	ppbV	99
64) 4-methyl-2-pentanone	13.683	43	626569	12.478	ppbV	99
65) trans-1,3-dichloropropene	14.267	75	318810	10.578	ppbV	100
66) 1,1,2-trichloroethane	14.467	97	278872	11.147	ppbV	98
68) toluene	14.783	91	834472	10.544	ppbV	99
72) 2-hexanone	15.067	43	587877	12.344	ppbV	96
74) dibromochloromethane	15.233	129	482609	13.238	ppbV	98
75) 1,2-dibromoethane	15.483	107	428530	11.246	ppbV	99
78) tetrachloroethene	15.950	166	417190	10.881	ppbV	98
80) chlorobenzene	16.608	112	742373	10.929	ppbV	98
81) ethylbenzene	16.967	91	1041118	10.965	ppbV	100
83) m+p-xylene	17.125	91	1717566	22.143	ppbV	99
84) bromoform	17.192	173	461636	13.612	ppbV	100
85) styrene	17.450	104	779669	11.296	ppbV	99
86) 1,1,2,2-tetrachloroethane	17.550	83	653948	11.357	ppbV	100
87) o-xylene	17.550	91	882605	11.415	ppbV	100
96) 4-ethyl toluene	18.608	105	1448471	12.309	ppbV	99
97) 1,3,5-trimethylbenzene	18.675	105	1146218	10.636	ppbV	100
99) 1,2,4-trimethylbenzene	19.000	105	1125044	11.918	ppbV	99
101) Benzyl Chloride	19.117	91	803365	15.059	ppbV	98
102) 1,3-dichlorobenzene	19.125	146	831907	11.669	ppbV	97
103) 1,4-dichlorobenzene	19.183	146	794943	11.468	ppbV	100
107) 1,2-dichlorobenzene	19.458	146	765814	11.480	ppbV	100
115) 1,2,4-trichlorobenzene	20.933	180	656308	12.450	ppbV	100
119) hexachlorobutadiene	21.367	225	579628	11.720	ppbV	100

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
Data File : r322225.D  
Acq On : 19 May 2022 2:23 PM  
Operator : AIRPIANO3:TS  
Sample : WG1640711-3,3,250,250  
Misc : WG1640711,ICAL19030  
ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 16:50:01 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 15:52:12 2022  
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0519T\r322225.D  
Sub List : Default-LCS-AP2 - All compounds listed

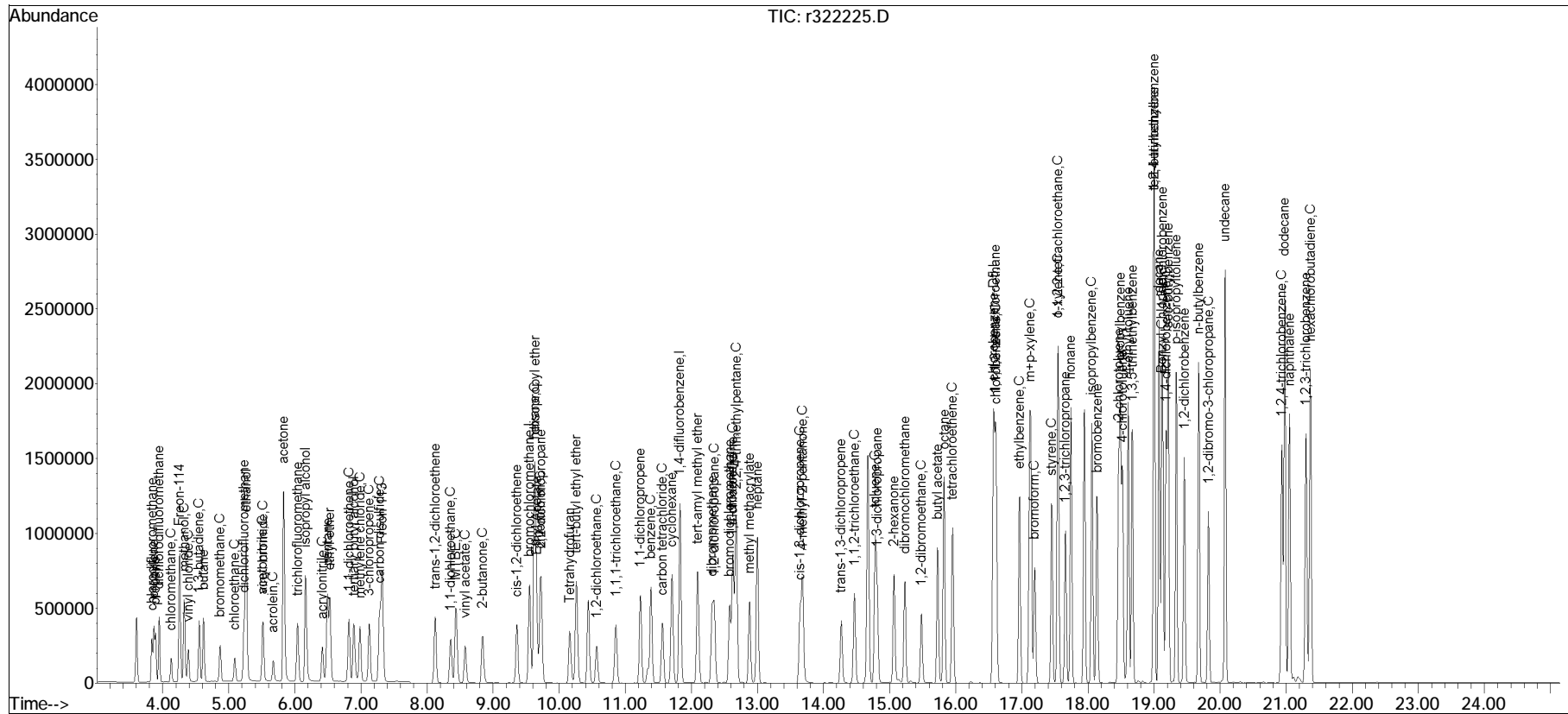
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
----------	------	------	----------	------	-------	----------

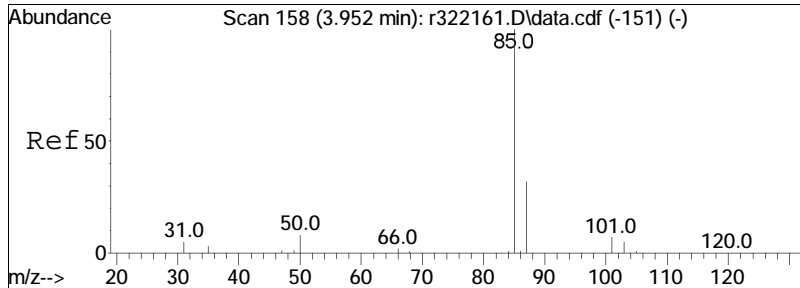
-----

Sub List : Default-LCS-AP2 - All compounds listed19T\r322225.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
Data File : r322225.D  
Acq On : 19 May 2022 2:23 PM  
Operator : AIRPIANO3:TS  
Sample : WG1640711-3,3,250,250  
Misc : WG1640711,ICAL19030  
ALS Vial : 0 Sample Multiplier: 1

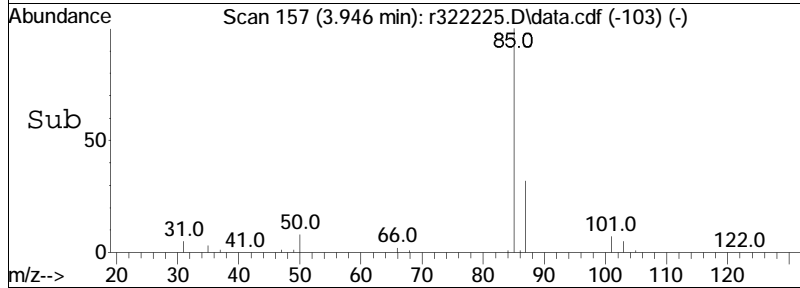
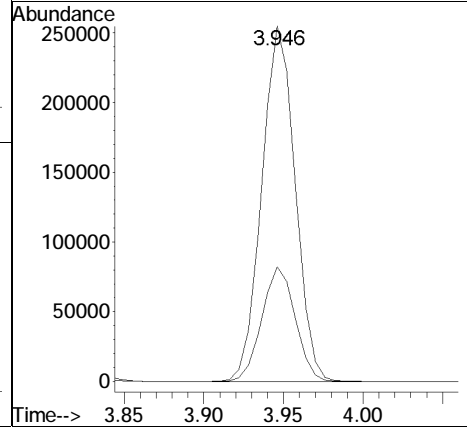
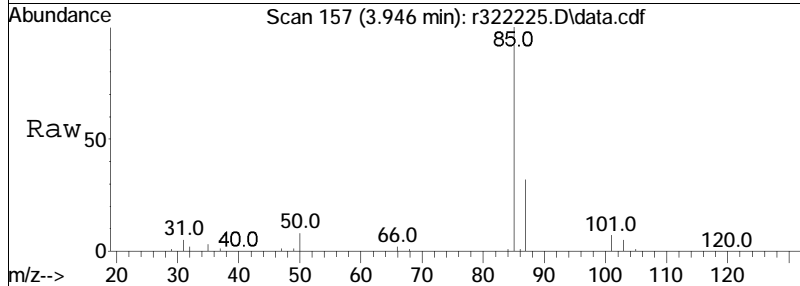
Quant Time: May 19 16:50:01 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 15:52:12 2022  
Response via : Initial Calibration

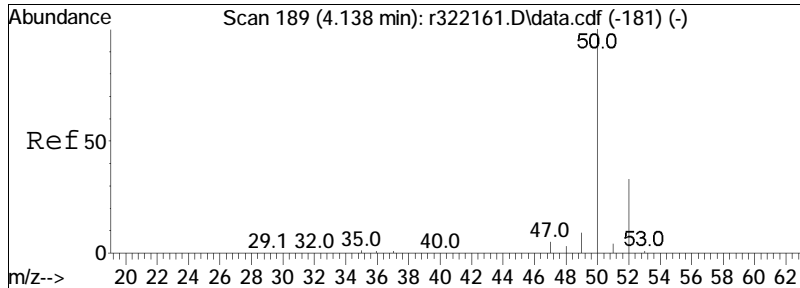




#5  
 dichlorodifluoromethane  
 Concen: 10.73 ppbV  
 RT: 3.946 min Scan# 157  
 Delta R.T. -0.006 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

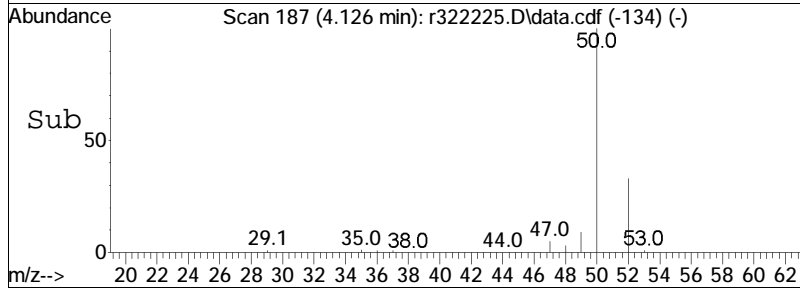
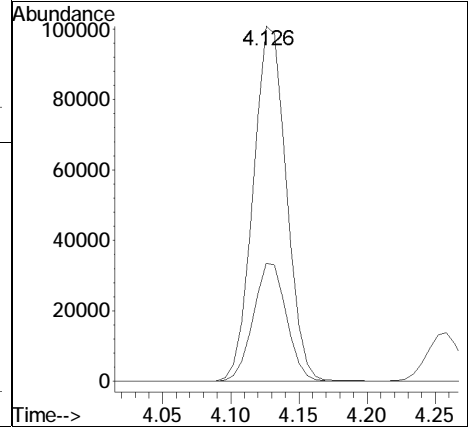
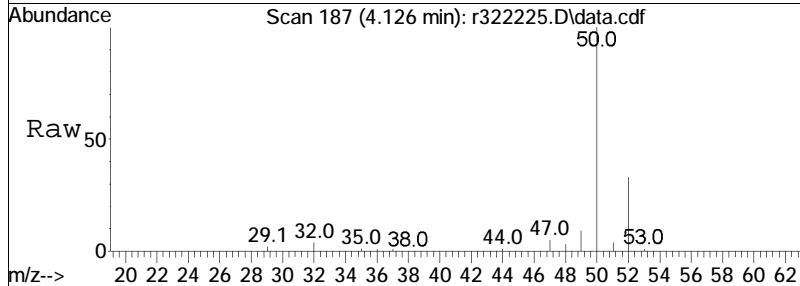
Tgt Ion: 85 Resp: 371430  
 Ion Ratio Lower Upper  
 85 100  
 87 32.3 25.8 38.6

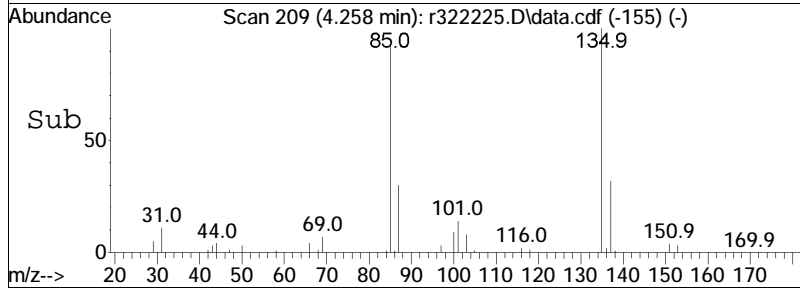
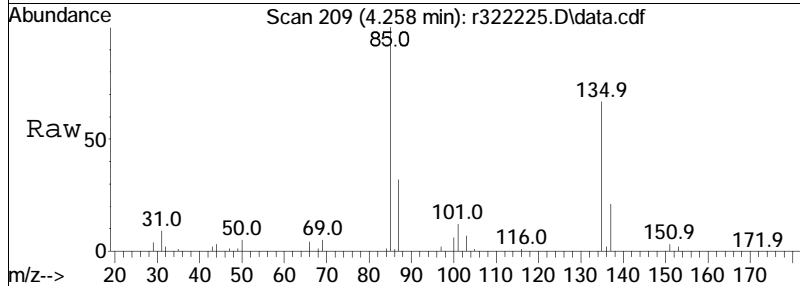
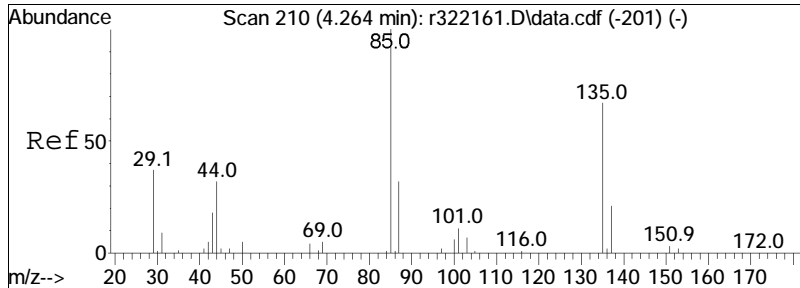




#6  
 chloromethane  
 Concen: 10.24 ppbV  
 RT: 4.126 min Scan# 187  
 Delta R.T. -0.012 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

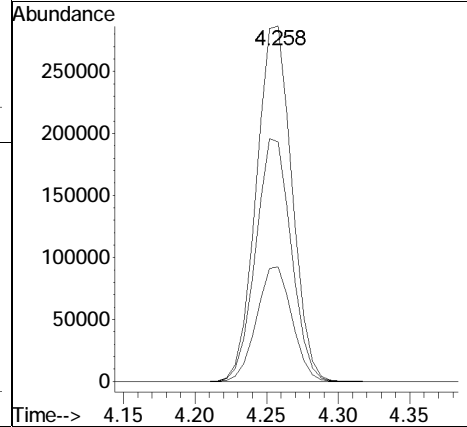
Tgt Ion	Resp	Lower	Upper
50	170329		
50	100		
52	33.3	26.3	39.5

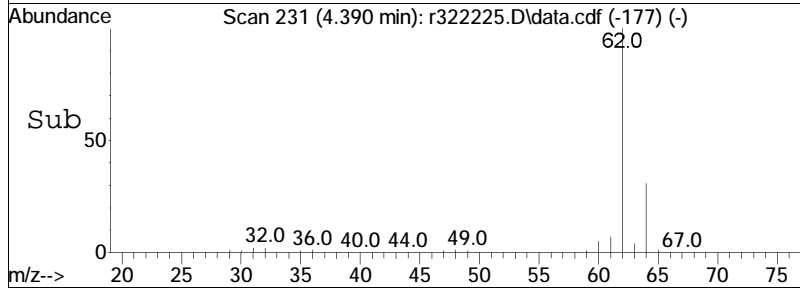
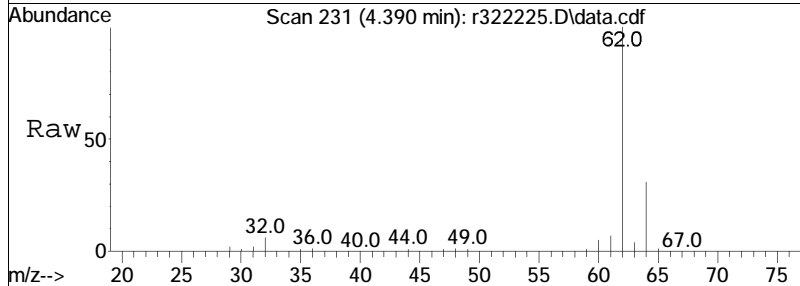
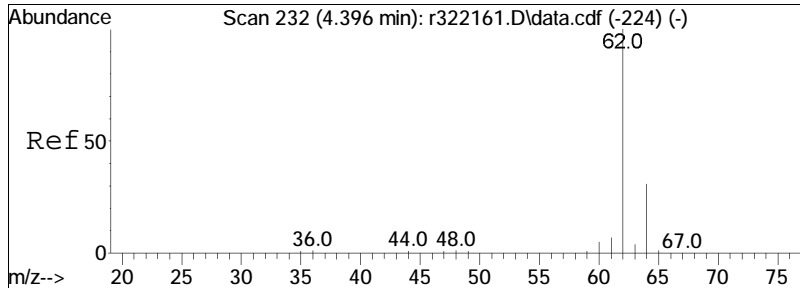




#7  
 Freon-114  
 Concen: 11.01 ppbV  
 RT: 4.258 min Scan# 209  
 Delta R.T. -0.006 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

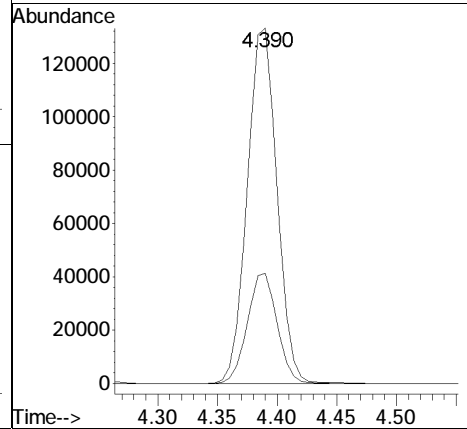
Tgt Ion:	85	Resp:	495249
Ion Ratio	Lower	Upper	
85	100		
87	32.2	25.7	38.5
135	67.4	53.8	80.6



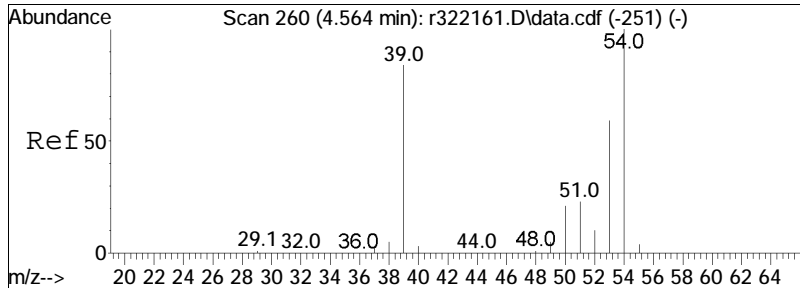


#9  
 vinyl chloride  
 Concen: 10.72 ppbV  
 RT: 4.390 min Scan# 231  
 Delta R.T. -0.006 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

Tgt Ion:	62	Resp:	230565
Ion Ratio	Lower	Upper	
62	100		
64	31.0	24.4	36.6

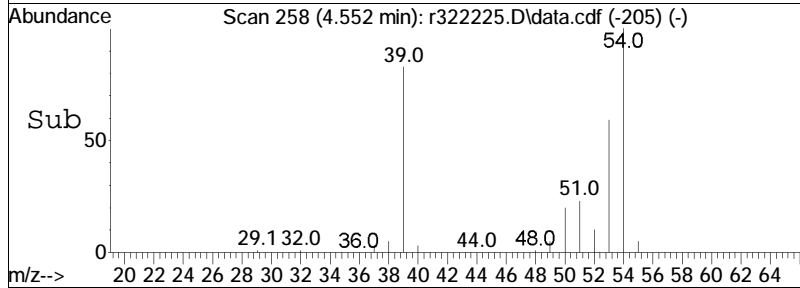
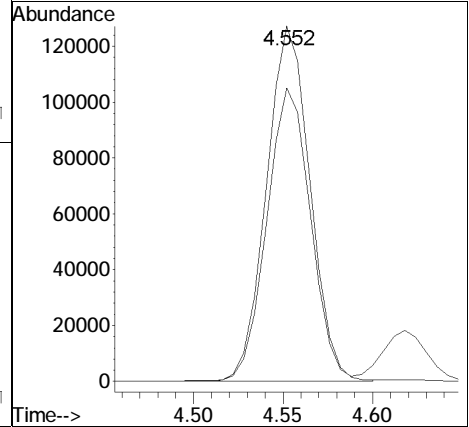
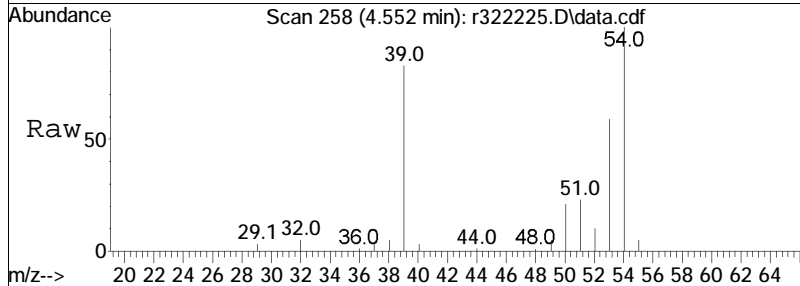


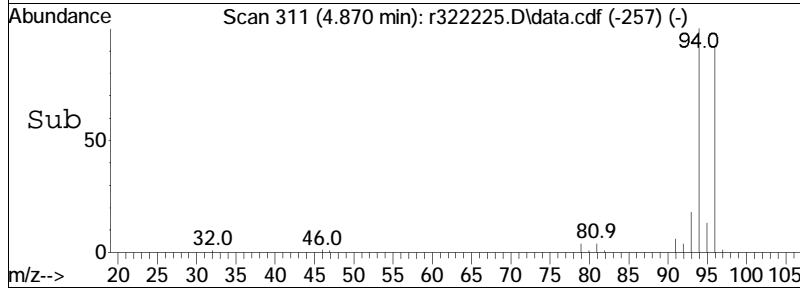
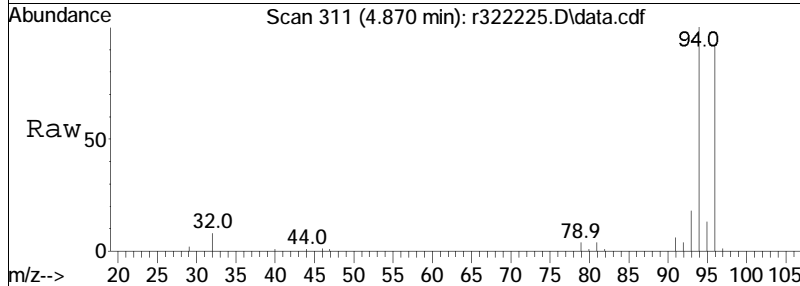
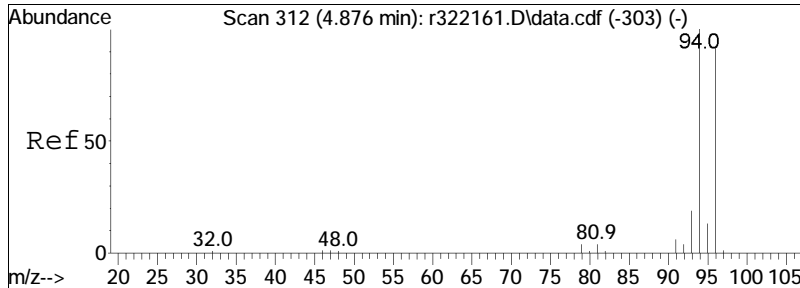




#10  
 1,3-butadiene  
 Concen: 12.41 ppbV  
 RT: 4.552 min Scan# 258  
 Delta R.T. -0.012 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

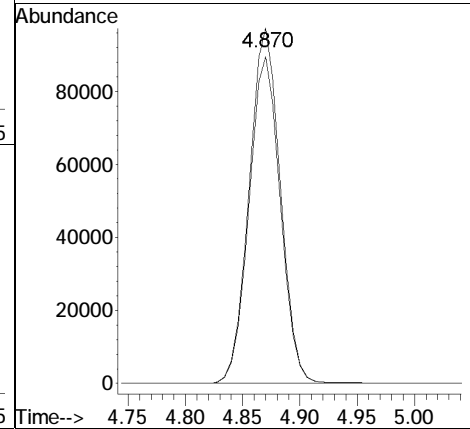
Tgt Ion:	Resp:	Lower	Upper
54	100		
39	82.6	67.8	101.8

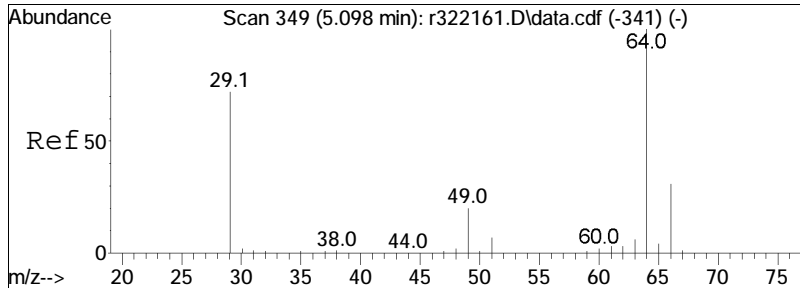




#13  
 bromomethane  
 Concen: 10.70 ppbV  
 RT: 4.870 min Scan# 311  
 Delta R.T. -0.006 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

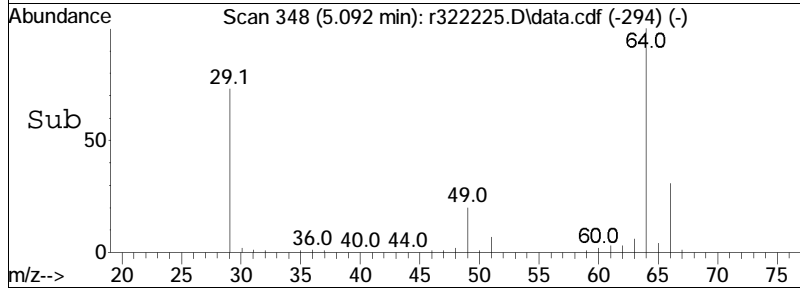
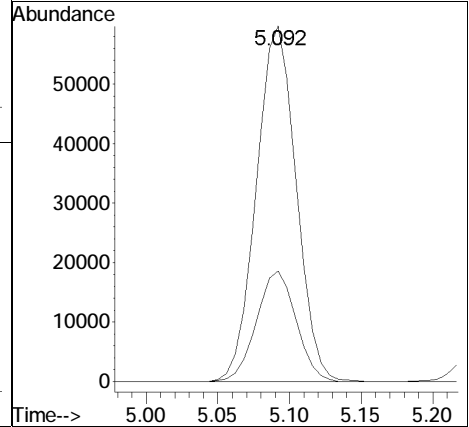
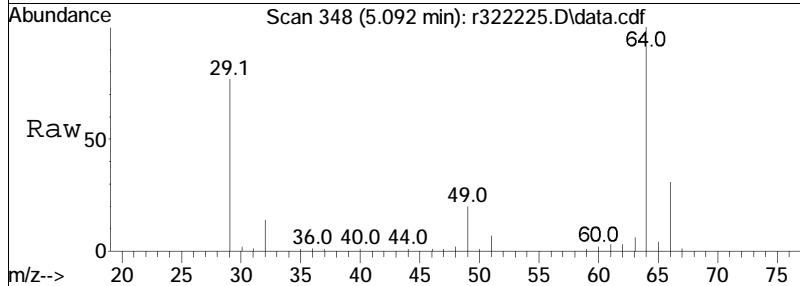
Tgt Ion:	94	Resp:	184081
Ion Ratio	Lower	Upper	
94	100		
96	91.9	73.8	110.6

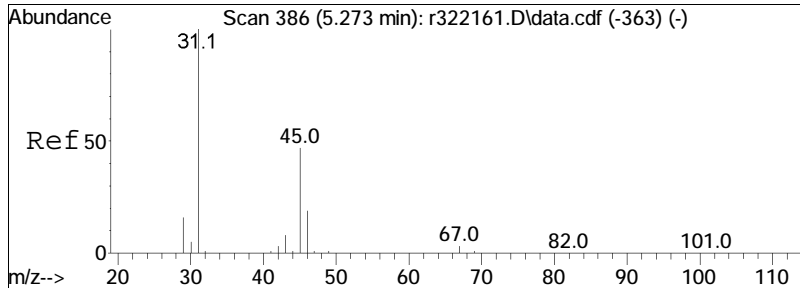




#14  
 chloroethane  
 Concen: 10.47 ppbV  
 RT: 5.092 min Scan# 348  
 Delta R.T. -0.006 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

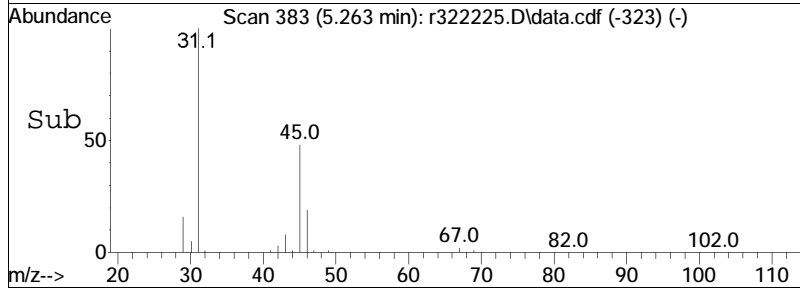
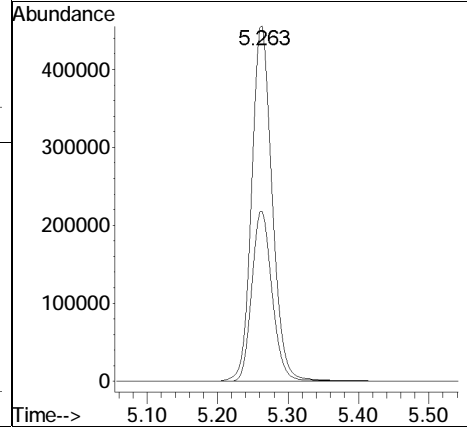
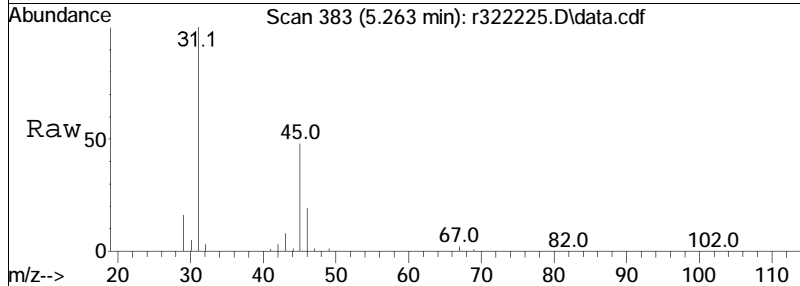
Tgt Ion: 64 Resp: 115264  
 Ion Ratio Lower Upper  
 64 100  
 66 31.1 24.9 37.3

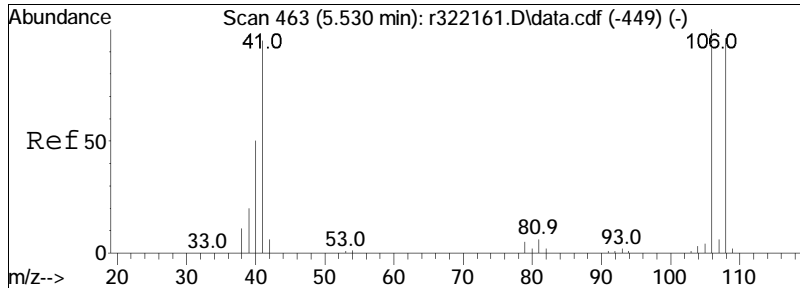




#15  
 ethanol  
 Concen: 58.86 ppbV  
 RT: 5.263 min Scan# 383  
 Delta R.T. -0.010 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

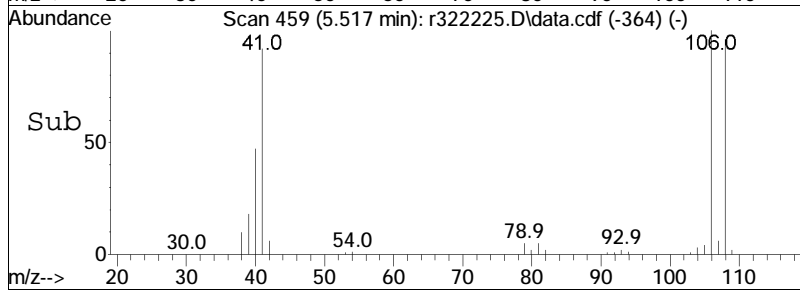
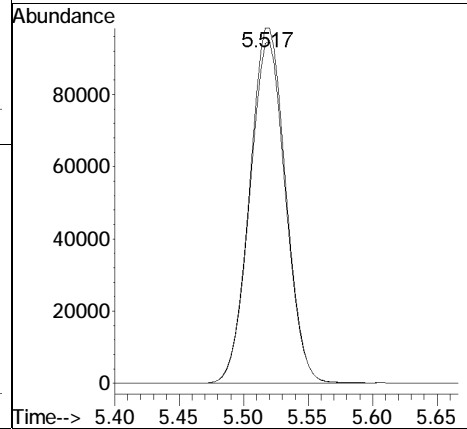
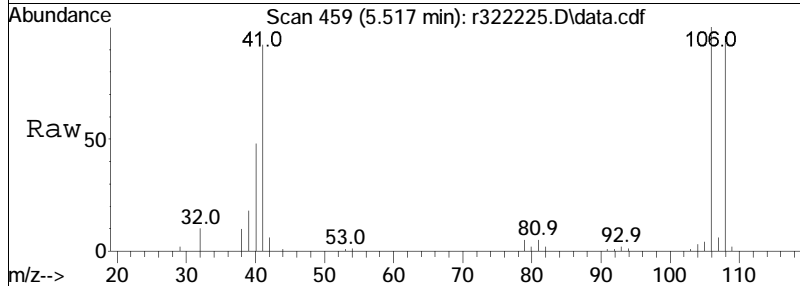
Tgt Ion	Resp	Lower	Upper
31	100		
45	47.7	37.6	56.4

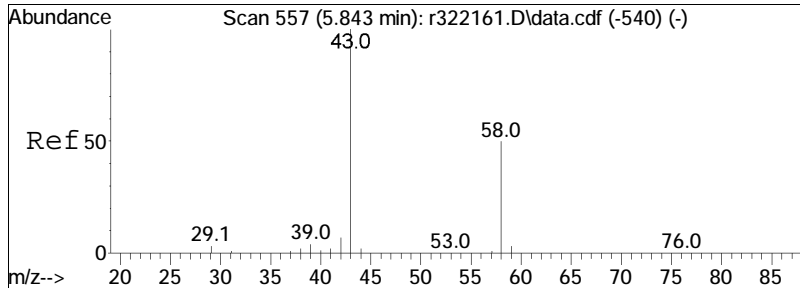




#17  
 vinyl bromide  
 Concen: 11.68 ppbV  
 RT: 5.517 min Scan# 459  
 Delta R.T. -0.013 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

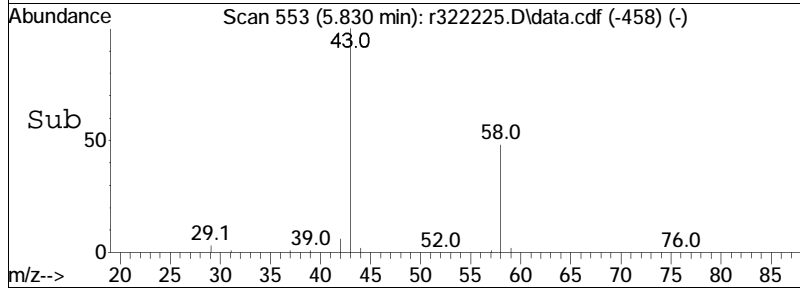
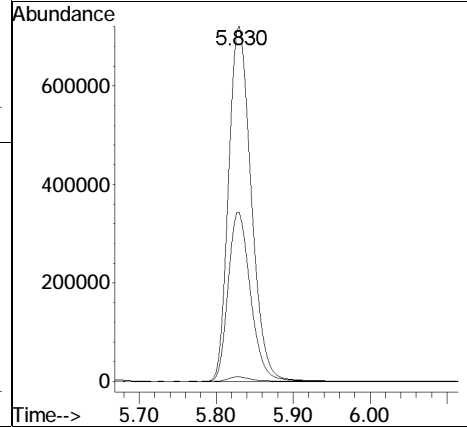
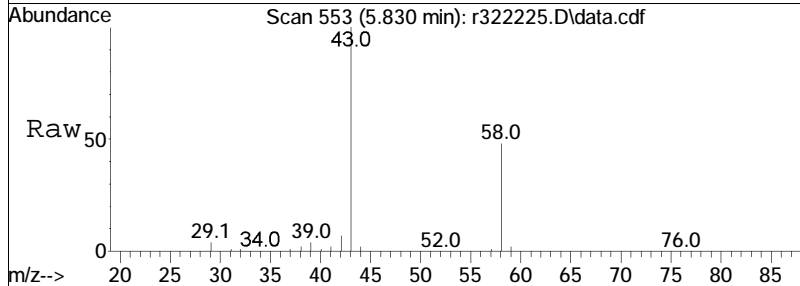
Tgt Ion	Resp	Lower	Upper
106	191879		
106	100		
108	95.7	76.9	115.3

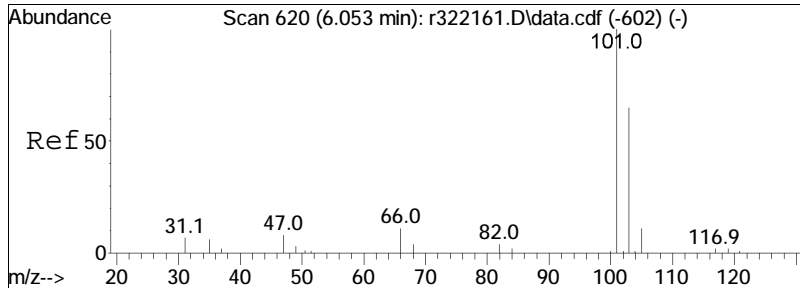




#19  
 acetone  
 Concen: 61.34 ppbV  
 RT: 5.830 min Scan# 553  
 Delta R.T. -0.013 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

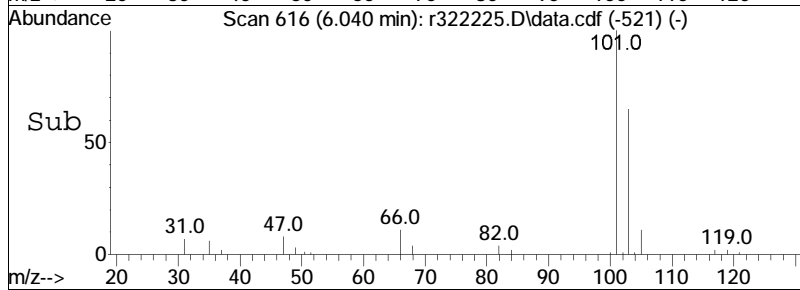
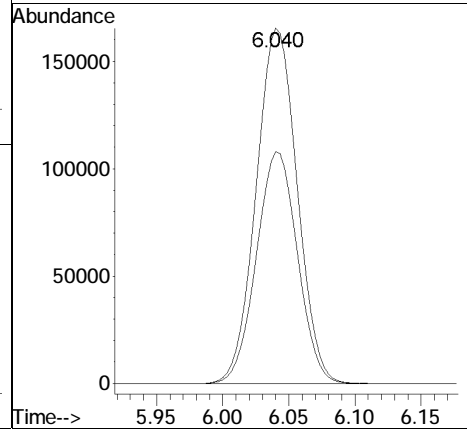
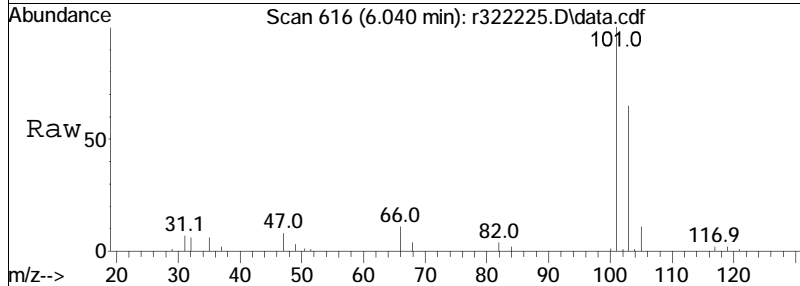
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
43	100		
58	47.5	39.8	59.8
57	1.3	1.0	1.6

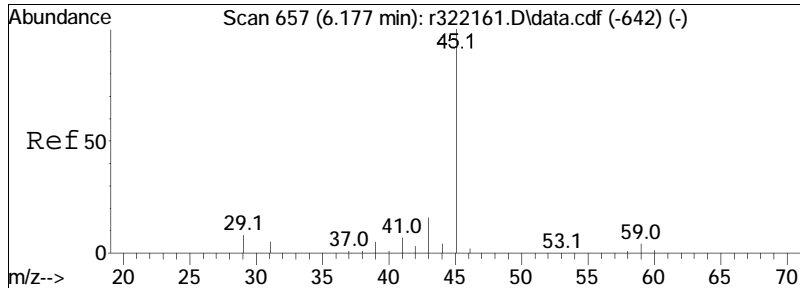




#21  
 trichlorofluoromethane  
 Concen: 11.33 ppbV  
 RT: 6.040 min Scan# 616  
 Delta R.T. -0.013 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

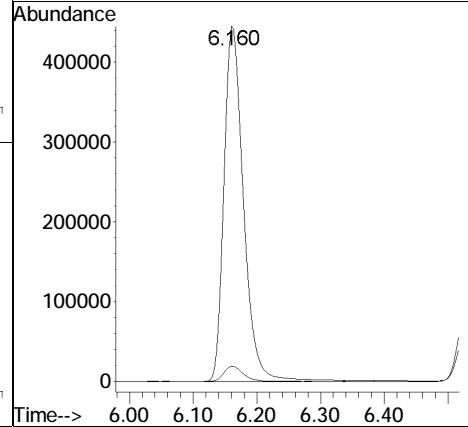
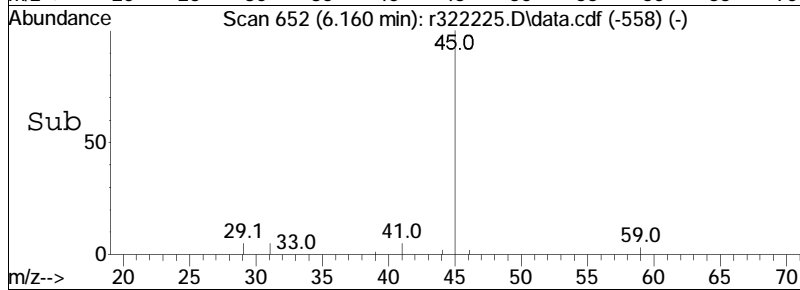
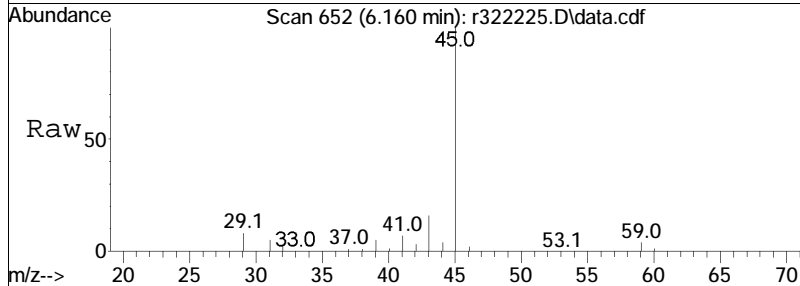
Tgt Ion	Resp	Lower	Upper
101	100		
103	65.3	51.8	77.6



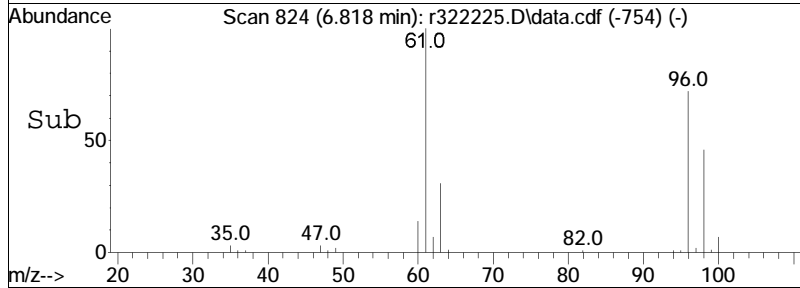
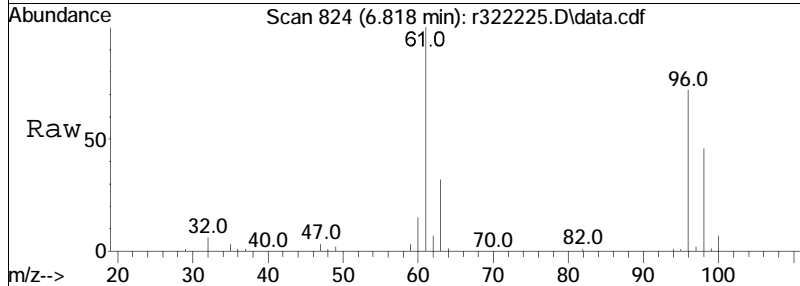
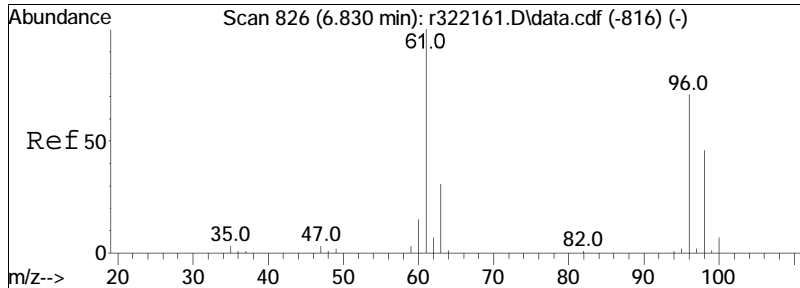


#22  
 isopropyl alcohol  
 Concen: 32.87 ppbV  
 RT: 6.160 min Scan# 652  
 Delta R.T. -0.017 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

Tgt Ion	Resp	Lower	Upper
45	100		
59	4.3	3.5	5.3

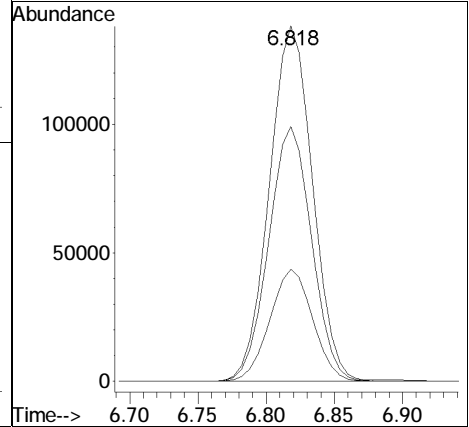


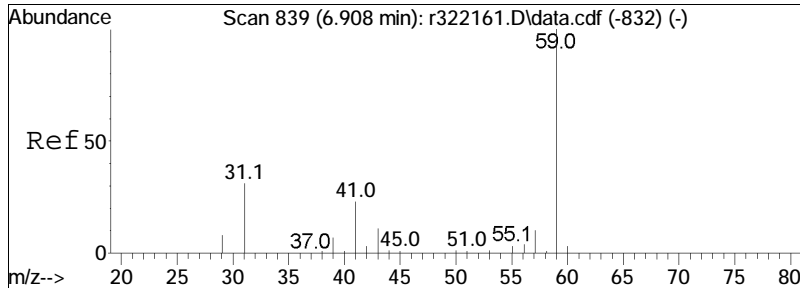




#26  
 1,1-dichloroethene  
 Concen: 10.92 ppbV  
 RT: 6.818 min Scan# 824  
 Delta R.T. -0.012 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

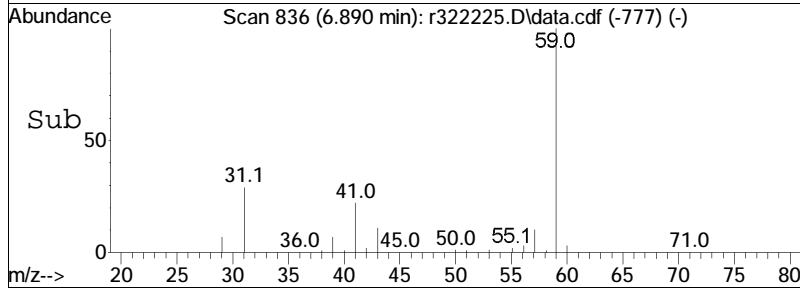
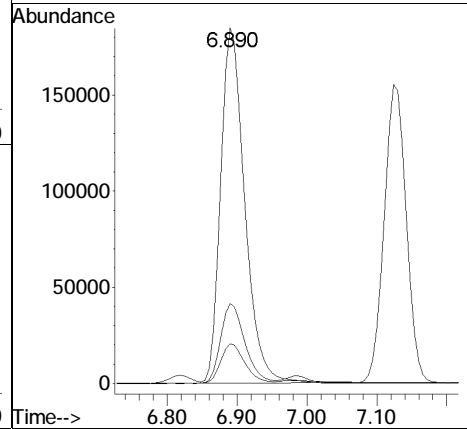
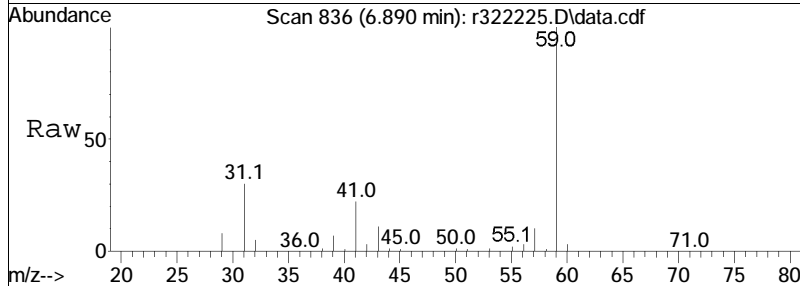
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
61	100		
96	71.8	56.9	85.3
63	31.6	25.0	37.4

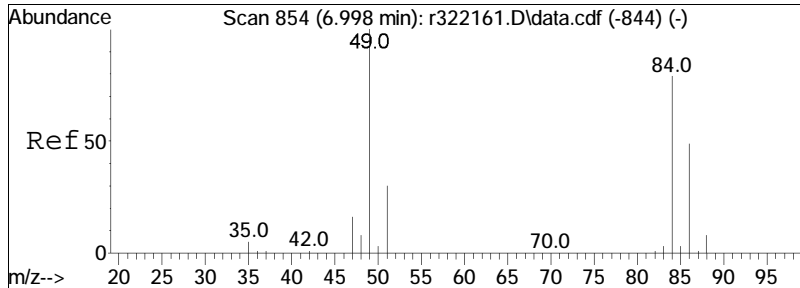




#27  
 tertiary butyl alcohol  
 Concen: 12.28 ppbV  
 RT: 6.890 min Scan# 836  
 Delta R.T. -0.018 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

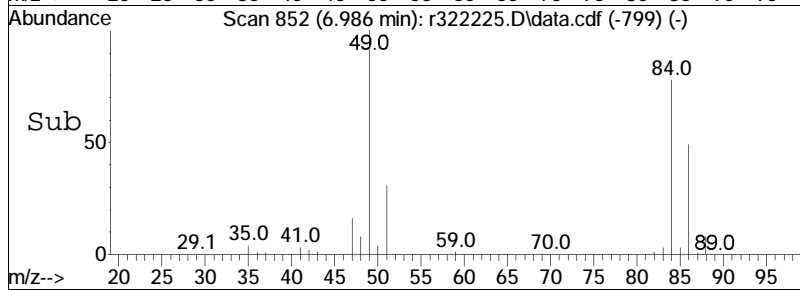
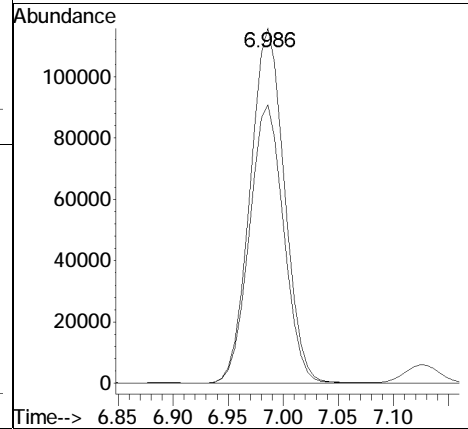
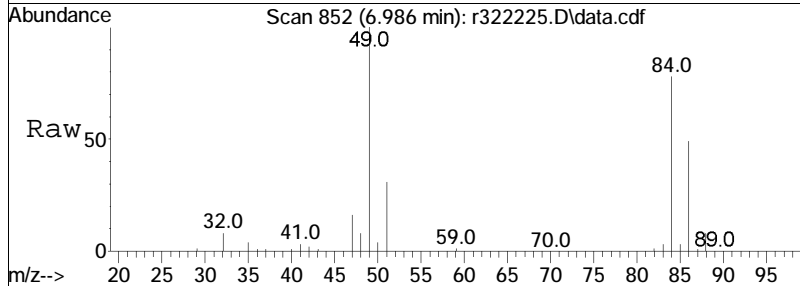
Tgt Ion	Resp	Lower	Upper
59	443136		
Ion Ratio			
59	100		
41	22.5	18.2	27.2
43	11.2	8.9	13.3

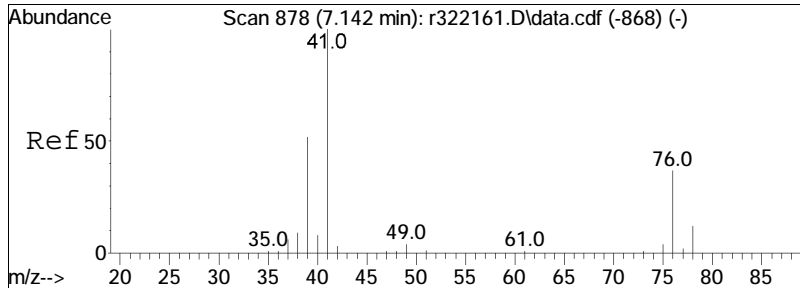




#28  
 methylene chloride  
 Concen: 9.16 ppbV  
 RT: 6.986 min Scan# 852  
 Delta R.T. -0.012 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

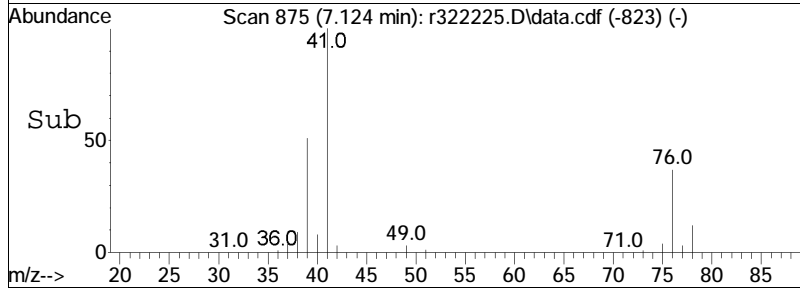
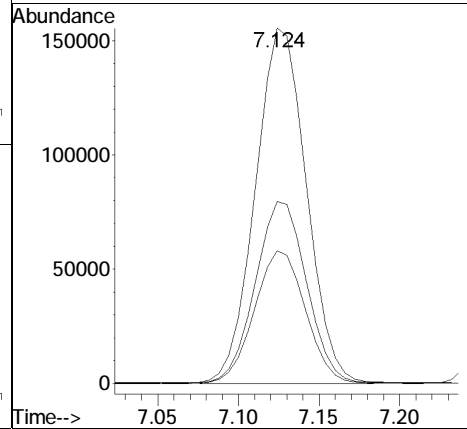
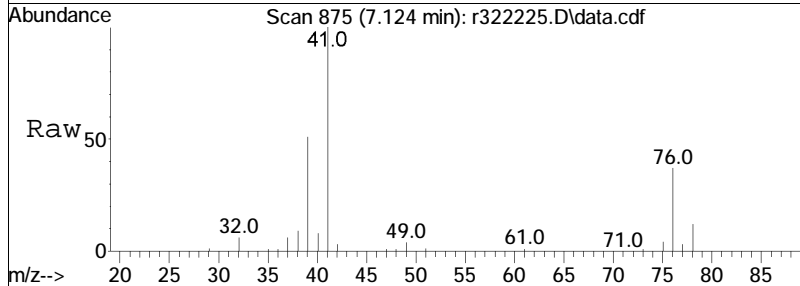
Tgt Ion:	Resp:	Lower	Upper
49	100		
84	78.5	63.0	94.6

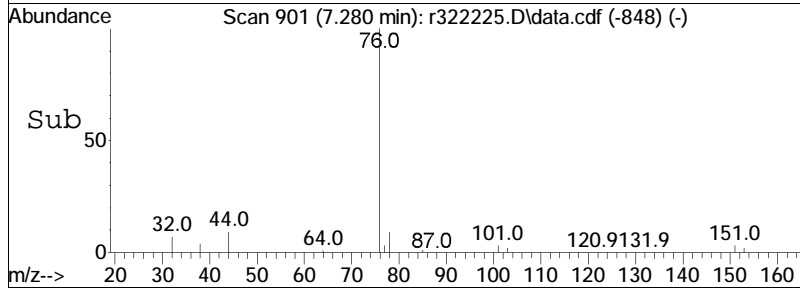
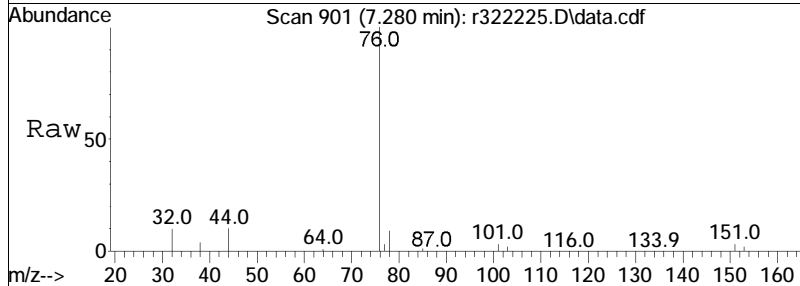
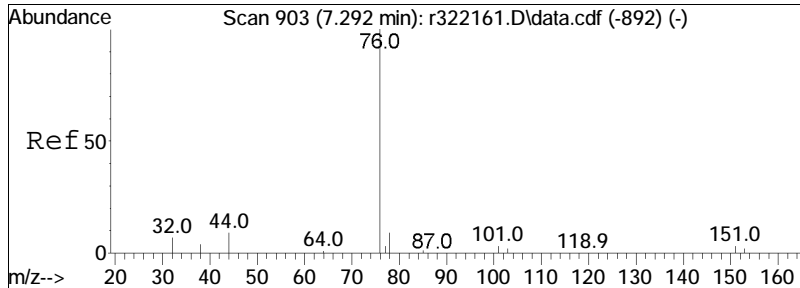




#29  
 3-chloropropene  
 Concen: 13.03 ppbV m  
 RT: 7.124 min Scan# 875  
 Delta R.T. -0.018 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

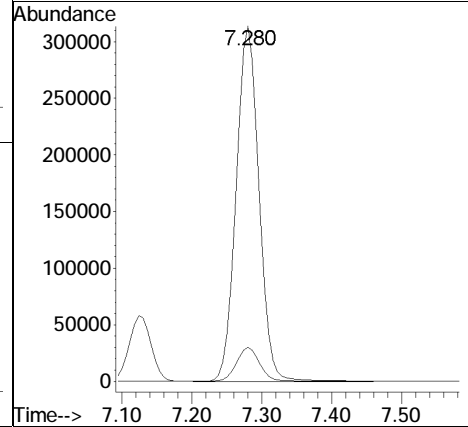
Tgt Ion:	Resp:		
Ion Ratio	Lower	Upper	
41	100		
39	51.2	41.4	62.0
76	37.3	29.4	44.2

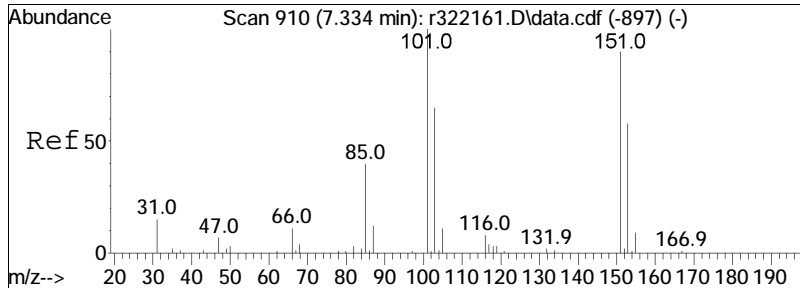




#30  
 carbon disulfide  
 Concen: 11.30 ppbV  
 RT: 7.280 min Scan# 901  
 Delta R.T. -0.012 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

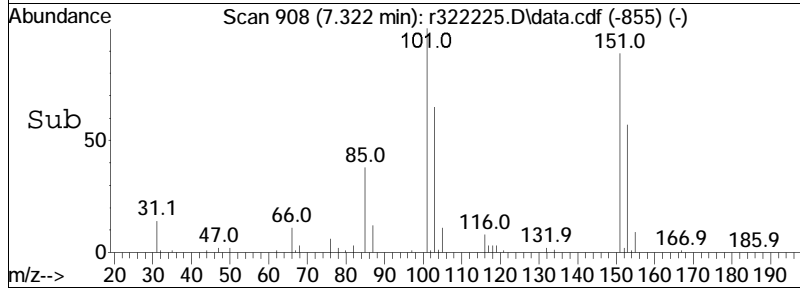
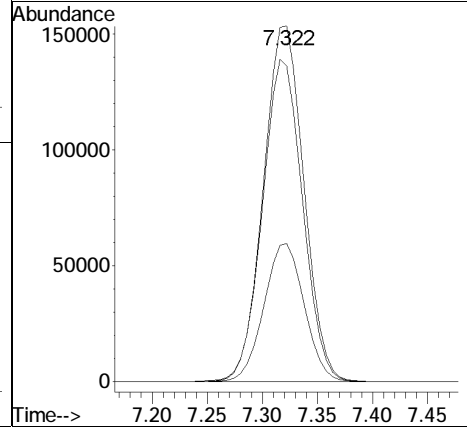
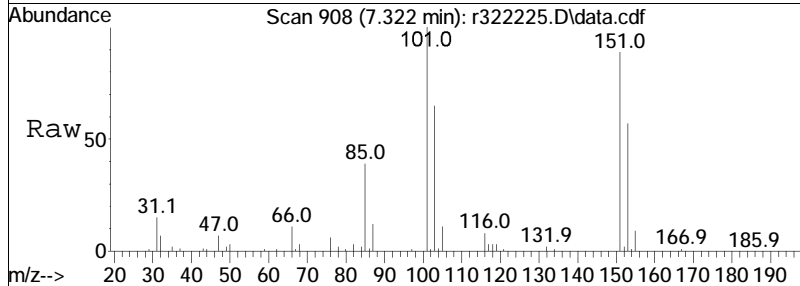
Tgt Ion:	76	Resp:	711031
Ion Ratio	Lower	Upper	
76	100		
44	9.6	7.6	11.4

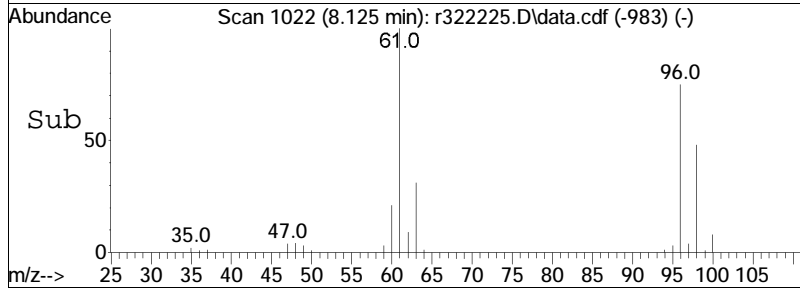
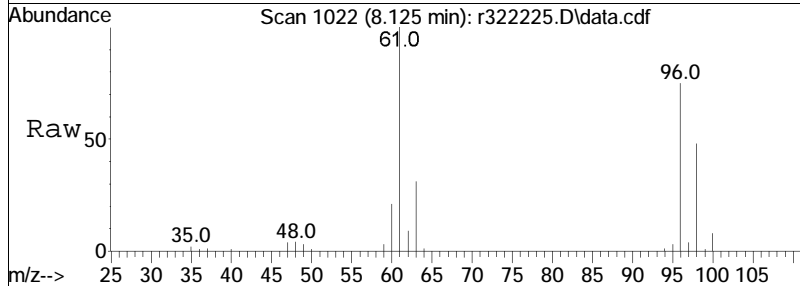
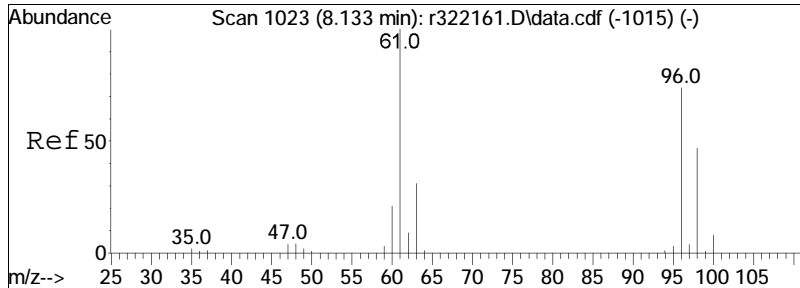




#31  
 Freon 113  
 Concen: 11.14 ppbV  
 RT: 7.322 min Scan# 908  
 Delta R.T. -0.012 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

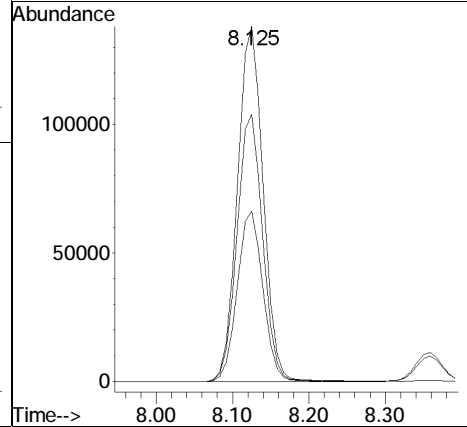
Tgt Ion	101	Resp	391992
Ion Ratio	Lower	Upper	
101	100		
85	38.8	31.8	47.8
151	88.7	72.2	108.4

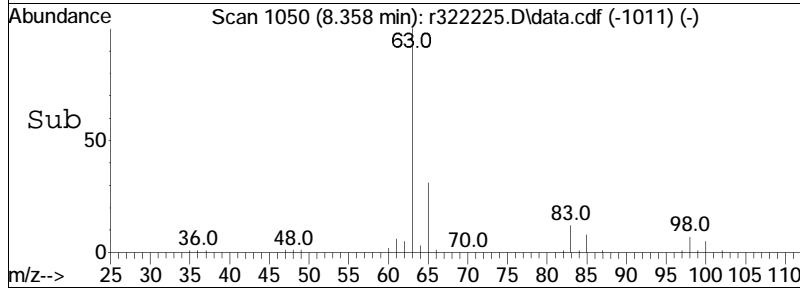
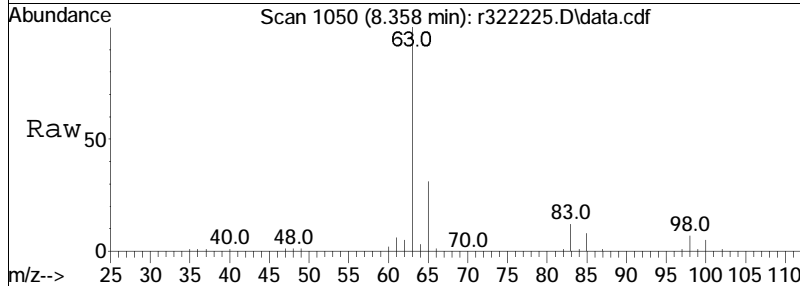
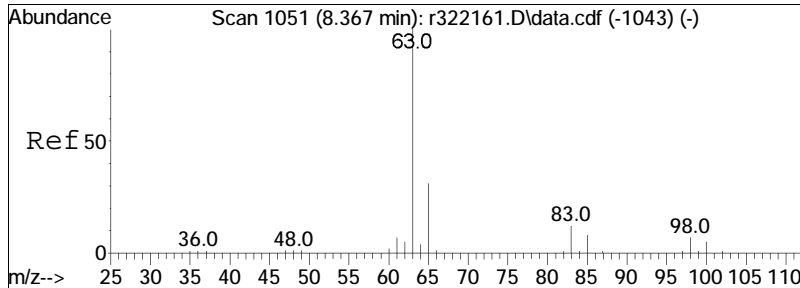




#32  
 trans-1,2-dichloroethene  
 Concen: 11.30 ppbV  
 RT: 8.125 min Scan# 1022  
 Delta R.T. -0.008 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

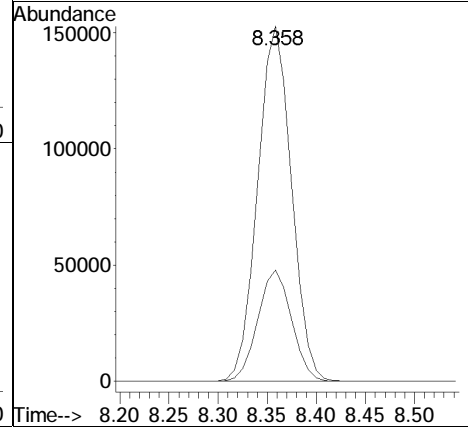
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
61	100		
96	75.2	59.4	89.2
98	47.9	37.7	56.5



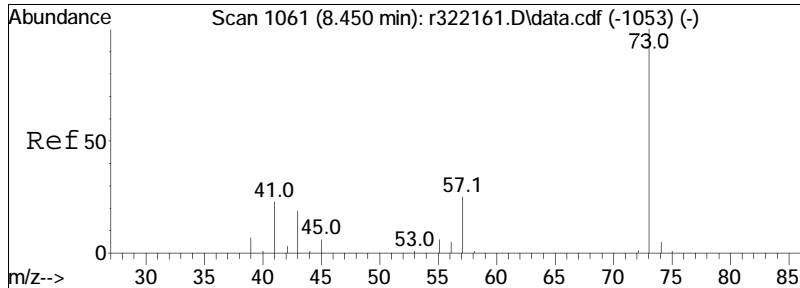


#33  
 1,1-dichloroethane  
 Concen: 10.69 ppbV  
 RT: 8.358 min Scan# 1050  
 Delta R.T. -0.008 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

Tgt Ion:	Resp:	Lower	Upper
63	365512		
65	31.4	24.9	37.3

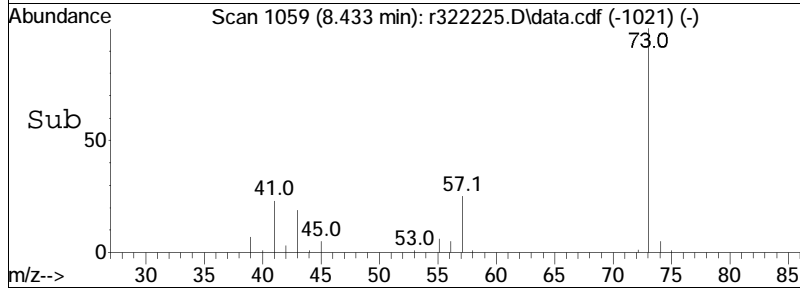
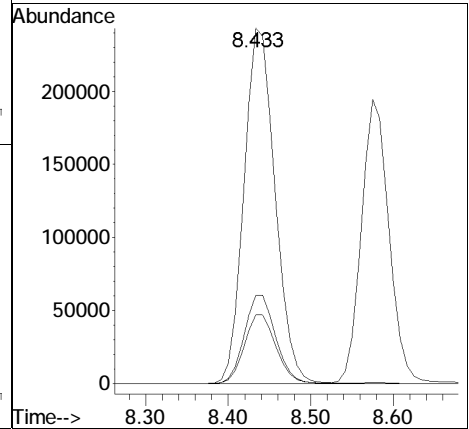
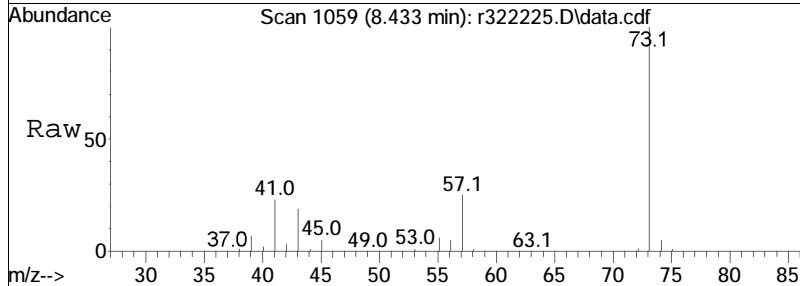


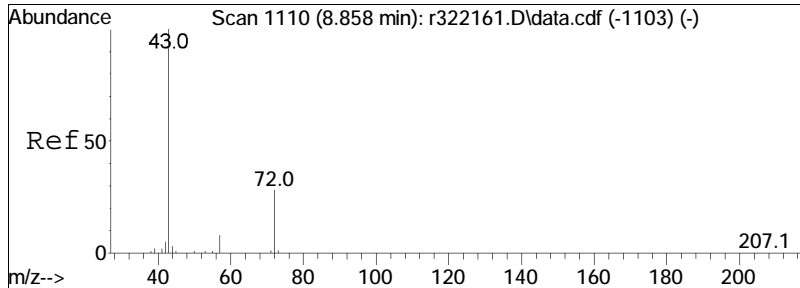




#34  
 MTBE  
 Concen: 12.42 ppbV  
 RT: 8.433 min Scan# 1059  
 Delta R.T. -0.017 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

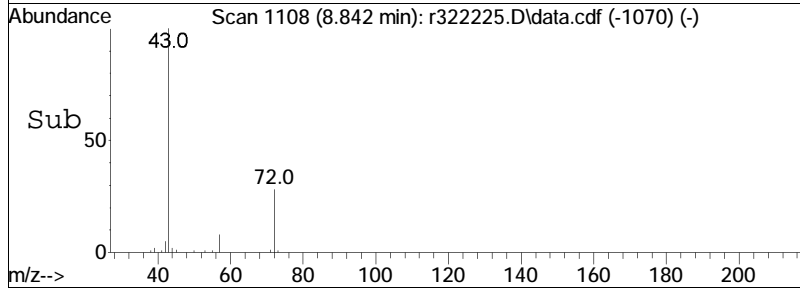
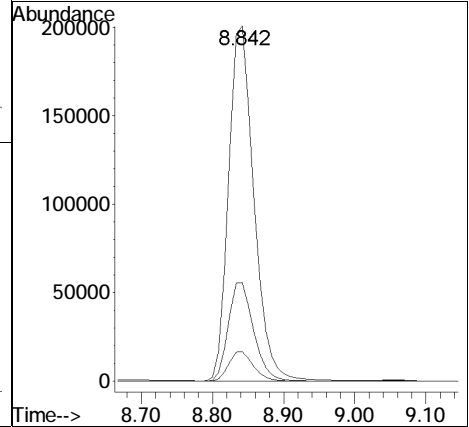
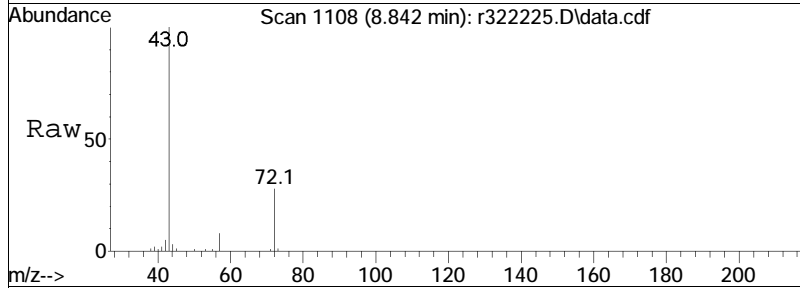
Tgt Ion	Resp	Lower	Upper
73	100		
57	24.8	20.2	30.2
43	19.3	15.5	23.3

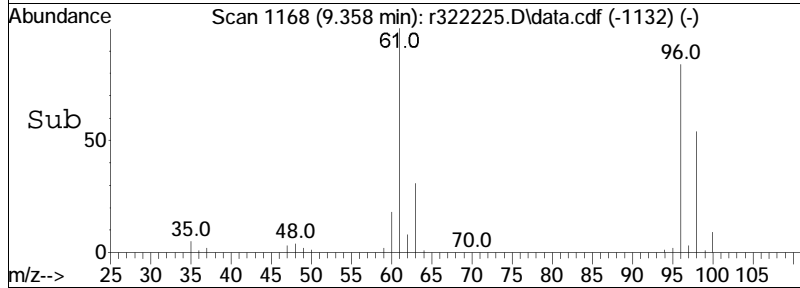
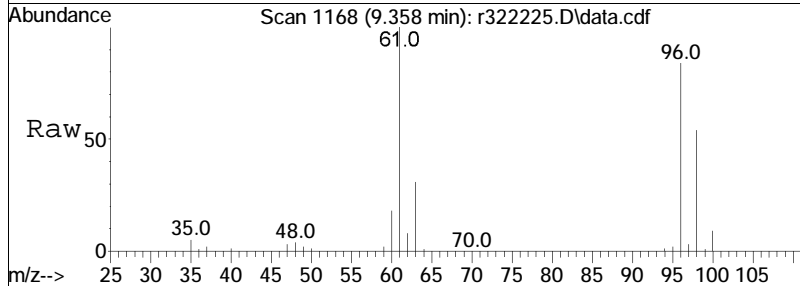
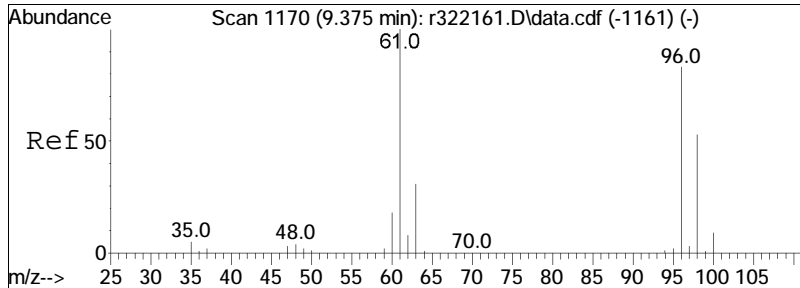




#36  
 2-butanone  
 Concen: 11.31 ppbV  
 RT: 8.842 min Scan# 1108  
 Delta R.T. -0.017 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

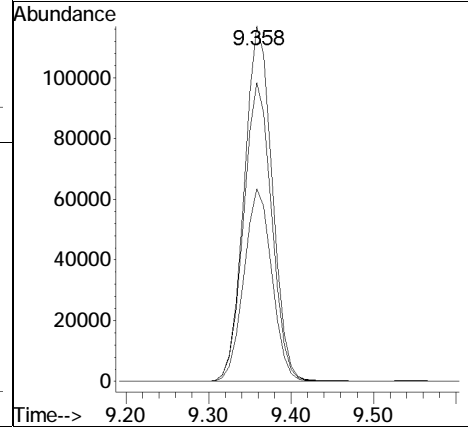
Tgt Ion:	43	72	57	Resp:	495671	Lower	Upper
Ion Ratio	100	27.8	8.4			22.6	33.8
						6.6	10.0

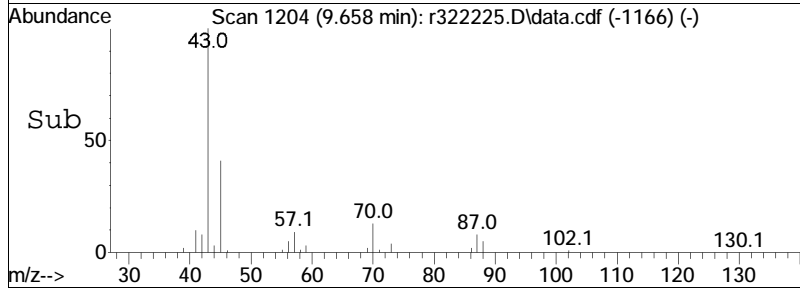
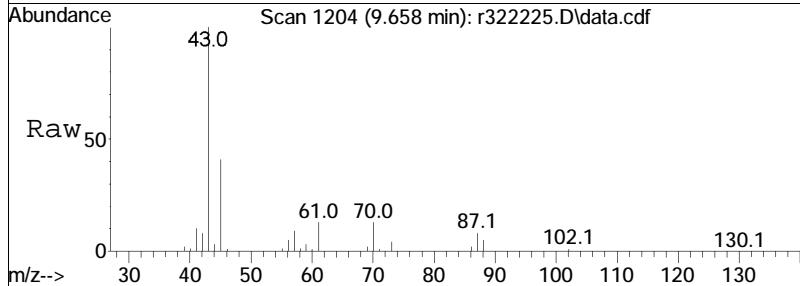
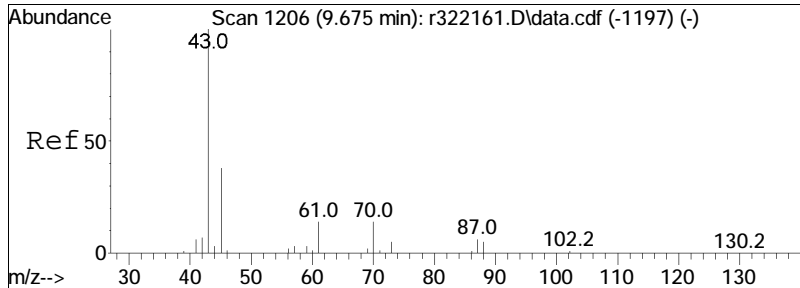




#37  
 cis-1,2-dichloroethene  
 Concen: 10.86 ppbV  
 RT: 9.358 min Scan# 1168  
 Delta R.T. -0.017 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

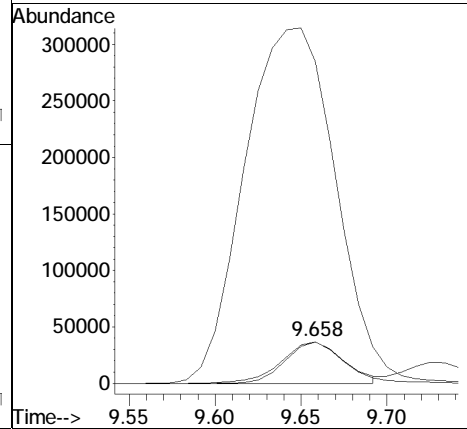
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
61	100		
96	84.2	66.4	99.6
98	54.2	42.5	63.7

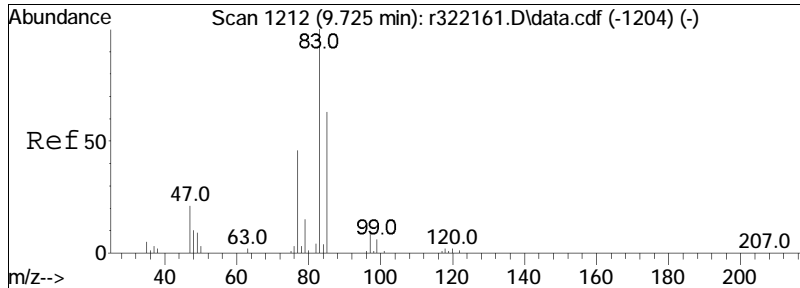




#38  
 Ethyl Acetate  
 Concen: 12.05 ppbV  
 RT: 9.658 min Scan# 1204  
 Delta R.T. -0.017 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

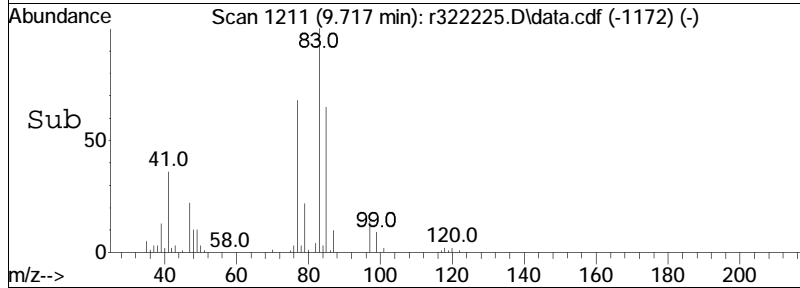
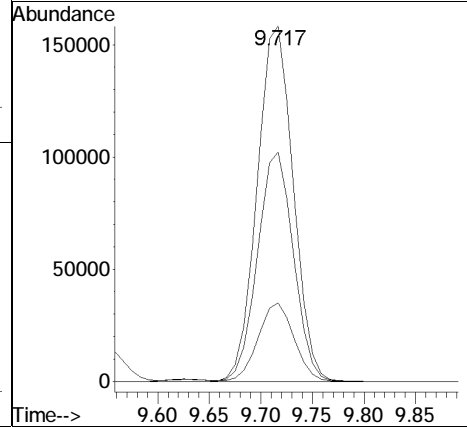
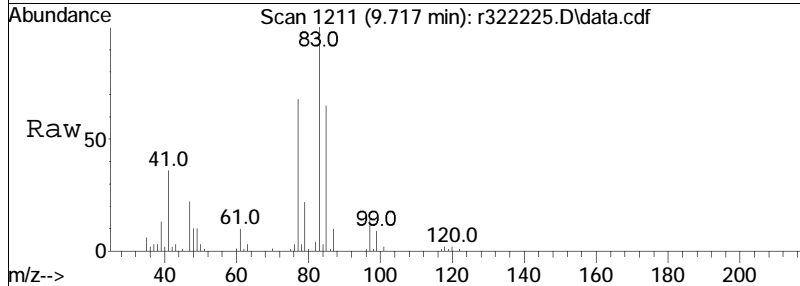
Tgt Ion:	Resp:		
Ion Ratio	Lower	Upper	
61	100		
70	100.4	78.8	118.2
43	776.4	593.4	890.0

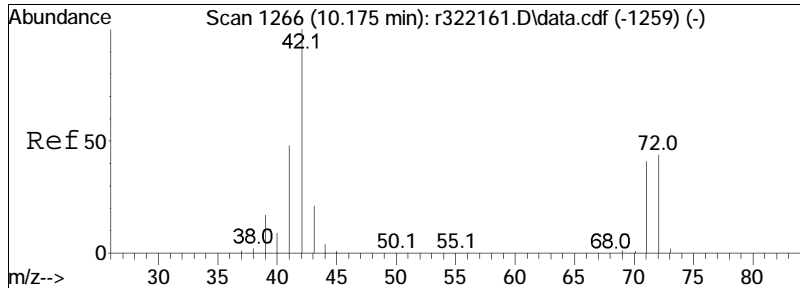




#39  
 chloroform  
 Concen: 11.18 ppbV  
 RT: 9.717 min Scan# 1211  
 Delta R.T. -0.008 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

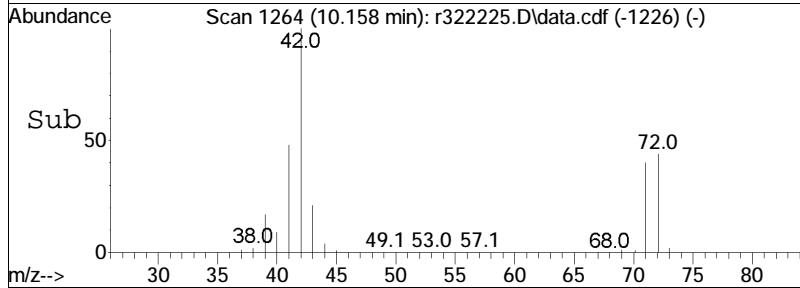
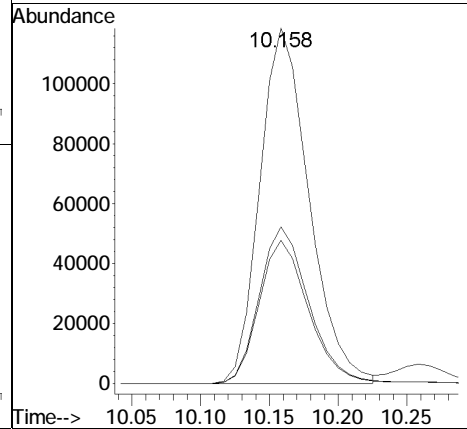
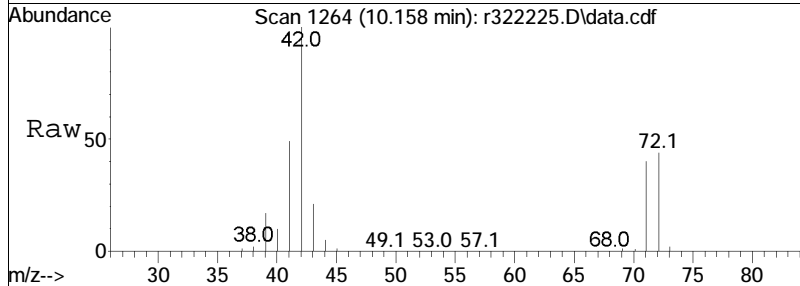
Tgt Ion	Resp	Lower	Upper
83	385011		
85	64.6	50.4	75.6
47	22.1	16.9	25.3

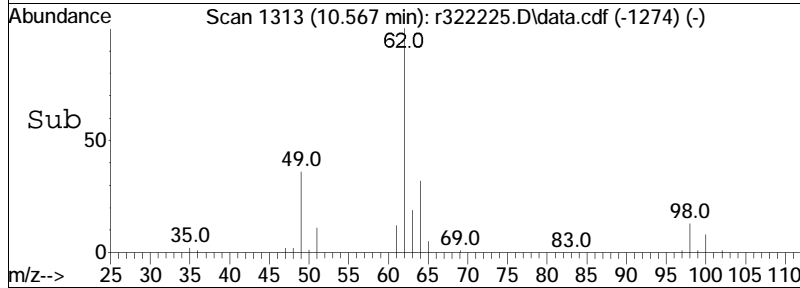
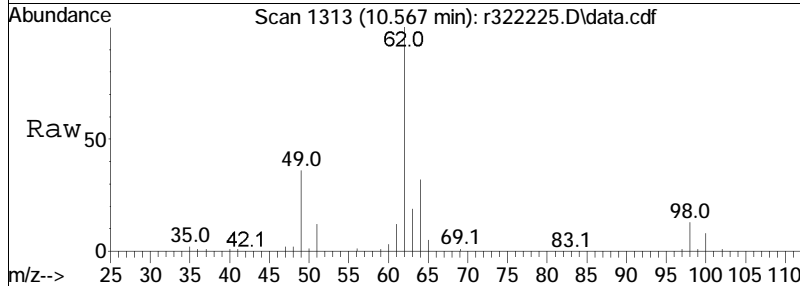
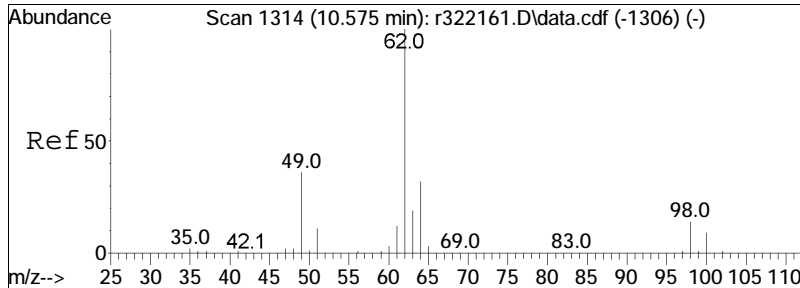




#40  
 Tetrahydrofuran  
 Concen: 11.66 ppbV  
 RT: 10.158 min Scan# 1264  
 Delta R.T. -0.017 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

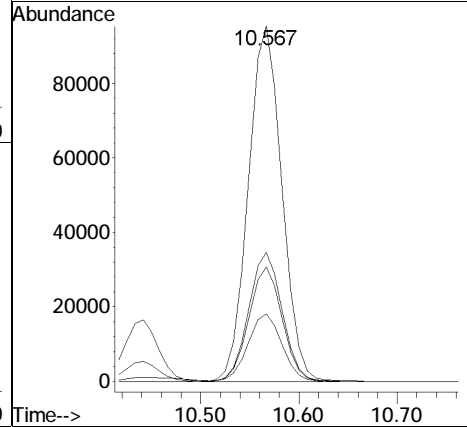
Tgt Ion	Resp	Lower	Upper
42	100		
71	40.2	32.4	48.6
72	44.0	35.2	52.8

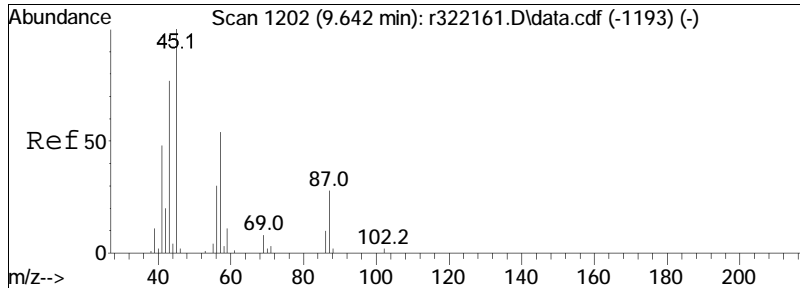




#42  
 1,2-dichloroethane  
 Concen: 10.52 ppbV  
 RT: 10.567 min Scan# 1313  
 Delta R.T. -0.008 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

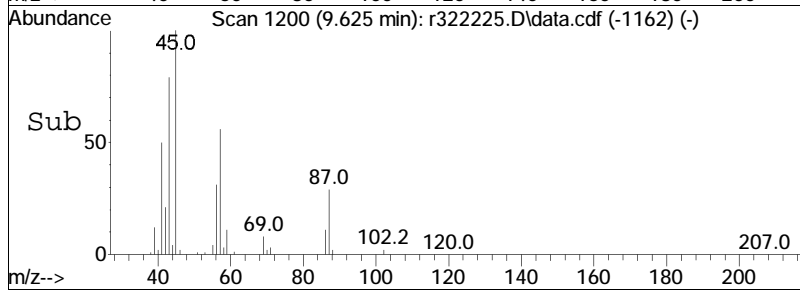
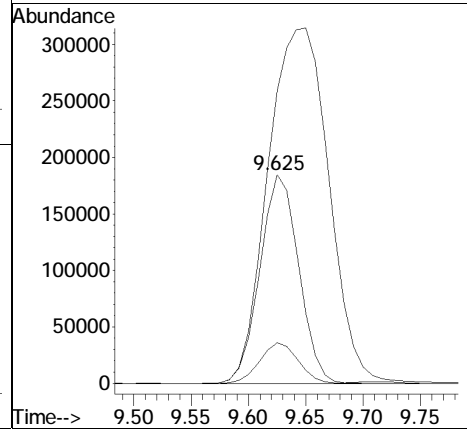
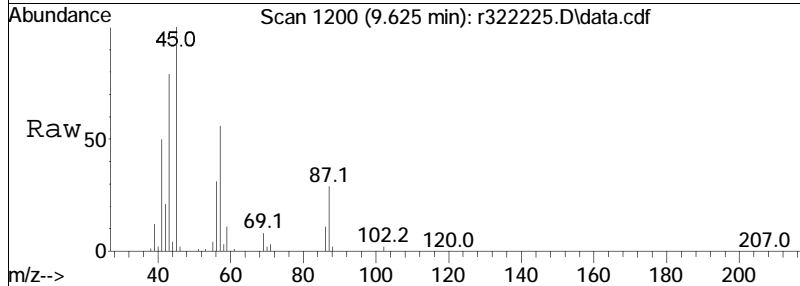
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
62	100		
64	32.2	25.6	38.4
49	36.3	28.6	42.8
63	19.0	15.4	23.2



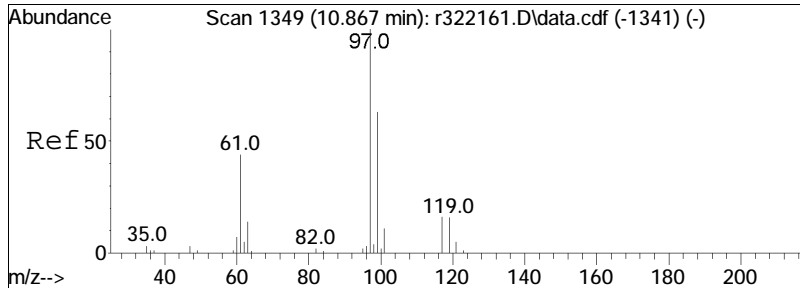


#44  
 hexane  
 Concen: 11.44 ppbV  
 RT: 9.625 min Scan# 1200  
 Delta R.T. -0.017 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

Tgt Ion	Resp	Lower	Upper
57	435200		
57	100		
43	140.3	115.0	172.6
86	19.5	15.5	23.3

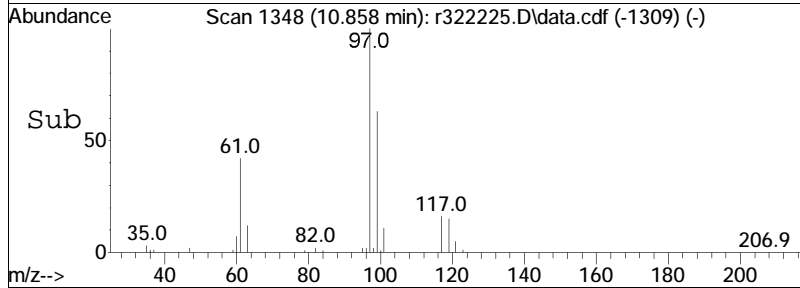
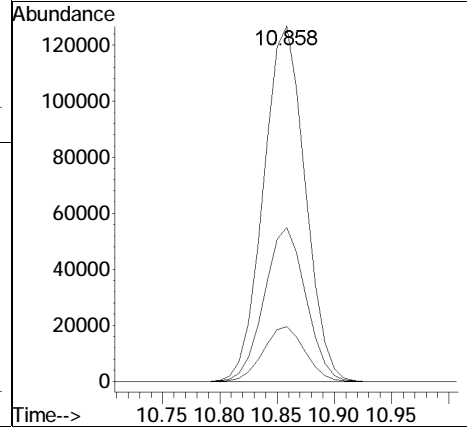
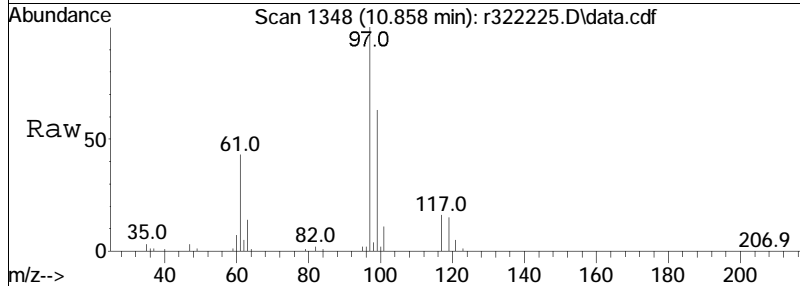


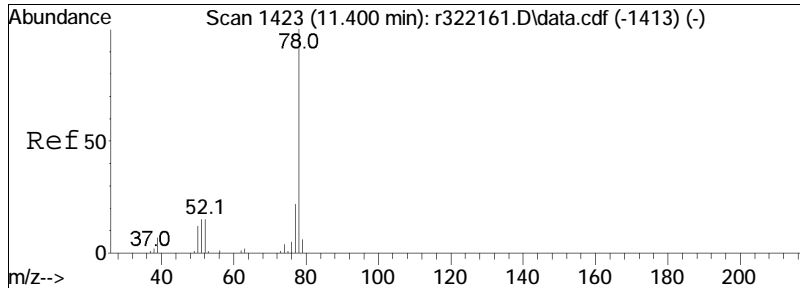




#48  
 1,1,1-trichloroethane  
 Concen: 11.12 ppbV  
 RT: 10.858 min Scan# 1348  
 Delta R.T. -0.008 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

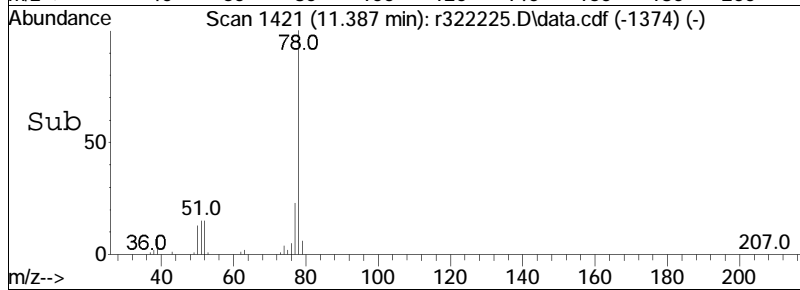
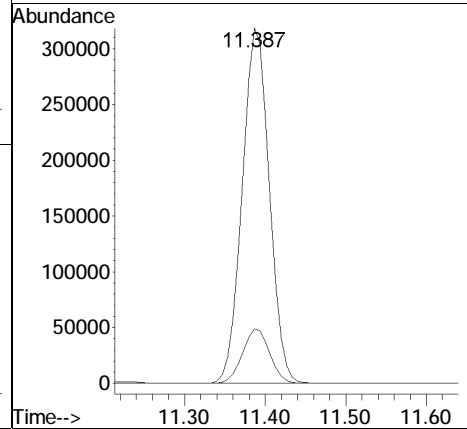
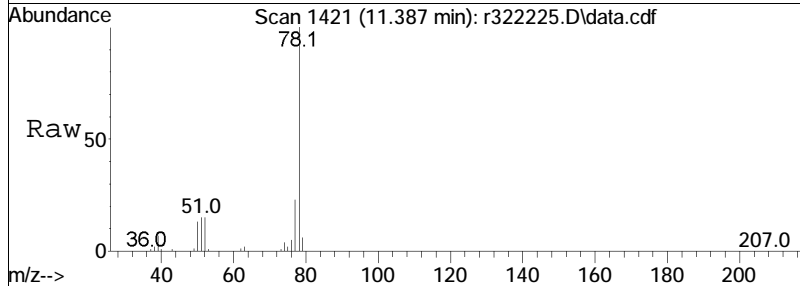
Tgt Ion:	97	Resp:	320093
Ion Ratio	Lower	Upper	
97	100		
61	43.3	35.1	52.7
119	15.4	12.5	18.7

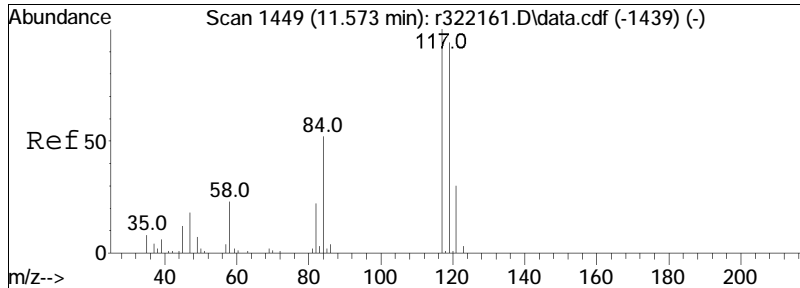




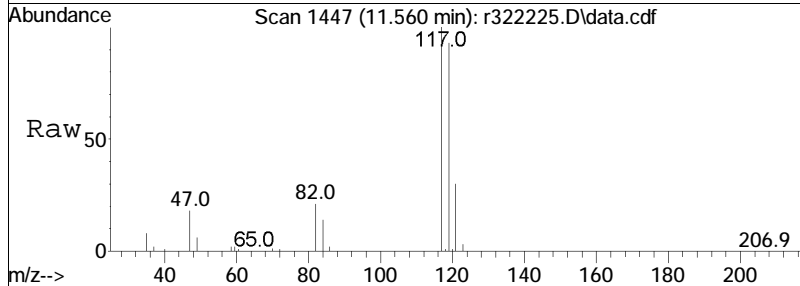
#50  
 benzene  
 Concen: 9.52 ppbV  
 RT: 11.387 min Scan# 1421  
 Delta R.T. -0.013 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

Tgt Ion:	78	Resp:	743208
Ion Ratio	Lower	Upper	
78	100		
52	15.3	12.2	18.2

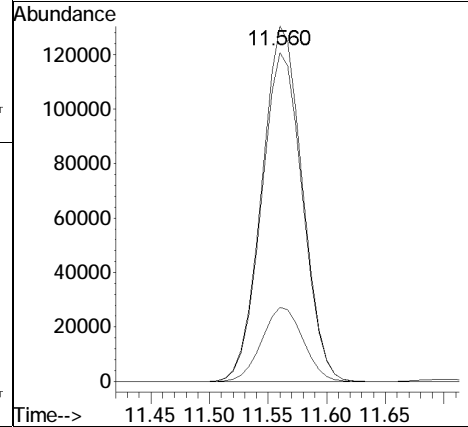
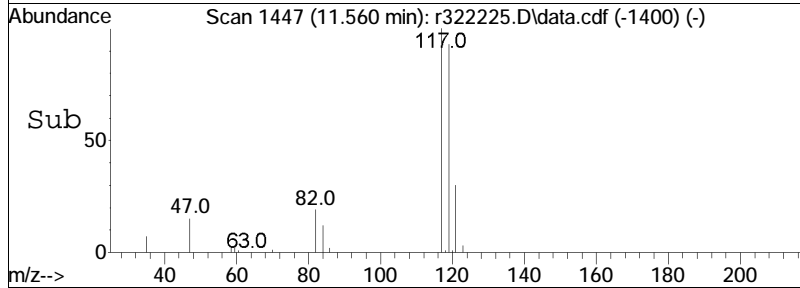


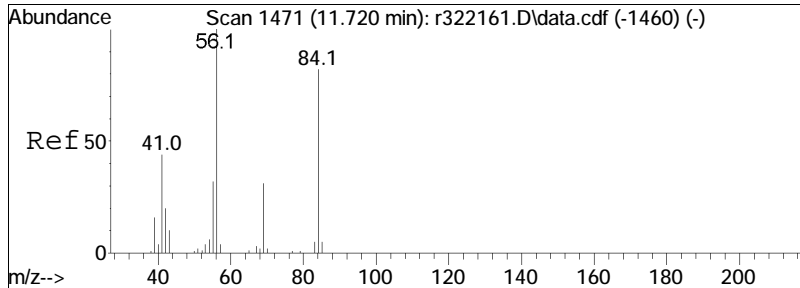


#52  
 carbon tetrachloride  
 Concen: 11.74 ppbV  
 RT: 11.560 min Scan# 1447  
 Delta R.T. -0.013 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM



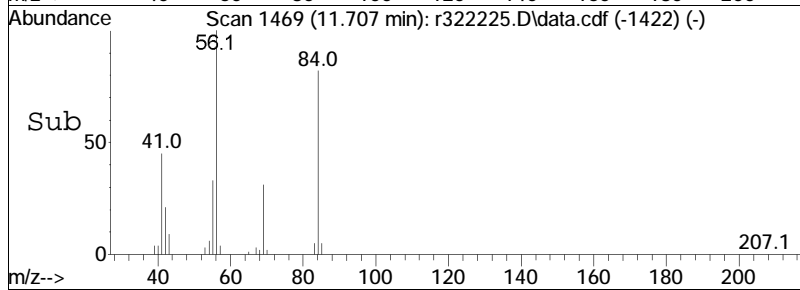
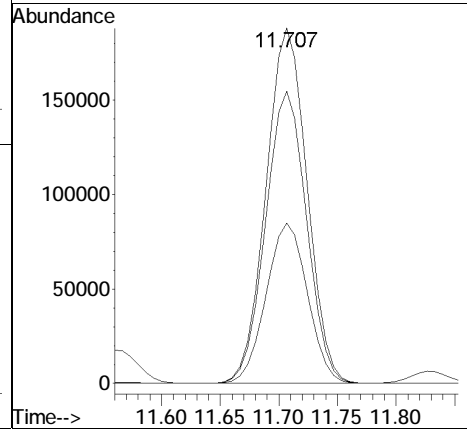
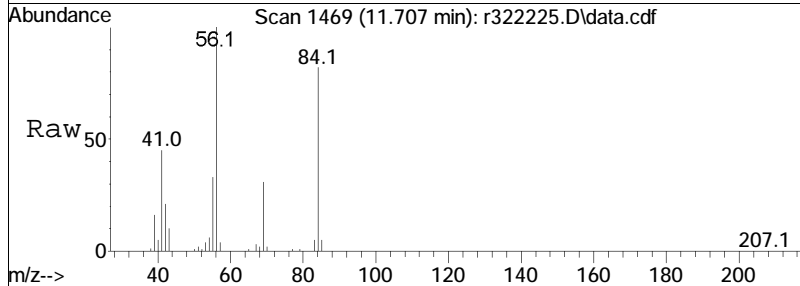
Tgt Ion	Resp	Lower	Upper
117	313476		
119	92.5	75.6	113.4
82	20.8	17.8	26.6

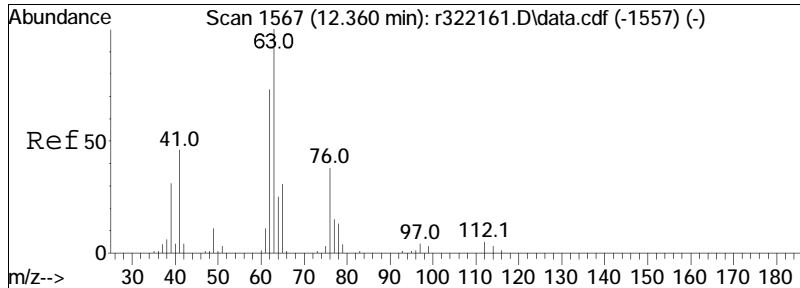




#53  
 cyclohexane  
 Concen: 11.59 ppbV  
 RT: 11.707 min Scan# 1469  
 Delta R.T. -0.013 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

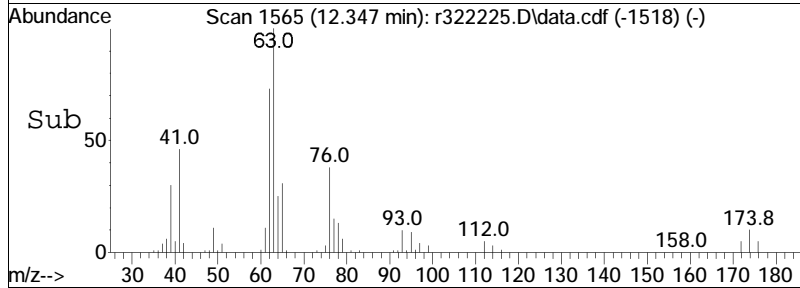
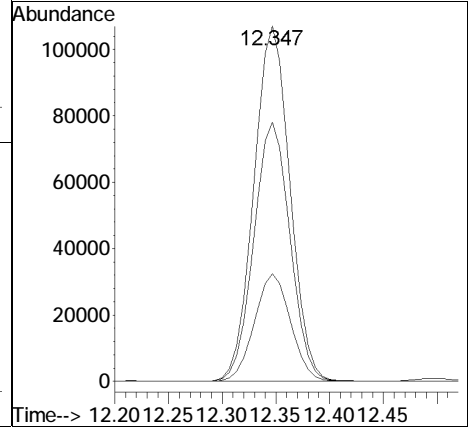
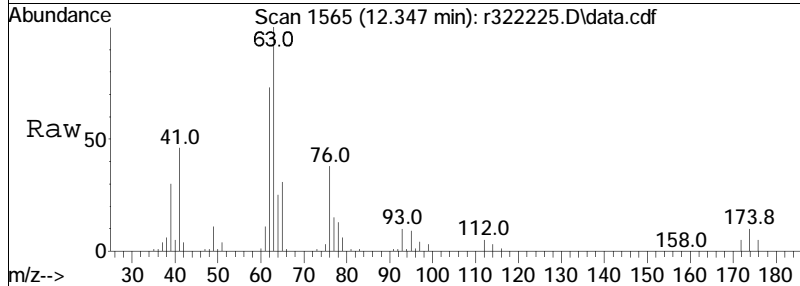
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
56	100		
84	82.2	65.4	98.0
41	45.1	35.4	53.2

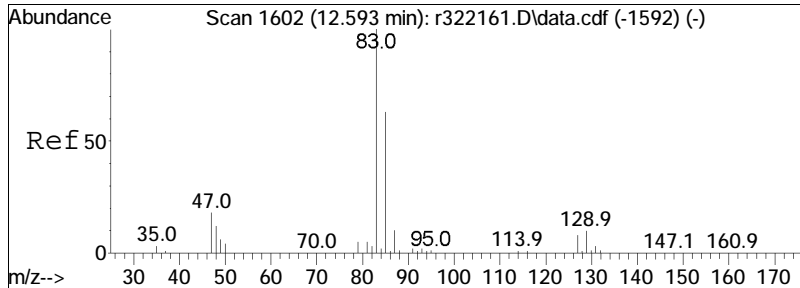




#56  
 1,2-dichloropropane  
 Concen: 10.63 ppbV  
 RT: 12.347 min Scan# 1565  
 Delta R.T. -0.013 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

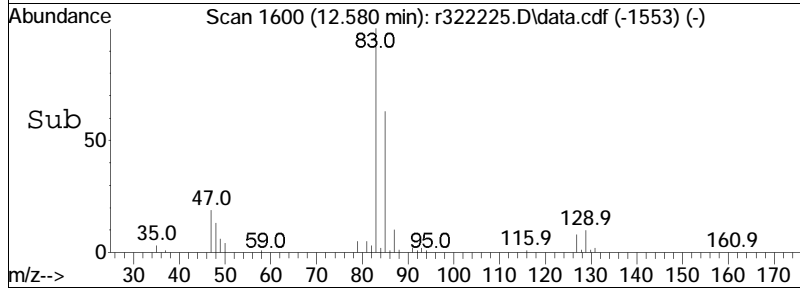
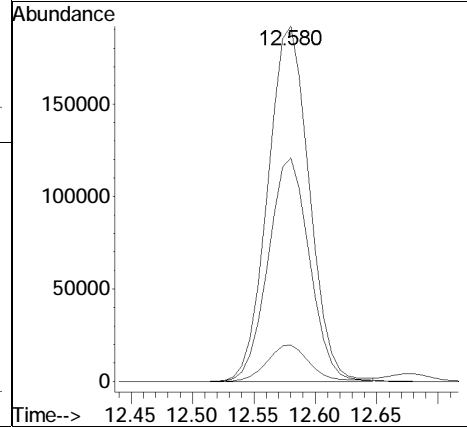
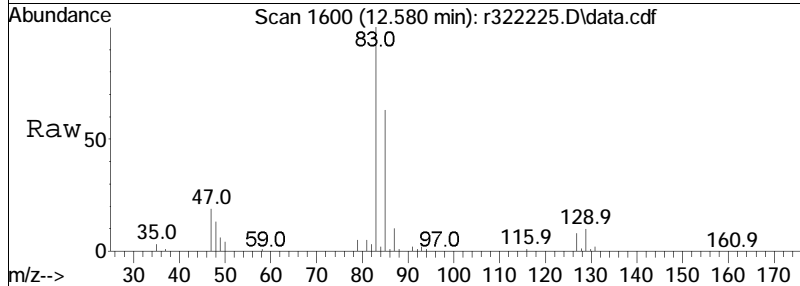
Tgt Ion:	Resp:		
Ion Ratio	Lower	Upper	
63	100		
62	73.0	58.7	88.1
39	30.3	24.4	36.6

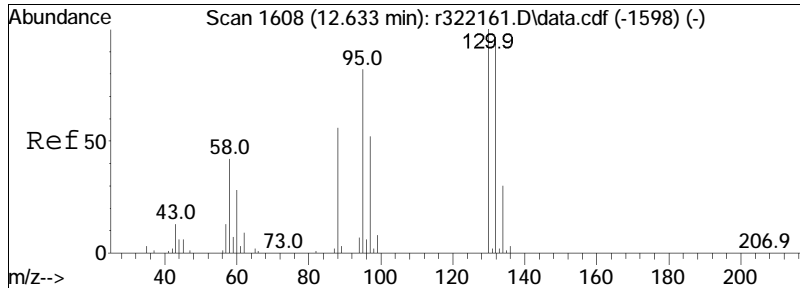




#57  
 bromodichloromethane  
 Concen: 12.20 ppbV  
 RT: 12.580 min Scan# 1600  
 Delta R.T. -0.013 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

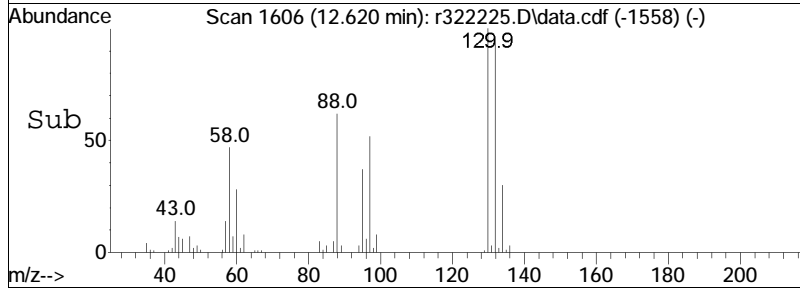
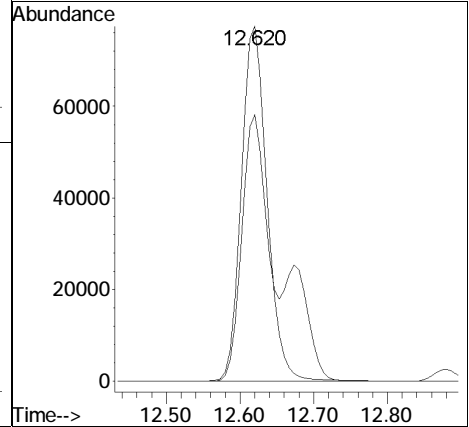
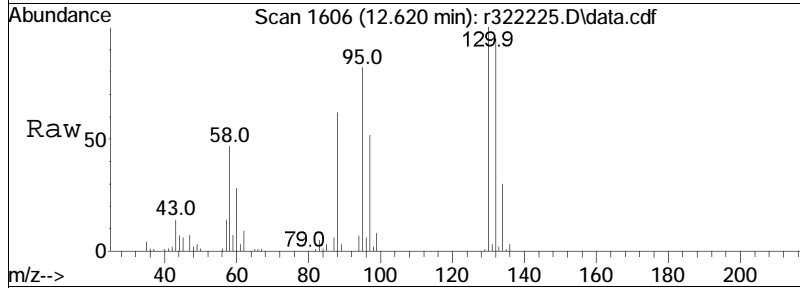
Tgt Ion	Resp	Lower	Upper
83	100		
85	62.9	50.3	75.5
129	10.3	8.1	12.1

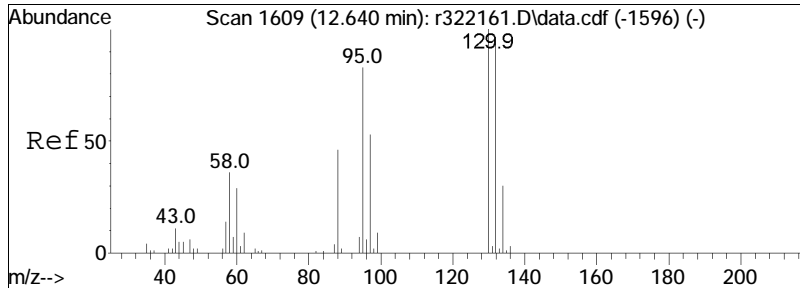




#58  
 1,4-dioxane  
 Concen: 11.79 ppbV  
 RT: 12.620 min Scan# 1606  
 Delta R.T. -0.013 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

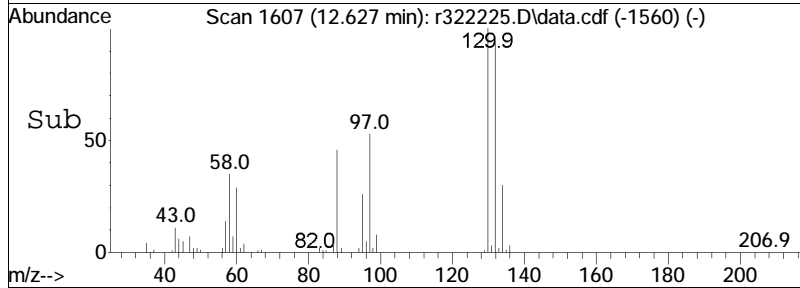
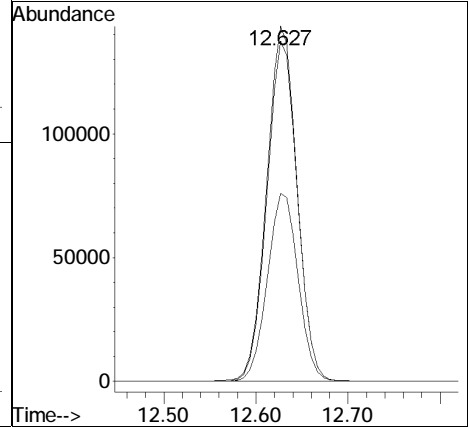
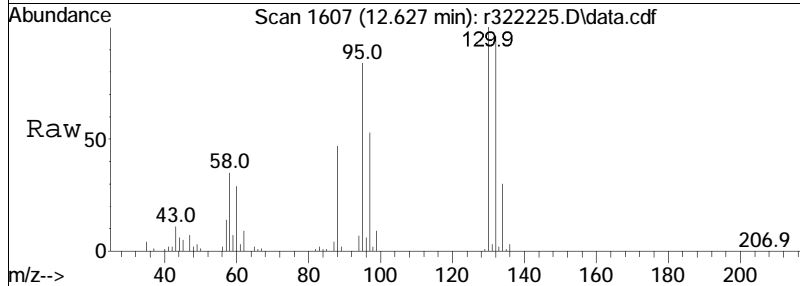
Tgt Ion	Resp	Lower	Upper
88	100		
58	75.1	61.2	91.8



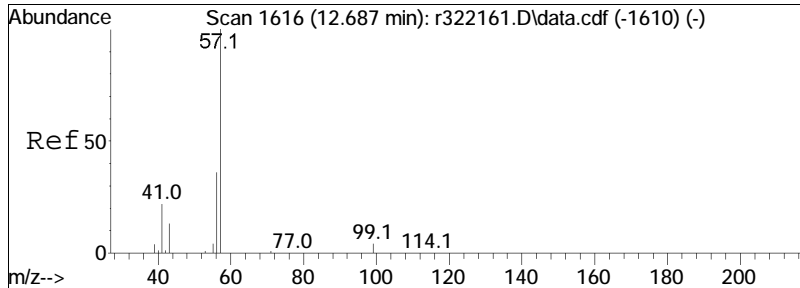


#59  
 trichloroethene  
 Concen: 10.94 ppbV  
 RT: 12.627 min Scan# 1607  
 Delta R.T. -0.013 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

Tgt Ion	Ratio	Lower	Upper
130	100		
132	95.8	76.2	114.2
97	52.9	42.6	63.8

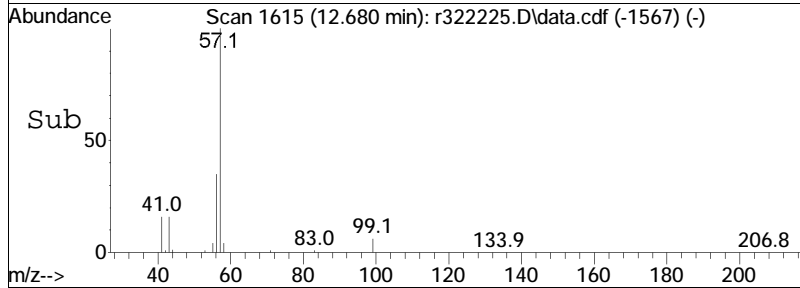
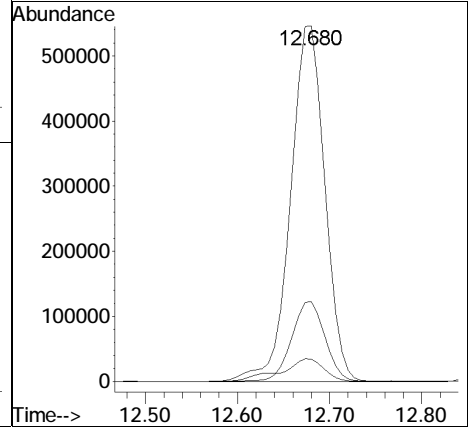
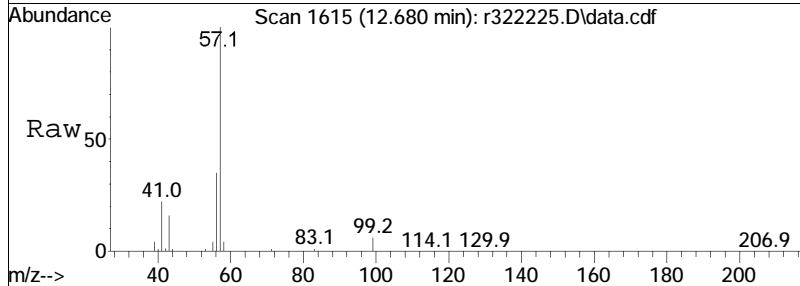


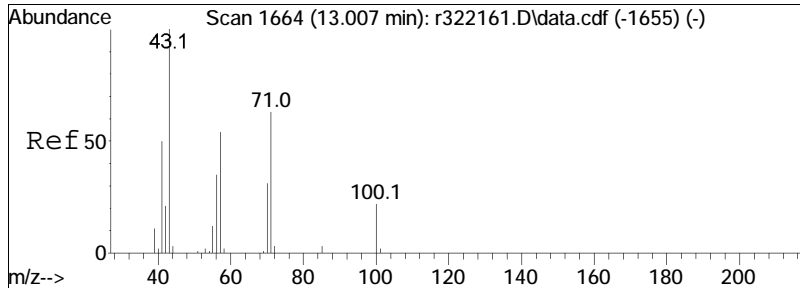




#60  
 2,2,4-trimethylpentane  
 Concen: 12.03 ppbV  
 RT: 12.680 min Scan# 1615  
 Delta R.T. -0.007 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

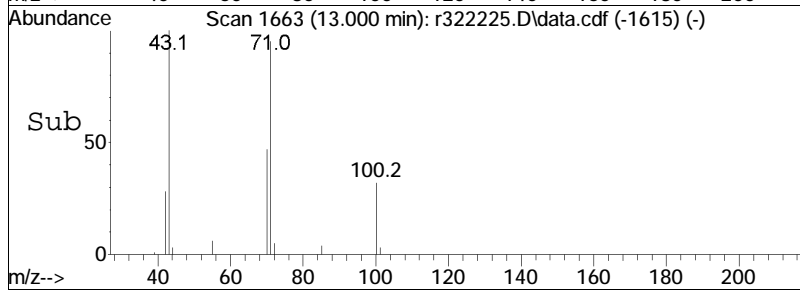
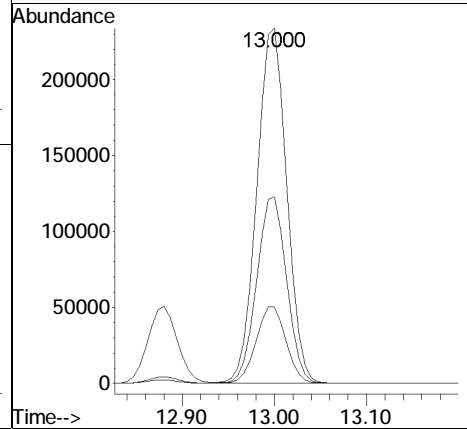
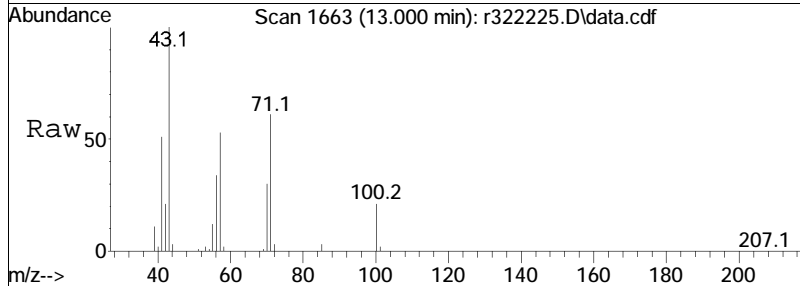
Tgt Ion	Resp	Lower	Upper
57	1414077		
57	100		
99	6.3	5.0	7.4
41	22.4	17.4	26.2

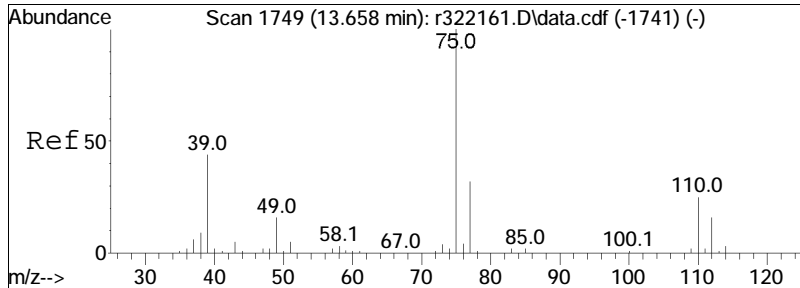




#62  
 heptane  
 Concen: 12.07 ppbV  
 RT: 13.000 min Scan# 1663  
 Delta R.T. -0.007 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

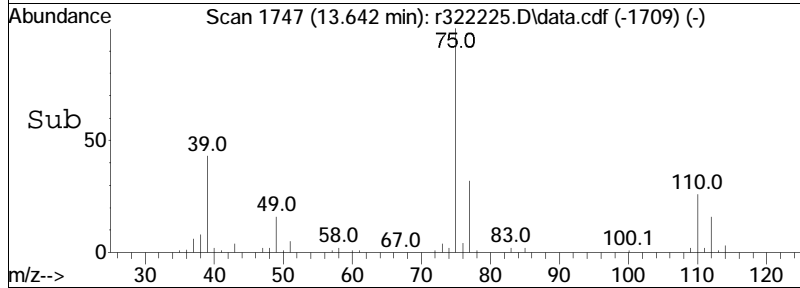
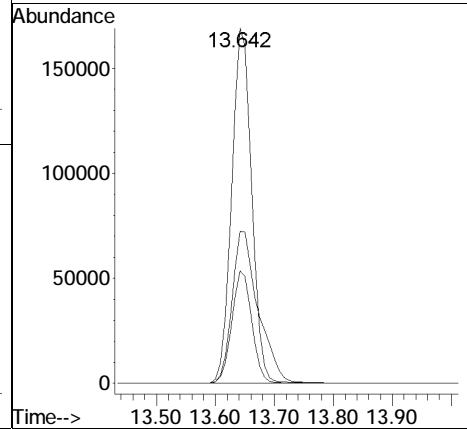
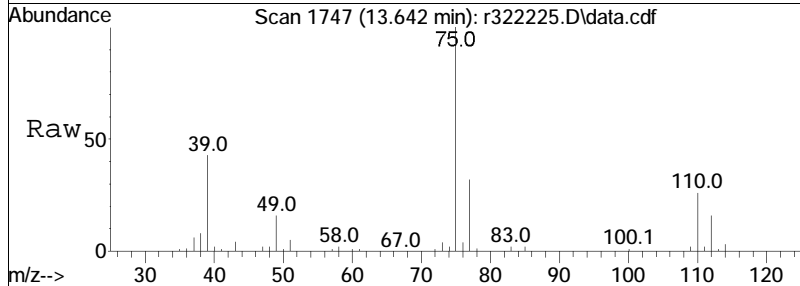
Tgt Ion:	43	57	100	Resp:	529248
Ion Ratio	100	52.5	21.5	Lower	Upper
		43.0	17.6		64.4
					26.4

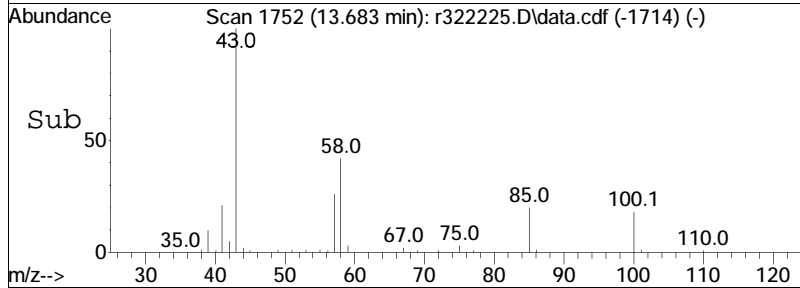
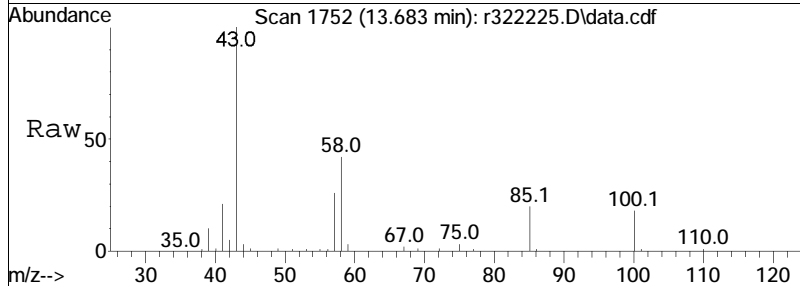
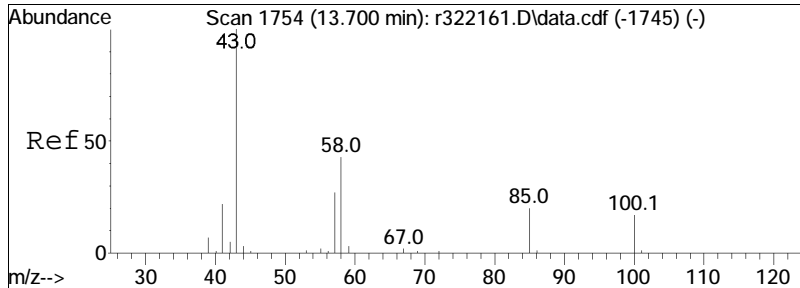




#63  
 cis-1,3-dichloropropene  
 Concen: 11.93 ppbV  
 RT: 13.642 min Scan# 1747  
 Delta R.T. -0.017 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

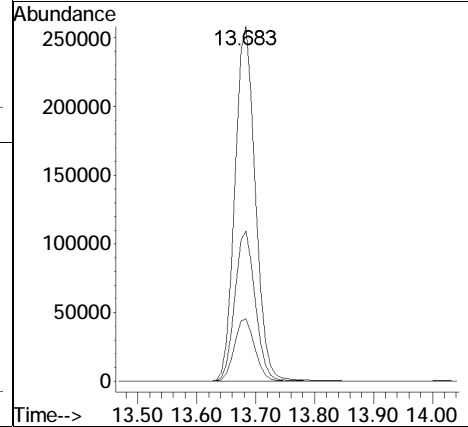
Tgt Ion	Resp	Lower	Upper
75	100		
39	42.8	35.1	52.7
77	31.6	25.5	38.3

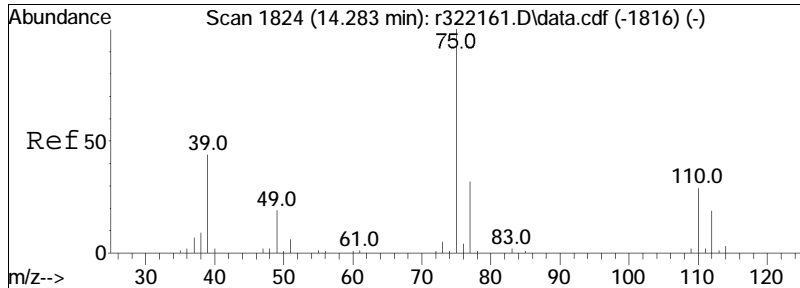




#64  
 4-methyl-2-pentanone  
 Concen: 12.48 ppbV  
 RT: 13.683 min Scan# 1752  
 Delta R.T. -0.017 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

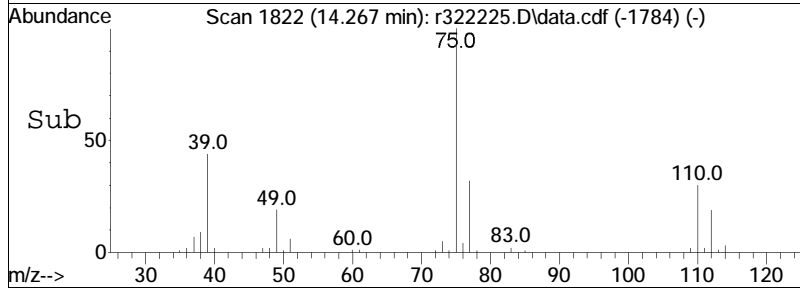
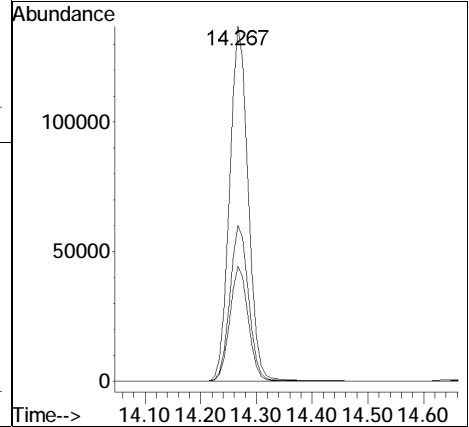
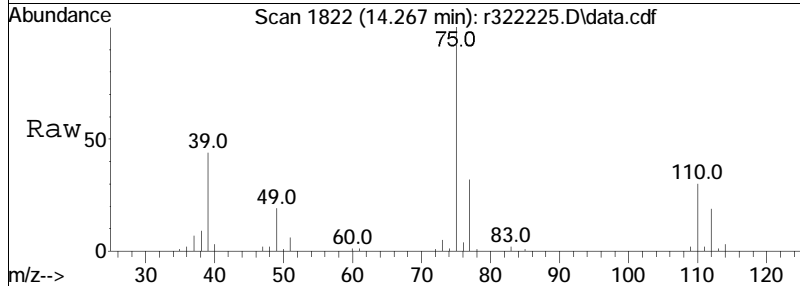
Tgt Ion:	43	Resp:	626569
Ion Ratio	100	Lower	Upper
43	100		
58	42.3	34.3	51.5
100	17.6	13.8	20.6

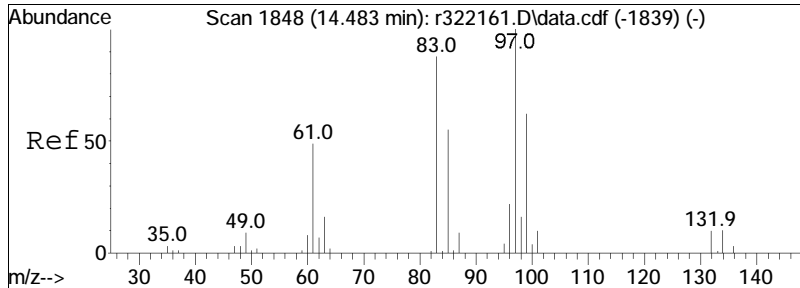




#65  
 trans-1,3-dichloropropene  
 Concen: 10.58 ppbV  
 RT: 14.267 min Scan# 1822  
 Delta R.T. -0.017 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

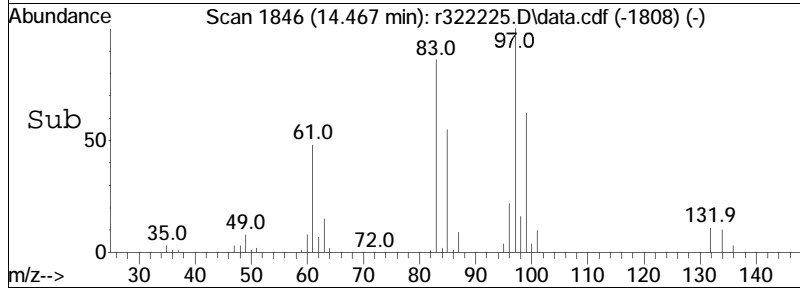
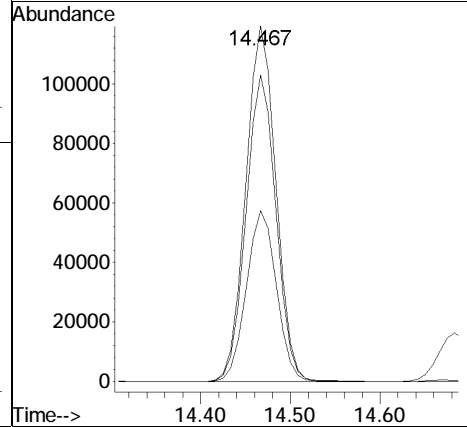
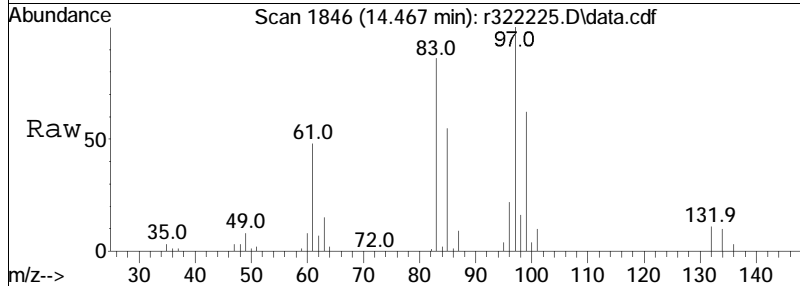
Tgt Ion	Resp	Lower	Upper
75	318810		
77	32.4	25.8	38.6
39	43.9	35.4	53.0

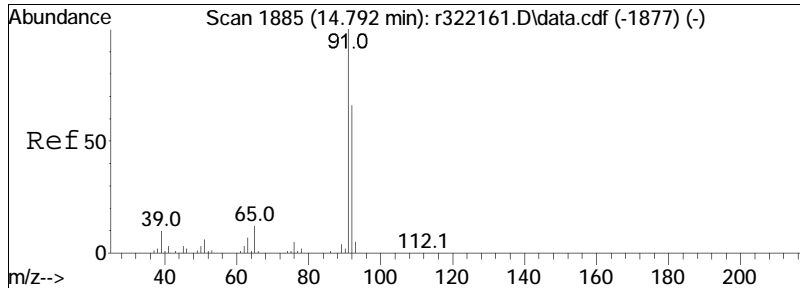




#66  
 1,1,2-trichloroethane  
 Concen: 11.15 ppbV  
 RT: 14.467 min Scan# 1846  
 Delta R.T. -0.017 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

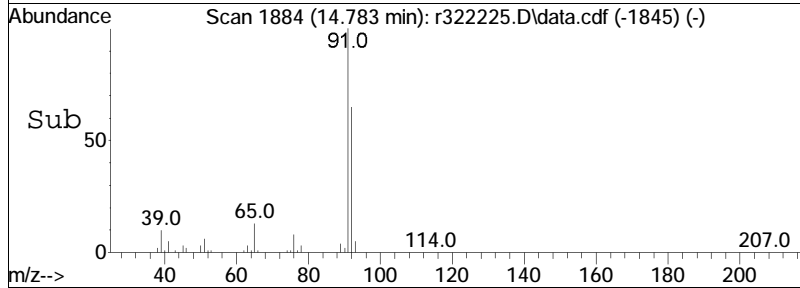
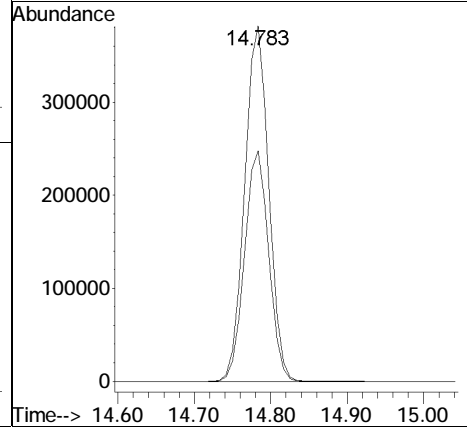
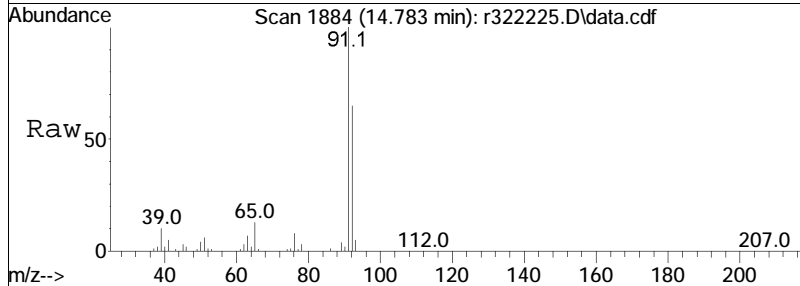
Tgt Ion	Resp	Lower	Upper
97	278872		
83	86.2	70.2	105.2
61	48.1	39.2	58.8

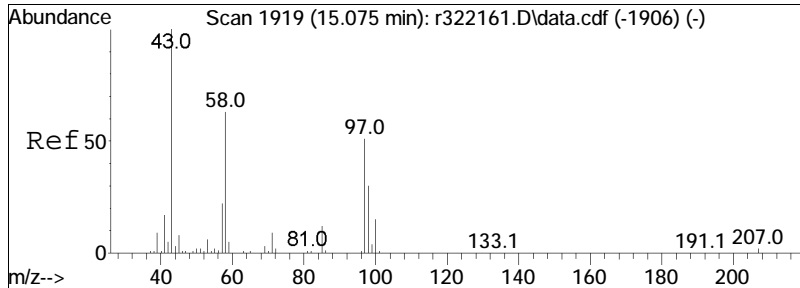




#68  
 toluene  
 Concen: 10.54 ppbV  
 RT: 14.783 min Scan# 1884  
 Delta R.T. -0.008 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

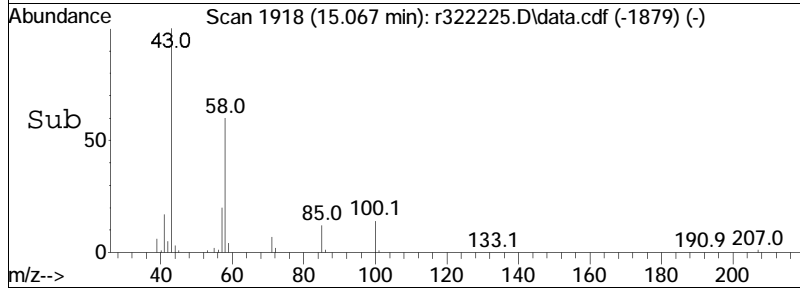
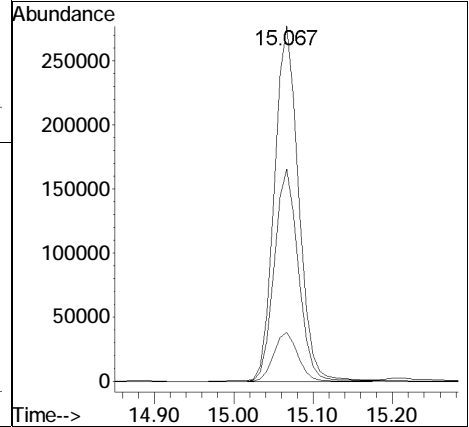
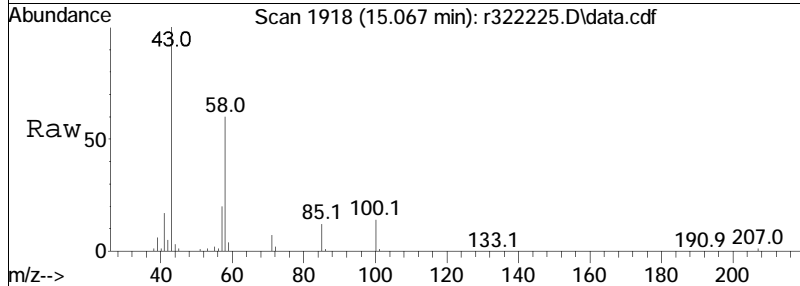
Tgt Ion: 91 Resp: 834472  
 Ion Ratio Lower Upper  
 91 100  
 92 65.0 52.7 79.1



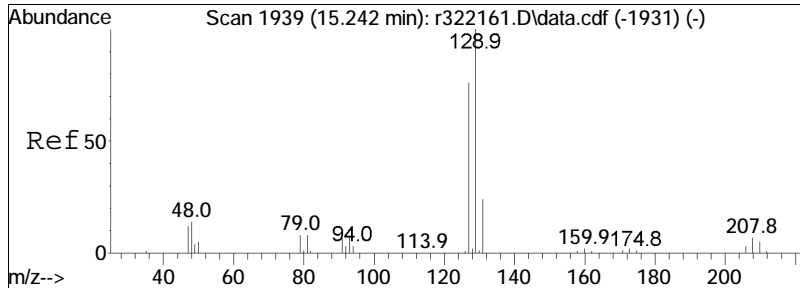


#72  
 2-hexanone  
 Concen: 12.34 ppbV  
 RT: 15.067 min Scan# 1918  
 Delta R.T. -0.008 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

Tgt Ion:	43	58	100	Resp:	587877	Lower	Upper
Ion Ratio	100	59.7	13.8			50.5	75.7
						12.2	18.2

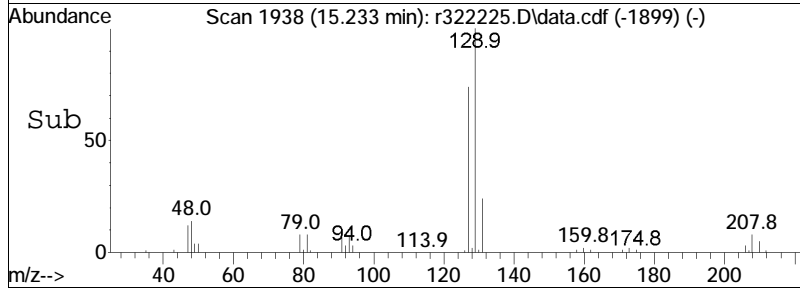
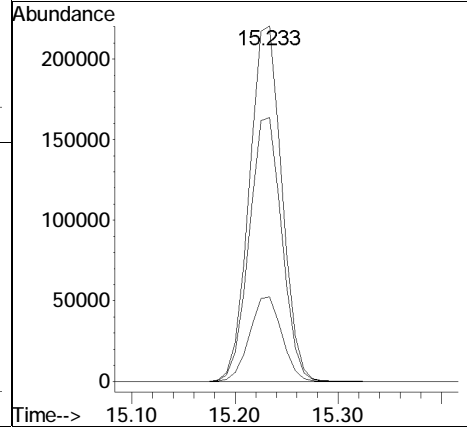
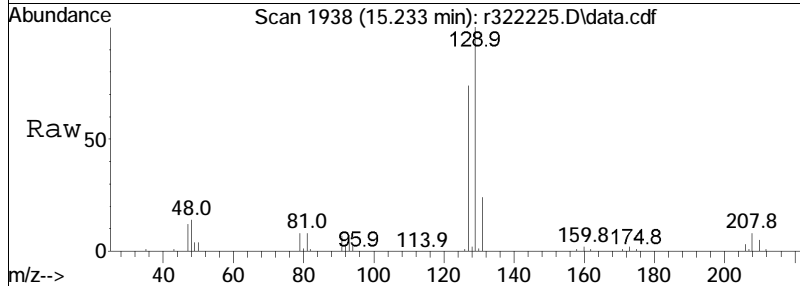


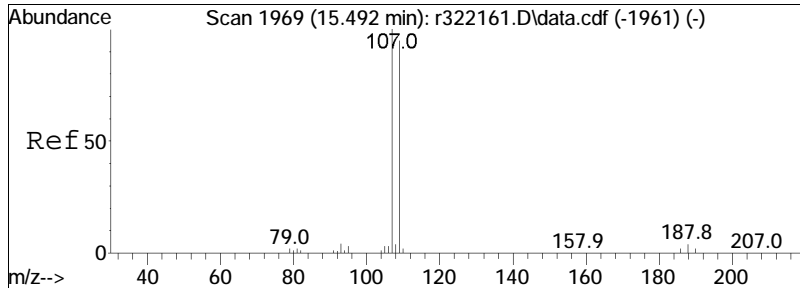




#74  
 dibromochloromethane  
 Concen: 13.24 ppbV  
 RT: 15.233 min Scan# 1938  
 Delta R.T. -0.008 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

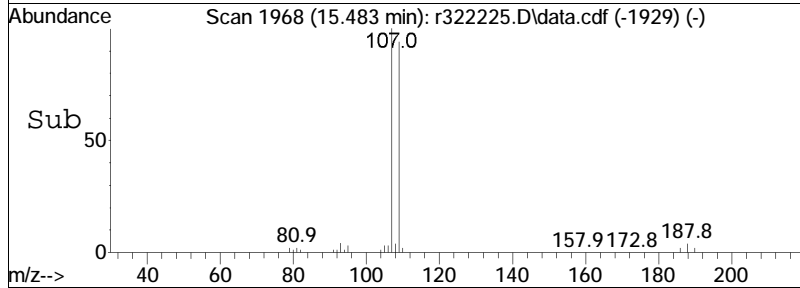
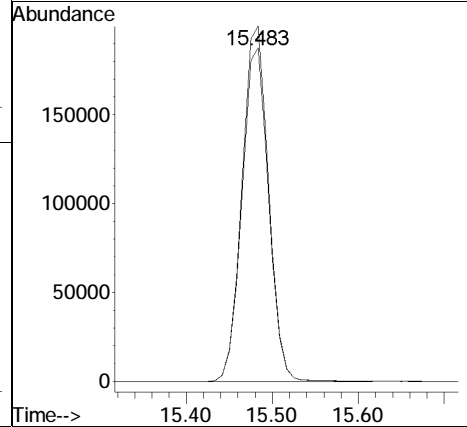
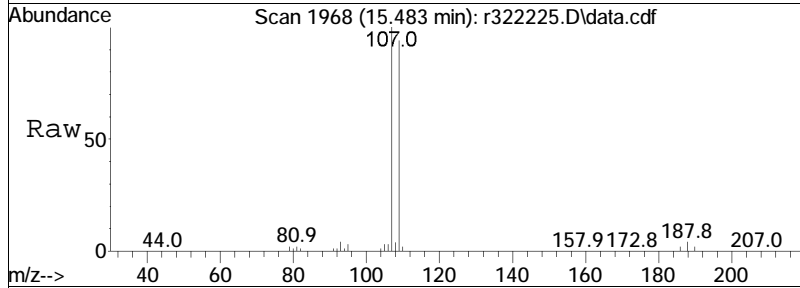
Tgt Ion	Resp	Lower	Upper
129	482609		
129	100		
127	74.3	60.6	91.0
131	23.8	19.5	29.3

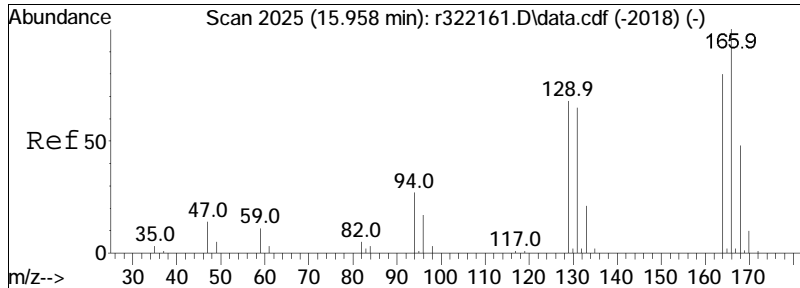




#75  
 1,2-dibromoethane  
 Concen: 11.25 ppbV  
 RT: 15.483 min Scan# 1968  
 Delta R.T. -0.008 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

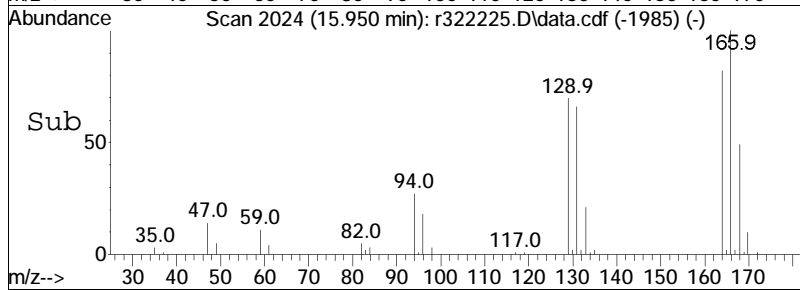
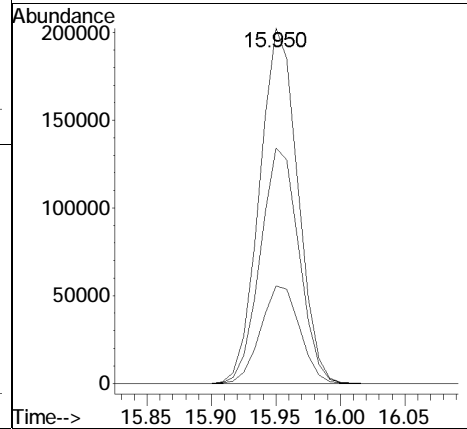
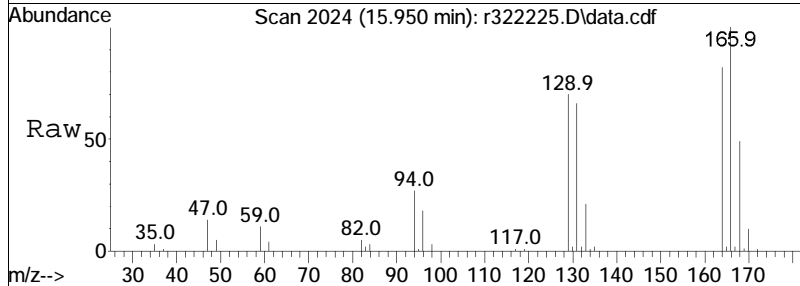
Tgt Ion	Resp	Lower	Upper
107	100		
109	93.9	75.6	113.4

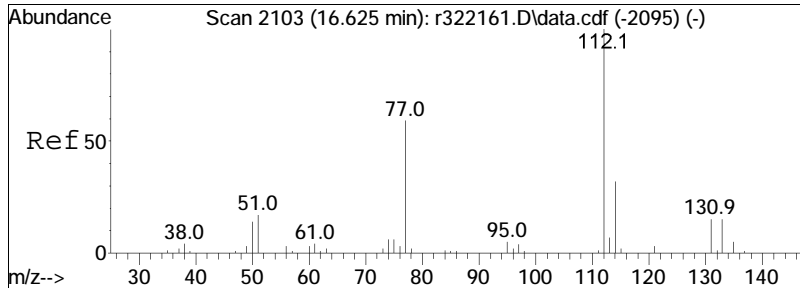




#78  
 tetrachloroethene  
 Concen: 10.88 ppbV  
 RT: 15.950 min Scan# 2024  
 Delta R.T. -0.008 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

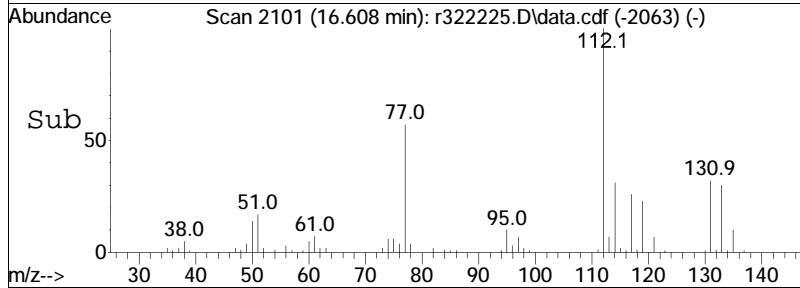
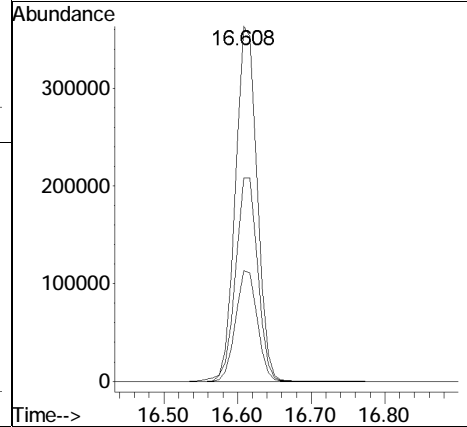
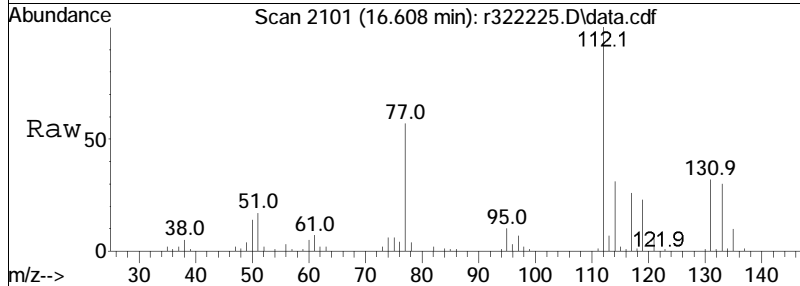
Tgt Ion	Resp	Lower	Upper
166	100		
131	66.3	51.8	77.6
94	27.4	21.8	32.8

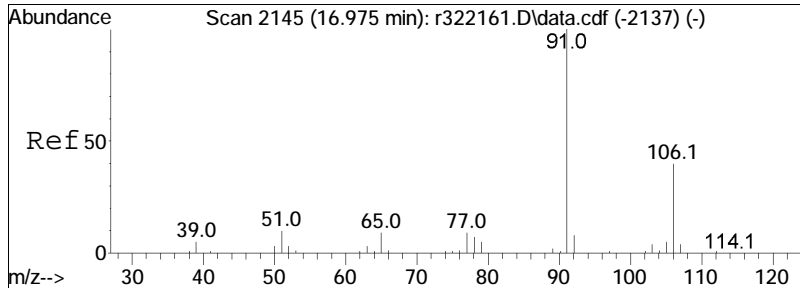




#80  
 chlorobenzene  
 Concen: 10.93 ppbV  
 RT: 16.608 min Scan# 2101  
 Delta R.T. -0.017 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

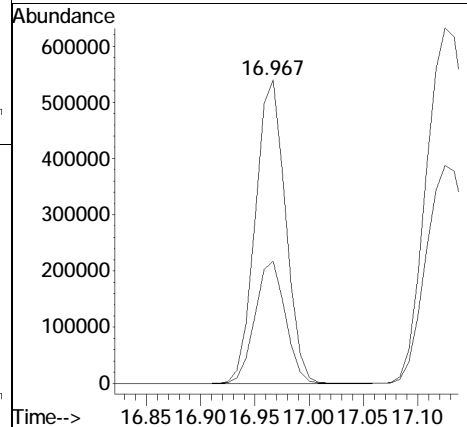
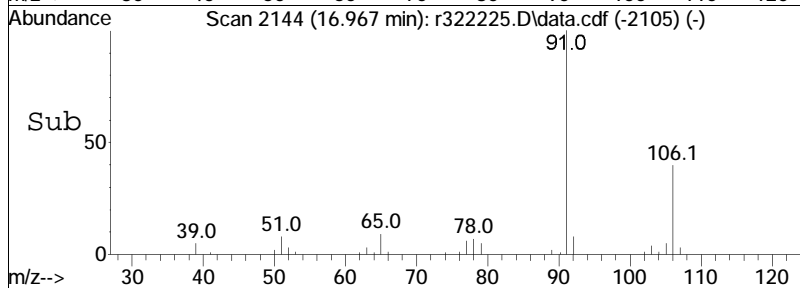
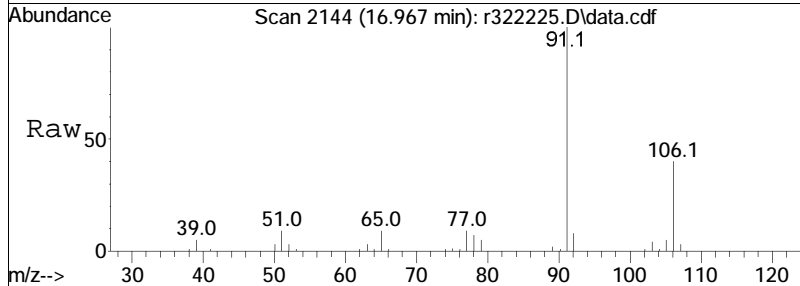
Tgt Ion	Ratio	Lower	Upper
112	100		
114	31.2	25.2	37.8
77	57.3	47.1	70.7

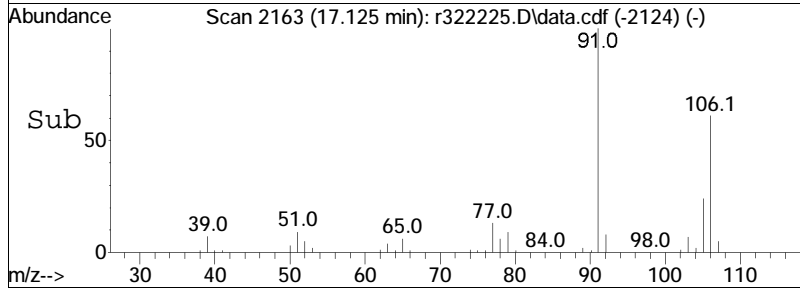
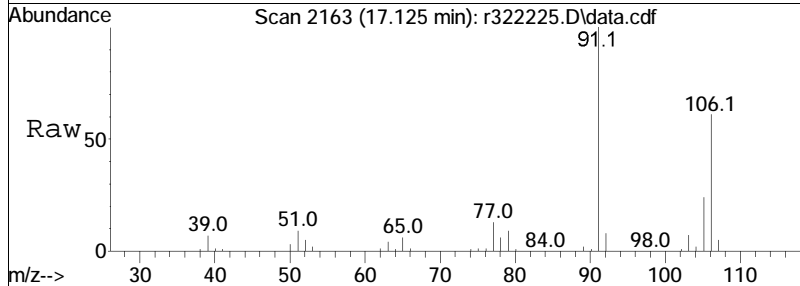
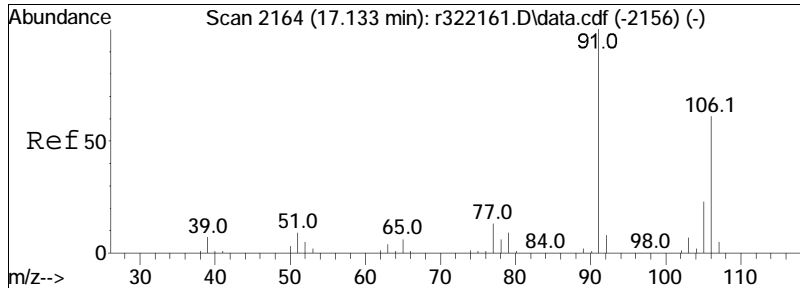




#81  
 ethylbenzene  
 Concen: 10.96 ppbV  
 RT: 16.967 min Scan# 2144  
 Delta R.T. -0.008 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

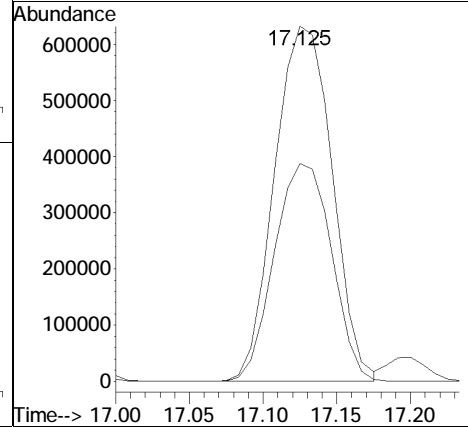
Tgt Ion	Resp	Lower	Upper
91	1041118		
106	40.2	32.4	48.6

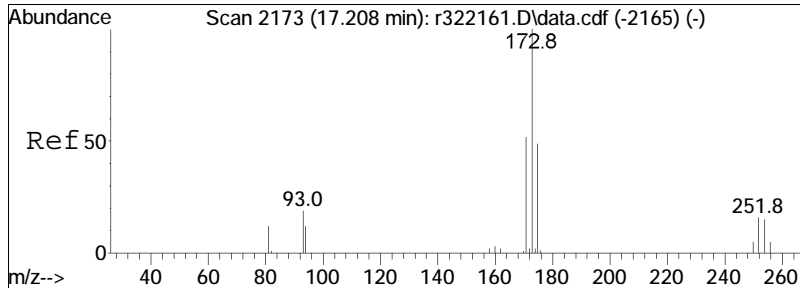




#83  
 m+p-xylene  
 Concen: 22.14 ppbV  
 RT: 17.125 min Scan# 2163  
 Delta R.T. -0.008 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

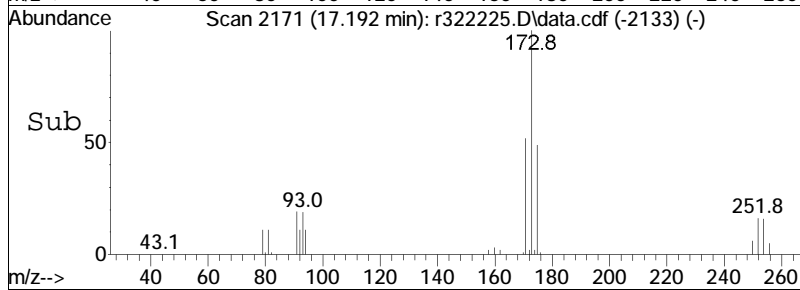
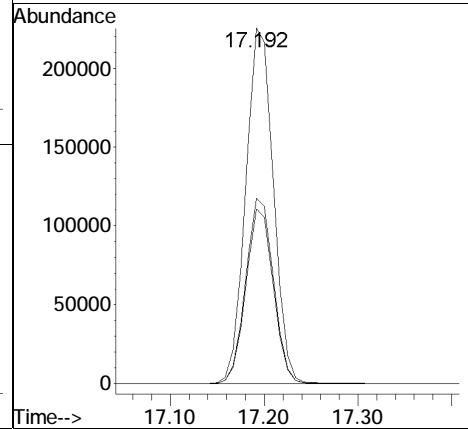
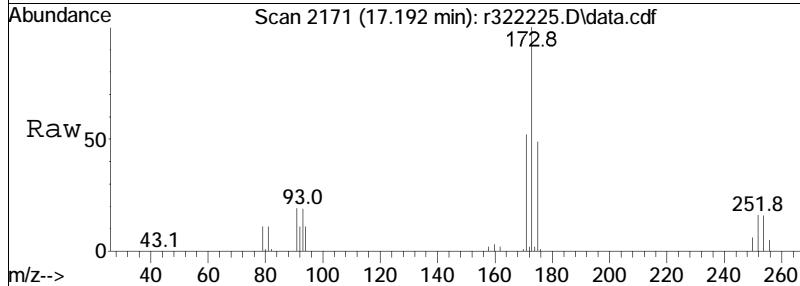
Tgt Ion: 91 Resp: 1717566  
 Ion Ratio Lower Upper  
 91 100  
 106 61.3 48.4 72.6

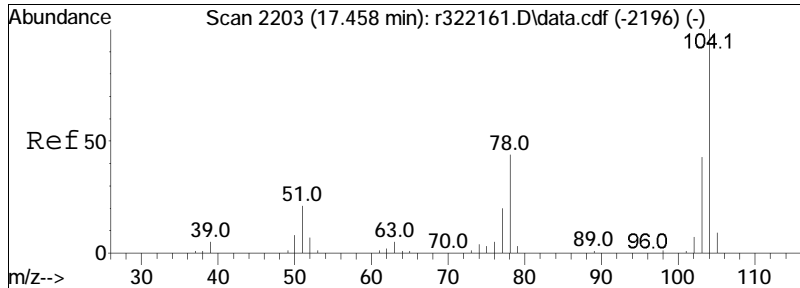




#84  
 bromoform  
 Concen: 13.61 ppbV  
 RT: 17.192 min Scan# 2171  
 Delta R.T. -0.017 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

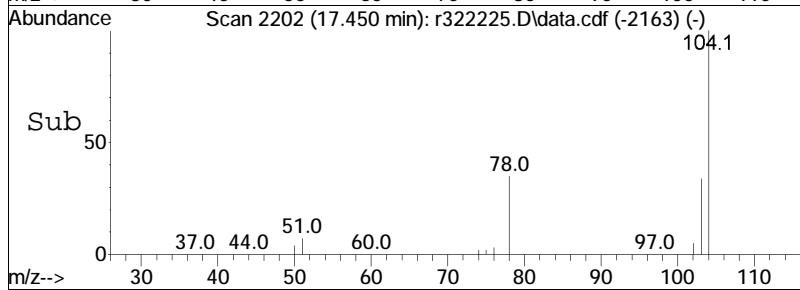
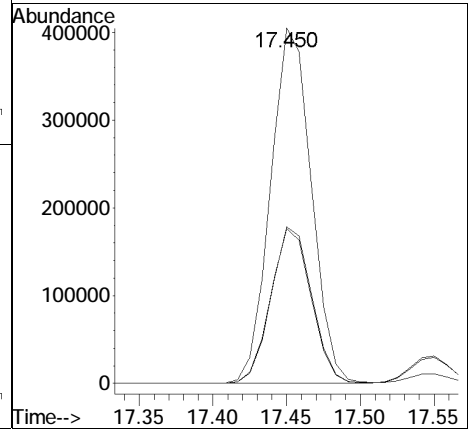
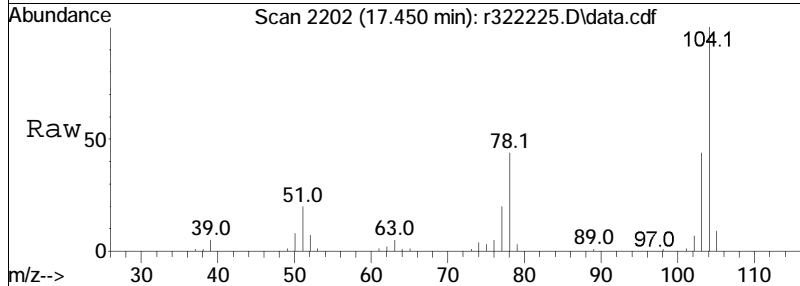
Tgt Ion	Ratio	Lower	Upper
173	100		
175	49.1	39.5	59.3
171	52.1	41.9	62.9



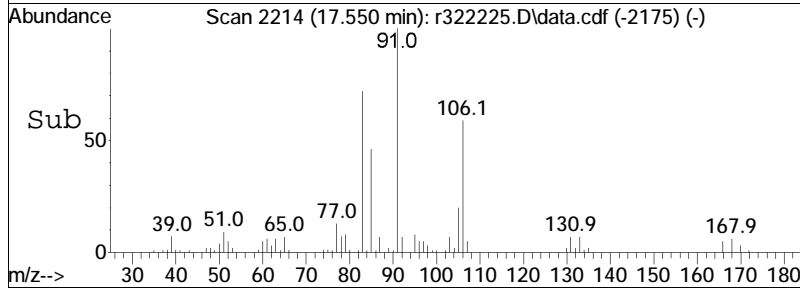
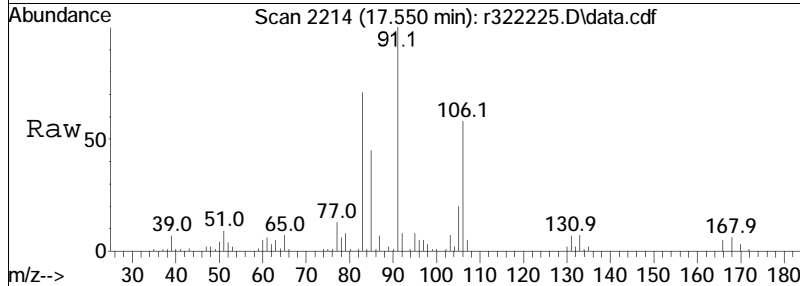
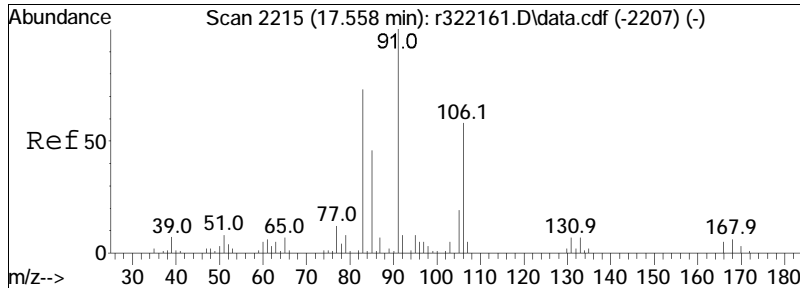


#85  
 styrene  
 Concen: 11.30 ppbV  
 RT: 17.450 min Scan# 2202  
 Delta R.T. -0.008 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

Tgt Ion	Ratio	Lower	Upper
104	100		
103	43.5	34.4	51.6
78	44.1	35.1	52.7

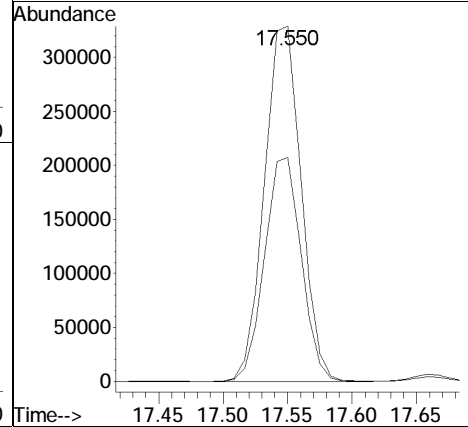


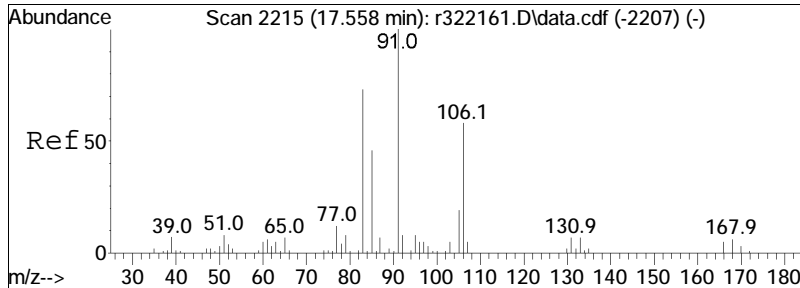




#86  
 1,1,2,2-tetrachloroethane  
 Concen: 11.36 ppbV  
 RT: 17.550 min Scan# 2214  
 Delta R.T. -0.008 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

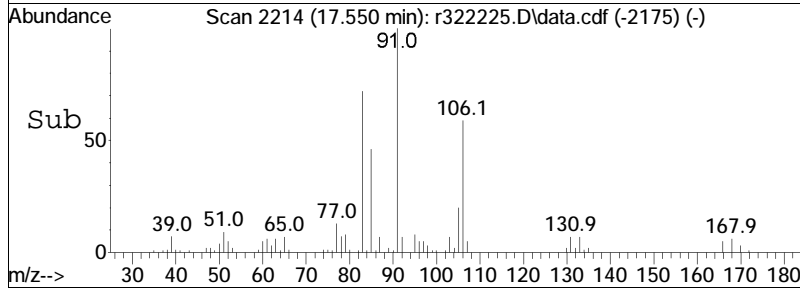
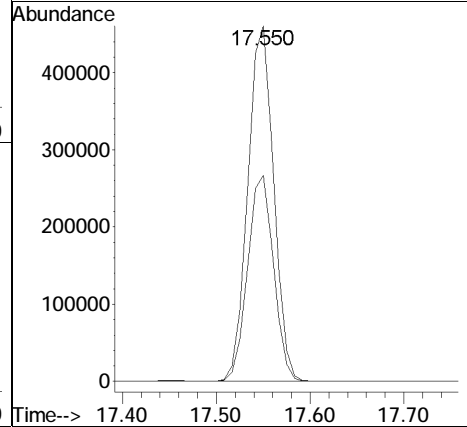
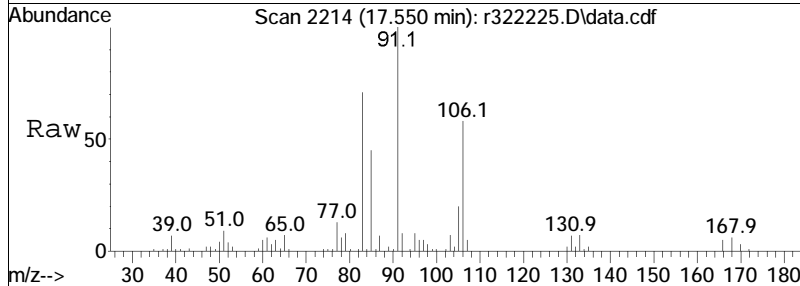
Tgt Ion:	83	Resp:	653948
Ion Ratio	Lower	Upper	
83	100		
85	63.0	50.6	75.8

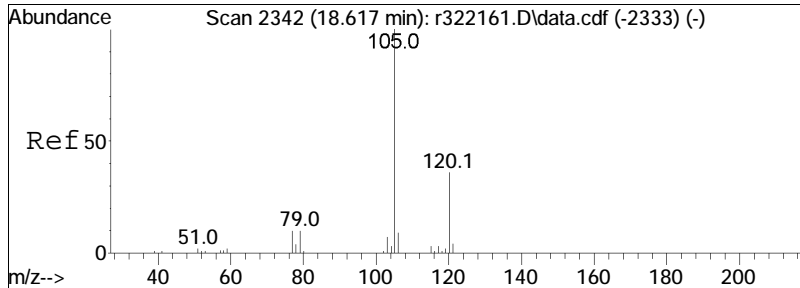




#87  
 o-xylene  
 Concen: 11.42 ppbV  
 RT: 17.550 min Scan# 2214  
 Delta R.T. -0.008 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

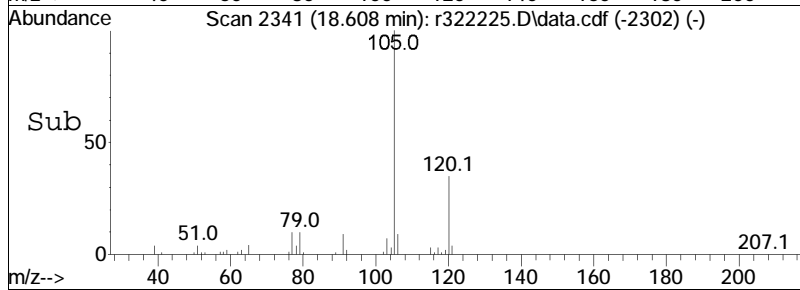
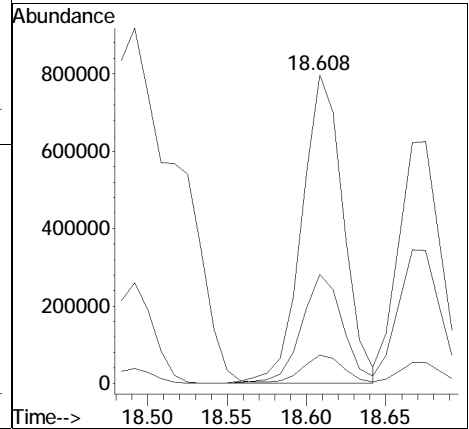
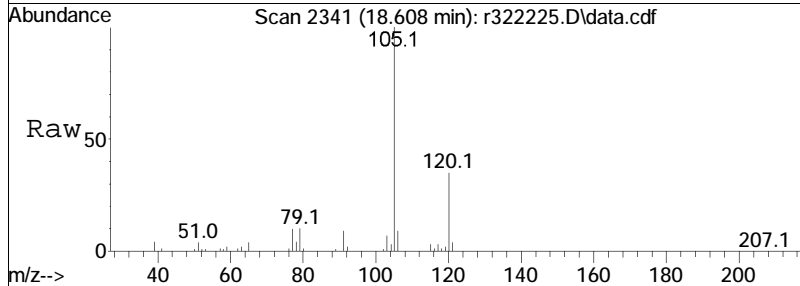
Tgt Ion:	91	Resp:	882605
Ion Ratio	Lower	Upper	
91	100		
106	58.0	46.4	69.6

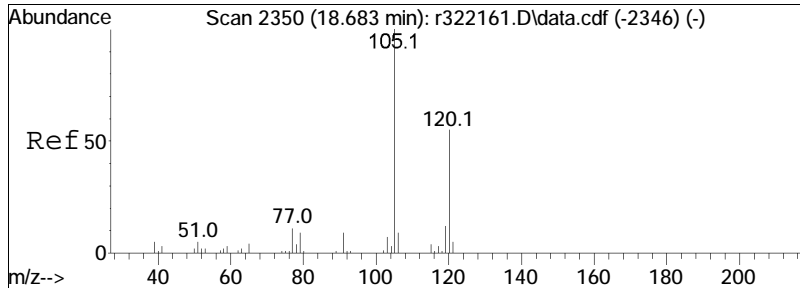




#96  
 4-ethyl toluene  
 Concen: 12.31 ppbV  
 RT: 18.608 min Scan# 2341  
 Delta R.T. -0.008 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

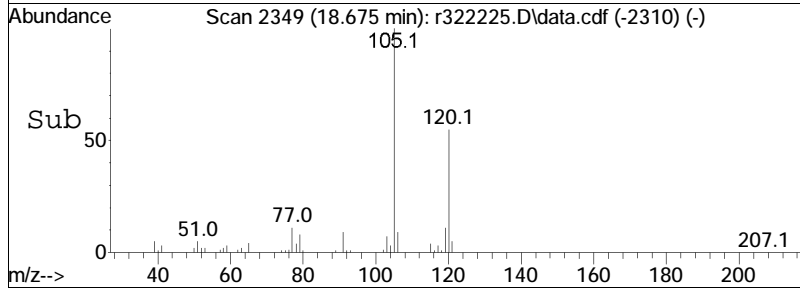
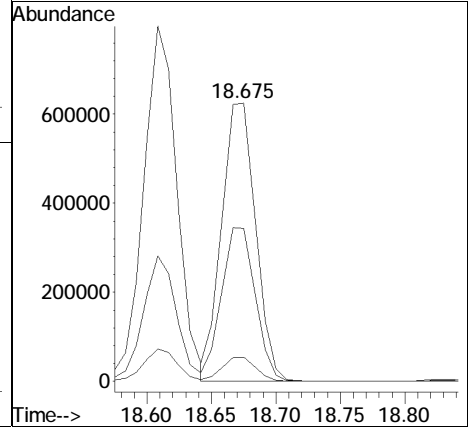
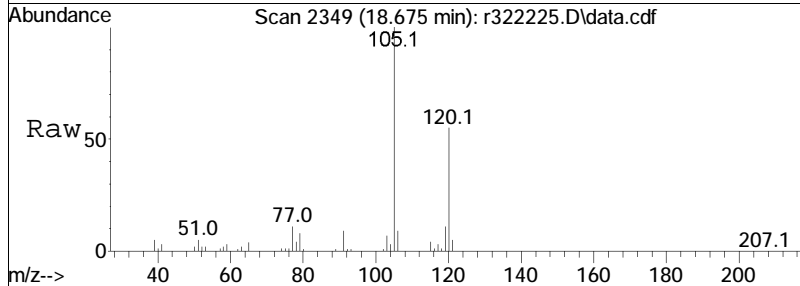
Tgt Ion	Resp	Lower	Upper
105	1448471		
105	100		
120	35.3	28.6	42.8
91	9.2	7.4	11.2

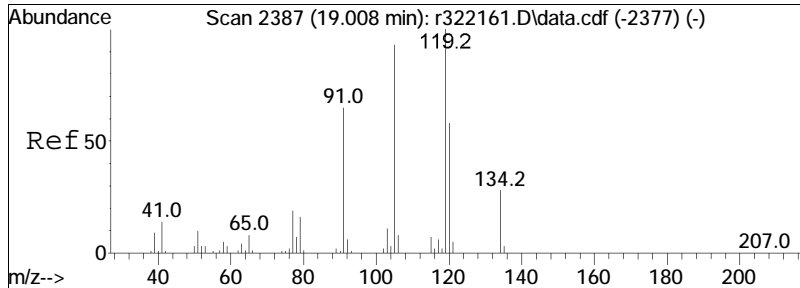




#97  
 1,3,5-trimethylbenzene  
 Concen: 10.64 ppbV  
 RT: 18.675 min Scan# 2349  
 Delta R.T. -0.008 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

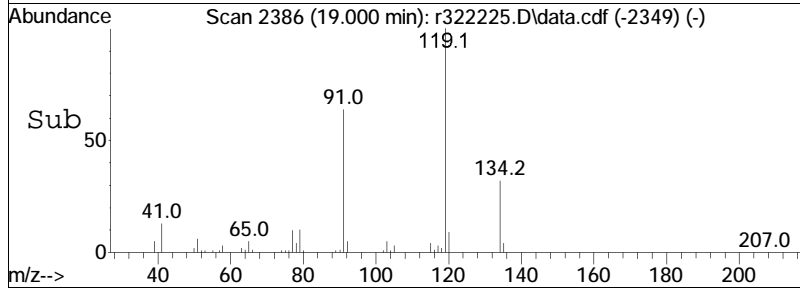
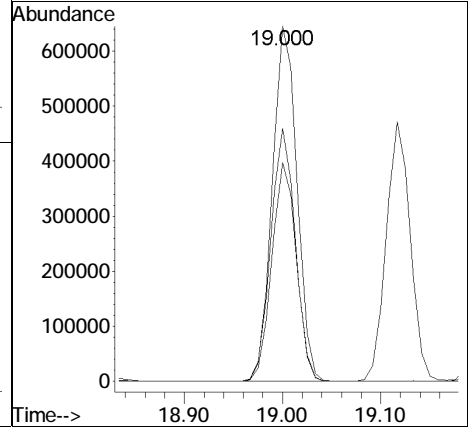
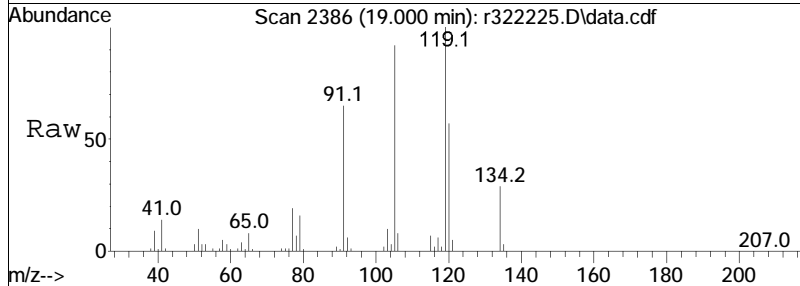
Tgt Ion	Resp	Lower	Upper
105	100		
120	54.9	43.7	65.5
91	8.8	7.0	10.4

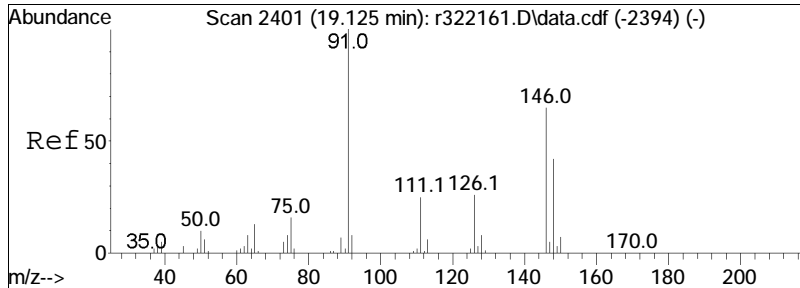




#99  
 1,2,4-trimethylbenzene  
 Concen: 11.92 ppbV  
 RT: 19.000 min Scan# 2386  
 Delta R.T. -0.008 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

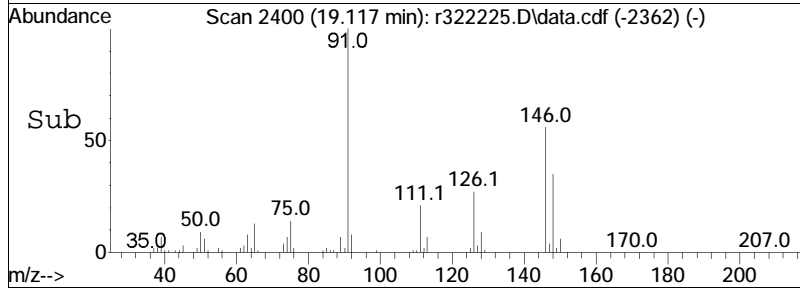
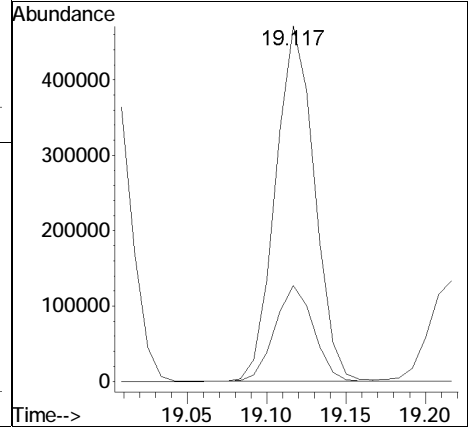
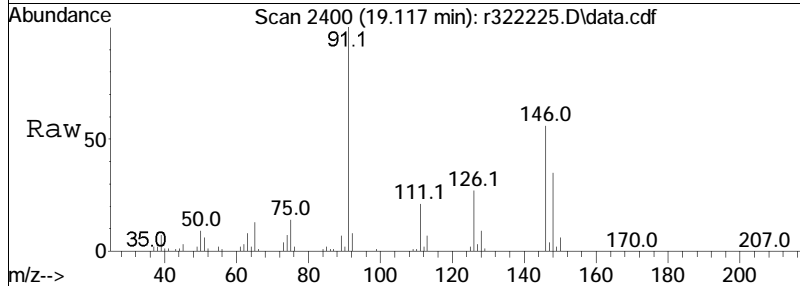
Tgt Ion	Resp	Lower	Upper
105	100		
120	61.6	49.4	74.2
91	71.2	55.8	83.8

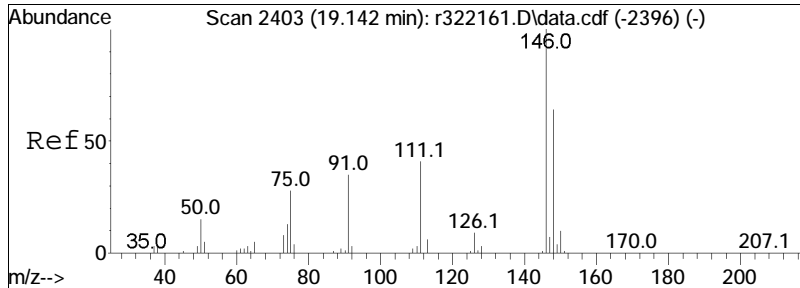




#101  
 Benzyl Chloride  
 Concen: 15.06 ppbV  
 RT: 19.117 min Scan# 2400  
 Delta R.T. -0.008 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

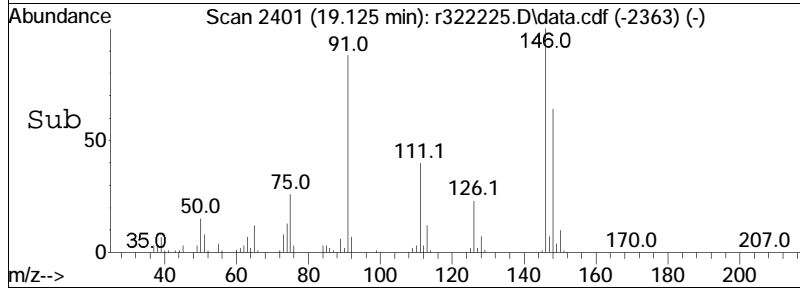
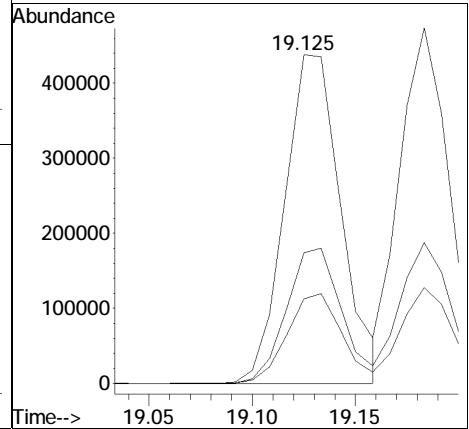
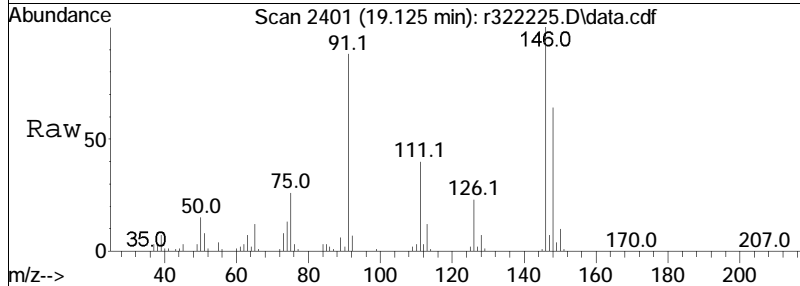
Tgt Ion: 91 Resp: 803365  
 Ion Ratio Lower Upper  
 91 100  
 126 27.0 20.9 31.3

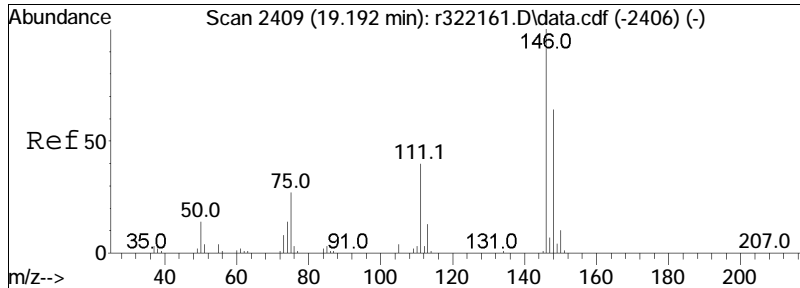




#102  
 1,3-dichlorobenzene  
 Concen: 11.67 ppbV  
 RT: 19.125 min Scan# 2401  
 Delta R.T. -0.017 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

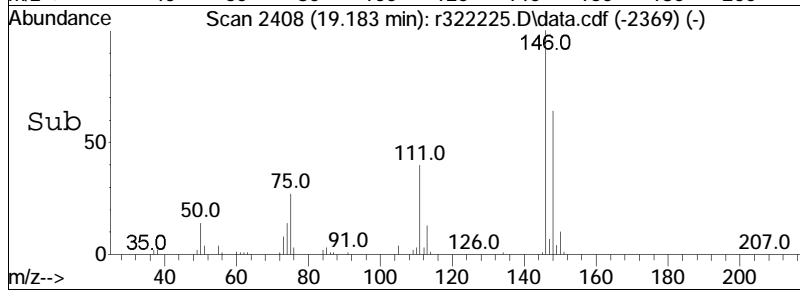
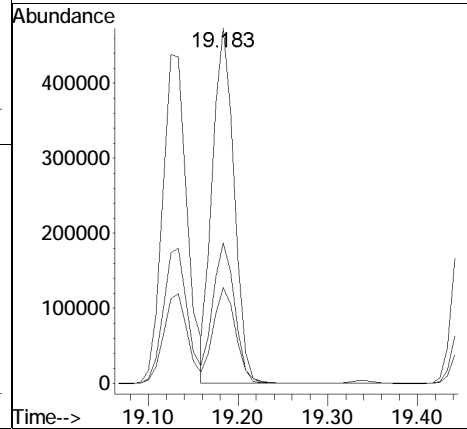
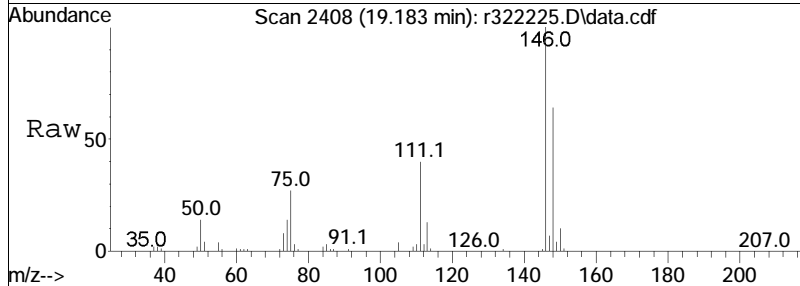
Tgt Ion	Ratio	Lower	Upper
146	100		
111	39.7	32.8	49.2
75	25.7	22.2	33.2



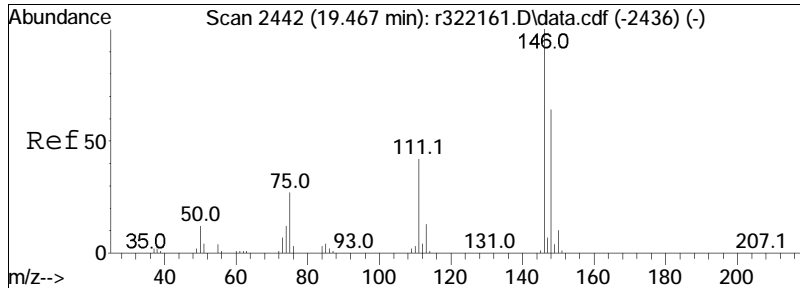


#103  
 1,4-dichlorobenzene  
 Concen: 11.47 ppbV  
 RT: 19.183 min Scan# 2408  
 Delta R.T. -0.008 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

Tgt Ion	Ratio	Lower	Upper
146	100		
111	39.6	31.4	47.2
75	27.0	21.7	32.5

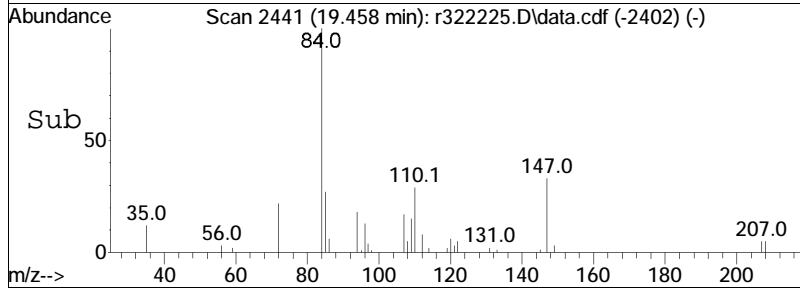
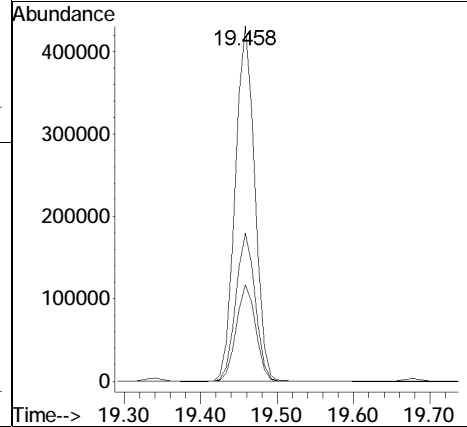
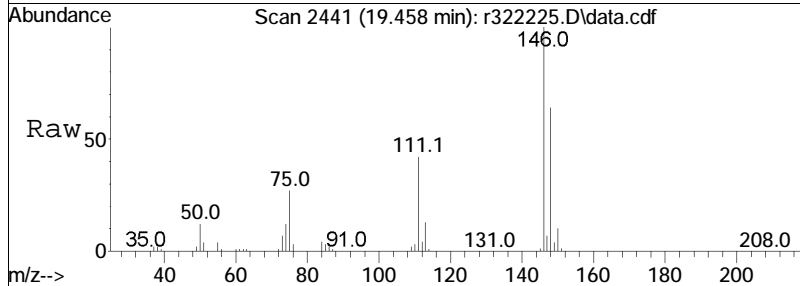


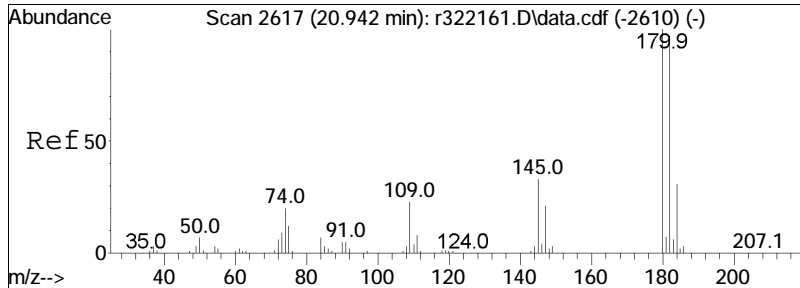




#107  
 1,2-dichlorobenzene  
 Concen: 11.48 ppbV  
 RT: 19.458 min Scan# 2441  
 Delta R.T. -0.008 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

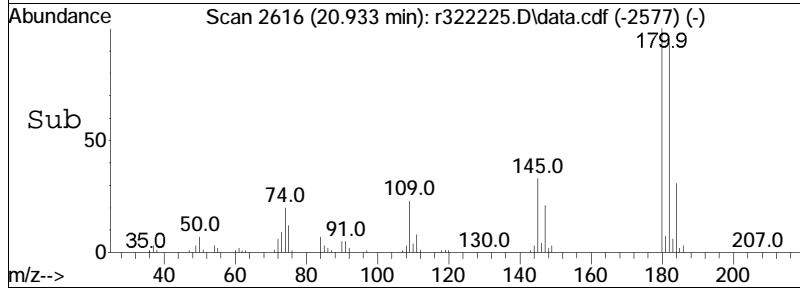
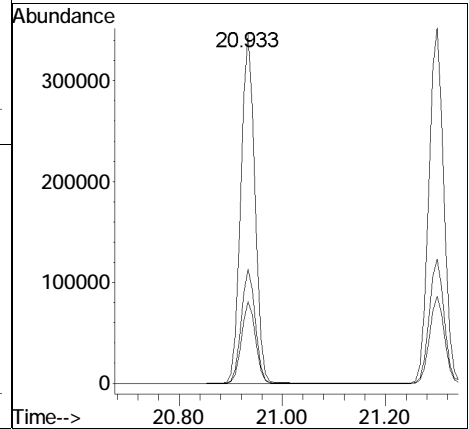
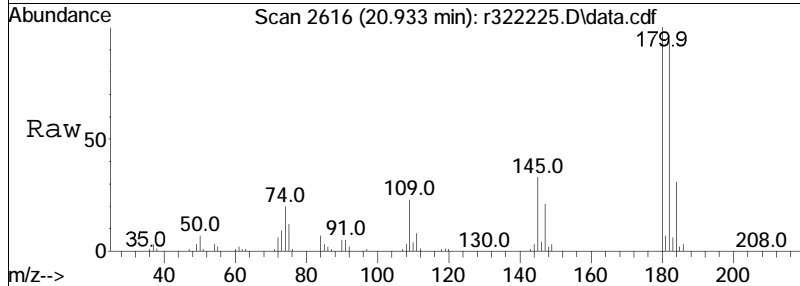
Tgt Ion	Ratio	Lower	Upper
146	100		
111	41.7	33.4	50.2
75	27.2	21.8	32.8

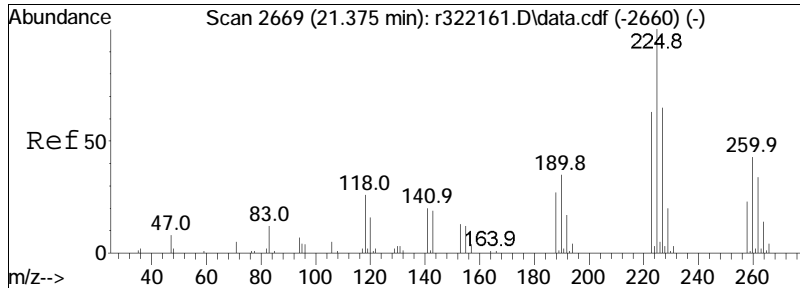




#115  
 1,2,4-trichlorobenzene  
 Concen: 12.45 ppbV  
 RT: 20.933 min Scan# 2616  
 Delta R.T. -0.008 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

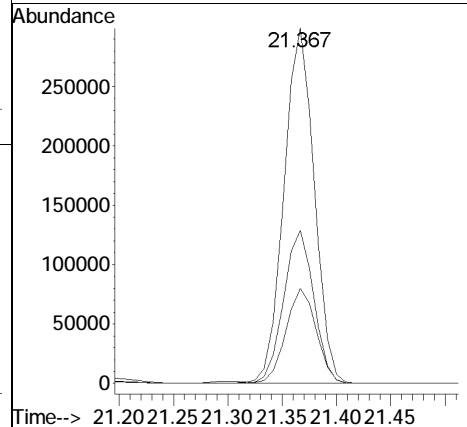
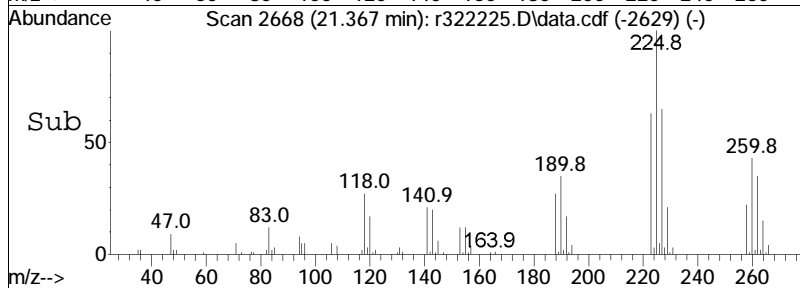
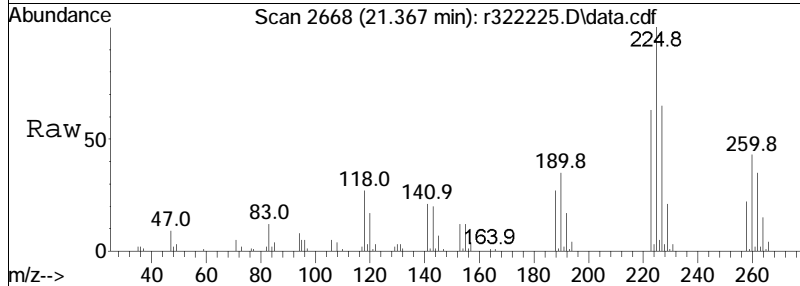
Tgt Ion	Ratio	Lower	Upper
180	100		
145	32.8	26.3	39.5
109	23.4	18.6	28.0





#119  
 hexachlorobutadiene  
 Concen: 11.72 ppbV  
 RT: 21.367 min Scan# 2668  
 Delta R.T. -0.008 min  
 Lab File: r322225.D  
 Acq: 19 May 2022 2:23 PM

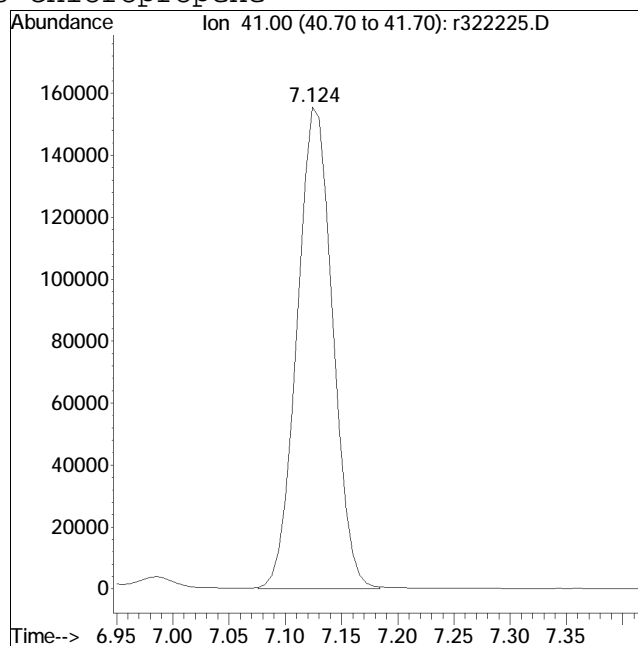
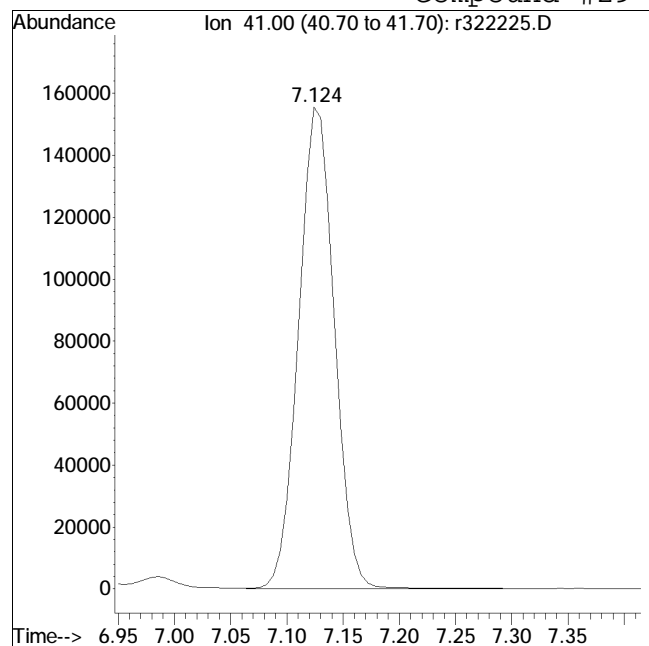
Tgt Ion	Ratio	Lower	Upper
225	100		
260	43.1	34.3	51.5
118	26.7	21.2	31.8



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322225.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:2: 3 Instrument :  
Sample : WG1640711-3,3,250,250 Quant Date : 5/19/2022 3:42 pm

Compound #29: 3-chloropropene



Original Peak Response = 342824

Manual Peak Response = 342365 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
 Data File : r322207.D  
 Acq On : 19 May 2022 12:26 AM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640147-5,3,250,250  
 Misc : WG1640147,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 18:02:37 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518T\r322194.D  
 Sub List : TO15-NY-7-SIM - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) bromochloromethane	9.542	49	427643	10.000	ppbV	-0.03
Standard Area =	443368		Recovery =	96.45%		
43) 1,4-difluorobenzene	11.813	114	1281072	10.000	ppbV	-0.03
Standard Area =	1337389		Recovery =	95.79%		
67) chlorobenzene-D5	16.558	54	197831	10.000	ppbV	-0.02
Standard Area =	206902		Recovery =	95.62%		

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) dichlorodifluoromethane	3.940	85	20868	0.620	ppbV	99
6) chloromethane	4.120	50	20103	1.243	ppbV	98
7) Freon-114	4.246		0	N.D.		
10) 1,3-butadiene	4.546		0	N.D.		
13) bromomethane	4.864		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	5.260	31	124764	7.594	ppbV	98
17) vinyl bromide	0.000		0	N.D.		
19) acetone	5.840	43	115434M6	4.927	ppbV	
21) trichlorofluoromethane	6.033	101	9490	0.310	ppbV	99
22) isopropyl alcohol	6.167	45	93185	3.306	ppbV	99
27) tertiary butyl alcohol	6.896	59	196058	5.590	ppbV	99
28) methylene chloride	6.974	49	4821	0.181	ppbV	95
29) 3-chloropropene	0.000		0	N.D.	d	
30) carbon disulfide	7.268	76	6219	0.102	ppbV #	1
31) Freon 113	7.310	101	2754	0.081	ppbV	97
32) trans-1,2-dichloroethene	0.000		0	N.D.		
33) 1,1-dichloroethane	0.000		0	N.D.		
34) MTBE	8.442		0	N.D.		
36) 2-butanone	8.858	43	15792	0.371	ppbV	99
38) Ethyl Acetate	9.675	61	512	0.074	ppbV	74
39) chloroform	9.700		0	N.D.		
40) Tetrahydrofuran	10.192	42	1895	0.077	ppbV	97
42) 1,2-dichloroethane	10.558		0	N.D.		
44) hexane	9.617	57	15568	0.426	ppbV #	40
50) benzene	11.380	78	17751	0.237	ppbV	97
53) cyclohexane	11.693	56	4810	0.127	ppbV	94

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
 Data File : r322207.D  
 Acq On : 19 May 2022 12:26 AM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640147-5,3,250,250  
 Misc : WG1640147,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 18:02:37 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518T\r322194.D  
 Sub List : TO15-NY-7-SIM - .

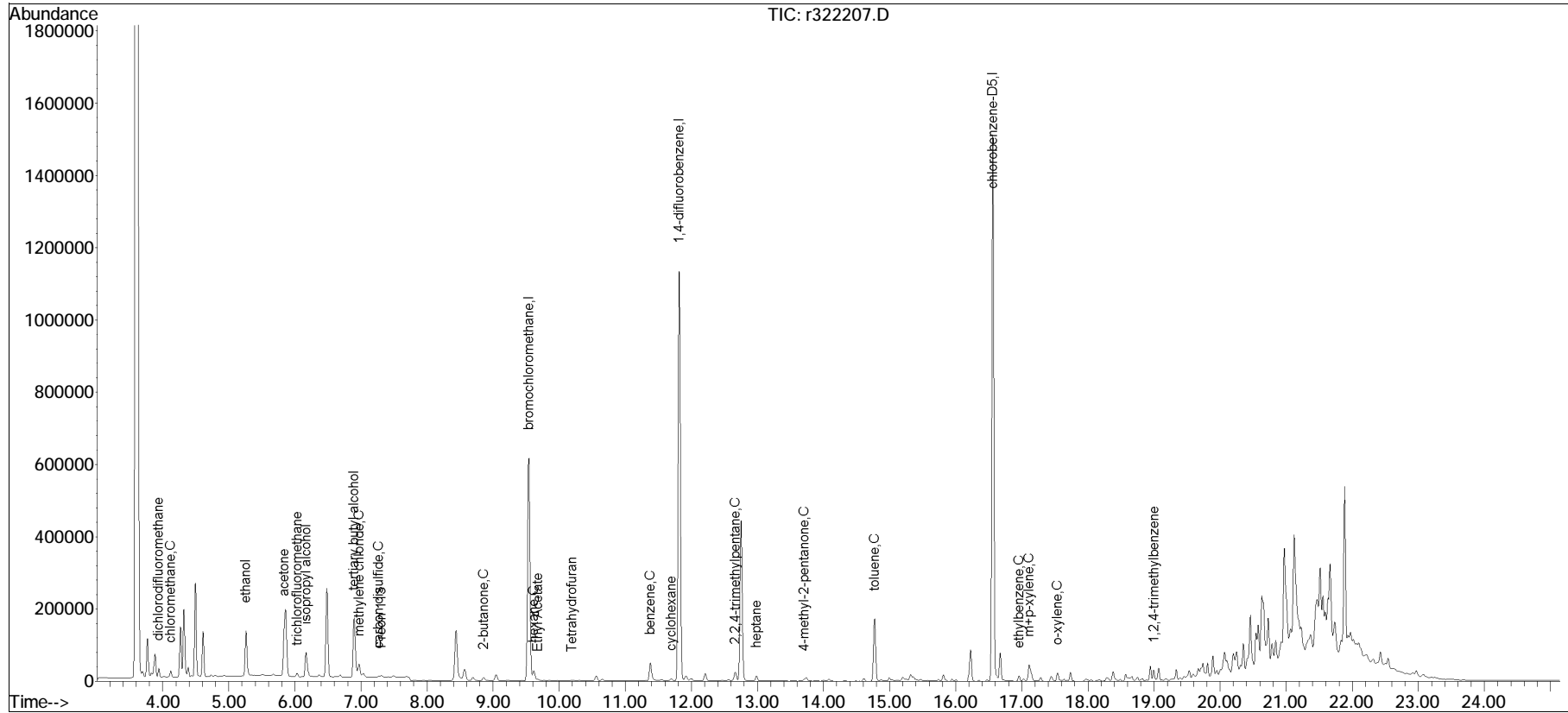
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
56) 1,2-dichloropropane	0.000		0		N.D.	
57) bromodichloromethane	12.560		0		N.D.	
58) 1,4-dioxane	12.653		0		N.D.	
60) 2,2,4-trimethylpentane	12.667	57	28881	0.256	ppbV	96
62) heptane	12.987	43	8649	0.206	ppbV	94
63) cis-1,3-dichloropropene	0.000		0		N.D.	
64) 4-methyl-2-pentanone	13.708	43	3426	0.071	ppbV	95
65) trans-1,3-dichloropropene	0.000		0		N.D.	
66) 1,1,2-trichloroethane	0.000		0		N.D.	
68) toluene	14.775	91	156126	2.101	ppbV	100
72) 2-hexanone	15.100		0		N.D.	
74) dibromochloromethane	0.000		0		N.D.	
75) 1,2-dibromoethane	0.000		0		N.D.	
80) chlorobenzene	16.617		0		N.D.	
81) ethylbenzene	16.958	91	13510	0.152	ppbV	100
83) m+p-xylene	17.108	91	38694	0.531	ppbV	99
84) bromoform	0.000		0		N.D.	
85) styrene	17.450		0		N.D.	
86) 1,1,2,2-tetrachloroethane	17.583		0		N.D.	
87) o-xylene	17.542	91	15448	0.213	ppbV	97
96) 4-ethyl toluene	18.600		0		N.D.	
97) 1,3,5-trimethylbenzene	18.667		0		N.D.	
99) 1,2,4-trimethylbenzene	19.000	105	14609M6	0.165	ppbV	
101) Benzyl Chloride	19.175		0		N.D.	
102) 1,3-dichlorobenzene	19.183		0		N.D.	
103) 1,4-dichlorobenzene	19.183		0		N.D.	
107) 1,2-dichlorobenzene	0.000		0		N.D.	
115) 1,2,4-trichlorobenzene	21.008		0		N.D.	
119) hexachlorobutadiene	0.000		0		N.D.	

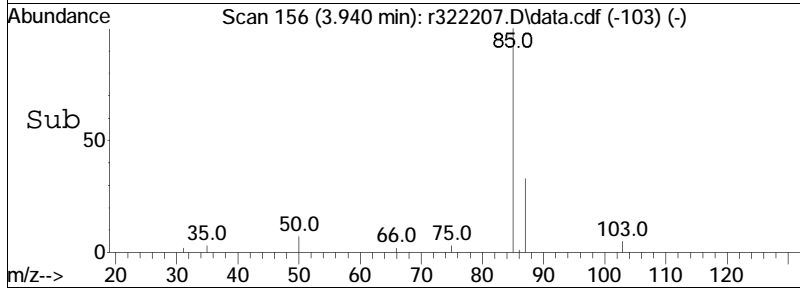
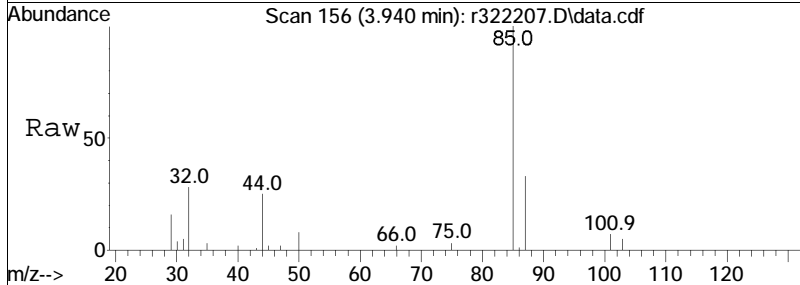
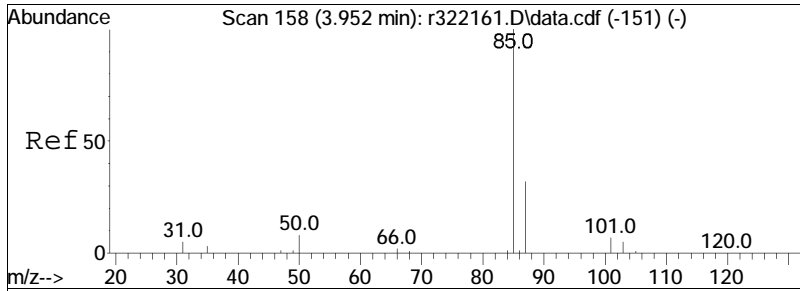
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : TO15-NY-7-SIM - .\Airpiano3\2022\05\0518T\r322194.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518T\  
Data File : r322207.D  
Acq On : 19 May 2022 12:26 AM  
Operator : AIRPIANO3:TS  
Sample : WG1640147-5,3,250,250  
Misc : WG1640147,ICAL19030  
ALS Vial : 0 Sample Multiplier: 1

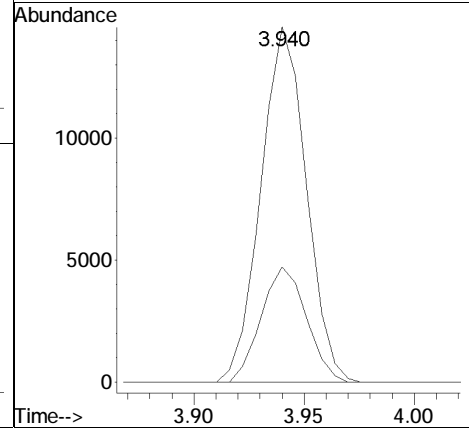
Quant Time: May 19 18:02:37 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518T\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 15:52:12 2022  
Response via : Initial Calibration



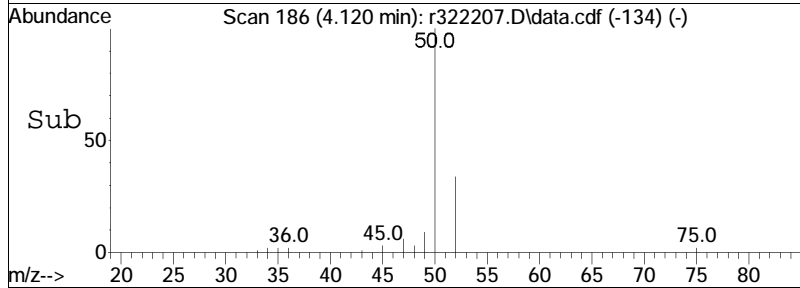
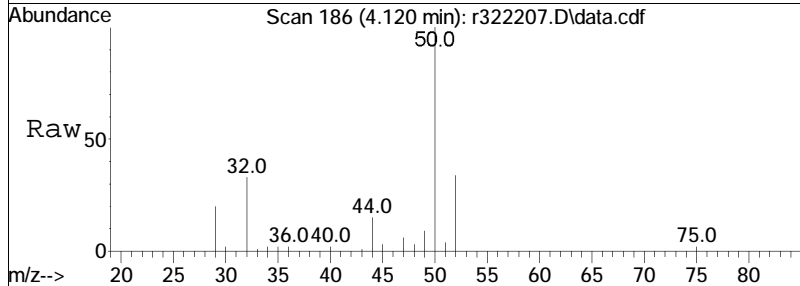
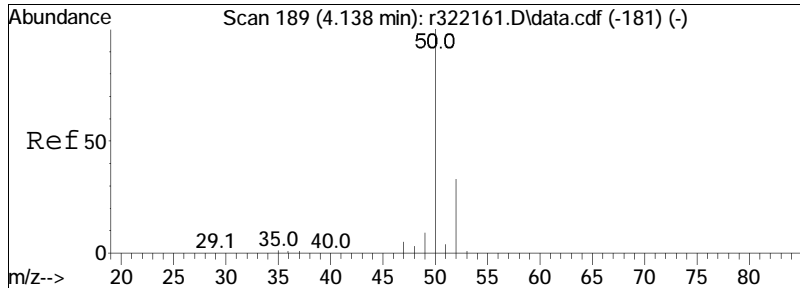


#5  
dichlorodifluoromethane  
Concen: 0.62 ppbV  
RT: 3.940 min Scan# 156  
Delta R.T. -0.012 min  
Lab File: r322207.D  
Acq: 19 May 2022 12:26 AM

Tgt Ion:	85	Resp:	20868
Ion Ratio	Lower	Upper	
85	100		
87	32.5	25.8	38.6

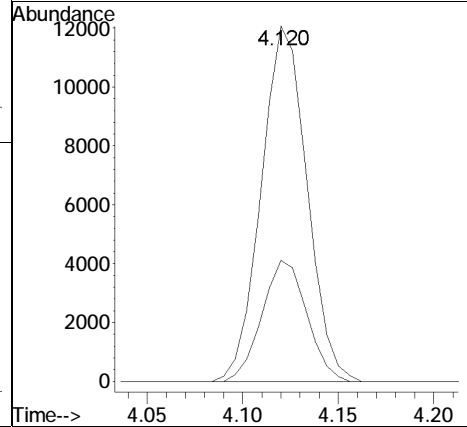


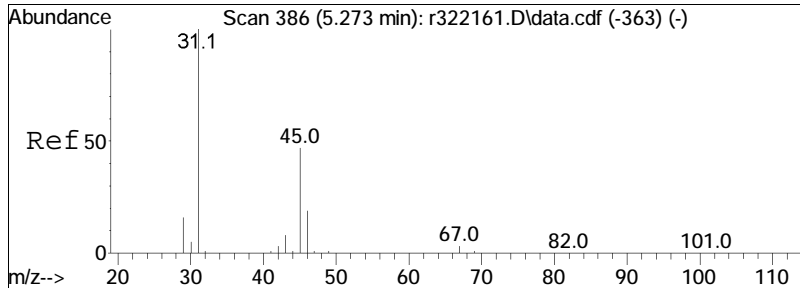




#6  
 chloromethane  
 Concen: 1.24 ppbV  
 RT: 4.120 min Scan# 186  
 Delta R.T. -0.018 min  
 Lab File: r322207.D  
 Acq: 19 May 2022 12:26 AM

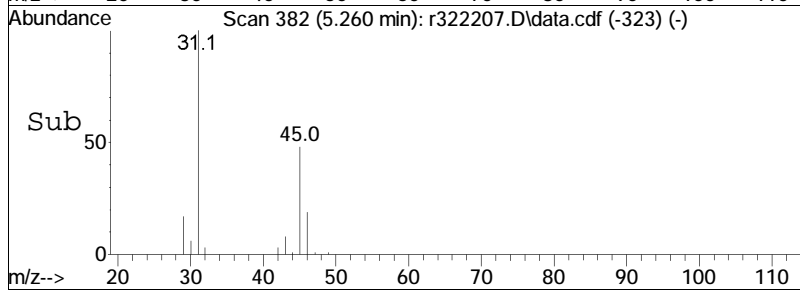
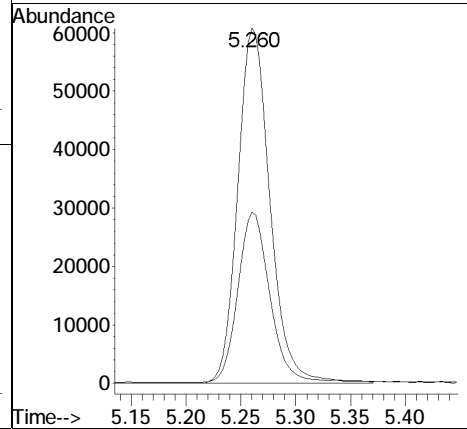
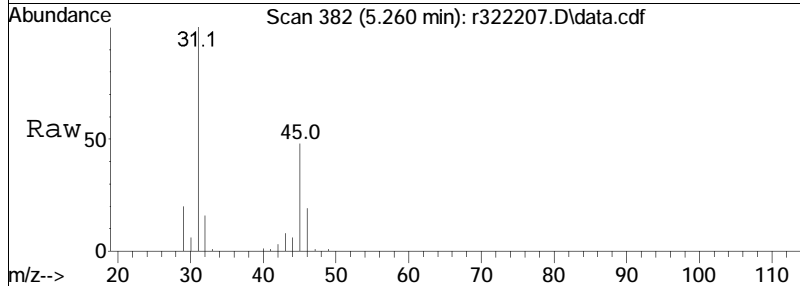
Tgt Ion: 50 Resp: 20103  
 Ion Ratio Lower Upper  
 50 100  
 52 34.1 26.3 39.5

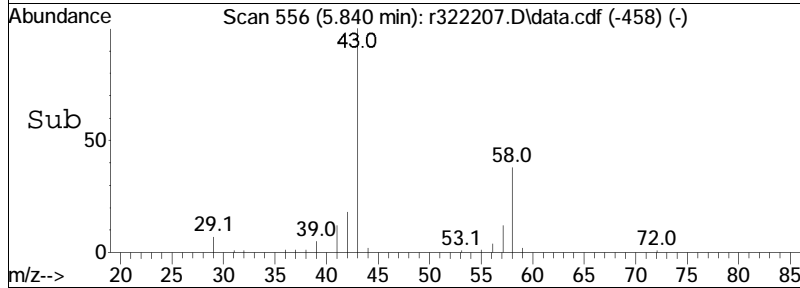
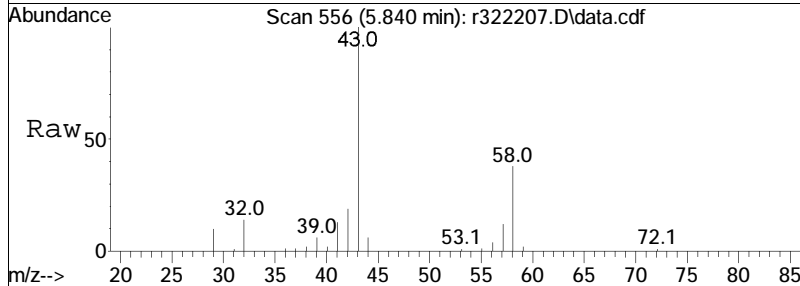
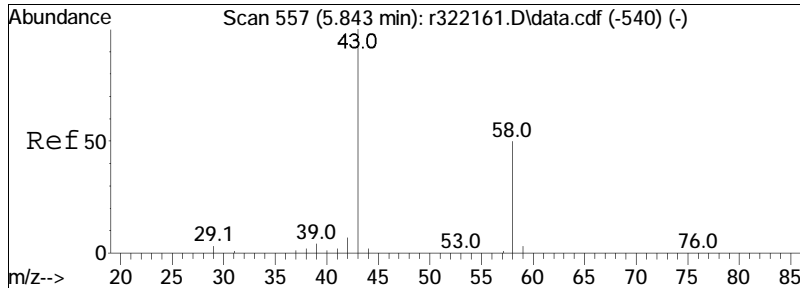




#15  
 ethanol  
 Concen: 7.59 ppbV  
 RT: 5.260 min Scan# 382  
 Delta R.T. -0.013 min  
 Lab File: r322207.D  
 Acq: 19 May 2022 12:26 AM

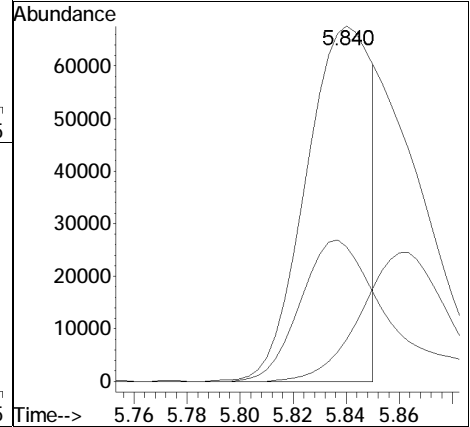
Tgt Ion	Resp	Lower	Upper
31	100		
45	48.2	37.6	56.4

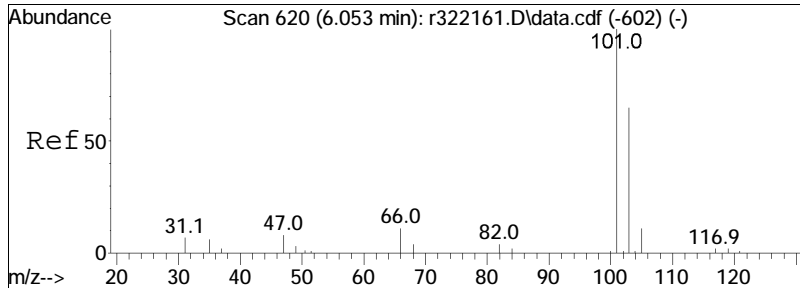




#19  
 acetone  
 Concen: 4.93 ppbV m  
 RT: 5.840 min Scan# 556  
 Delta R.T. -0.003 min  
 Lab File: r322207.D  
 Acq: 19 May 2022 12:26 AM

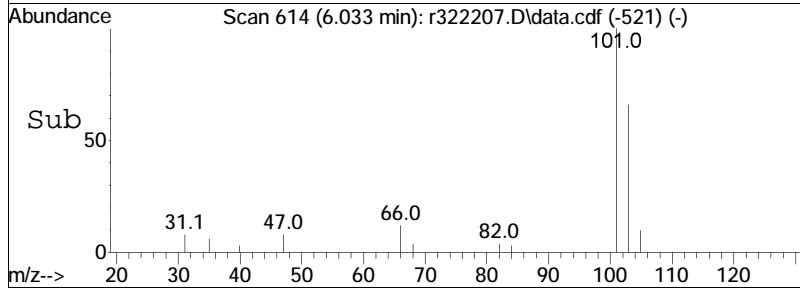
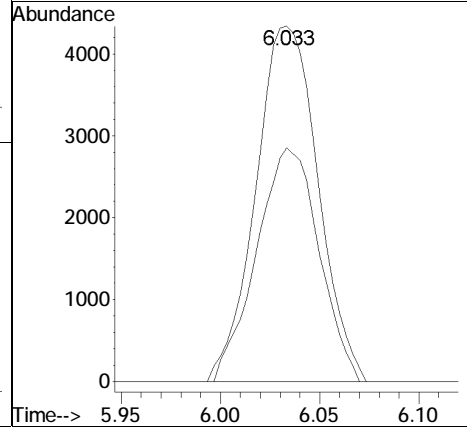
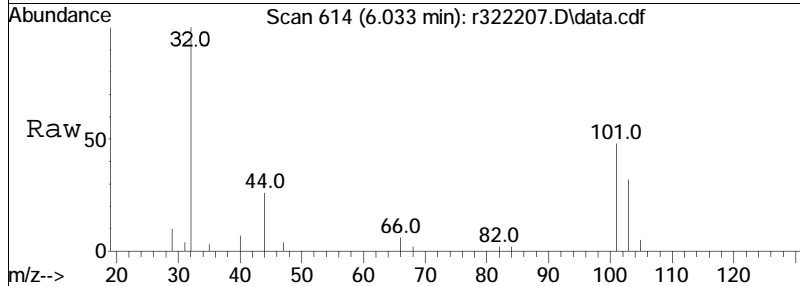
Tgt Ion:	43	Resp:	115434
Ion Ratio	Lower	Upper	
43	100		
58	37.9	39.8	59.8#
57	11.7	1.0	1.6#

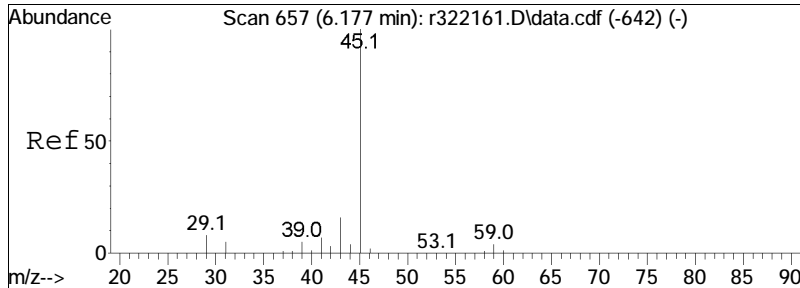




#21  
 trichlorofluoromethane  
 Concen: 0.31 ppbV  
 RT: 6.033 min Scan# 614  
 Delta R.T. -0.020 min  
 Lab File: r322207.D  
 Acq: 19 May 2022 12:26 AM

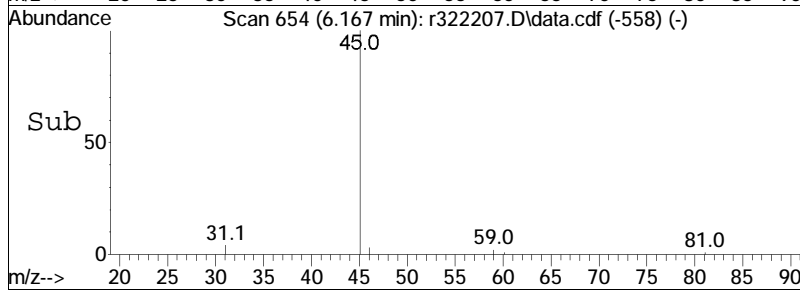
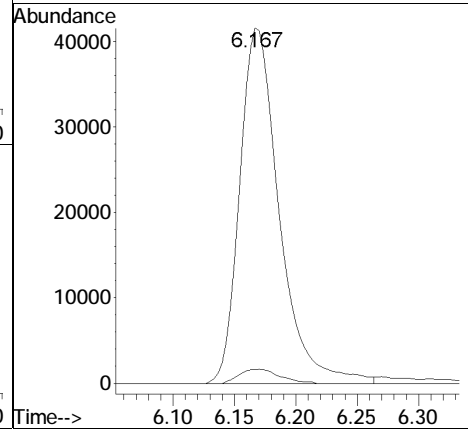
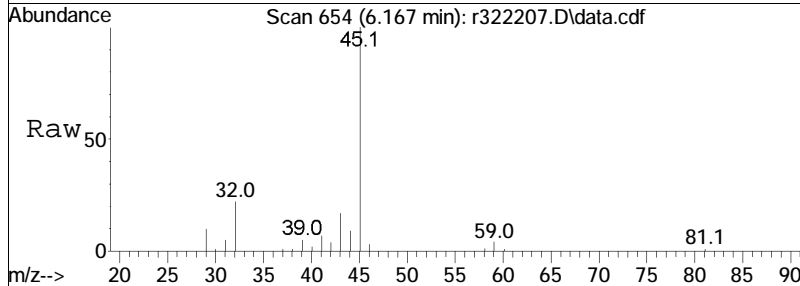
Tgt Ion: 101 Resp: 9490  
 Ion Ratio Lower Upper  
 101 100  
 103 65.8 51.8 77.6

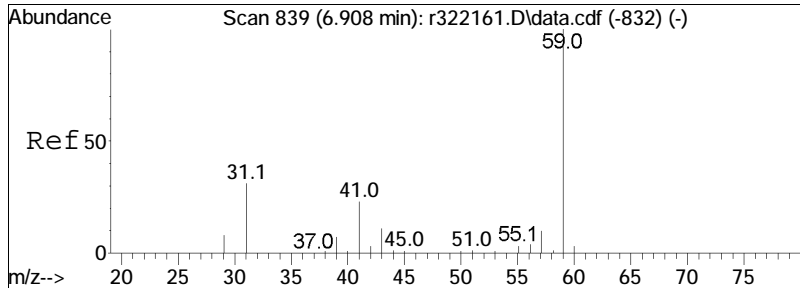




#22  
 isopropyl alcohol  
 Concen: 3.31 ppbV  
 RT: 6.167 min Scan# 654  
 Delta R.T. -0.010 min  
 Lab File: r322207.D  
 Acq: 19 May 2022 12:26 AM

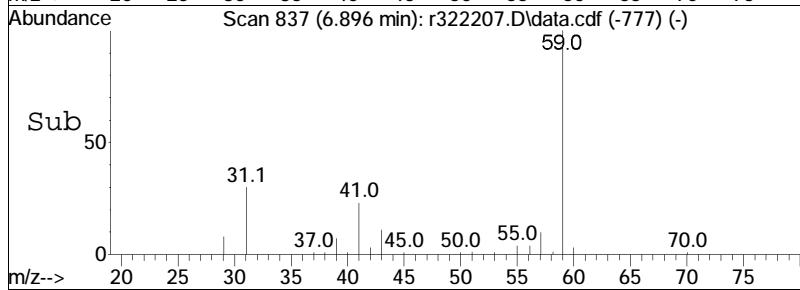
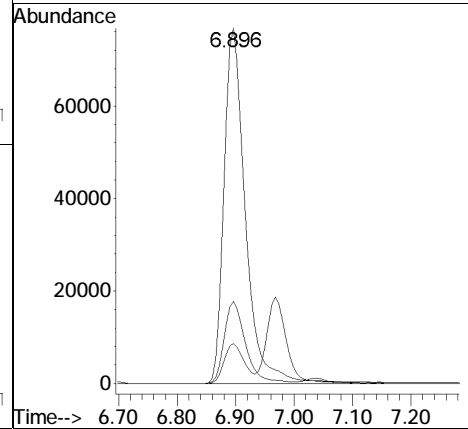
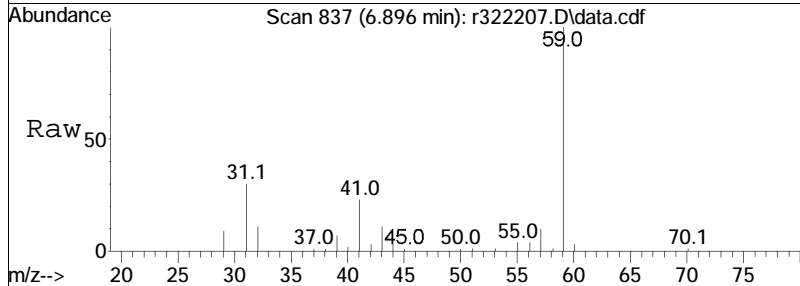
Tgt Ion	Resp	Lower	Upper
45	100		
59	3.9	3.5	5.3

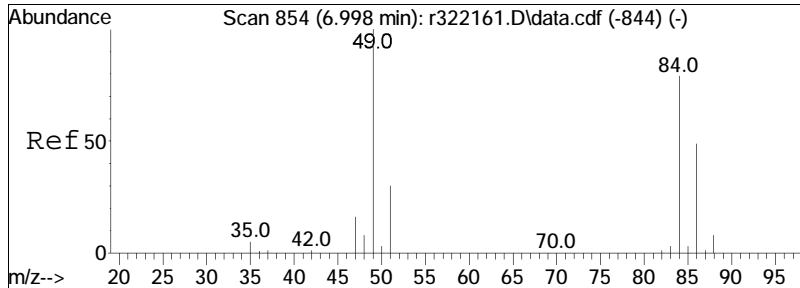




#27  
 tertiary butyl alcohol  
 Concen: 5.59 ppbV  
 RT: 6.896 min Scan# 837  
 Delta R.T. -0.012 min  
 Lab File: r322207.D  
 Acq: 19 May 2022 12:26 AM

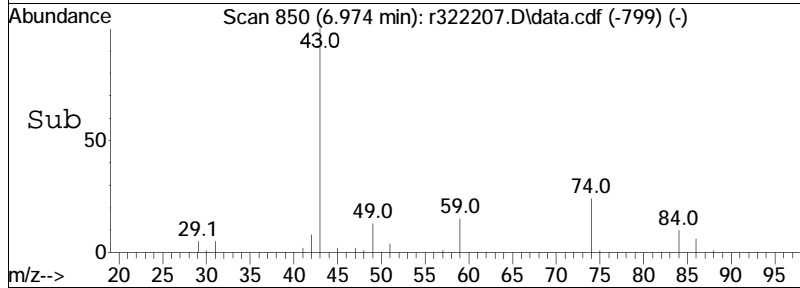
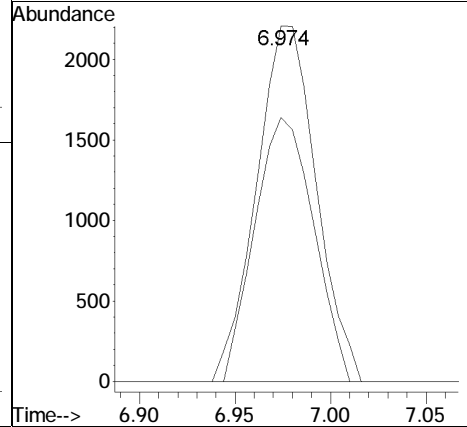
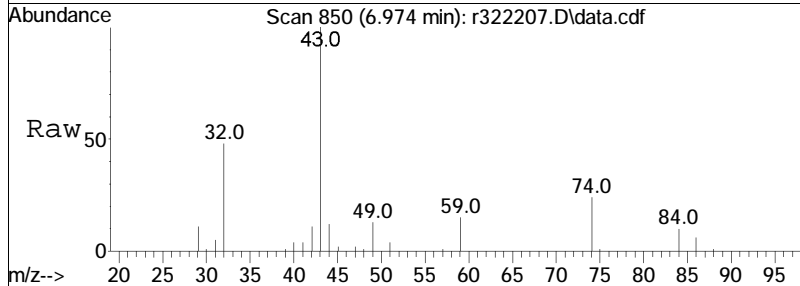
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
59	100		
41	23.1	18.2	27.2
43	11.2	8.9	13.3

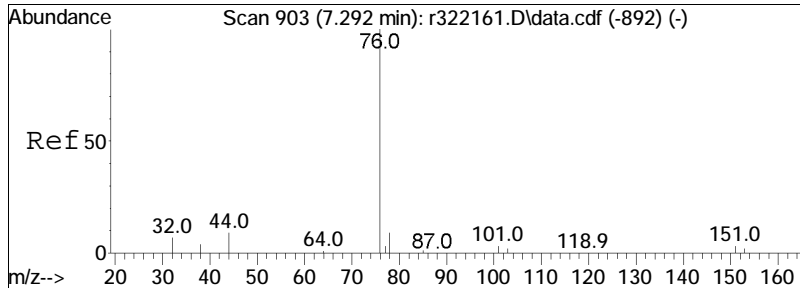




#28  
 methylene chloride  
 Concen: 0.18 ppbV  
 RT: 6.974 min Scan# 850  
 Delta R.T. -0.024 min  
 Lab File: r322207.D  
 Acq: 19 May 2022 12:26 AM

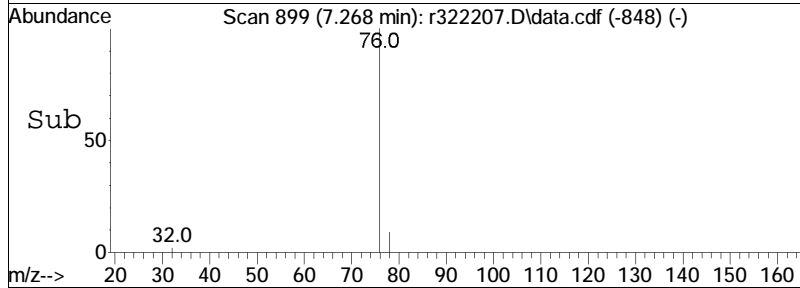
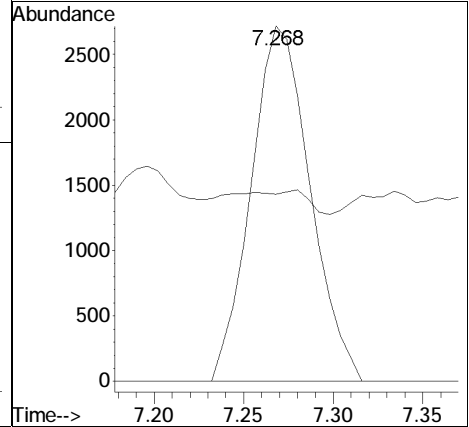
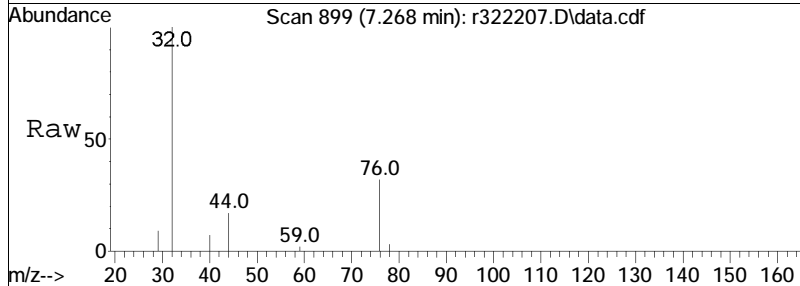
Tgt Ion:	Resp:	Lower	Upper
49	4821		
84	74.3	63.0	94.6



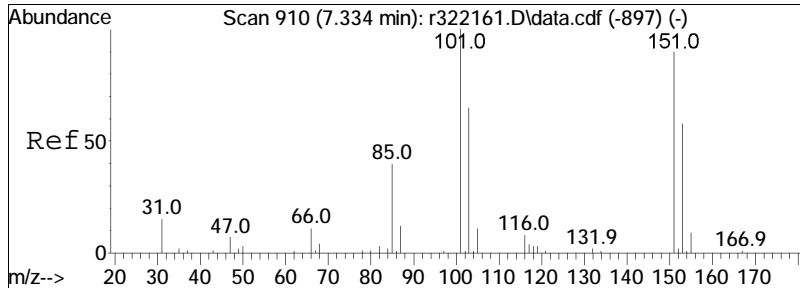


#30  
 carbon disulfide  
 Concen: 0.10 ppbV  
 RT: 7.268 min Scan# 899  
 Delta R.T. -0.024 min  
 Lab File: r322207.D  
 Acq: 19 May 2022 12:26 AM

Tgt Ion	Resp	Lower	Upper
76	100		
44	52.7	7.6	11.4#

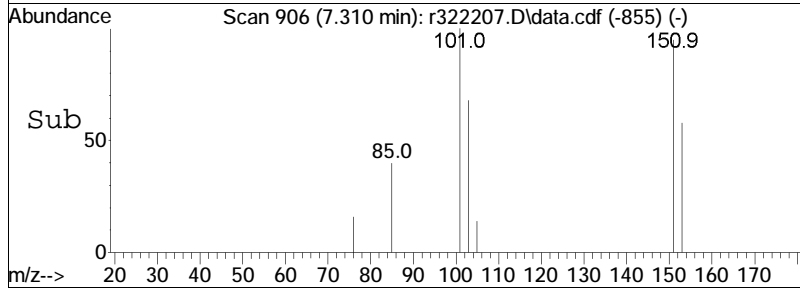
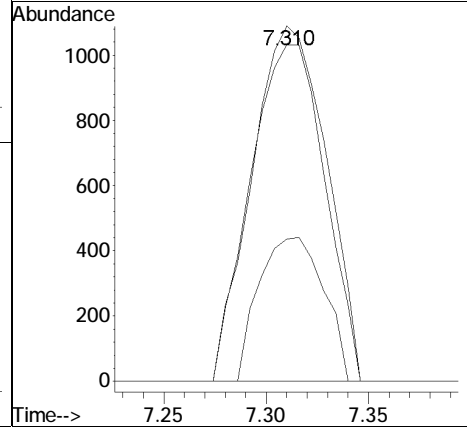
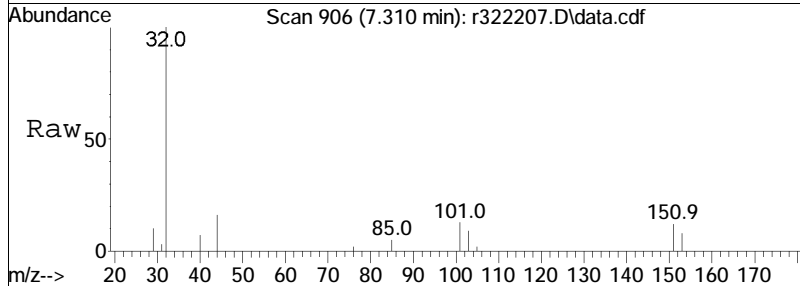


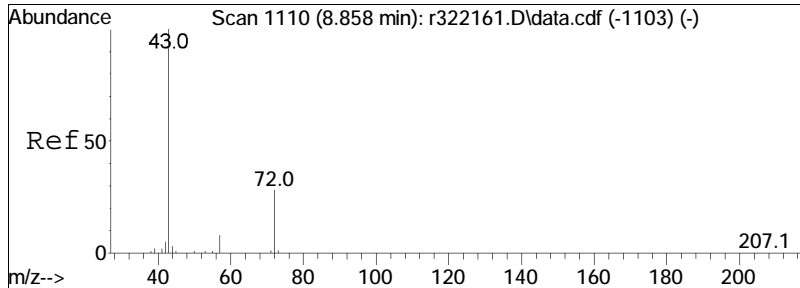




#31  
 Freon 113  
 Concen: 0.08 ppbV  
 RT: 7.310 min Scan# 906  
 Delta R.T. -0.024 min  
 Lab File: r322207.D  
 Acq: 19 May 2022 12:26 AM

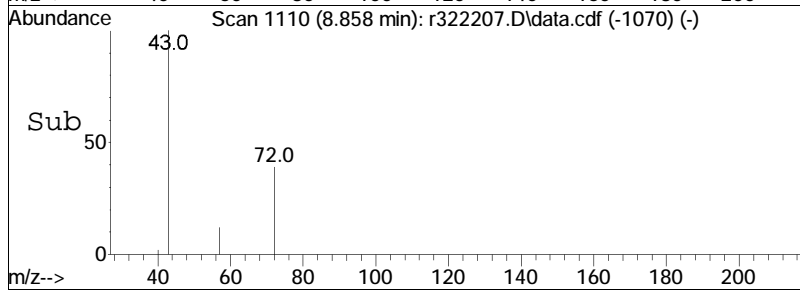
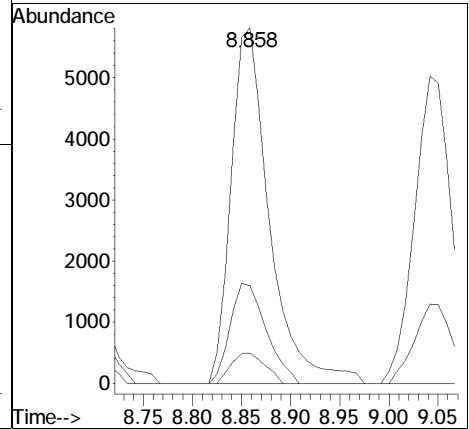
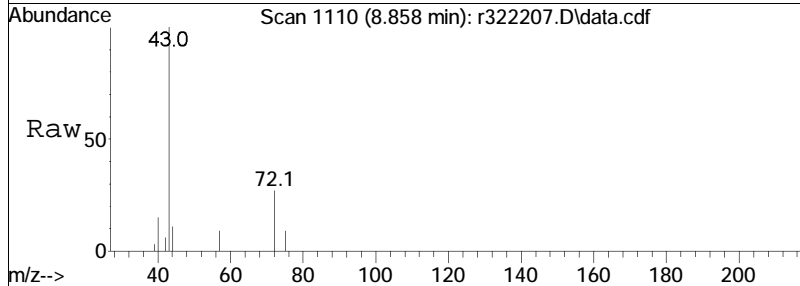
Tgt Ion	Ratio	Lower	Upper
101	100		
85	40.0	31.8	47.8
151	94.8	72.2	108.4

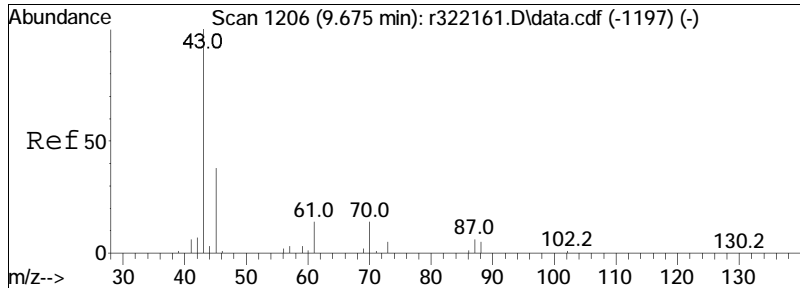




#36  
 2-butanone  
 Concen: 0.37 ppbV  
 RT: 8.858 min Scan# 1110  
 Delta R.T. 0.000 min  
 Lab File: r322207.D  
 Acq: 19 May 2022 12:26 AM

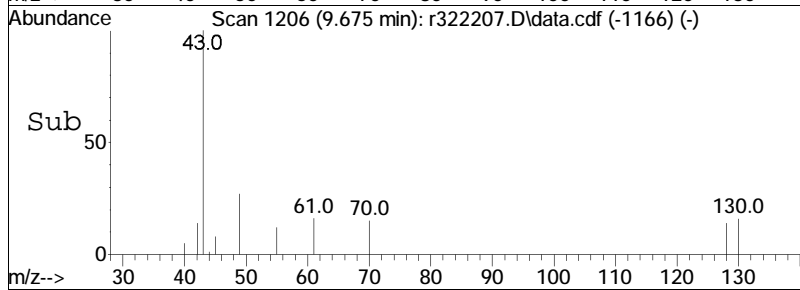
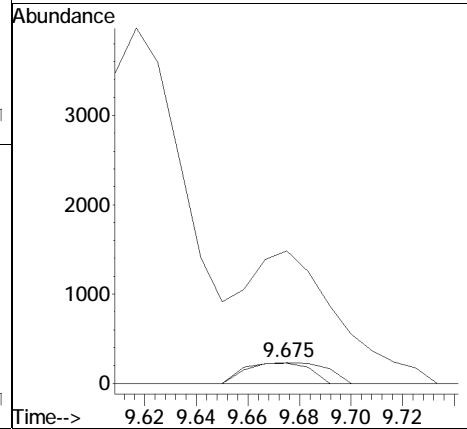
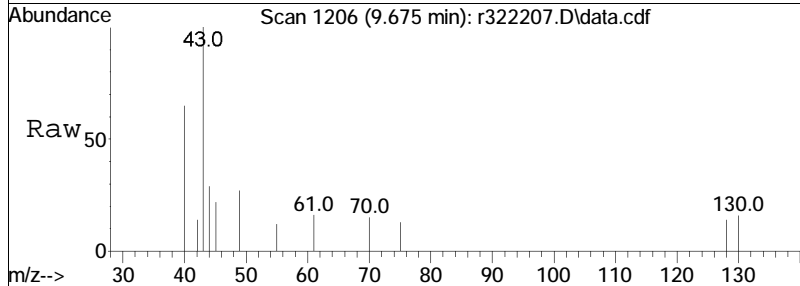
Tgt Ion	Resp	Lower	Upper
43	15792		
72	27.5	22.6	33.8
57	8.6	6.6	10.0

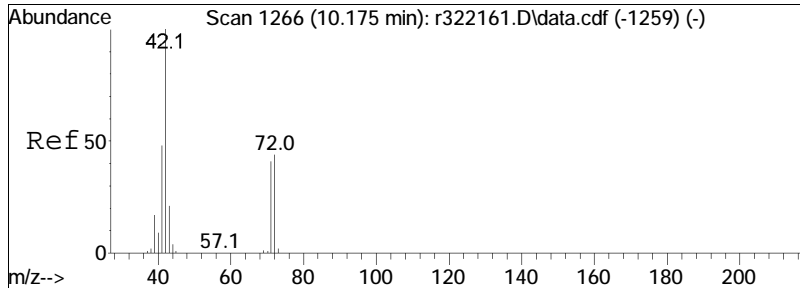




#38  
 Ethyl Acetate  
 Concen: 0.07 ppbV  
 RT: 9.675 min Scan# 1206  
 Delta R.T. 0.000 min  
 Lab File: r322207.D  
 Acq: 19 May 2022 12:26 AM

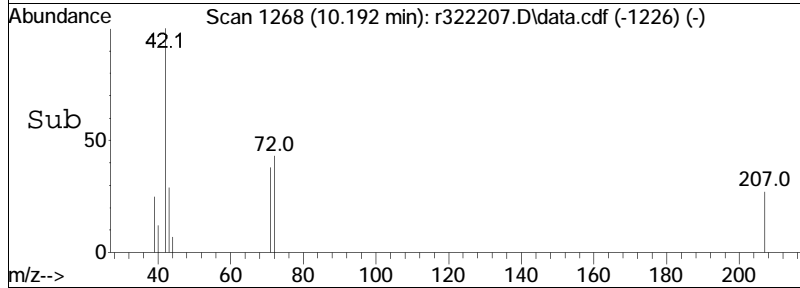
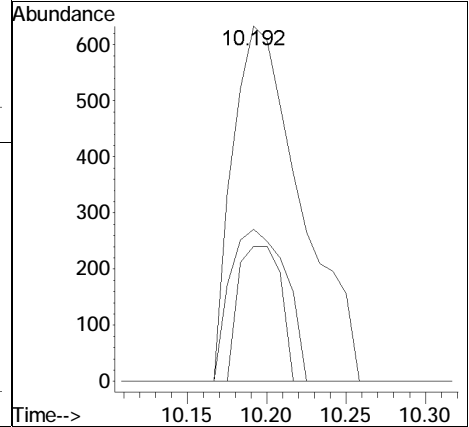
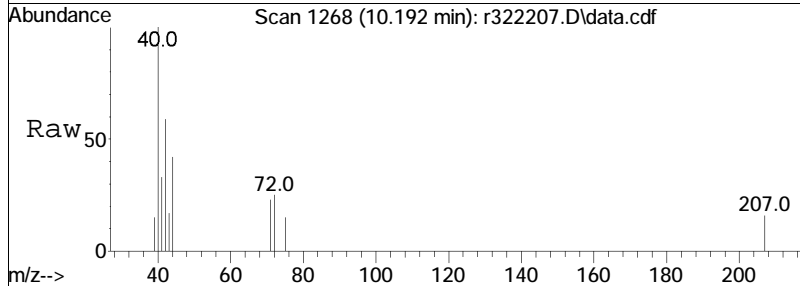
Tgt Ion	Resp	Lower	Upper
61	100		
70	97.0	78.8	118.2
43	636.9	593.4	890.0

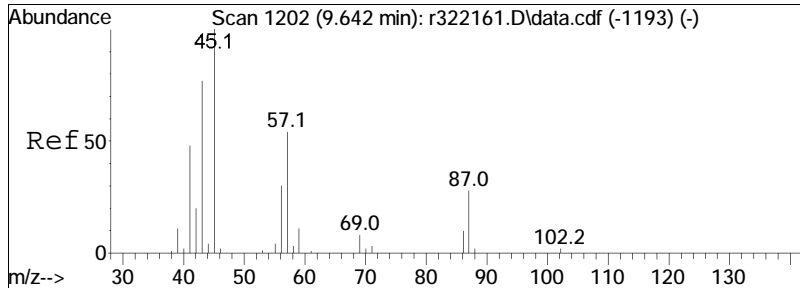




#40  
 Tetrahydrofuran  
 Concen: 0.08 ppbV  
 RT: 10.192 min Scan# 1268  
 Delta R.T. 0.017 min  
 Lab File: r322207.D  
 Acq: 19 May 2022 12:26 AM

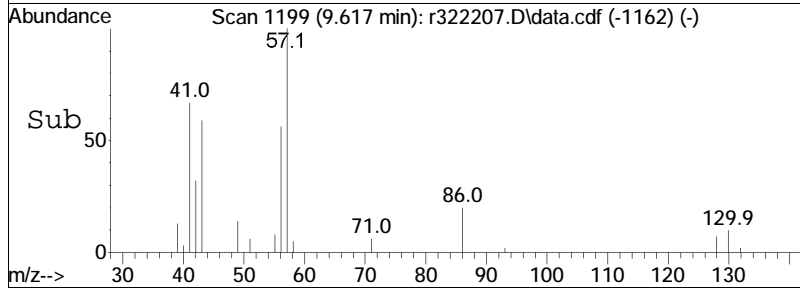
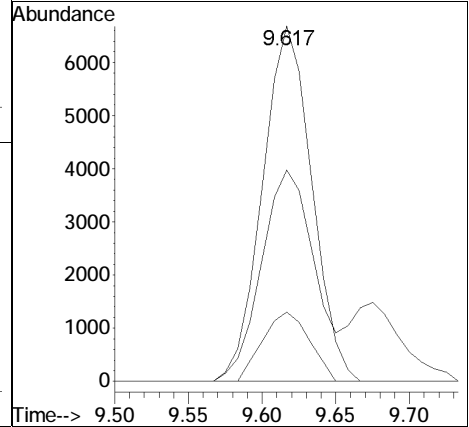
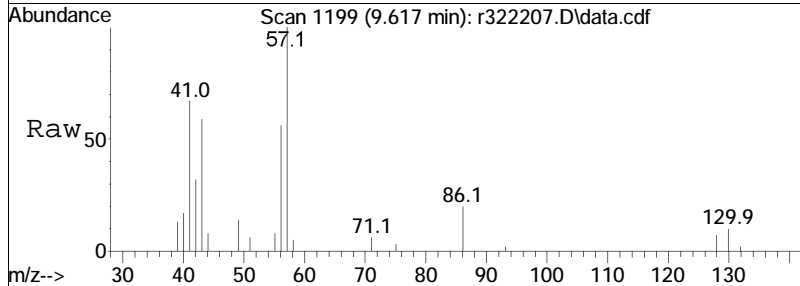
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
42	100		
71	38.1	32.4	48.6
72	42.8	35.2	52.8

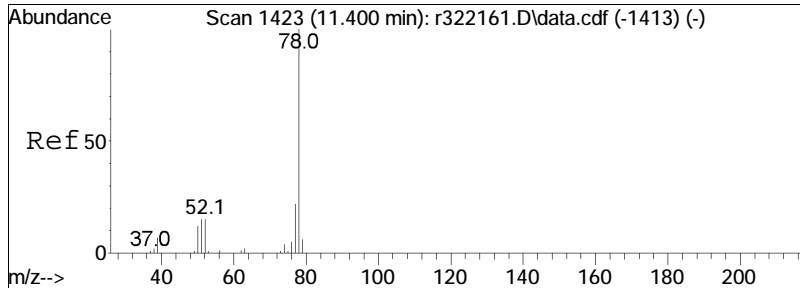




#44  
 hexane  
 Concen: 0.43 ppbV  
 RT: 9.617 min Scan# 1199  
 Delta R.T. -0.025 min  
 Lab File: r322207.D  
 Acq: 19 May 2022 12:26 AM

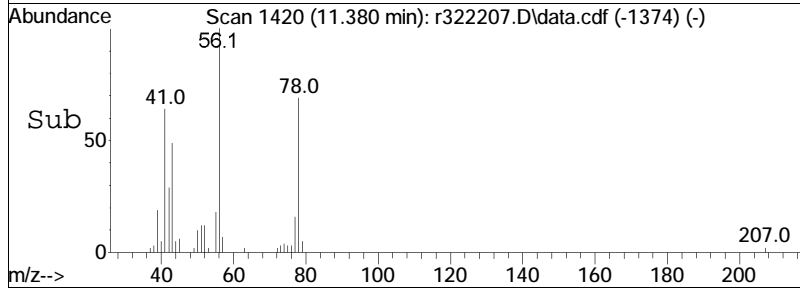
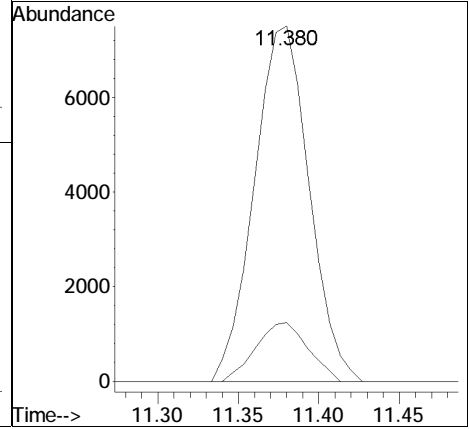
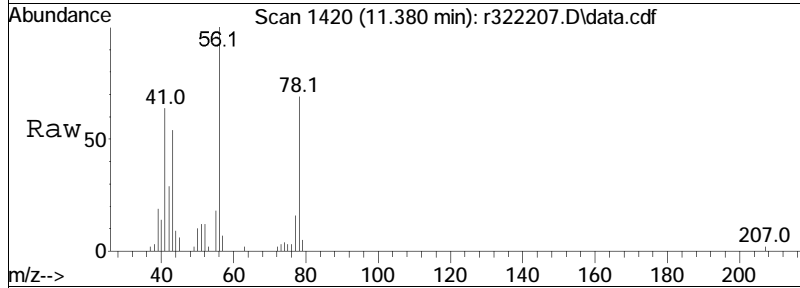
Tgt Ion:	Resp:		
Ion Ratio	Lower	Upper	
57	100		
43	59.5	115.0	172.6#
86	19.5	15.5	23.3

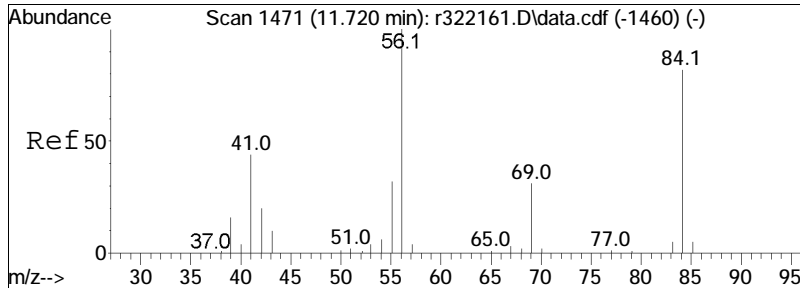




#50  
 benzene  
 Concen: 0.24 ppbV  
 RT: 11.380 min Scan# 1420  
 Delta R.T. -0.020 min  
 Lab File: r322207.D  
 Acq: 19 May 2022 12:26 AM

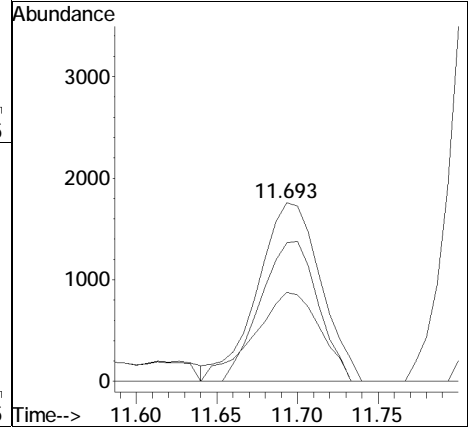
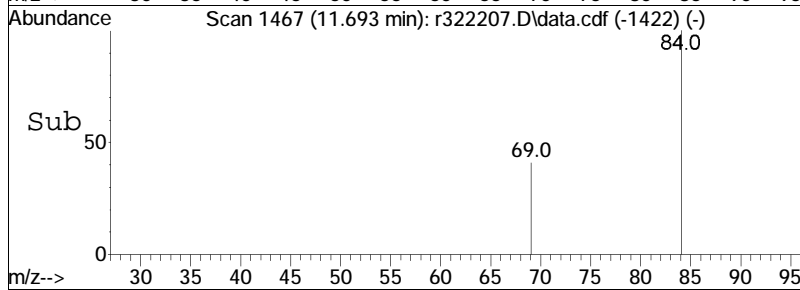
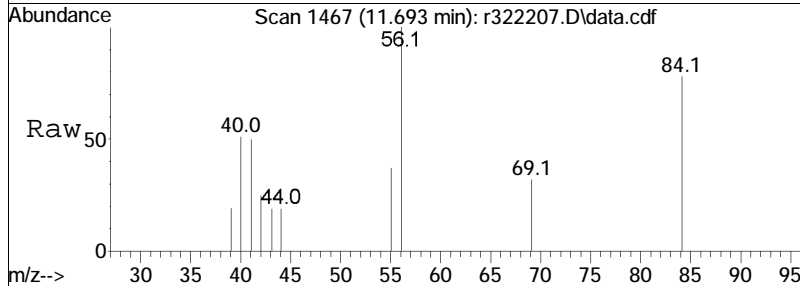
Tgt Ion	Resp	Lower	Upper
78	100		
52	16.6	12.2	18.2

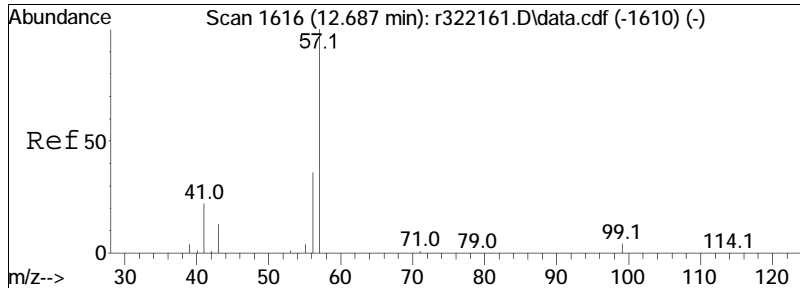




#53  
 cyclohexane  
 Concen: 0.13 ppbV  
 RT: 11.693 min Scan# 1467  
 Delta R.T. -0.027 min  
 Lab File: r322207.D  
 Acq: 19 May 2022 12:26 AM

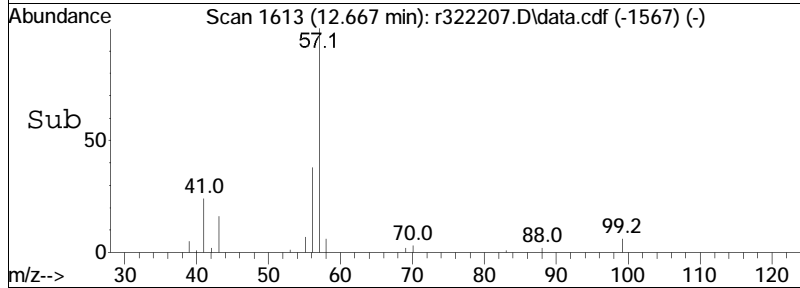
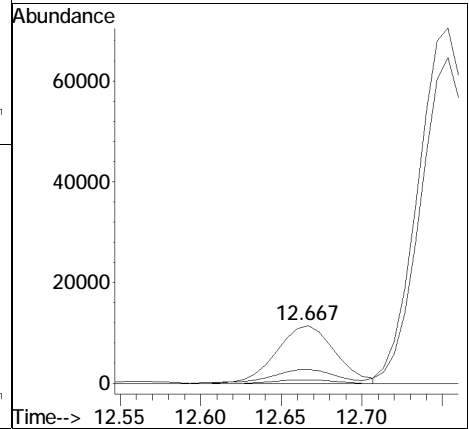
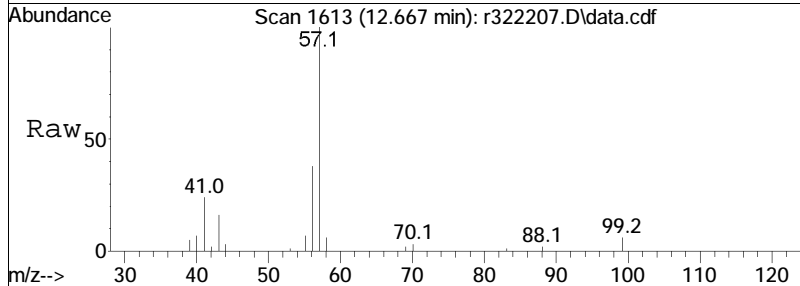
Tgt Ion	Resp	Lower	Upper
56	100		
84	77.5	65.4	98.0
41	49.9	35.4	53.2



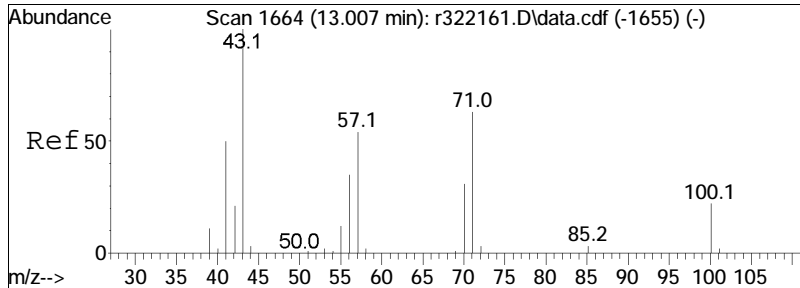


#60  
 2,2,4-trimethylpentane  
 Concen: 0.26 ppbV  
 RT: 12.667 min Scan# 1613  
 Delta R.T. -0.020 min  
 Lab File: r322207.D  
 Acq: 19 May 2022 12:26 AM

Tgt Ion	Resp	Lower	Upper
57	100		
99	6.3	5.0	7.4
41	24.2	17.4	26.2

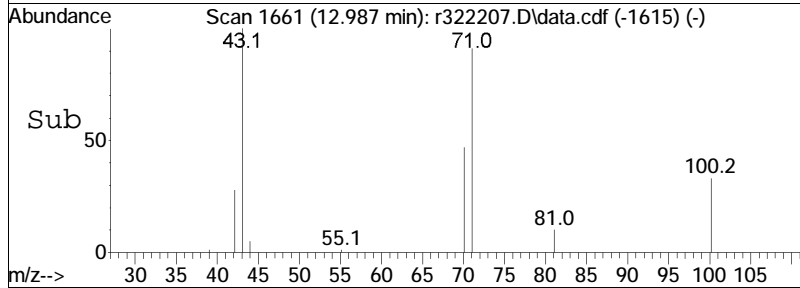
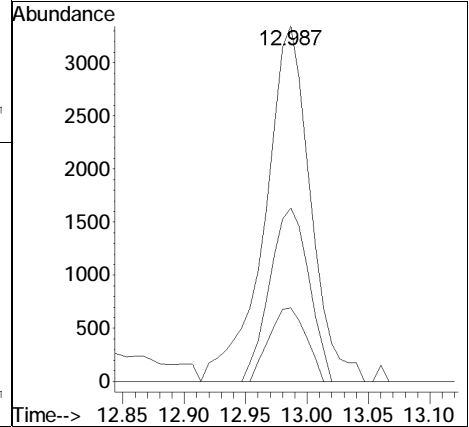
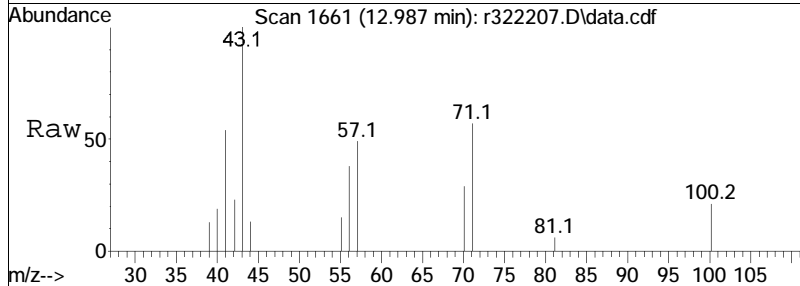


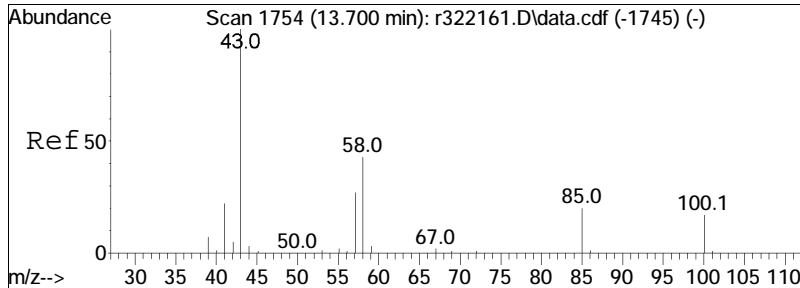




#62  
 heptane  
 Concen: 0.21 ppbV  
 RT: 12.987 min Scan# 1661  
 Delta R.T. -0.020 min  
 Lab File: r322207.D  
 Acq: 19 May 2022 12:26 AM

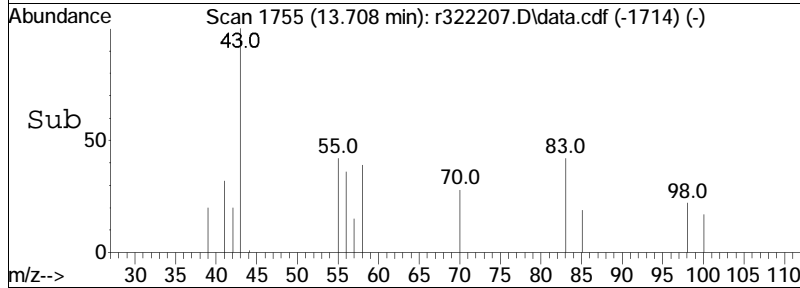
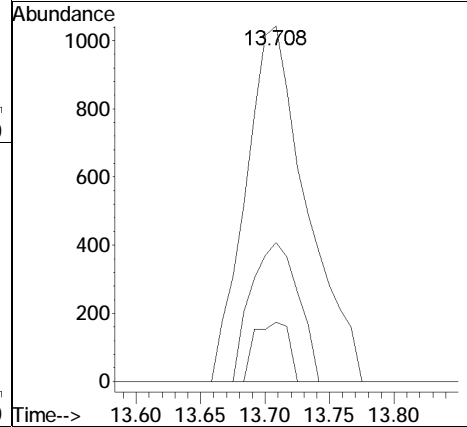
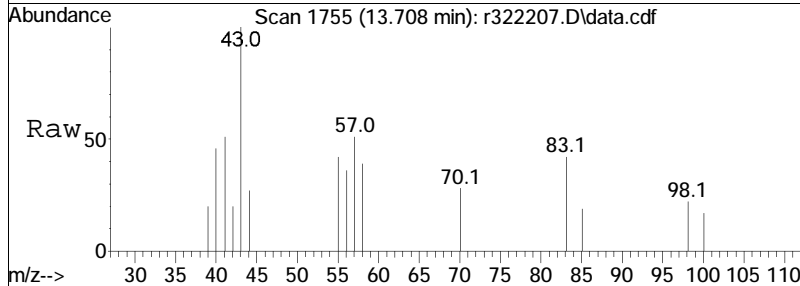
Tgt Ion:	43	Resp:	8649
Ion Ratio	Lower	Upper	
43	100		
57	48.8	43.0	64.4
100	20.7	17.6	26.4

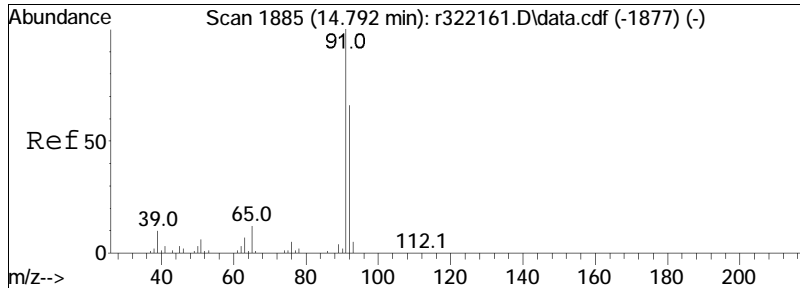




#64  
 4-methyl-2-pentanone  
 Concen: 0.07 ppbV  
 RT: 13.708 min Scan# 1755  
 Delta R.T. 0.008 min  
 Lab File: r322207.D  
 Acq: 19 May 2022 12:26 AM

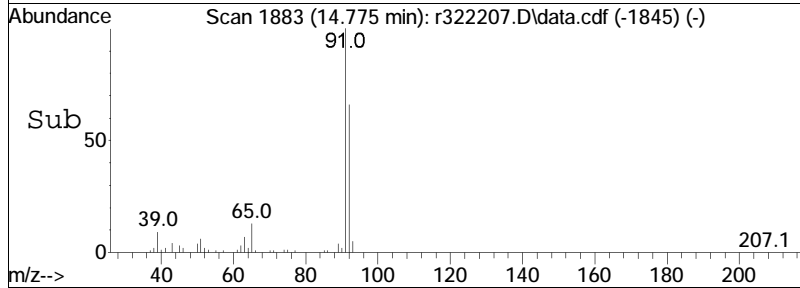
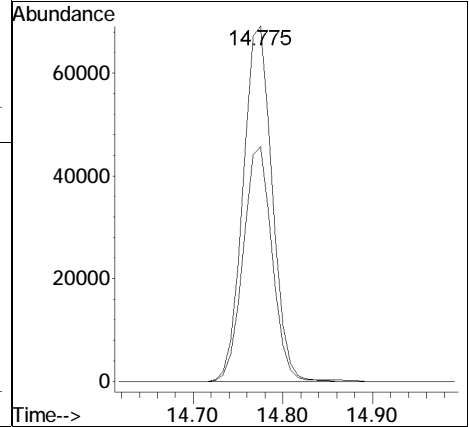
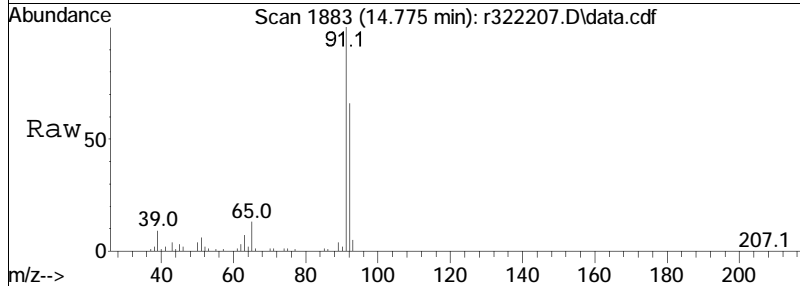
Tgt Ion	Resp	Lower	Upper
43	100		
58	39.1	34.3	51.5
100	16.7	13.8	20.6

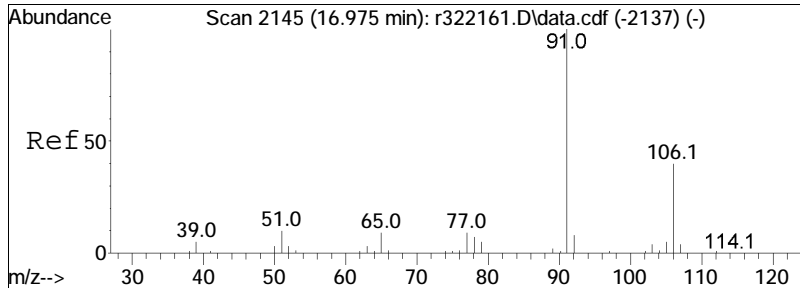




#68  
 toluene  
 Concen: 2.10 ppbV  
 RT: 14.775 min Scan# 1883  
 Delta R.T. -0.017 min  
 Lab File: r322207.D  
 Acq: 19 May 2022 12:26 AM

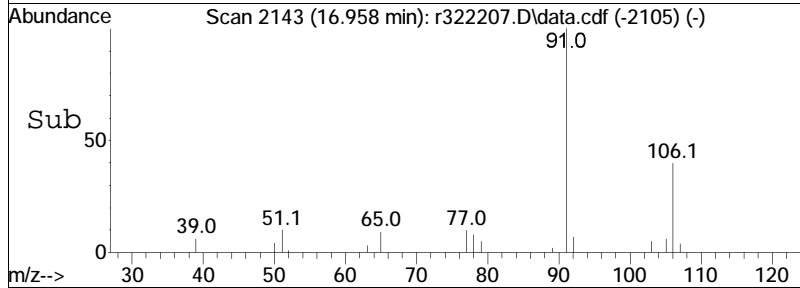
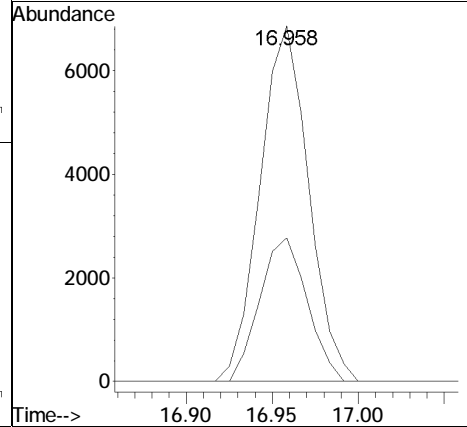
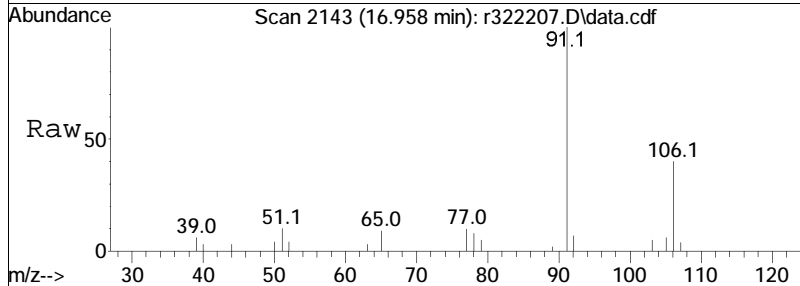
Tgt Ion:	91	Resp:	156126
Ion Ratio	Lower	Upper	
91	100		
92	66.0	52.7	79.1

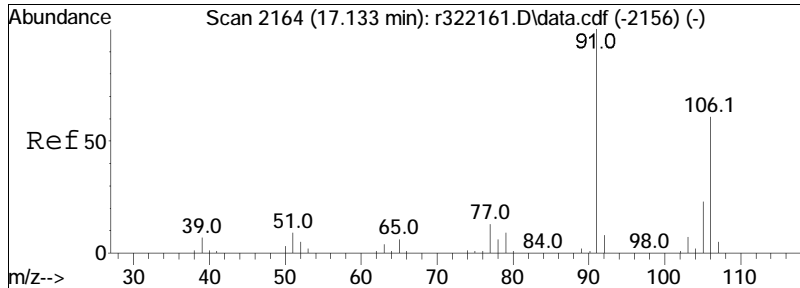




#81  
 ethylbenzene  
 Concen: 0.15 ppbV  
 RT: 16.958 min Scan# 2143  
 Delta R.T. -0.017 min  
 Lab File: r322207.D  
 Acq: 19 May 2022 12:26 AM

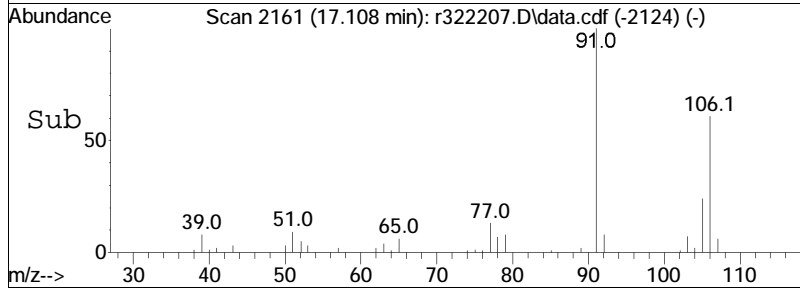
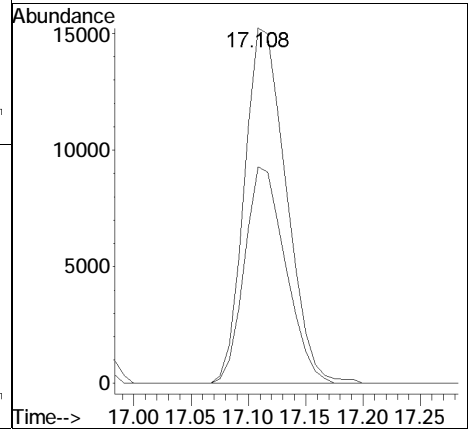
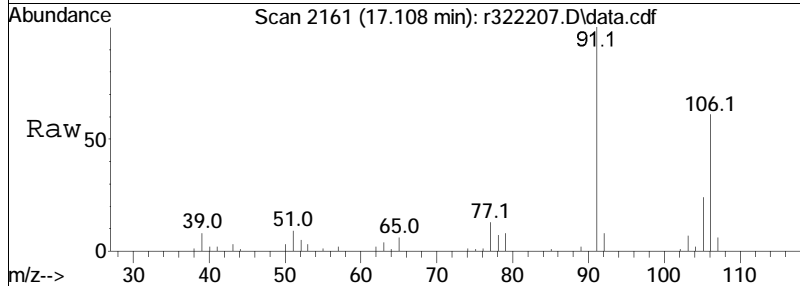
Tgt Ion	Resp	Lower	Upper
91	13510		
106	40.4	32.4	48.6

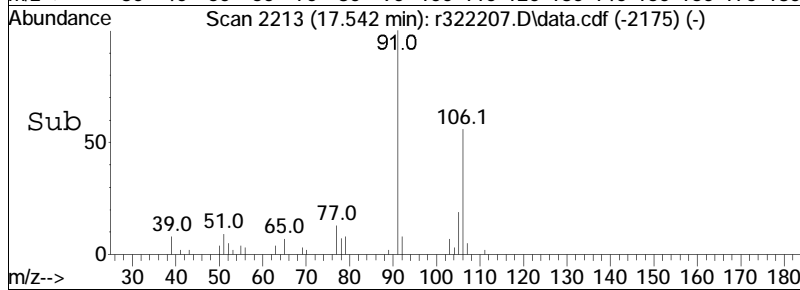
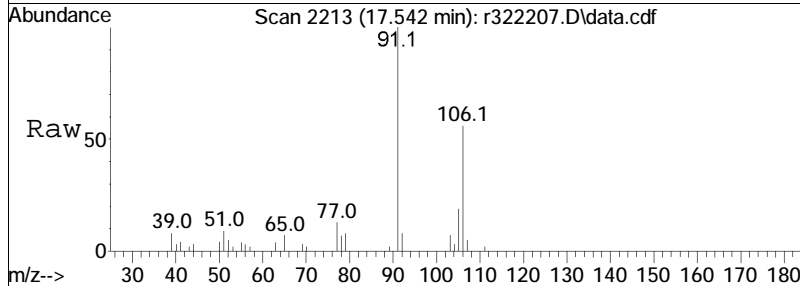
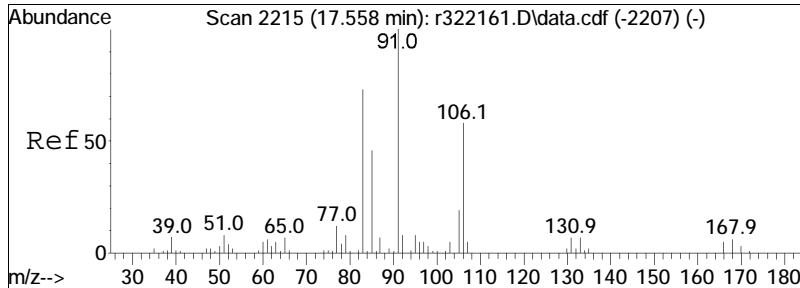




#83  
 m+p-xylene  
 Concen: 0.53 ppbV  
 RT: 17.108 min Scan# 2161  
 Delta R.T. -0.025 min  
 Lab File: r322207.D  
 Acq: 19 May 2022 12:26 AM

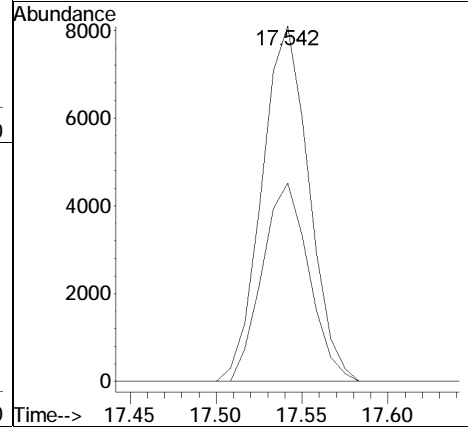
Tgt Ion: 91 Resp: 38694  
 Ion Ratio Lower Upper  
 91 100  
 106 60.9 48.4 72.6

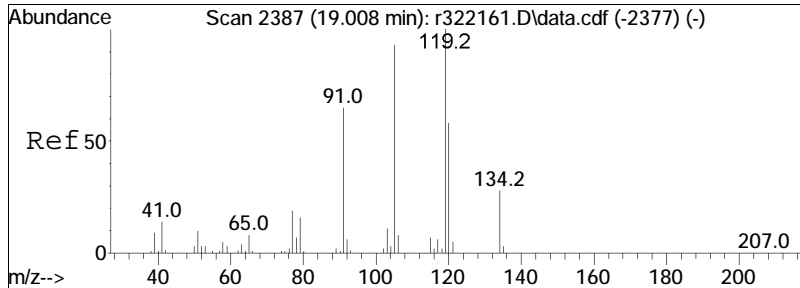




#87  
 o-xylene  
 Concen: 0.21 ppbV  
 RT: 17.542 min Scan# 2213  
 Delta R.T. -0.017 min  
 Lab File: r322207.D  
 Acq: 19 May 2022 12:26 AM

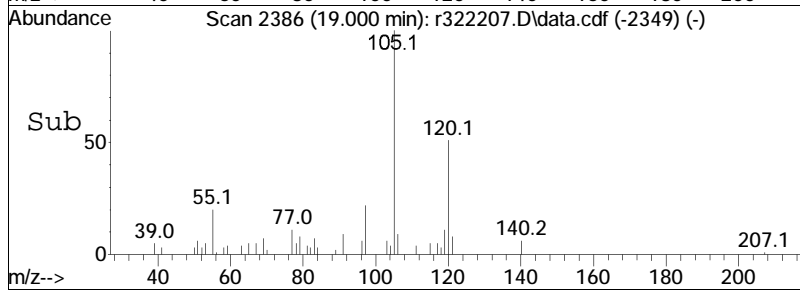
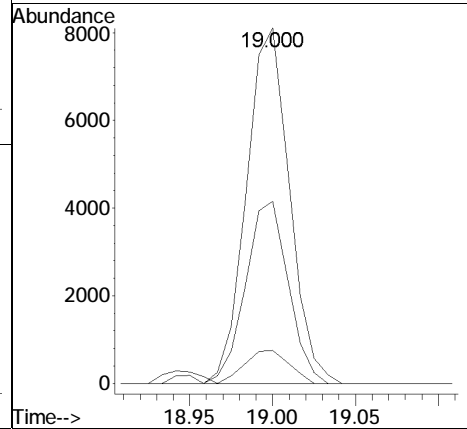
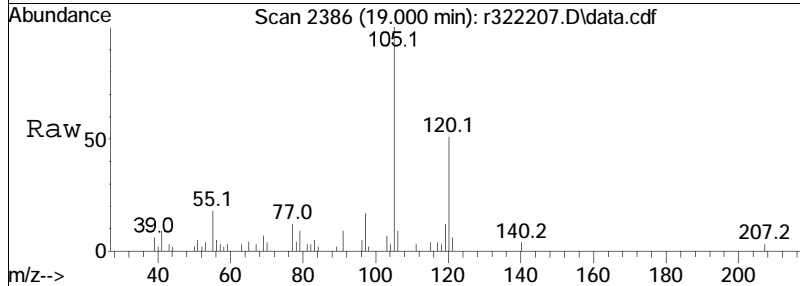
Tgt Ion: 91 Resp: 15448  
 Ion Ratio Lower Upper  
 91 100  
 106 55.8 46.4 69.6





#99  
 1,2,4-trimethylbenzene  
 Concen: 0.16 ppbV m  
 RT: 19.000 min Scan# 2386  
 Delta R.T. -0.008 min  
 Lab File: r322207.D  
 Acq: 19 May 2022 12:26 AM

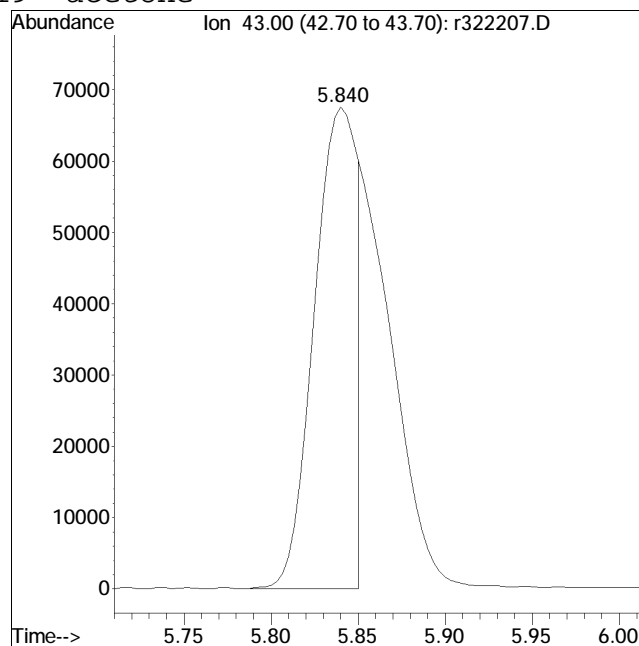
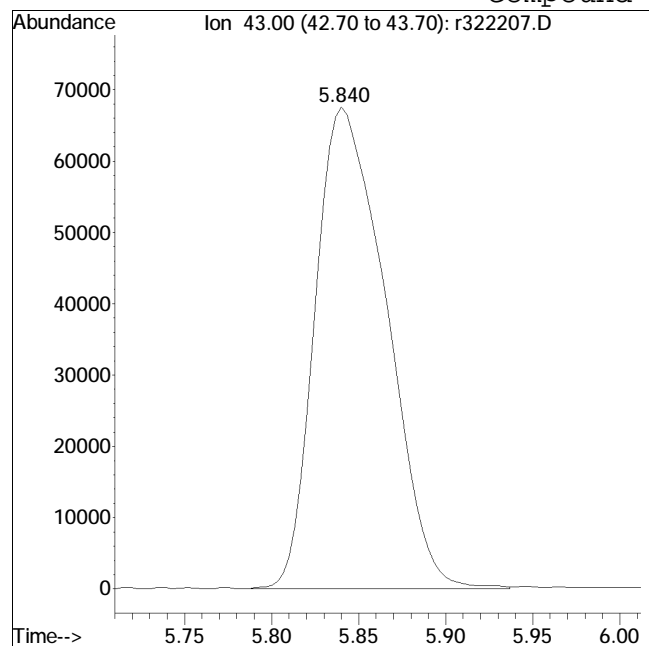
Tgt Ion	Resp	Lower	Upper
105	100		
120	51.2	49.4	74.2
91	9.3	55.8	83.8#



# Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322207.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:2: 6 Instrument :  
Sample : WG1640147-5,3,250,250 Quant Date : 5/19/2022 8:50 am

## Compound #19: acetone



Original Peak Response = 191501

Manual Peak Response = 115434 M6

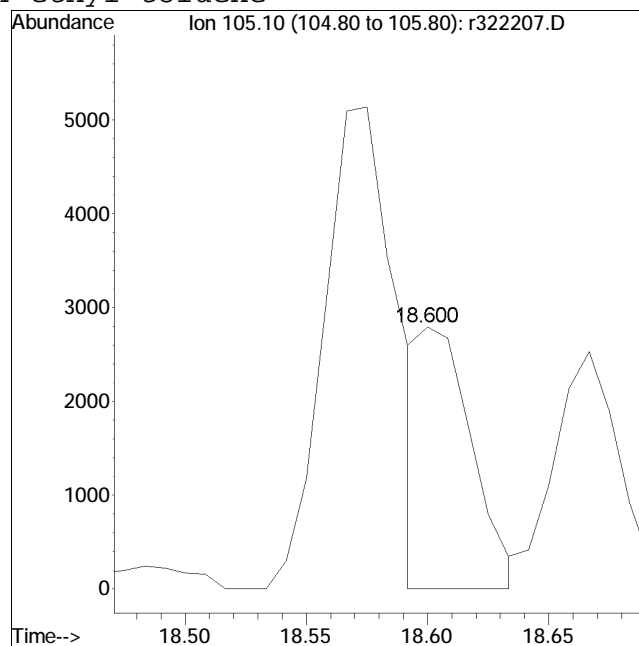
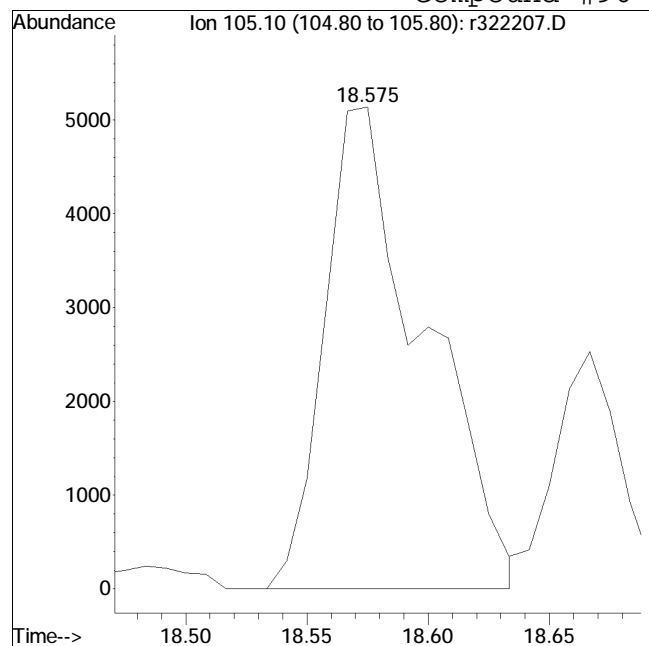
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).



# Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322207.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:2: 6 Instrument :  
Sample : WG1640147-5,3,250,250 Quant Date : 5/19/2022 8:50 am

## Compound #96: 4-ethyl toluene



Original Peak Response = 14658

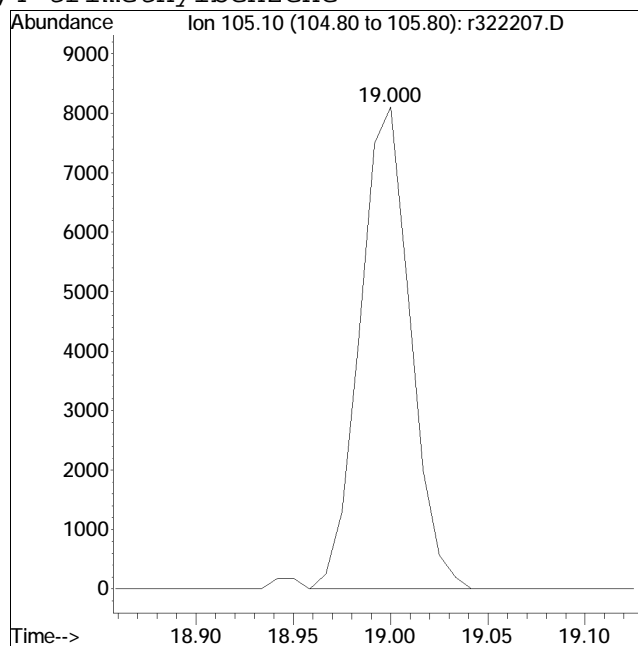
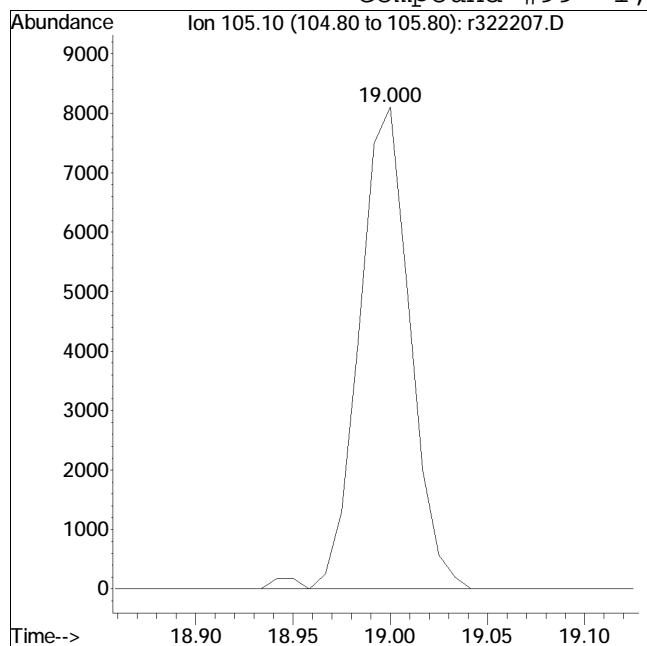
Manual Peak Response = 4182 M6

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

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322207.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:2: 6 Instrument :  
Sample : WG1640147-5,3,250,250 Quant Date : 5/19/2022 8:50 am

Compound #99: 1,2,4-trimethylbenzene



Original Peak Response = 14788

Manual Peak Response = 14609 M6

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
 Data File : r322233.D  
 Acq On : 19 May 2022 9:34 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640711-5,3,250,250  
 Misc : WG1640711,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 20 13:27:27 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0519T\r322225.D  
 Sub List : TO15-NY - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.550	49	497404	10.000	ppbV	-0.02
Standard Area =	440035		Recovery =	113.04%		
43) 1,4-difluorobenzene	11.820	114	1522511	10.000	ppbV	-0.02
Standard Area =	1334123		Recovery =	114.12%		
67) chlorobenzene-D5	16.567	54	242032	10.000	ppbV	-0.02
Standard Area =	210666		Recovery =	114.89%		

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) dichlorodifluoromethane	3.946	85	22610	0.578	ppbV	99
6) chloromethane	4.126	50	1799	0.096	ppbV	91
7) Freon-114	4.252		0	N.D.		
9) vinyl chloride	4.378	62	5878	0.242	ppbV	96
10) 1,3-butadiene	4.546	54	1191	0.061	ppbV	98
13) bromomethane	0.000		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	5.287	31	9829584	514.369	ppbV #	85
17) vinyl bromide	0.000		0	N.D.		
19) acetone	5.843	43	24545678	900.785	ppbV #	74
21) trichlorofluoromethane	6.033	101	14679	0.413	ppbV	99
22) isopropyl alcohol	6.170	45	3366694	102.677	ppbV	99
26) 1,1-dichloroethene	0.000		0	N.D.	d	
27) tertiary butyl alcohol	6.896	59	1784083	43.731	ppbV	96
28) methylene chloride	6.986	49	11114	0.358	ppbV	95
29) 3-chloropropene	0.000		0	N.D.		
30) carbon disulfide	7.274	76	866544	12.184	ppbV	99
31) Freon 113	7.310	101	3064	0.077	ppbV	97
32) trans-1,2-dichloroethene	0.000		0	N.D.		
33) 1,1-dichloroethane	8.442		0	N.D.		
34) MTBE	0.000		0	N.D.	d	
36) 2-butanone	8.833	43	2220059	44.807	ppbV	99
37) cis-1,2-dichloroethene	0.000		0	N.D.	d	
38) Ethyl Acetate	9.683	61	751M6	0.093	ppbV	
39) chloroform	9.708	83	4068	0.104	ppbV #	96
40) Tetrahydrofuran	10.150	42	334917	11.710	ppbV	99
42) 1,2-dichloroethane	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
 Data File : r322233.D  
 Acq On : 19 May 2022 9:34 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640711-5,3,250,250  
 Misc : WG1640711,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 20 13:27:27 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0519T\r322225.D  
 Sub List : TO15-NY - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
44) hexane	9.617	57	66622	1.535	ppbV	#	40
48) 1,1,1-trichloroethane	10.850		0	N.D.			
50) benzene	11.387	78	44483	0.499	ppbV		94
52) carbon tetrachloride	11.560		0	N.D.			
53) cyclohexane	11.700	56	66959	1.483	ppbV	#	29
56) 1,2-dichloropropane	0.000		0	N.D.			
57) bromodichloromethane	0.000		0	N.D.	d		
58) 1,4-dioxane	12.613	88	146573	8.051	ppbV		99
59) trichloroethene	12.627		0	N.D.			
60) 2,2,4-trimethylpentane	12.667	57	121520	0.906	ppbV		96
62) heptane	12.993	43	105279	2.105	ppbV		98
63) cis-1,3-dichloropropene	13.658		0	N.D.			
64) 4-methyl-2-pentanone	13.675	43	479073	8.360	ppbV		97
65) trans-1,3-dichloropropene	0.000		0	N.D.	d		
66) 1,1,2-trichloroethane	14.550		0	N.D.			
68) toluene	14.775	91	1125565	12.379	ppbV		99
72) 2-hexanone	15.067	43	165744	3.029	ppbV		97
74) dibromochloromethane	0.000		0	N.D.			
75) 1,2-dibromoethane	0.000		0	N.D.			
78) tetrachloroethene	15.950	166	325701	7.394	ppbV		98
80) chlorobenzene	0.000		0	N.D.	d		
81) ethylbenzene	16.958	91	109589	1.005	ppbV		98
83) m+p-xylene	17.117	91	342876	3.848	ppbV		98
84) bromoform	0.000		0	N.D.			
85) styrene	17.450	104	15376	0.194	ppbV		99
86) 1,1,2,2-tetrachloroethane	17.525		0	N.D.			
87) o-xylene	17.542	91	149861	1.687	ppbV		98
96) 4-ethyl toluene	18.608	105	103768M6	0.768	ppbV		
97) 1,3,5-trimethylbenzene	18.667	105	164690	1.330	ppbV		98
99) 1,2,4-trimethylbenzene	19.000	105	492720	4.543	ppbV	#	56
101) Benzyl Chloride	0.000		0	N.D.	d		
102) 1,3-dichlorobenzene	19.125		0	N.D.			
103) 1,4-dichlorobenzene	19.183		0	N.D.			
107) 1,2-dichlorobenzene	0.000		0	N.D.			
115) 1,2,4-trichlorobenzene	20.933		0	N.D.			
119) hexachlorobutadiene	0.000		0	N.D.			

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
Data File : r322233.D  
Acq On : 19 May 2022 9:34 PM  
Operator : AIRPIANO3:TS  
Sample : WG1640711-5,3,250,250  
Misc : WG1640711,ICAL19030  
ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 20 13:27:27 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 15:52:12 2022  
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0519T\r322225.D  
Sub List : TO15-NY - .

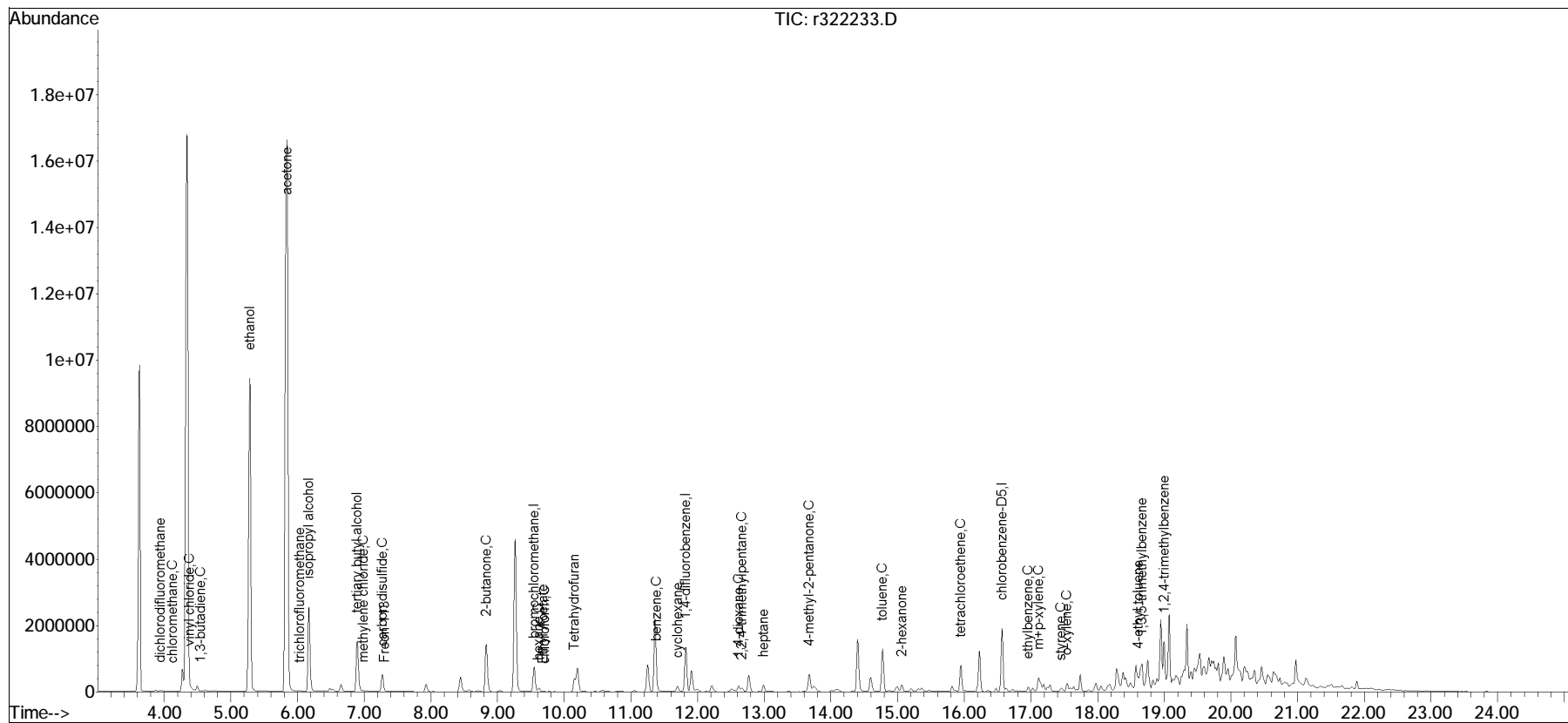
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
----------	------	------	----------	------	-------	----------

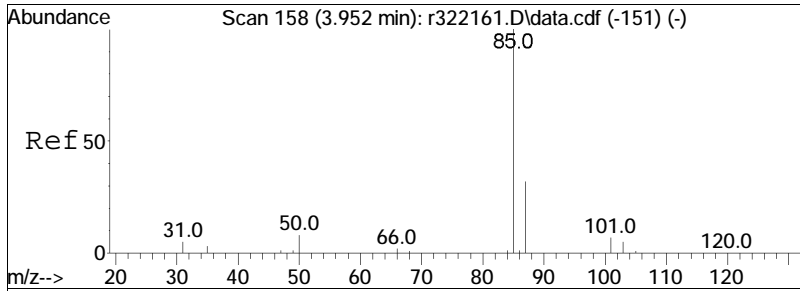
-----

Sub List : TO15-NY - .s\Data\Airpiano3\2022\05\0519T\r322225.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
Data File : r322233.D  
Acq On : 19 May 2022 9:34 PM  
Operator : AIRPIANO3:TS  
Sample : WG1640711-5,3,250,250  
Misc : WG1640711,ICAL19030  
ALS Vial : 0 Sample Multiplier: 1

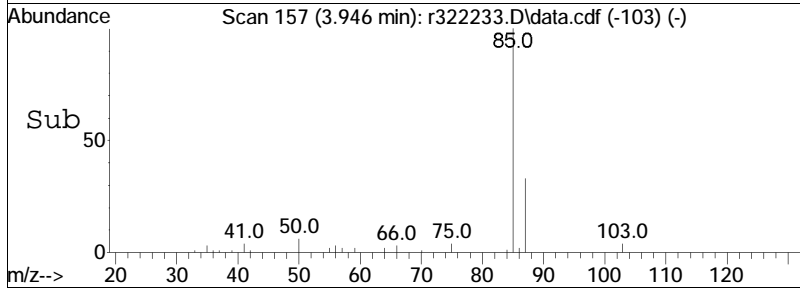
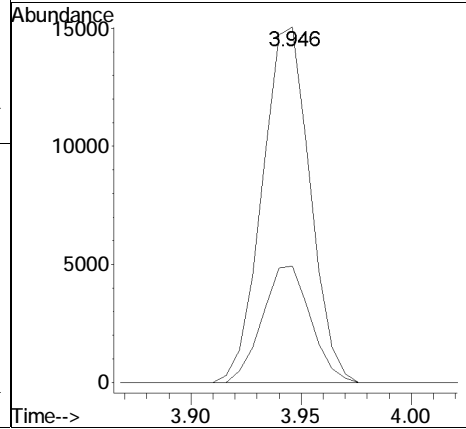
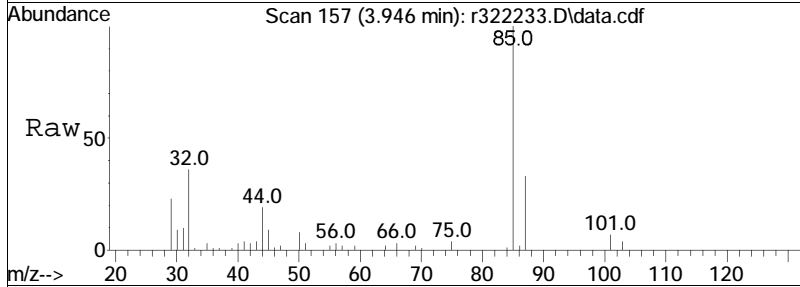
Quant Time: May 20 13:27:27 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 15:52:12 2022  
Response via : Initial Calibration

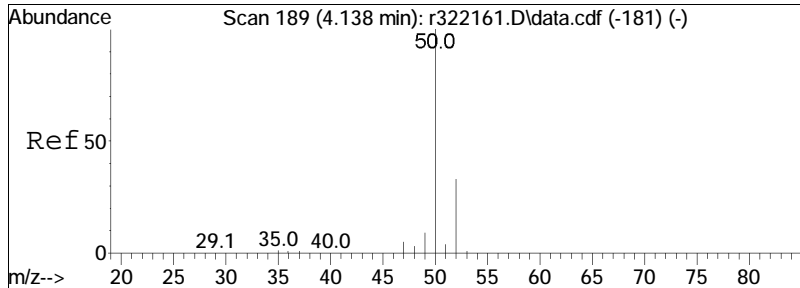




#5  
 dichlorodifluoromethane  
 Concen: 0.58 ppbV  
 RT: 3.946 min Scan# 157  
 Delta R.T. -0.006 min  
 Lab File: r322233.D  
 Acq: 19 May 2022 9:34 PM

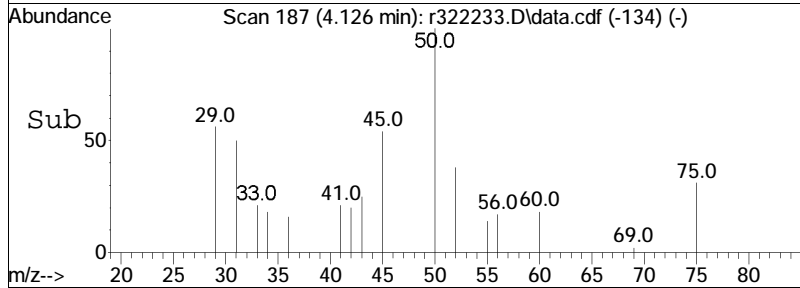
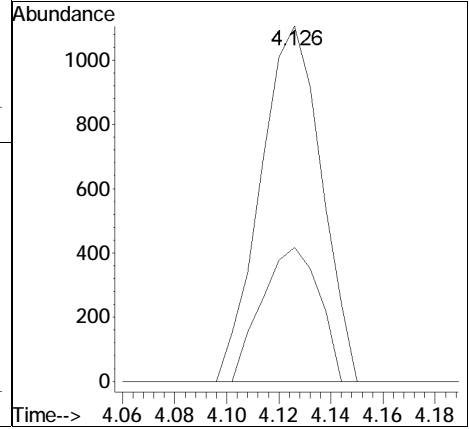
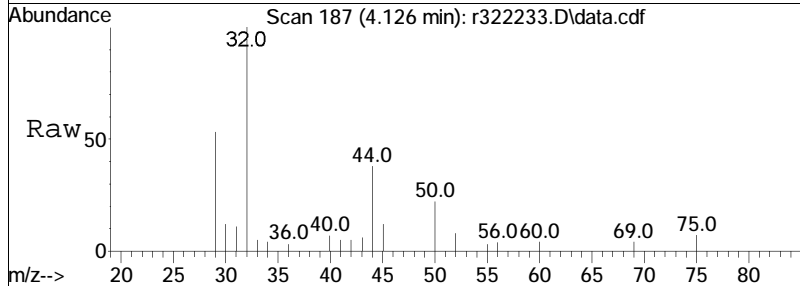
Tgt Ion:	85	Resp:	22610
Ion Ratio	Lower	Upper	
85	100		
87	32.7	25.8	38.6



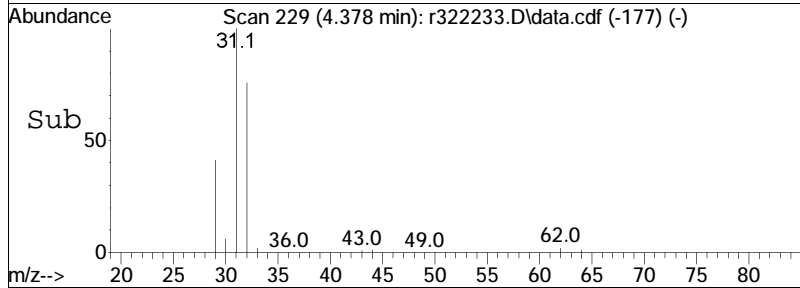
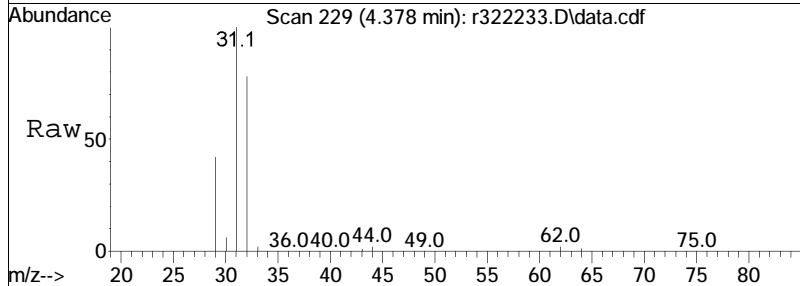
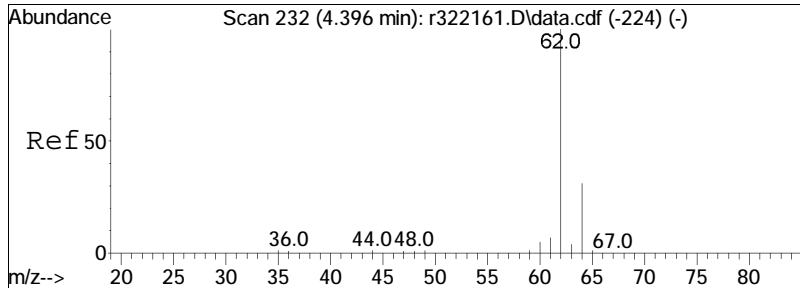


#6  
 chloromethane  
 Concen: 0.10 ppbV  
 RT: 4.126 min Scan# 187  
 Delta R.T. -0.012 min  
 Lab File: r322233.D  
 Acq: 19 May 2022 9:34 PM

Tgt Ion: 50 Resp: 1799  
 Ion Ratio Lower Upper  
 50 100  
 52 37.7 26.3 39.5

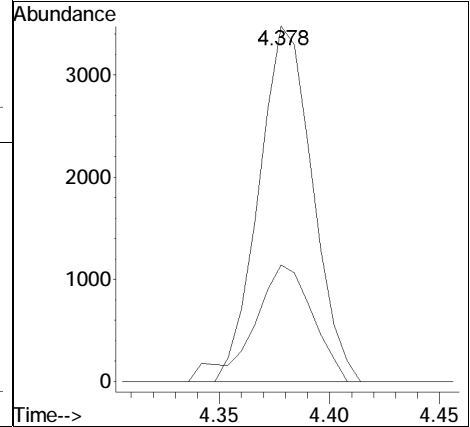


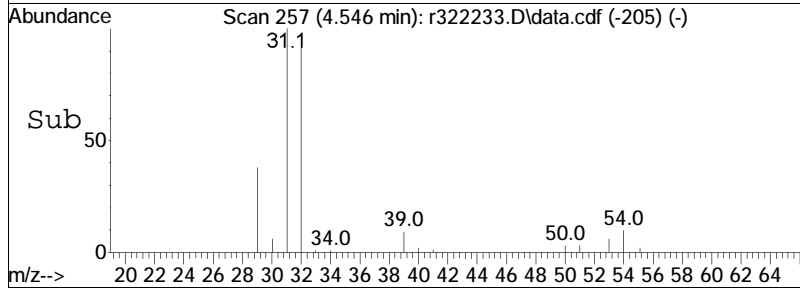
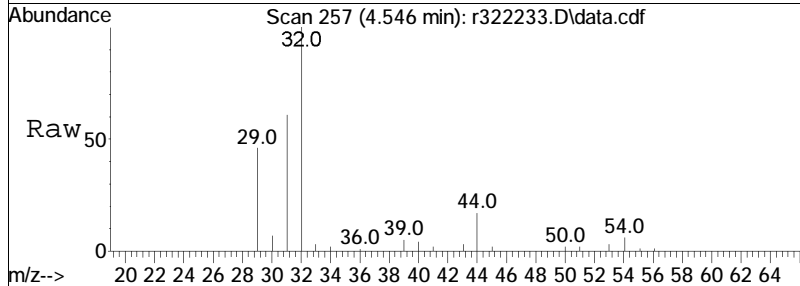
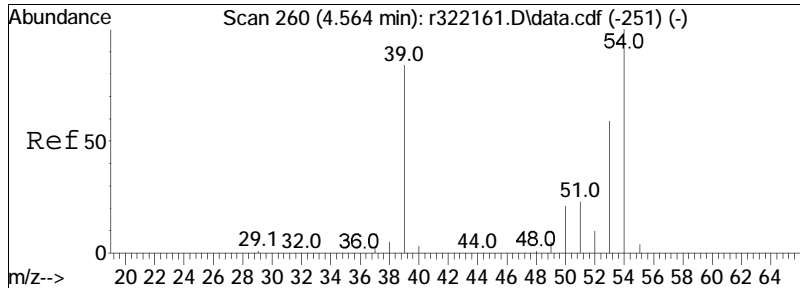




#9  
 vinyl chloride  
 Concen: 0.24 ppbV  
 RT: 4.378 min Scan# 229  
 Delta R.T. -0.018 min  
 Lab File: r322233.D  
 Acq: 19 May 2022 9:34 PM

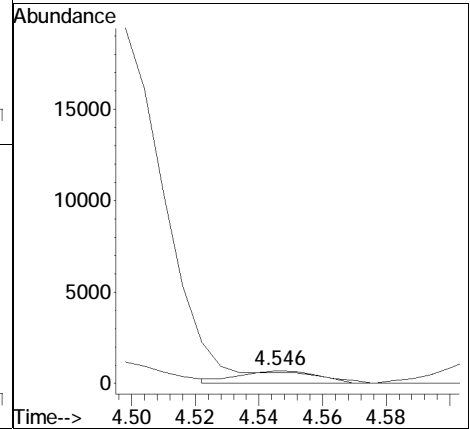
Tgt Ion:	62	64	Resp:	5878	Lower	Upper
Ion Ratio	100	32.8			24.4	36.6

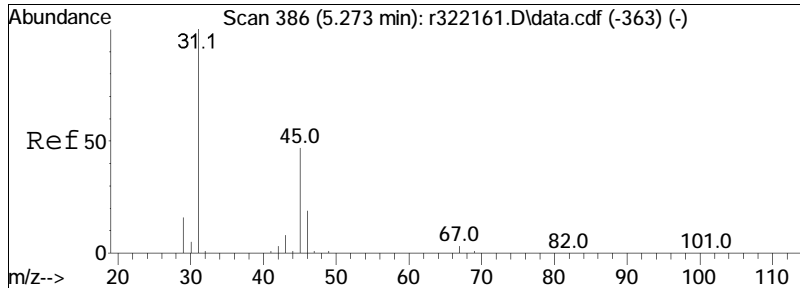




#10  
 1,3-butadiene  
 Concen: 0.06 ppbV  
 RT: 4.546 min Scan# 257  
 Delta R.T. -0.018 min  
 Lab File: r322233.D  
 Acq: 19 May 2022 9:34 PM

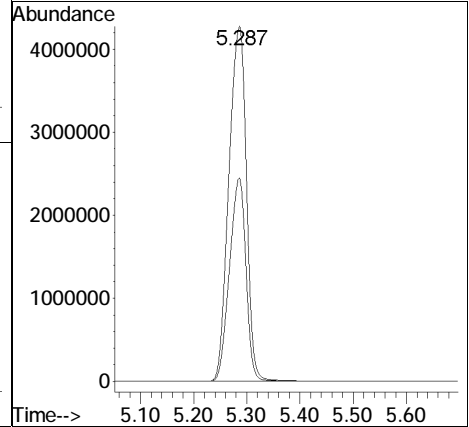
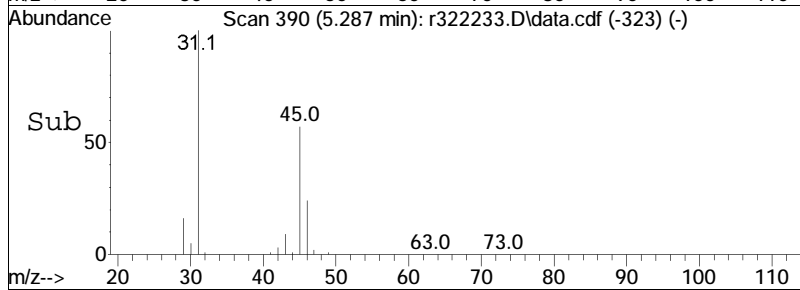
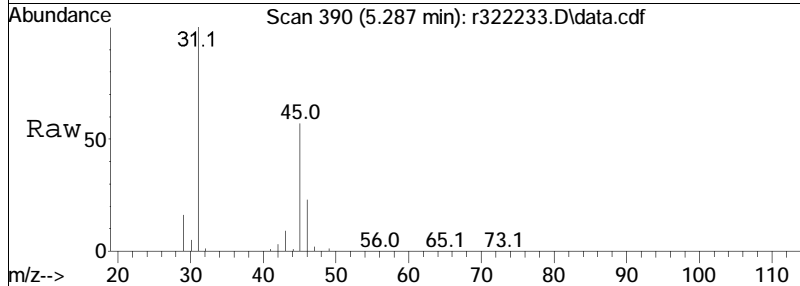
Tgt Ion	Resp	Lower	Upper
54	100		
39	86.6	67.8	101.8

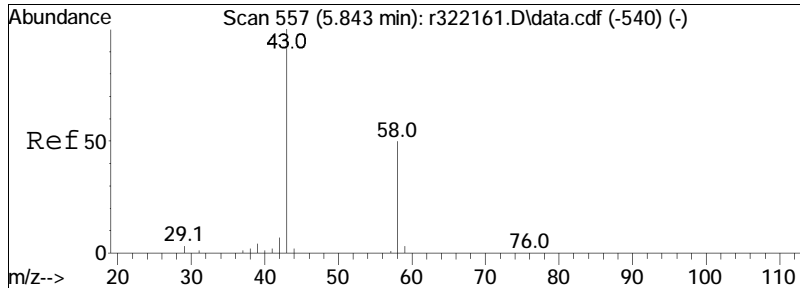




#15  
 ethanol  
 Concen: 514.37 ppbV  
 RT: 5.287 min Scan# 390  
 Delta R.T. 0.013 min  
 Lab File: r322233.D  
 Acq: 19 May 2022 9:34 PM

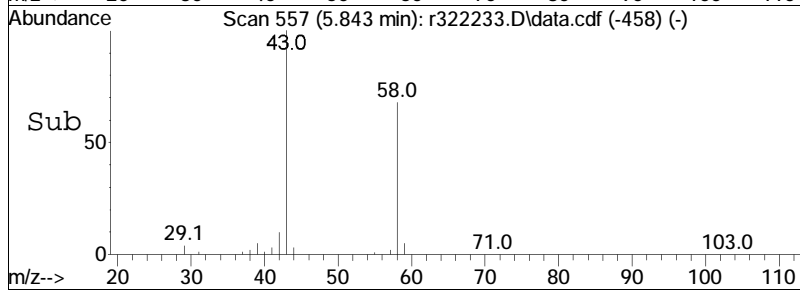
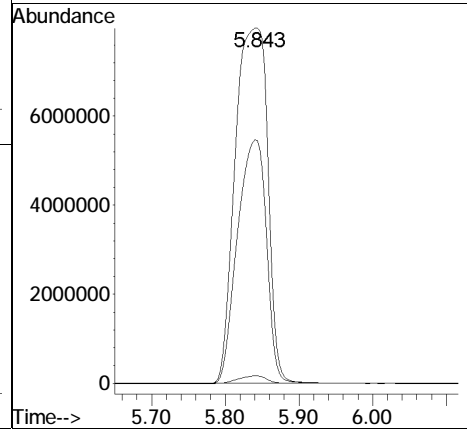
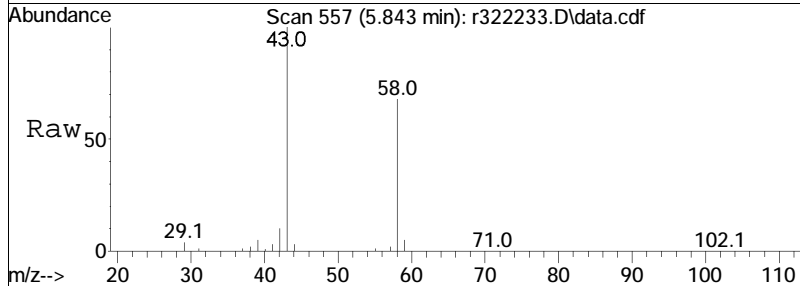
Tgt Ion: 31 Resp: 9829584  
 Ion Ratio Lower Upper  
 31 100  
 45 57.3 37.6 56.4#

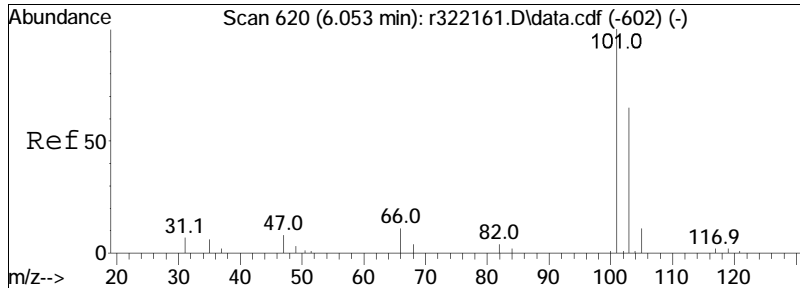




#19  
 acetone  
 Concen: 900.79 ppbV  
 RT: 5.843 min Scan# 557  
 Delta R.T. 0.000 min  
 Lab File: r322233.D  
 Acq: 19 May 2022 9:34 PM

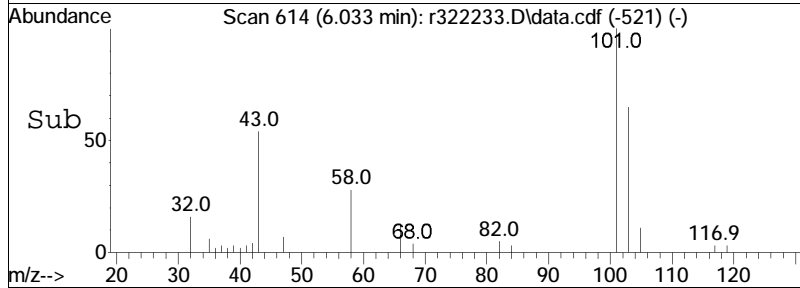
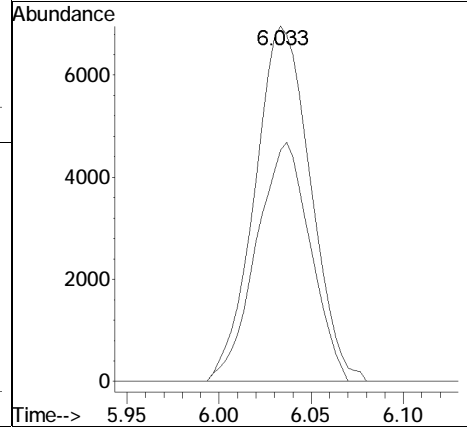
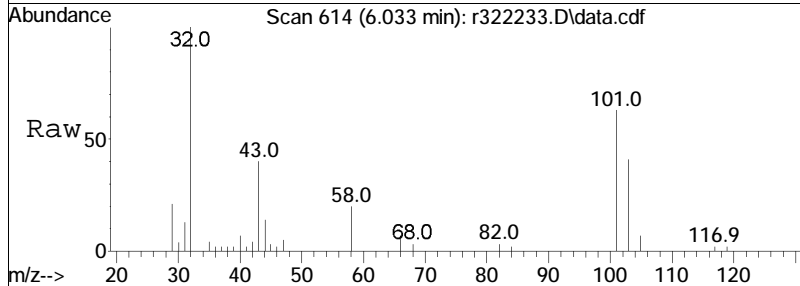
Tgt Ion	Resp	Lower	Upper
43	100		
58	68.4	39.8	59.8#
57	2.1	1.0	1.6#

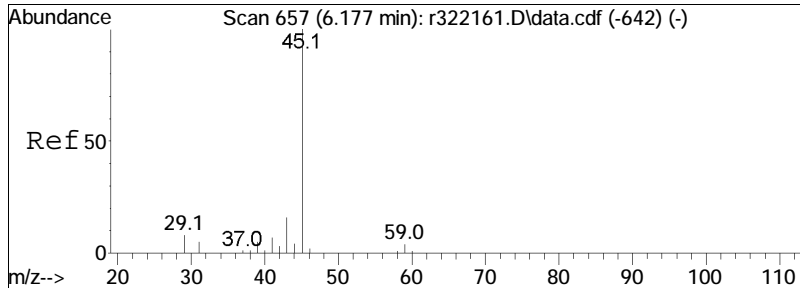




#21  
 trichlorofluoromethane  
 Concen: 0.41 ppbV  
 RT: 6.033 min Scan# 614  
 Delta R.T. -0.020 min  
 Lab File: r322233.D  
 Acq: 19 May 2022 9:34 PM

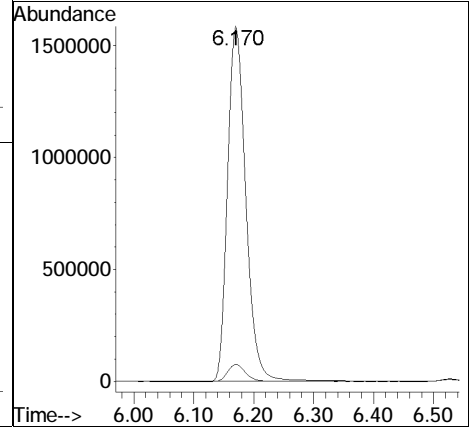
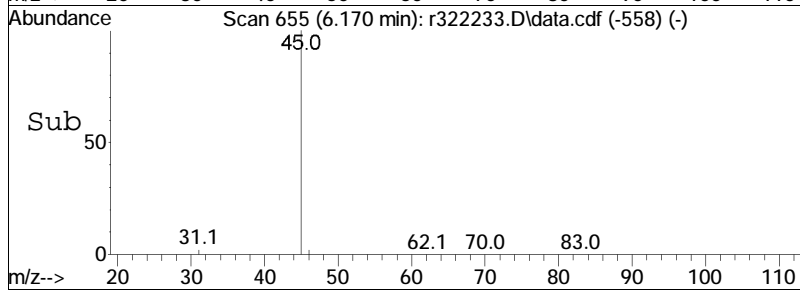
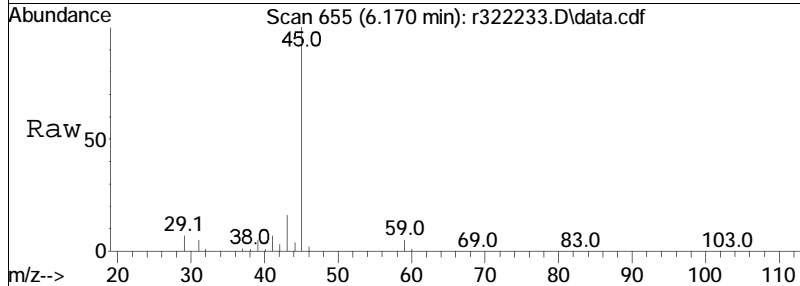
Tgt Ion: 101 Resp: 14679  
 Ion Ratio Lower Upper  
 101 100  
 103 65.1 51.8 77.6

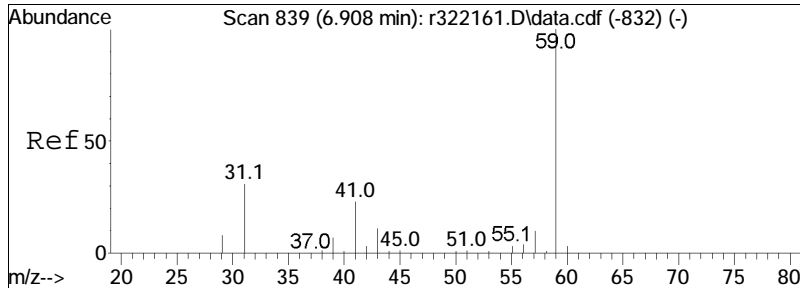




#22  
 isopropyl alcohol  
 Concen: 102.68 ppbV  
 RT: 6.170 min Scan# 655  
 Delta R.T. -0.007 min  
 Lab File: r322233.D  
 Acq: 19 May 2022 9:34 PM

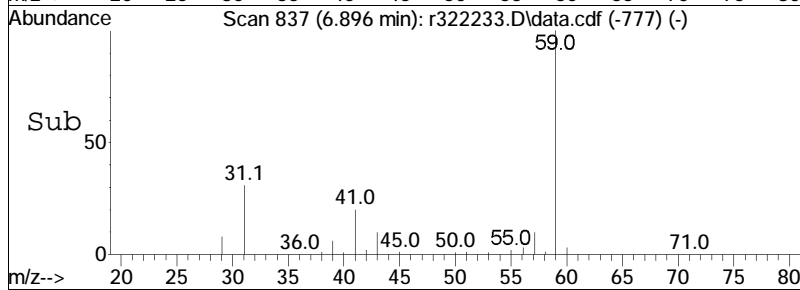
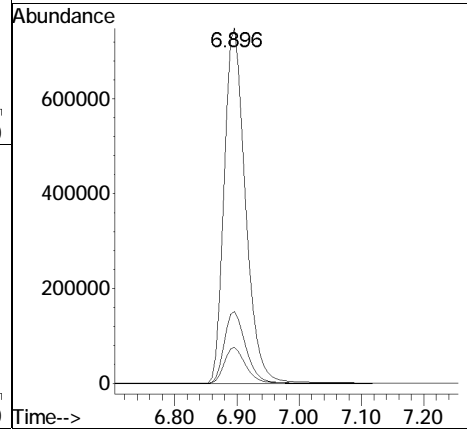
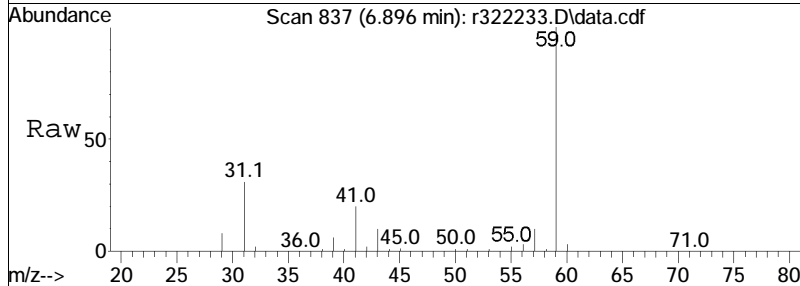
Tgt Ion: 45 Resp: 3366694  
 Ion Ratio Lower Upper  
 45 100  
 59 4.8 3.5 5.3

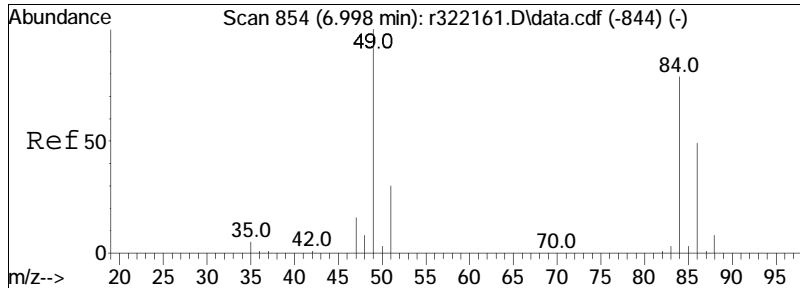




#27  
 tertiary butyl alcohol  
 Concen: 43.73 ppbV  
 RT: 6.896 min Scan# 837  
 Delta R.T. -0.012 min  
 Lab File: r322233.D  
 Acq: 19 May 2022 9:34 PM

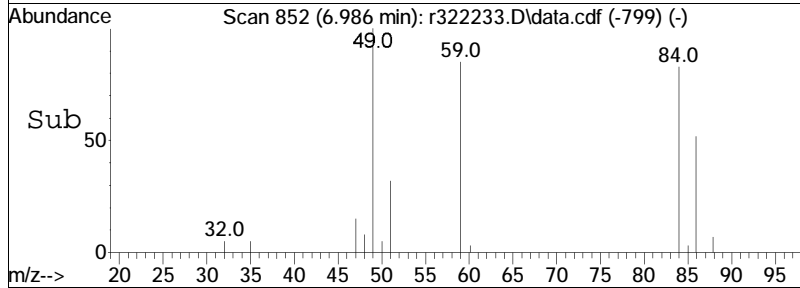
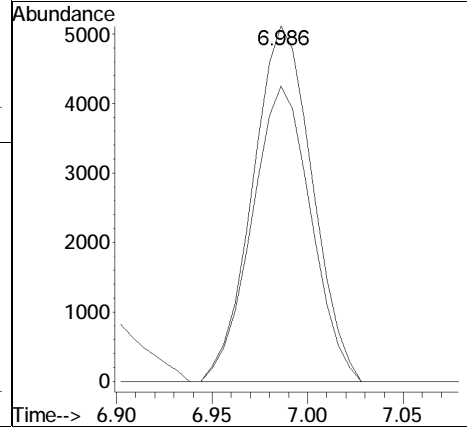
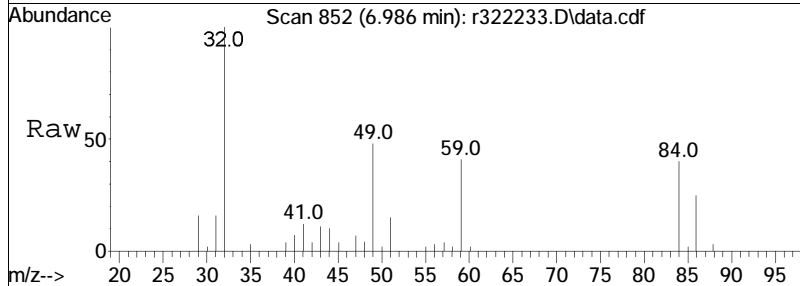
Tgt Ion:	Resp:	Lower	Upper
59	100		
41	20.3	18.2	27.2
43	10.1	8.9	13.3



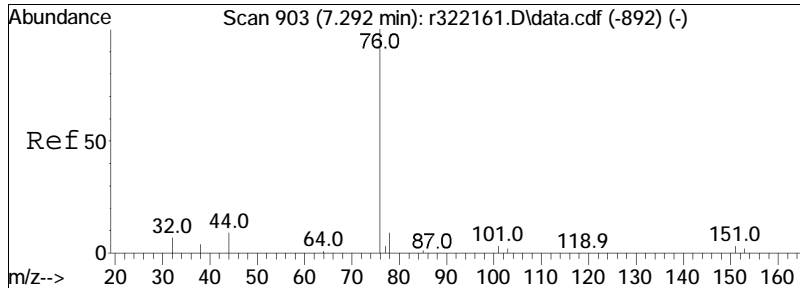


#28  
 methylene chloride  
 Concen: 0.36 ppbV  
 RT: 6.986 min Scan# 852  
 Delta R.T. -0.012 min  
 Lab File: r322233.D  
 Acq: 19 May 2022 9:34 PM

Tgt Ion:	Resp:	Lower	Upper
49	11114		
84	83.1	63.0	94.6

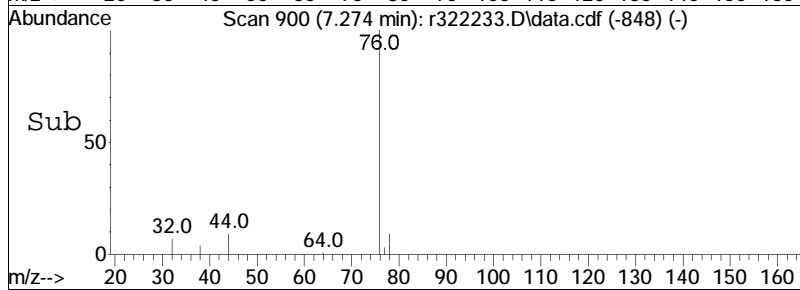
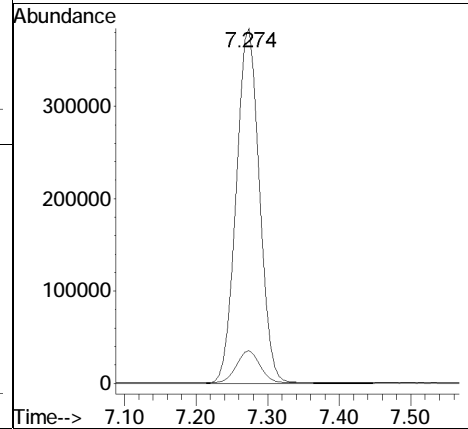
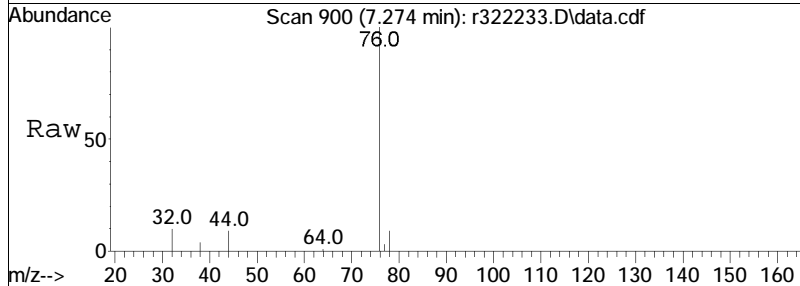


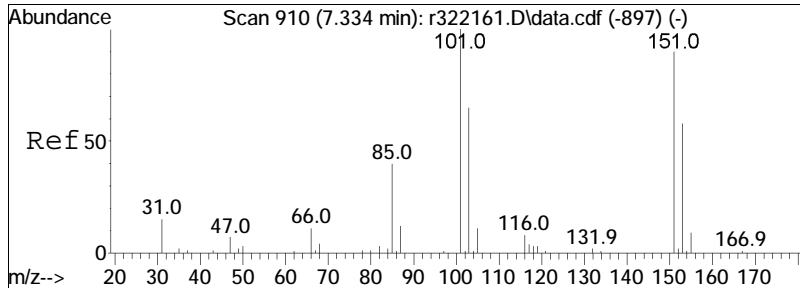




#30  
 carbon disulfide  
 Concen: 12.18 ppbV  
 RT: 7.274 min Scan# 900  
 Delta R.T. -0.018 min  
 Lab File: r322233.D  
 Acq: 19 May 2022 9:34 PM

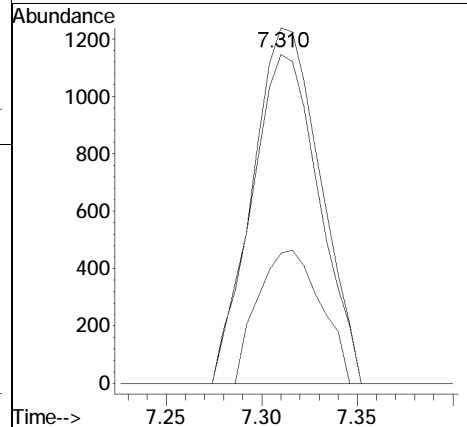
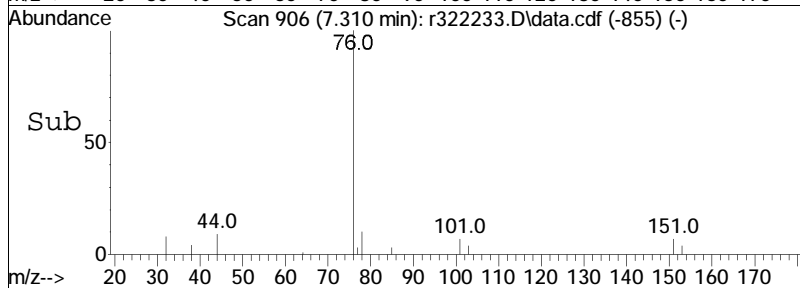
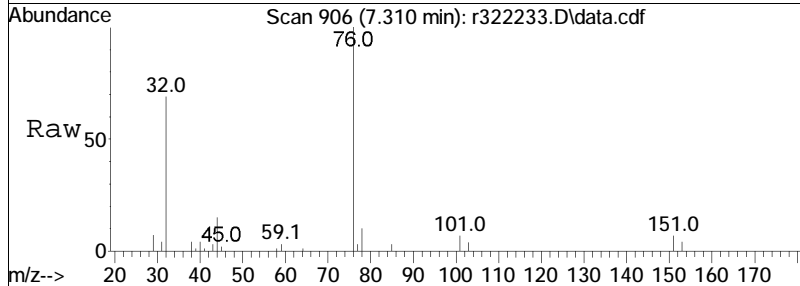
Tgt Ion	Resp	Lower	Upper
76	100		
44	9.2	7.6	11.4

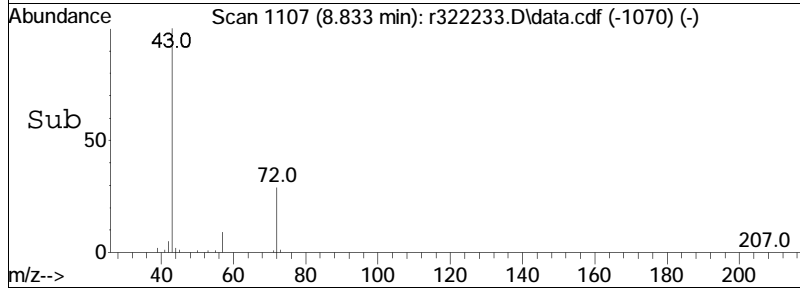
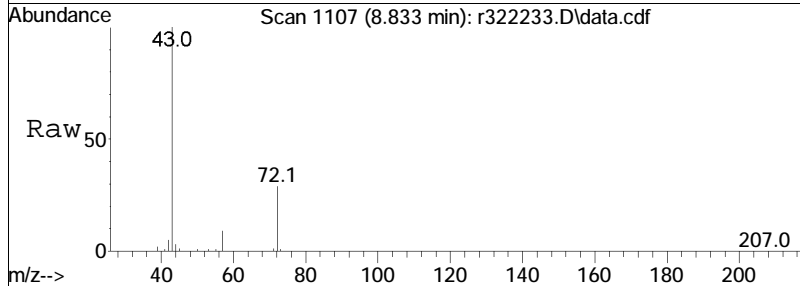
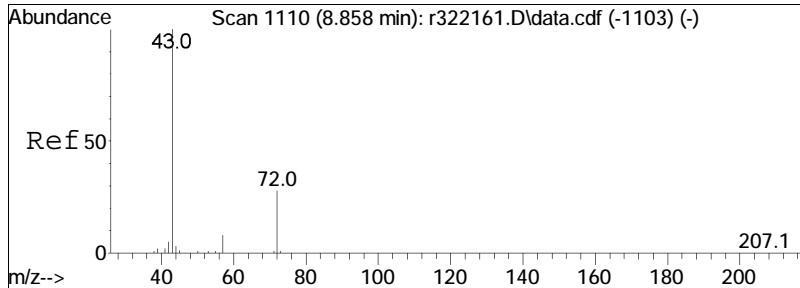




#31  
 Freon 113  
 Concen: 0.08 ppbV  
 RT: 7.310 min Scan# 906  
 Delta R.T. -0.024 min  
 Lab File: r322233.D  
 Acq: 19 May 2022 9:34 PM

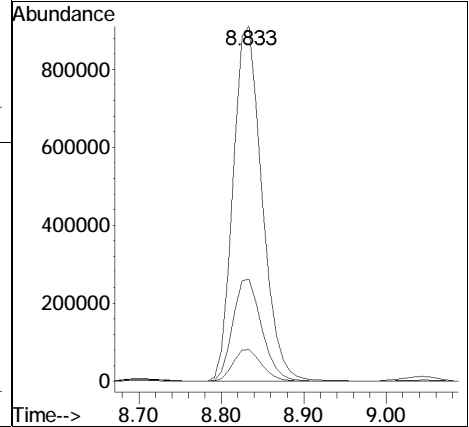
Tgt Ion	Ratio	Lower	Upper
101	100		
85	36.7	31.8	47.8
151	92.6	72.2	108.4

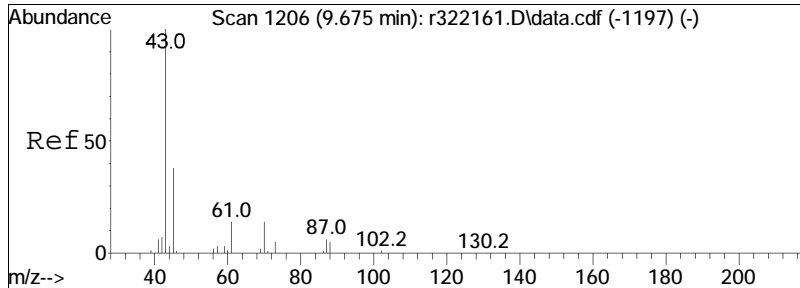




#36  
 2-butanone  
 Concen: 44.81 ppbV  
 RT: 8.833 min Scan# 1107  
 Delta R.T. -0.025 min  
 Lab File: r322233.D  
 Acq: 19 May 2022 9:34 PM

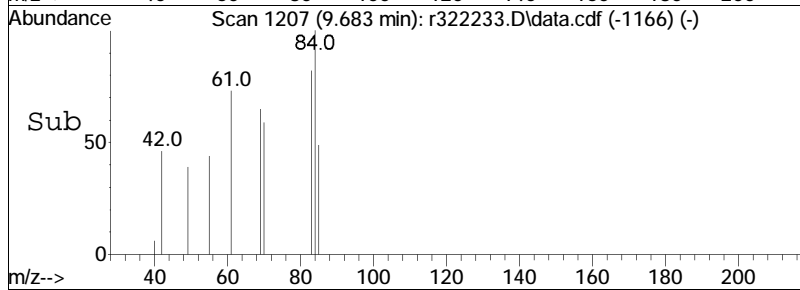
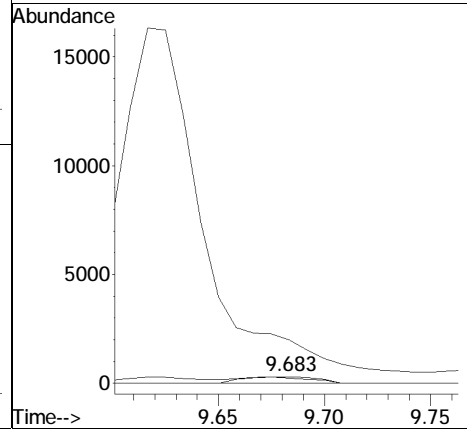
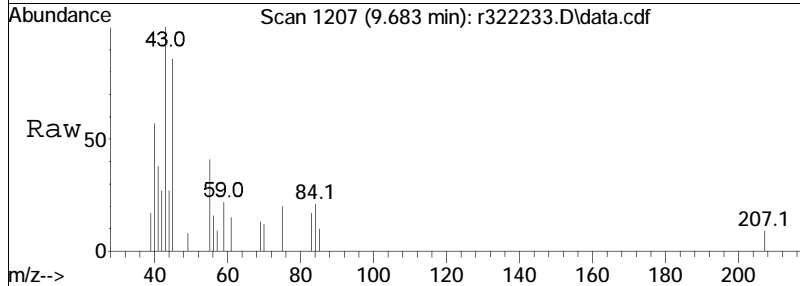
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
43	100		
72	28.8	22.6	33.8
57	9.0	6.6	10.0

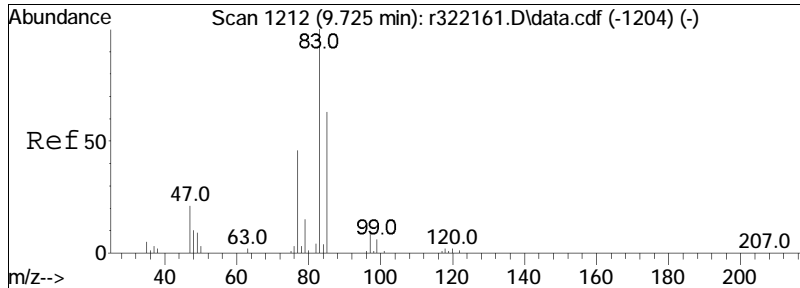




#38  
 Ethyl Acetate  
 Concen: 0.09 ppbV m  
 RT: 9.683 min Scan# 1207  
 Delta R.T. 0.008 min  
 Lab File: r322233.D  
 Acq: 19 May 2022 9:34 PM

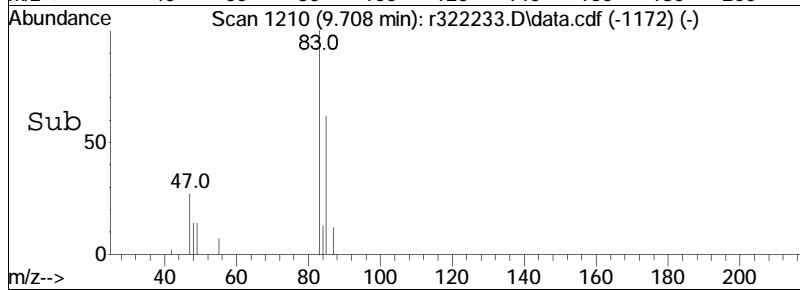
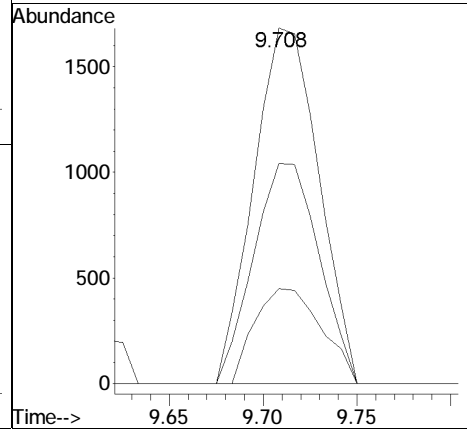
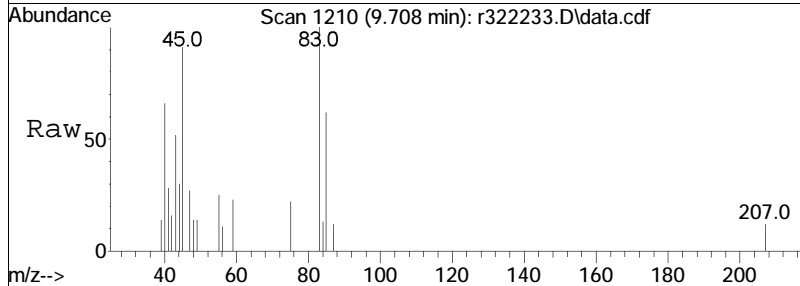
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
61	100		
70	80.3	78.8	118.2
43	666.3	593.4	890.0

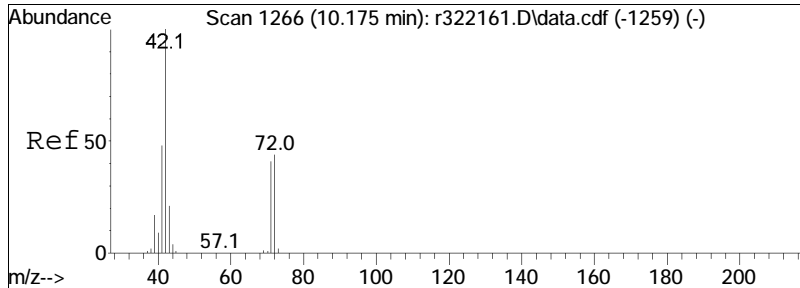




#39  
 chloroform  
 Concen: 0.10 ppbV  
 RT: 9.708 min Scan# 1210  
 Delta R.T. -0.017 min  
 Lab File: r322233.D  
 Acq: 19 May 2022 9:34 PM

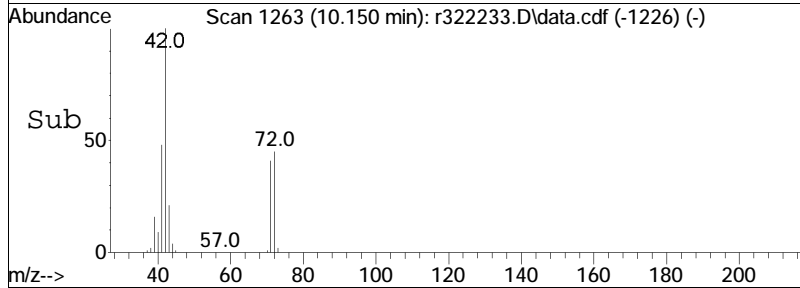
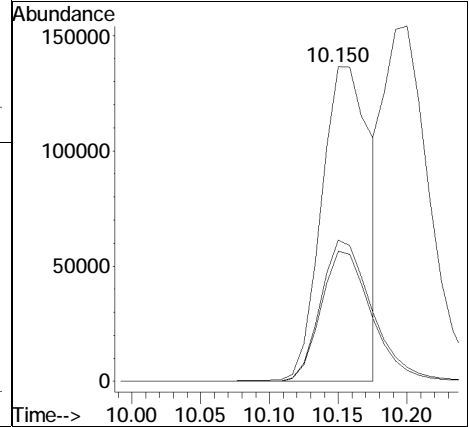
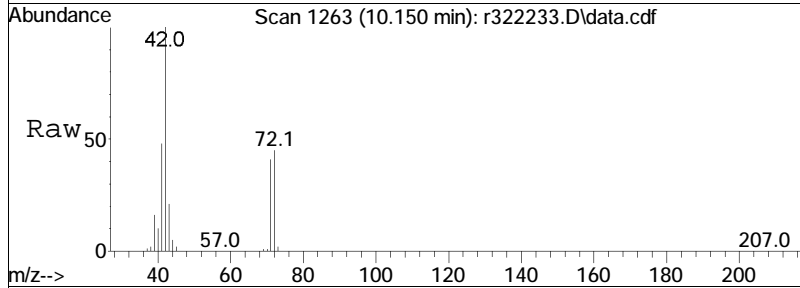
Tgt Ion	Resp	Lower	Upper
83	4068		
85	61.9	50.4	75.6
47	26.7	16.9	25.3#

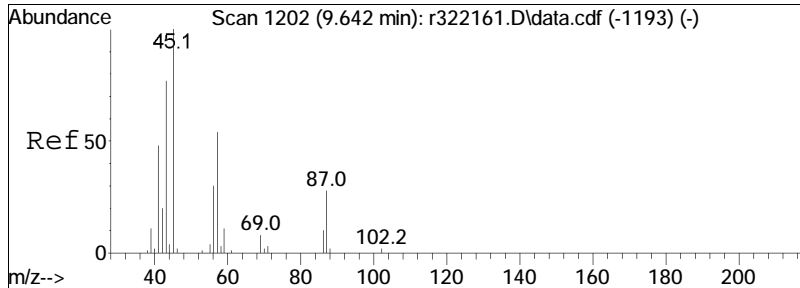




#40  
 Tetrahydrofuran  
 Concen: 11.71 ppbV  
 RT: 10.150 min Scan# 1263  
 Delta R.T. -0.025 min  
 Lab File: r322233.D  
 Acq: 19 May 2022 9:34 PM

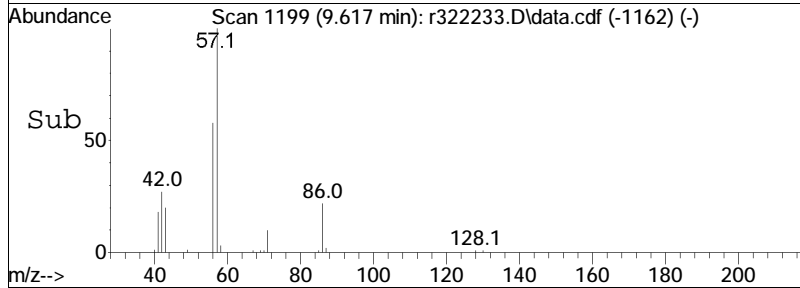
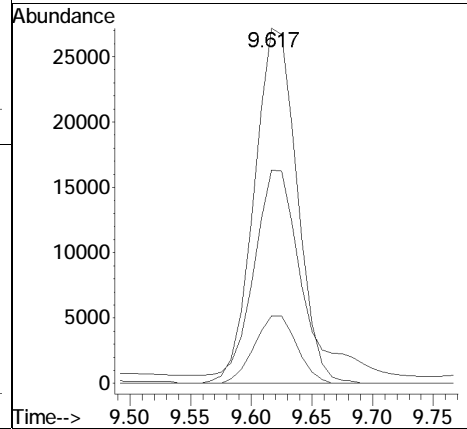
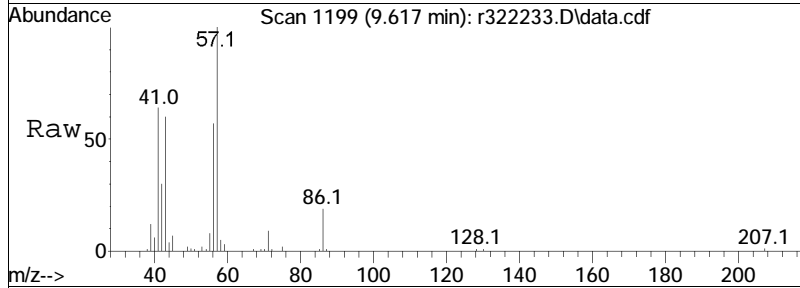
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
42	100		
71	41.3	32.4	48.6
72	44.9	35.2	52.8

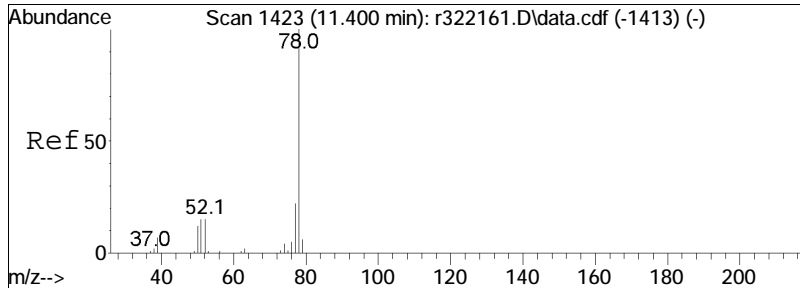




#44  
 hexane  
 Concen: 1.54 ppbV  
 RT: 9.617 min Scan# 1199  
 Delta R.T. -0.025 min  
 Lab File: r322233.D  
 Acq: 19 May 2022 9:34 PM

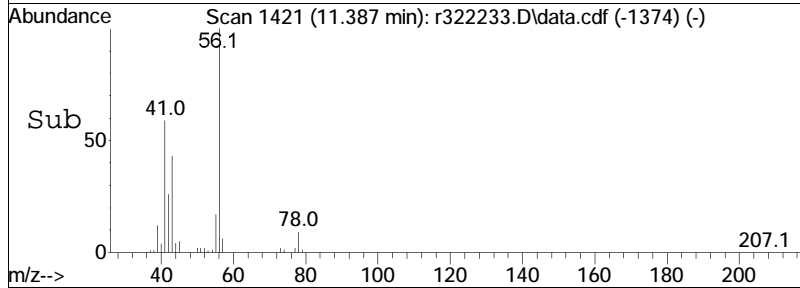
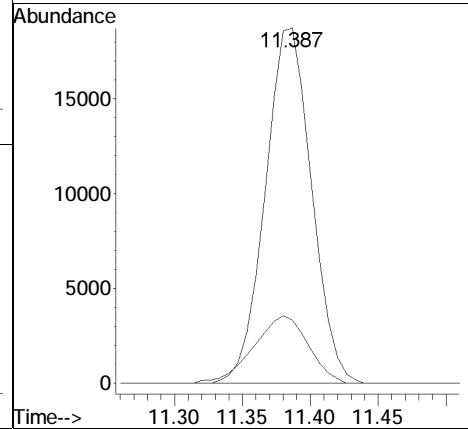
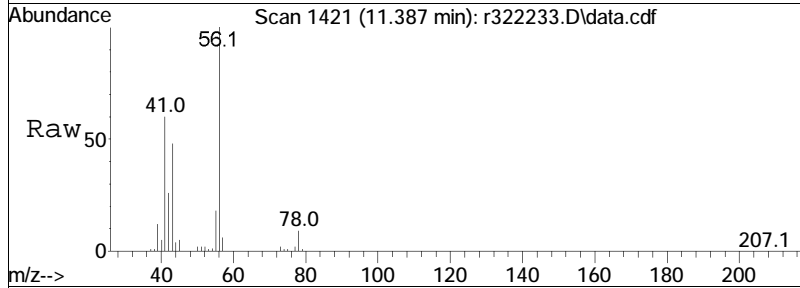
Tgt Ion	Resp	Lower	Upper
57	100		
43	60.1	115.0	172.6#
86	19.0	15.5	23.3



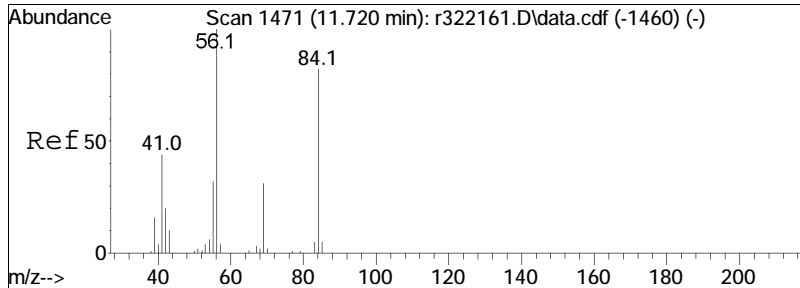


#50  
benzene  
Concen: 0.50 ppbV  
RT: 11.387 min Scan# 1421  
Delta R.T. -0.013 min  
Lab File: r322233.D  
Acq: 19 May 2022 9:34 PM

Tgt Ion:	78	Resp:	44483
Ion Ratio	100	Lower	Upper
52	17.8	12.2	18.2

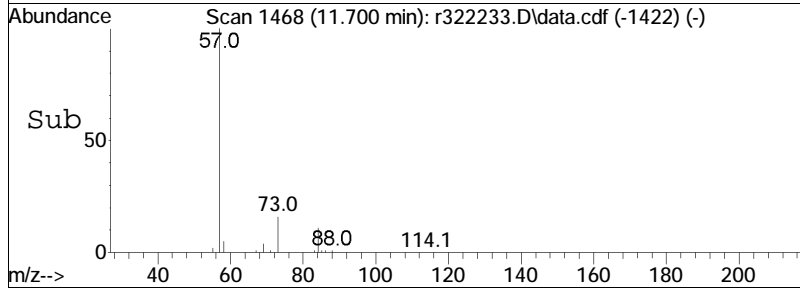
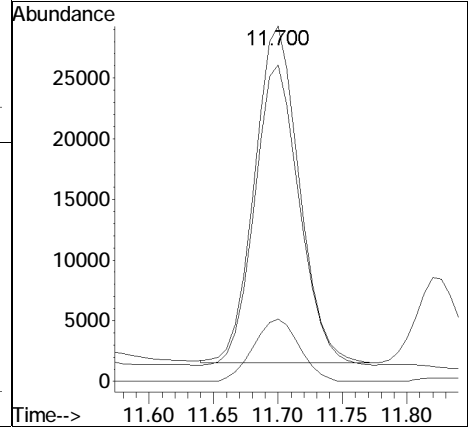
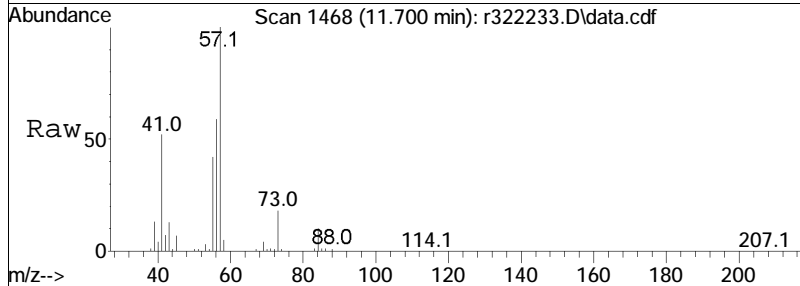


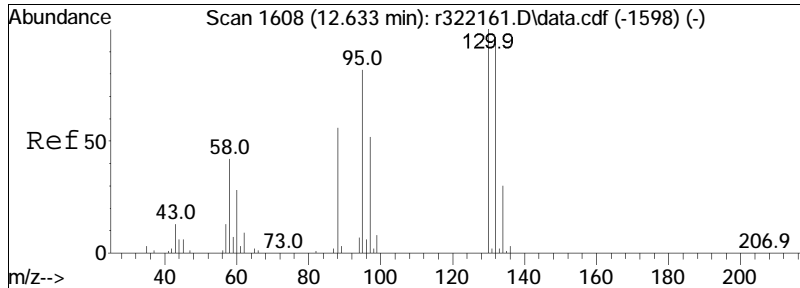




#53  
 cyclohexane  
 Concen: 1.48 ppbV  
 RT: 11.700 min Scan# 1468  
 Delta R.T. -0.020 min  
 Lab File: r322233.D  
 Acq: 19 May 2022 9:34 PM

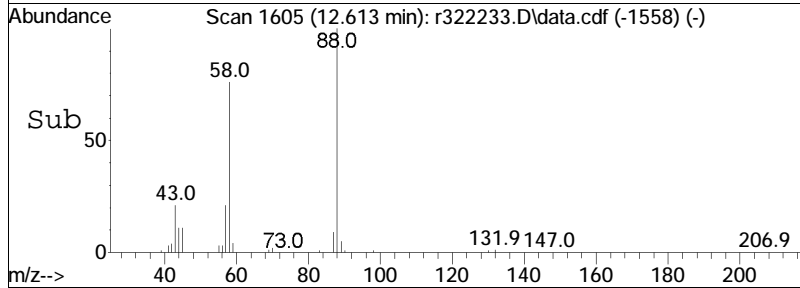
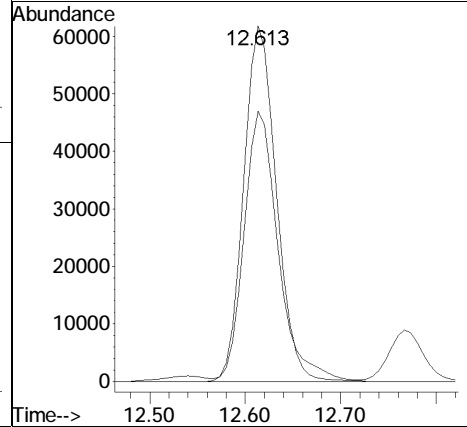
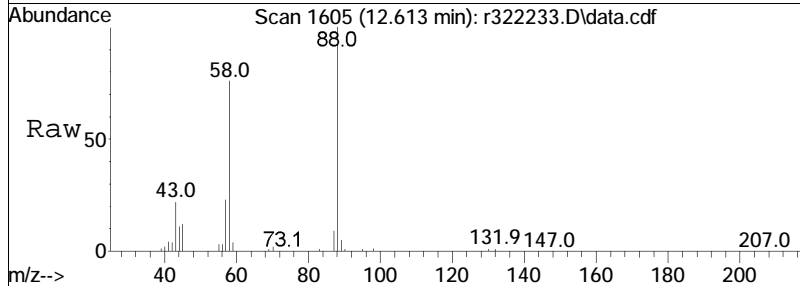
Tgt Ion:	Resp:		
Ion Ratio	Lower	Upper	
56	100		
84	17.6	65.4	98.0#
41	89.1	35.4	53.2#

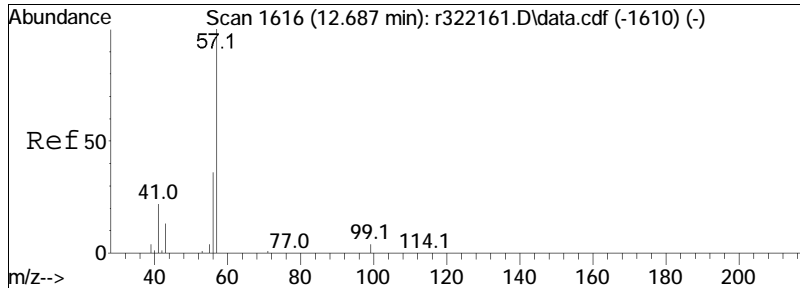




#58  
 1,4-dioxane  
 Concen: 8.05 ppbV  
 RT: 12.613 min Scan# 1605  
 Delta R.T. -0.020 min  
 Lab File: r322233.D  
 Acq: 19 May 2022 9:34 PM

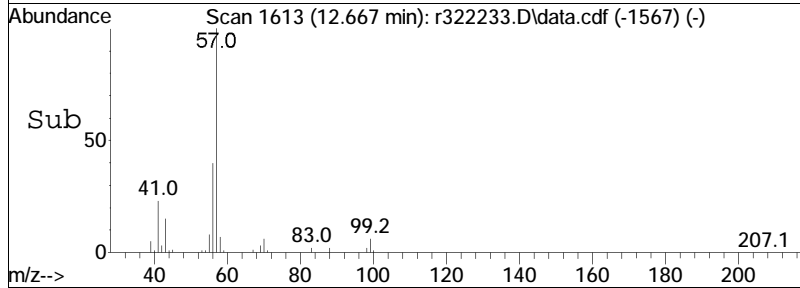
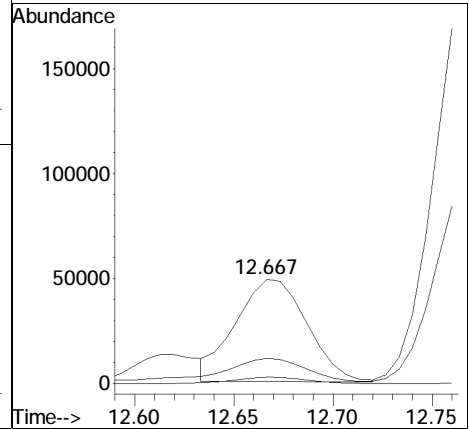
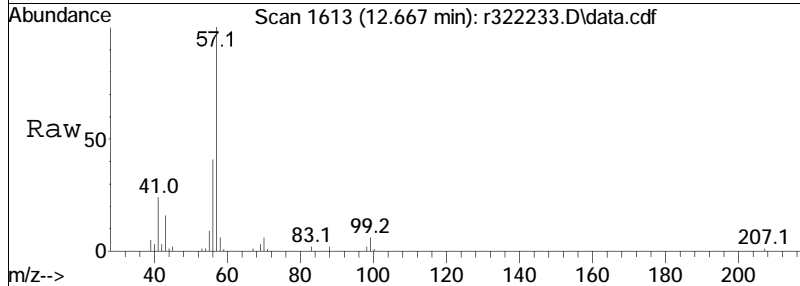
Tgt Ion	Resp	Lower	Upper
88	146573		
88	100		
58	76.0	61.2	91.8

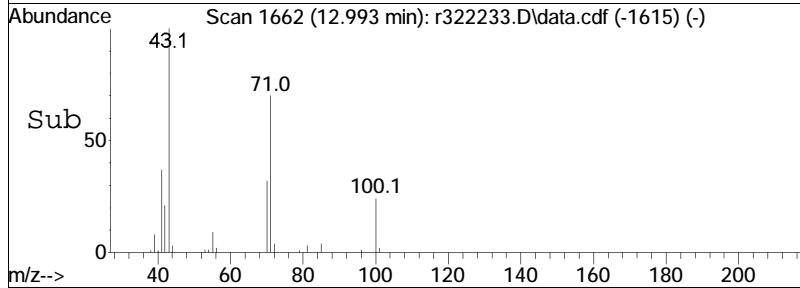
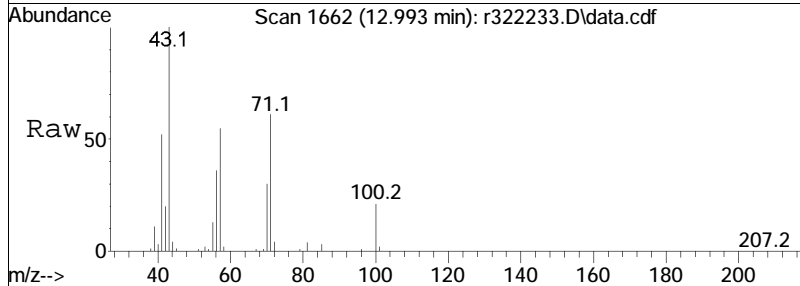
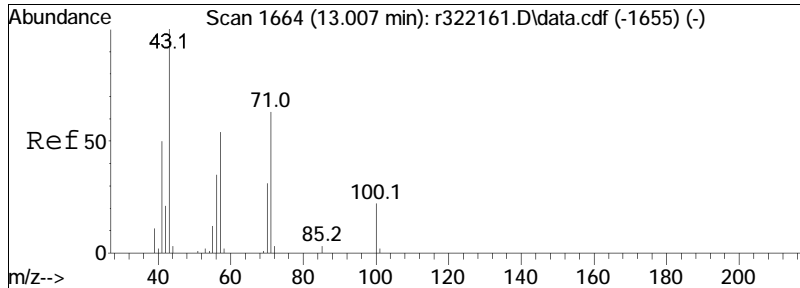




#60  
 2,2,4-trimethylpentane  
 Concen: 0.91 ppbV  
 RT: 12.667 min Scan# 1613  
 Delta R.T. -0.020 min  
 Lab File: r322233.D  
 Acq: 19 May 2022 9:34 PM

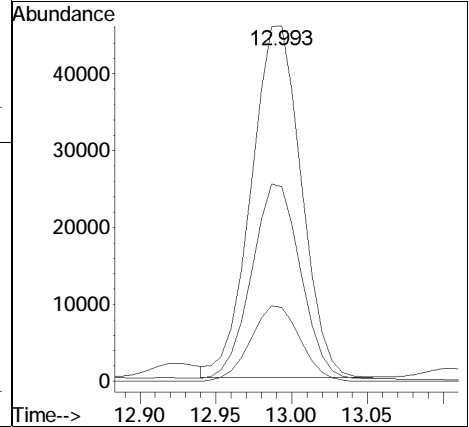
Tgt Ion	Resp	Lower	Upper
57	121520		
57	100		
99	6.0	5.0	7.4
41	24.0	17.4	26.2

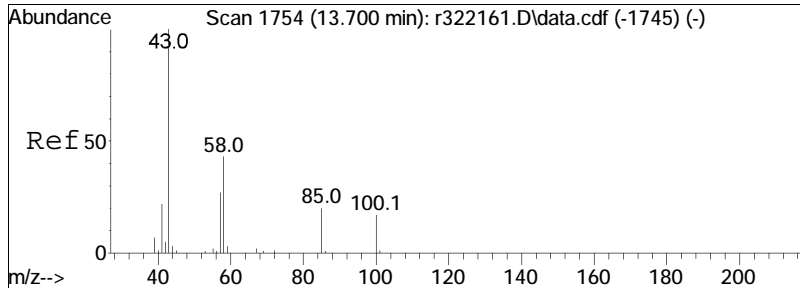




#62  
 heptane  
 Concen: 2.10 ppbV  
 RT: 12.993 min Scan# 1662  
 Delta R.T. -0.013 min  
 Lab File: r322233.D  
 Acq: 19 May 2022 9:34 PM

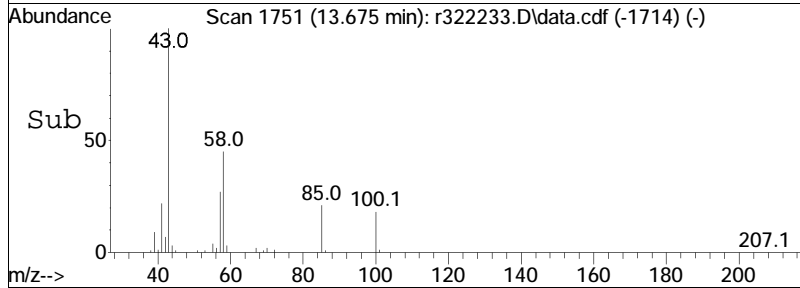
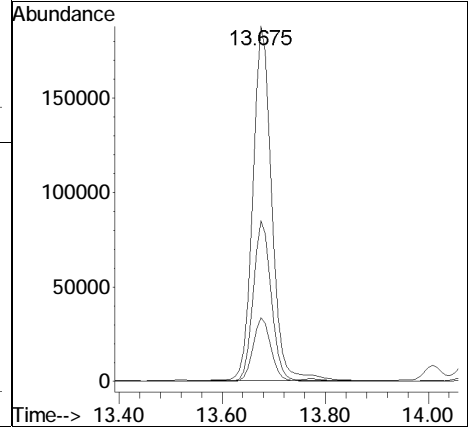
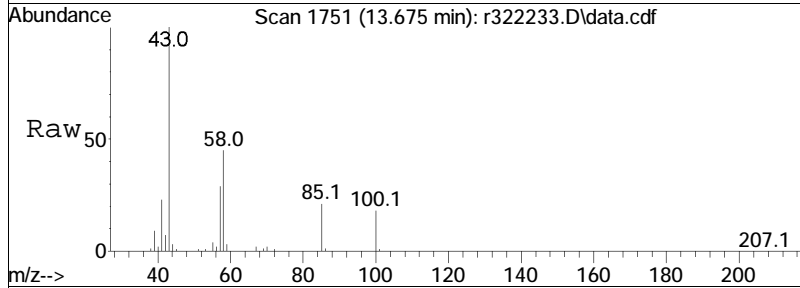
Tgt Ion:	43	Resp:	105279
Ion Ratio	Lower	Upper	
43	100		
57	54.8	43.0	64.4
100	20.8	17.6	26.4

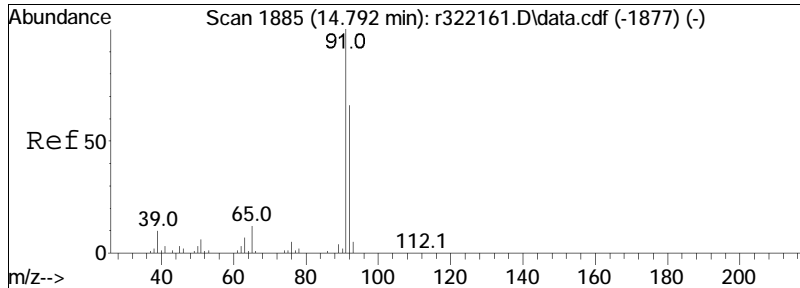




#64  
 4-methyl-2-pentanone  
 Concen: 8.36 ppbV  
 RT: 13.675 min Scan# 1751  
 Delta R.T. -0.025 min  
 Lab File: r322233.D  
 Acq: 19 May 2022 9:34 PM

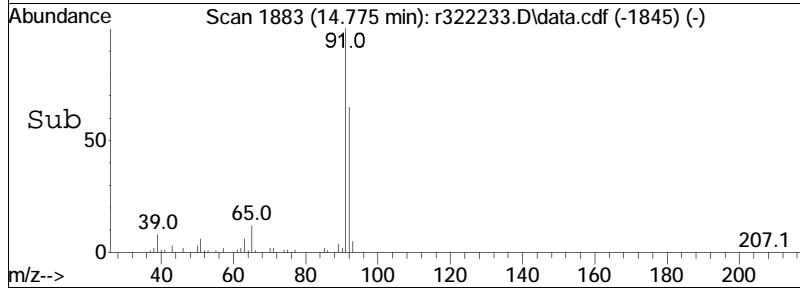
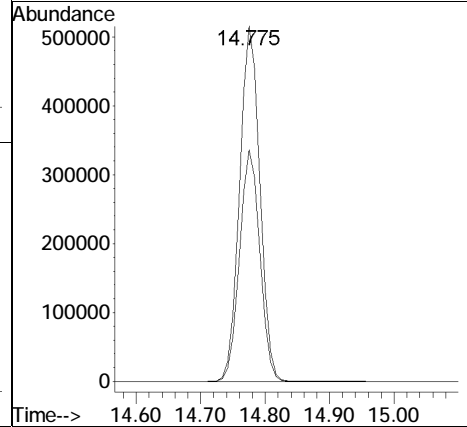
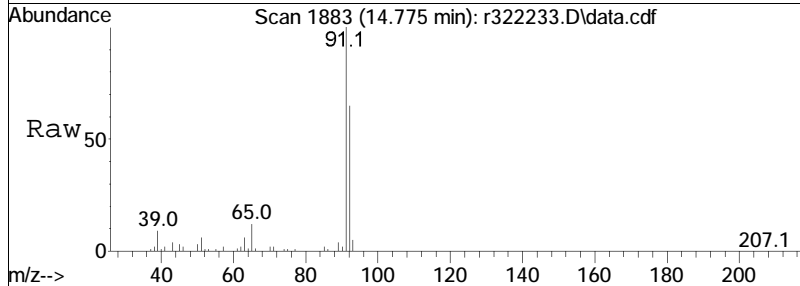
Tgt Ion	Resp	Lower	Upper
43	100		
58	45.2	34.3	51.5
100	18.0	13.8	20.6

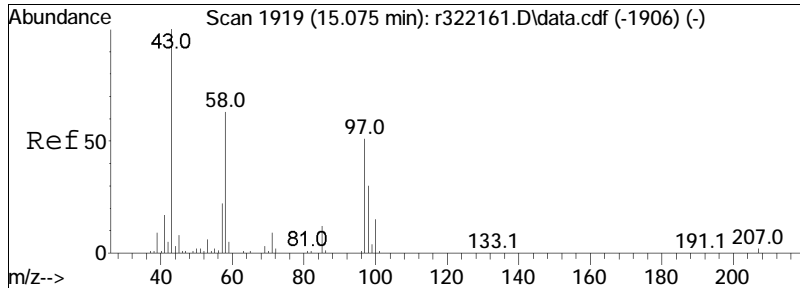




#68  
 toluene  
 Concen: 12.38 ppbV  
 RT: 14.775 min Scan# 1883  
 Delta R.T. -0.017 min  
 Lab File: r322233.D  
 Acq: 19 May 2022 9:34 PM

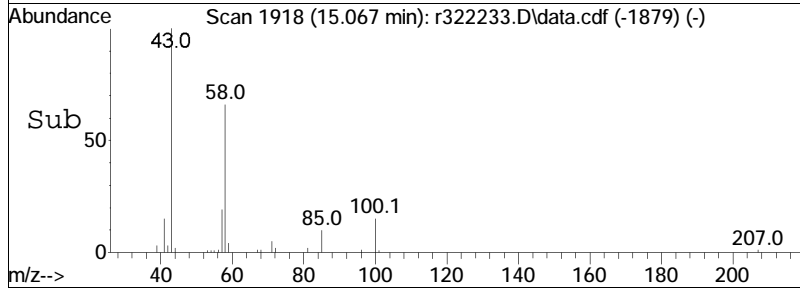
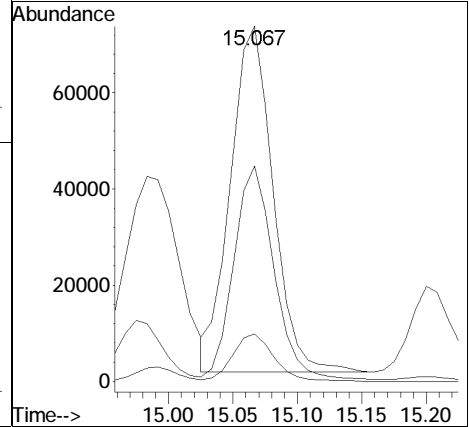
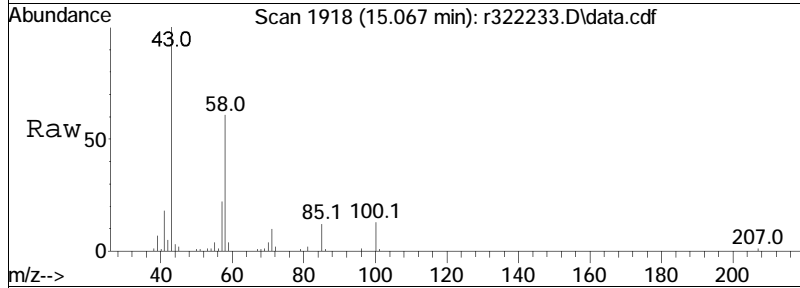
Tgt Ion: 91 Resp: 1125565  
 Ion Ratio Lower Upper  
 91 100  
 92 65.2 52.7 79.1

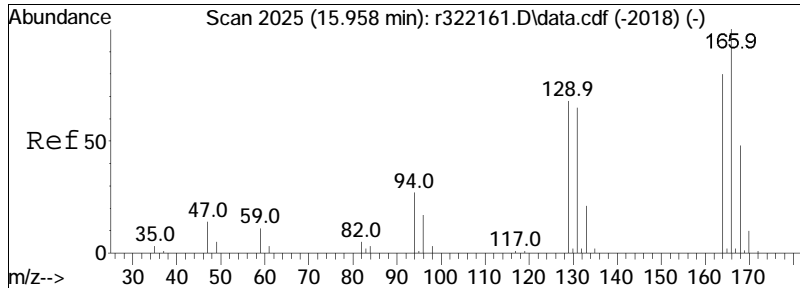




#72  
 2-hexanone  
 Concen: 3.03 ppbV  
 RT: 15.067 min Scan# 1918  
 Delta R.T. -0.008 min  
 Lab File: r322233.D  
 Acq: 19 May 2022 9:34 PM

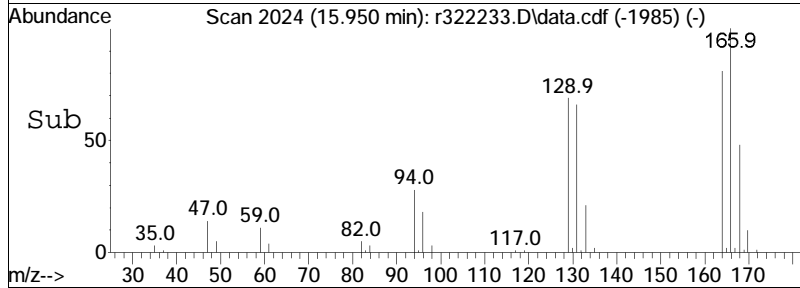
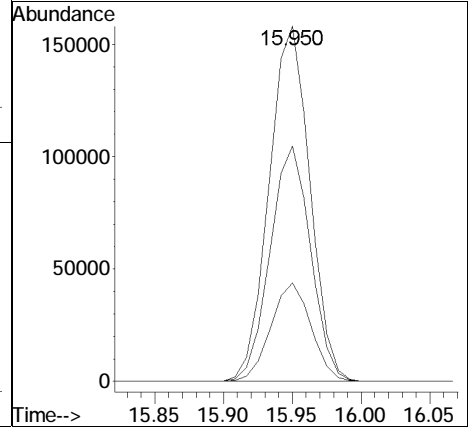
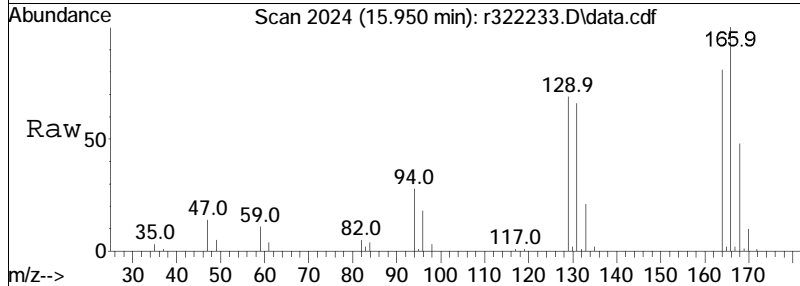
Tgt Ion	Resp	Lower	Upper
43	100		
58	60.6	50.5	75.7
100	13.4	12.2	18.2



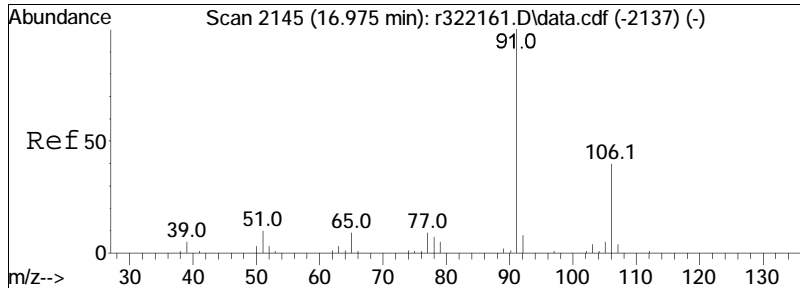


#78  
 tetrachloroethene  
 Concen: 7.39 ppbV  
 RT: 15.950 min Scan# 2024  
 Delta R.T. -0.008 min  
 Lab File: r322233.D  
 Acq: 19 May 2022 9:34 PM

Tgt Ion	Resp	Lower	Upper
166	100		
131	66.2	51.8	77.6
94	27.7	21.8	32.8

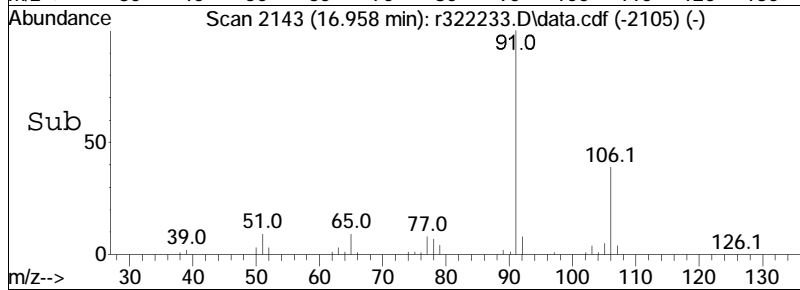
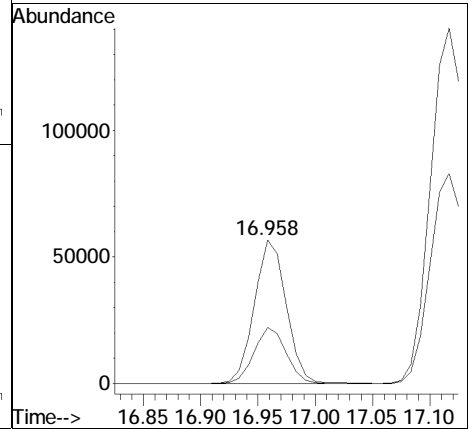
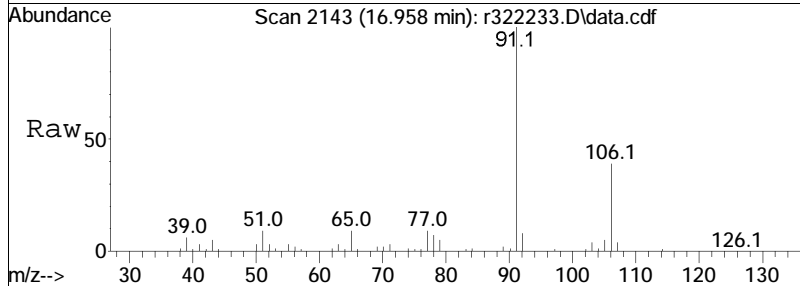


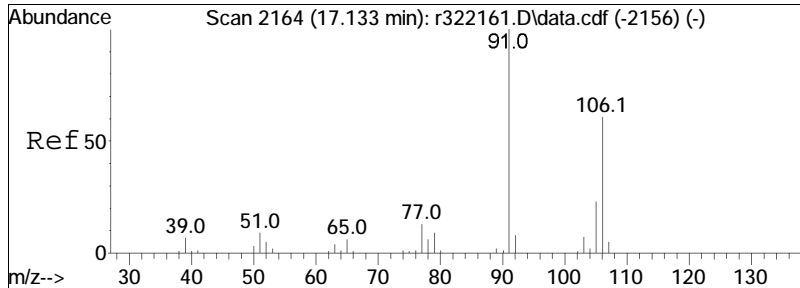




#81  
 ethylbenzene  
 Concen: 1.00 ppbV  
 RT: 16.958 min Scan# 2143  
 Delta R.T. -0.017 min  
 Lab File: r322233.D  
 Acq: 19 May 2022 9:34 PM

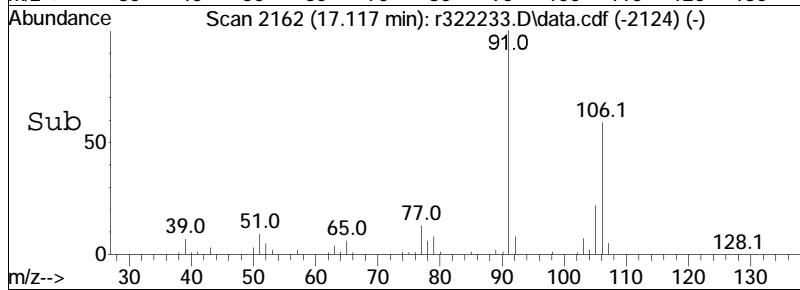
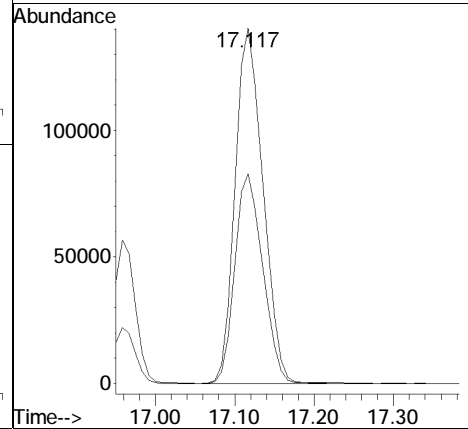
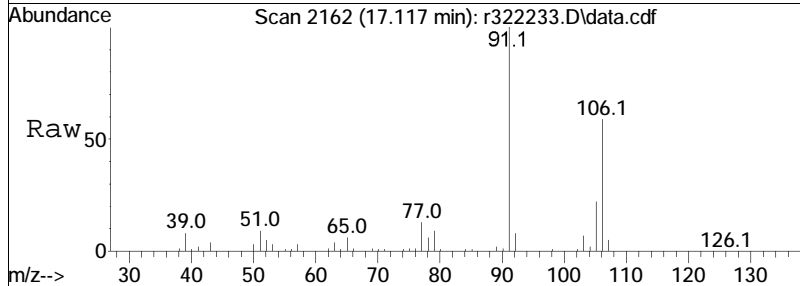
Tgt Ion:	91	Resp:	109589
Ion Ratio	Lower	Upper	
91	100		
106	39.0	32.4	48.6

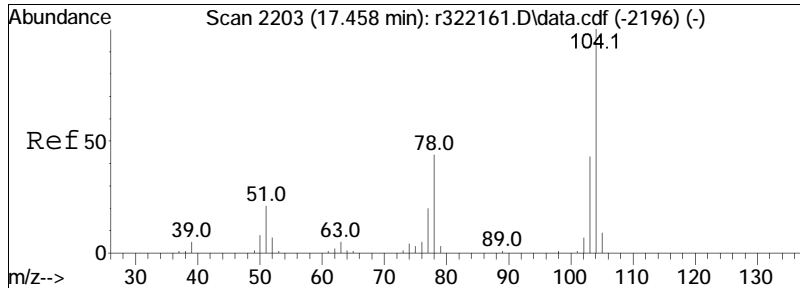




#83  
 m+p-xylene  
 Concen: 3.85 ppbV  
 RT: 17.117 min Scan# 2162  
 Delta R.T. -0.017 min  
 Lab File: r322233.D  
 Acq: 19 May 2022 9:34 PM

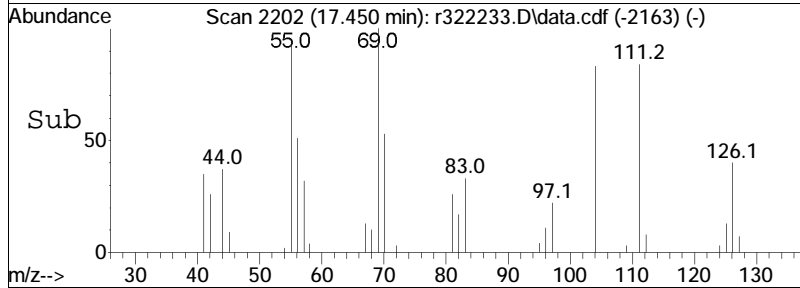
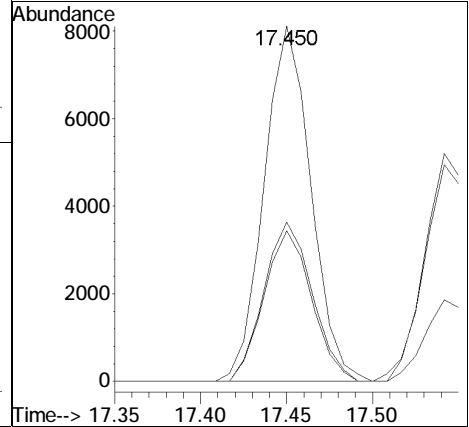
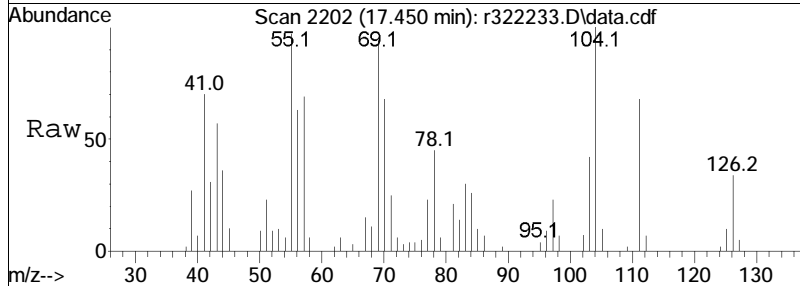
Tgt Ion: 91 Resp: 342876  
 Ion Ratio Lower Upper  
 91 100  
 106 59.1 48.4 72.6

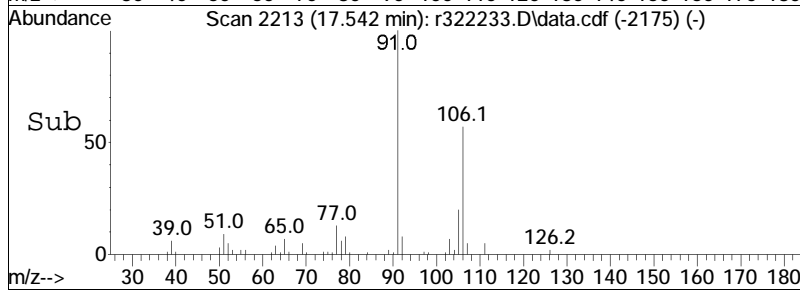
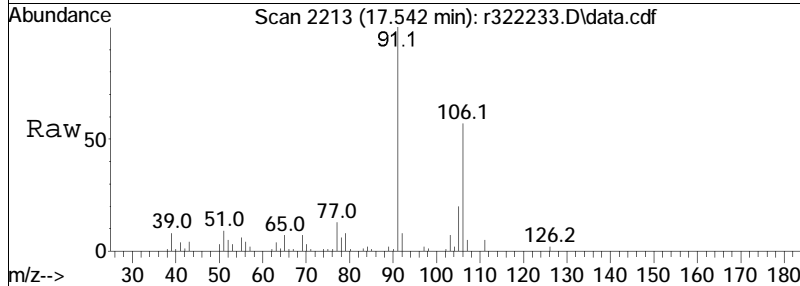
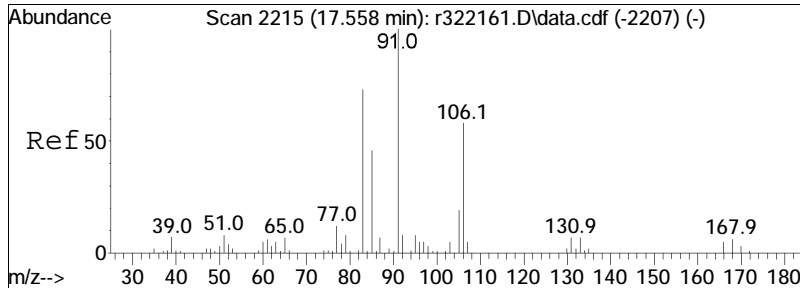




#85  
 styrene  
 Concen: 0.19 ppbV  
 RT: 17.450 min Scan# 2202  
 Delta R.T. -0.008 min  
 Lab File: r322233.D  
 Acq: 19 May 2022 9:34 PM

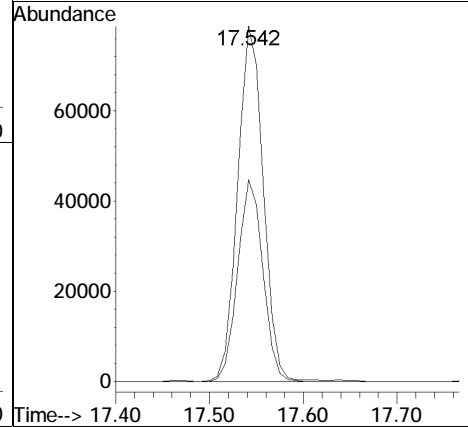
Tgt Ion	Ratio	Lower	Upper
104	100		
103	42.4	34.4	51.6
78	44.9	35.1	52.7

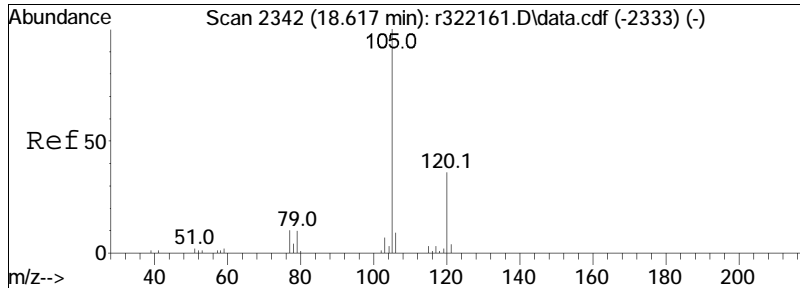




#87  
 o-xylene  
 Concen: 1.69 ppbV  
 RT: 17.542 min Scan# 2213  
 Delta R.T. -0.017 min  
 Lab File: r322233.D  
 Acq: 19 May 2022 9:34 PM

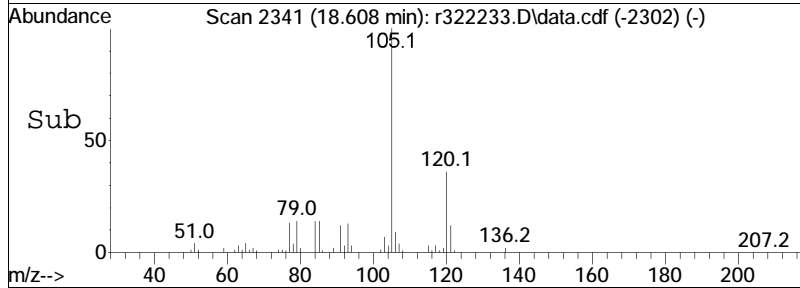
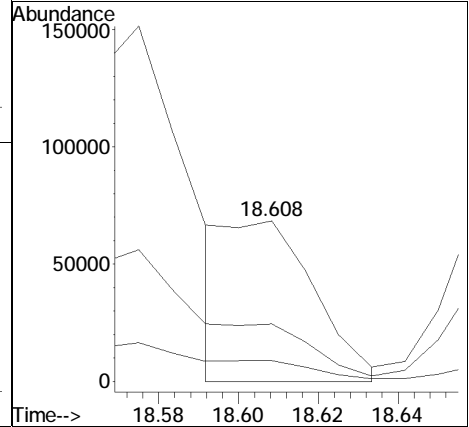
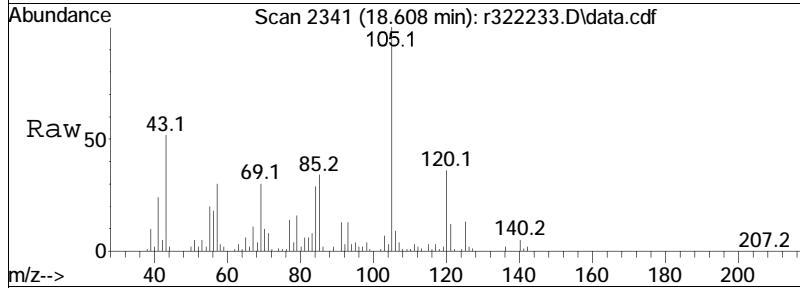
Tgt Ion: 91 Resp: 149861  
 Ion Ratio Lower Upper  
 91 100  
 106 56.7 46.4 69.6

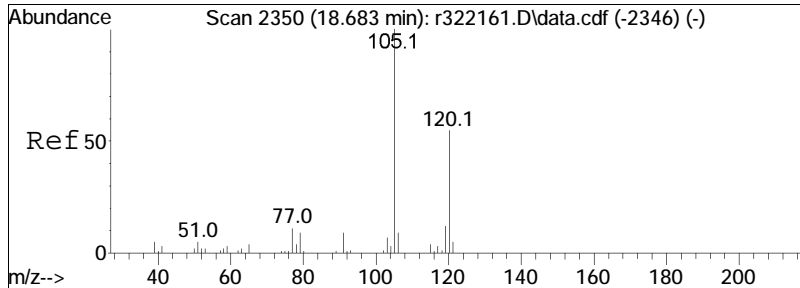




#96  
 4-ethyl toluene  
 Concen: 0.77 ppbV m  
 RT: 18.608 min Scan# 2341  
 Delta R.T. -0.008 min  
 Lab File: r322233.D  
 Acq: 19 May 2022 9:34 PM

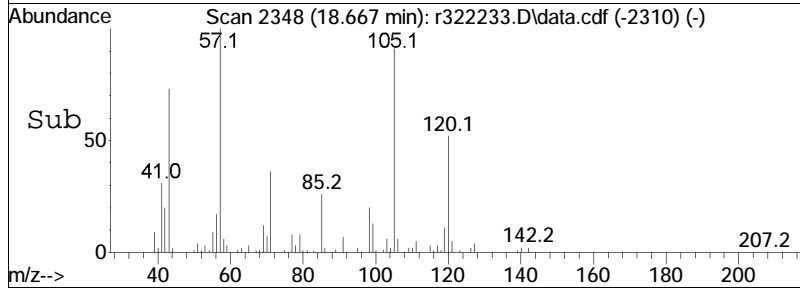
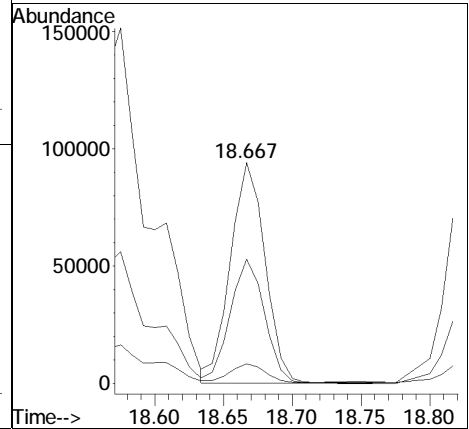
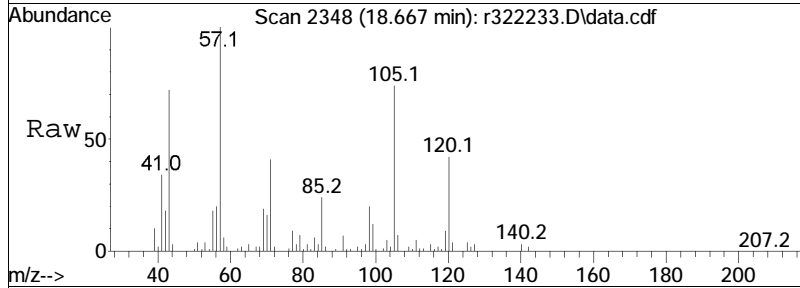
Tgt Ion	Resp	Lower	Upper
105	103768		
120	35.8	28.6	42.8
91	12.9	7.4	11.2#

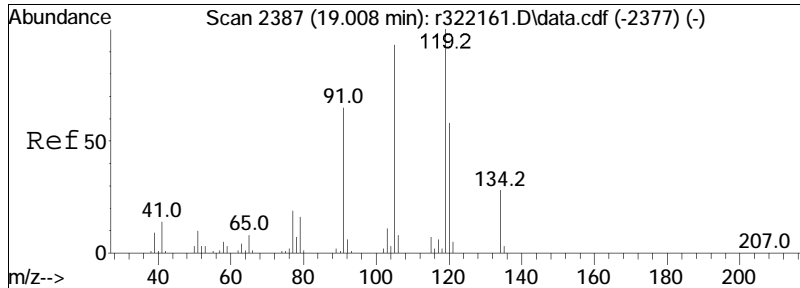




#97  
 1,3,5-trimethylbenzene  
 Concen: 1.33 ppbV  
 RT: 18.667 min Scan# 2348  
 Delta R.T. -0.017 min  
 Lab File: r322233.D  
 Acq: 19 May 2022 9:34 PM

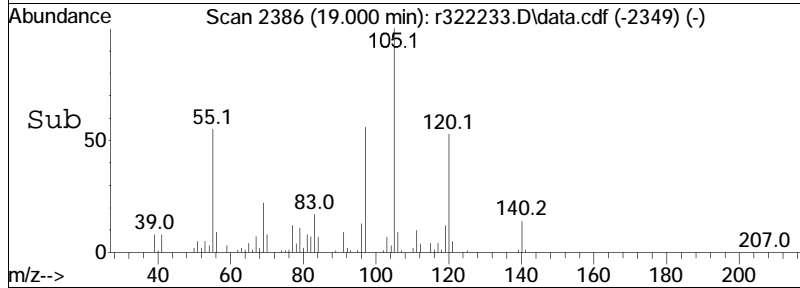
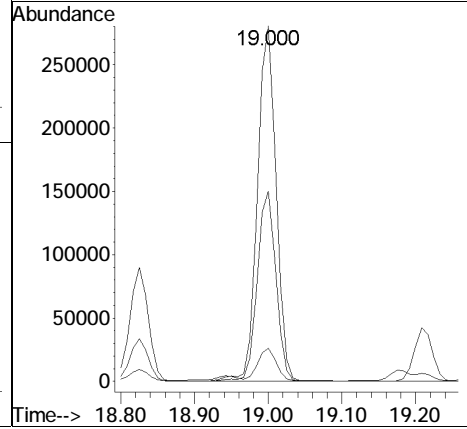
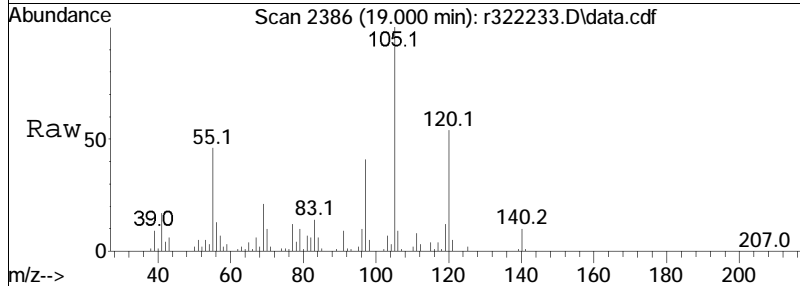
Tgt Ion	Resp	Lower	Upper
105	100		
120	56.2	43.7	65.5
91	8.9	7.0	10.4





#99  
 1,2,4-trimethylbenzene  
 Concen: 4.54 ppbV  
 RT: 19.000 min Scan# 2386  
 Delta R.T. -0.008 min  
 Lab File: r322233.D  
 Acq: 19 May 2022 9:34 PM

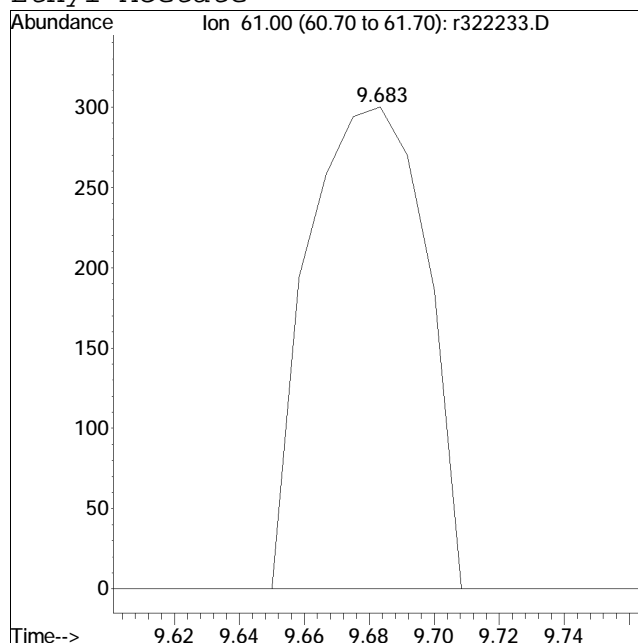
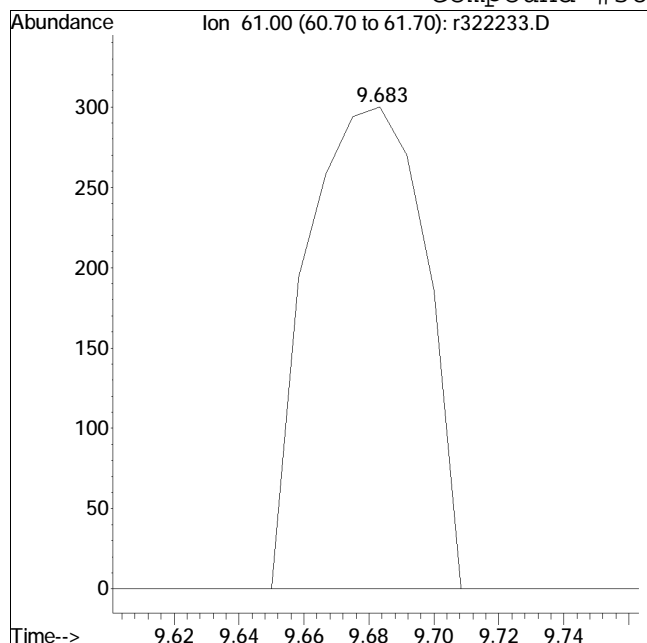
Tgt Ion	Ratio	Lower	Upper
105	100		
120	53.6	49.4	74.2
91	9.3	55.8	83.8#



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322233.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:9: 4 Instrument :  
Sample : WG1640711-5,3,250,250 Quant Date : 5/20/2022 8:06 am

Compound #38: Ethyl Acetate



Original Peak Response = 751

Manual Peak Response = 751 M6

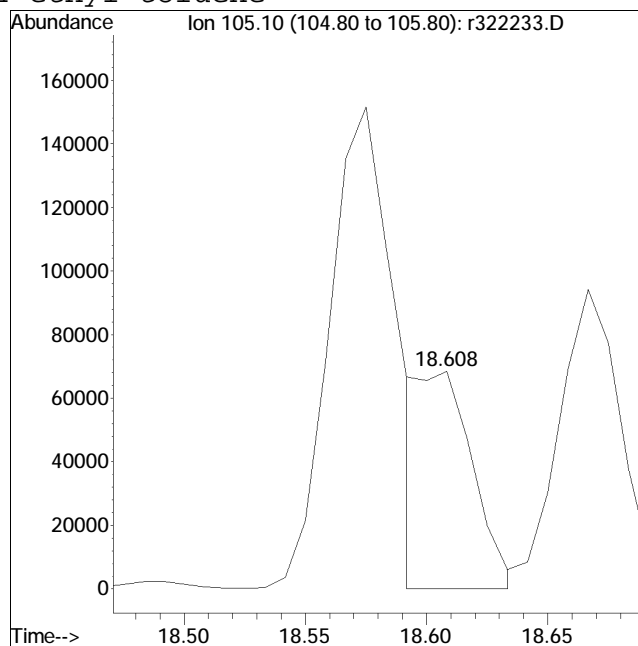
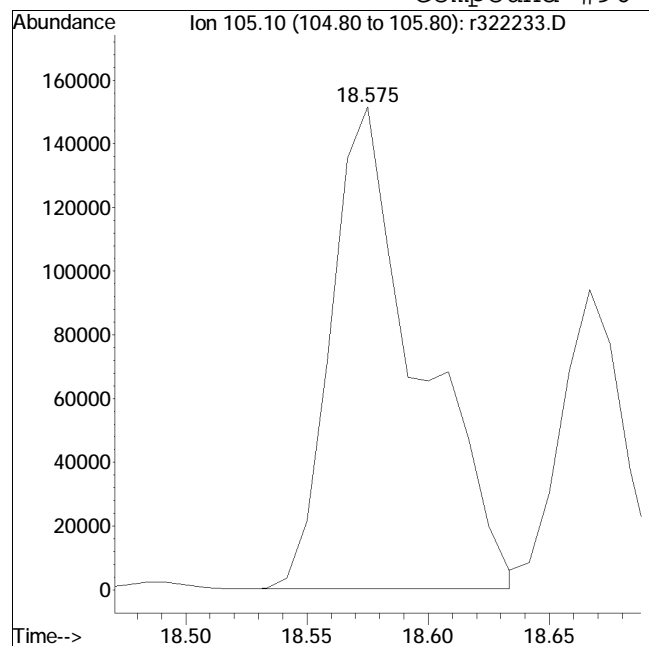
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322233.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:9: 4 Instrument :  
Sample : WG1640711-5,3,250,250 Quant Date : 5/20/2022 8:06 am

Compound #96: 4-ethyl toluene



Original Peak Response = 381409

Manual Peak Response = 103768 M6

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
 Data File : r322249.D  
 Acq On : 20 May 2022 8:10 AM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640711-5D,3,30,250  
 Misc : WG1640711,ICAL19030  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 20 09:44:56 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 15:52:12 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0519T\r322225.D  
 Sub List : Acetone - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.517	49	414948	10.000	ppbV	-0.05
Standard Area =	440035		Recovery =	94.30%		
43) 1,4-difluorobenzene	11.793	114	1249343	10.000	ppbV	-0.05
Standard Area =	1334123		Recovery =	93.65%		
67) chlorobenzene-D5	16.550	54	197307	10.000	ppbV	-0.03
Standard Area =	210666		Recovery =	93.66%		

System Monitoring Compounds

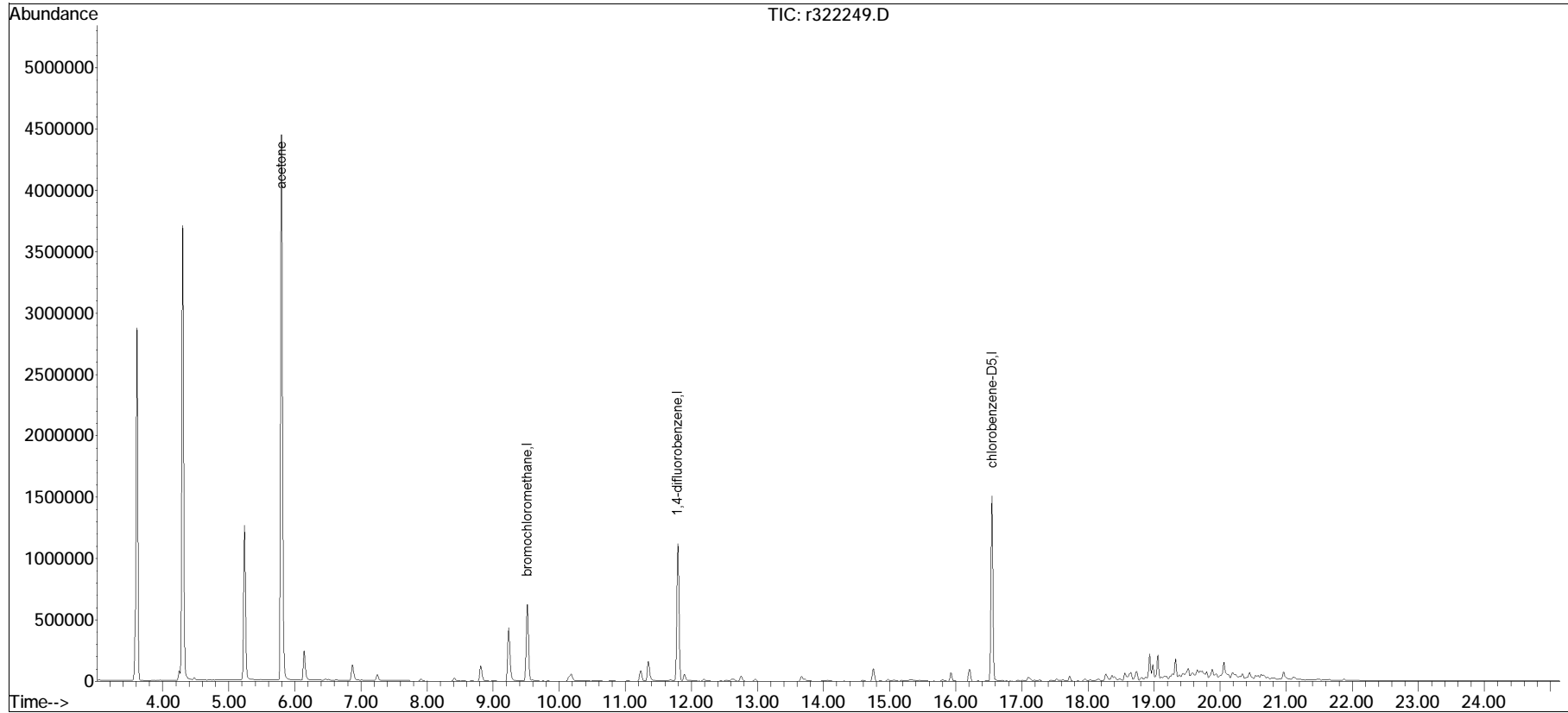
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
19) acetone	5.797	43	5315114	233.816	ppbV	90

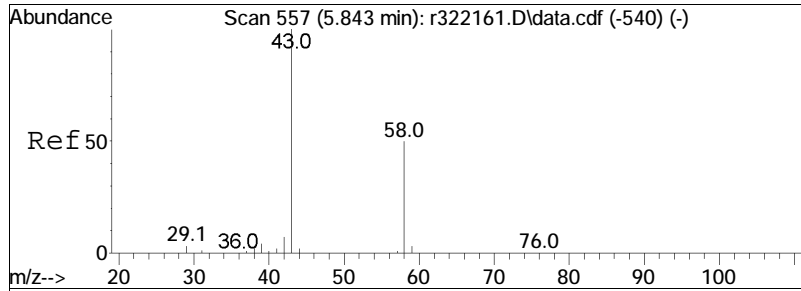
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Acetone - .s\Data\Airpiano3\2022\05\0519T\r322225.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0519T\  
Data File : r322249.D  
Acq On : 20 May 2022 8:10 AM  
Operator : AIRPIANO3:TS  
Sample : WG1640711-5D,3,30,250  
Misc : WG1640711,ICAL19030  
ALS Vial : 0 Sample Multiplier: 1

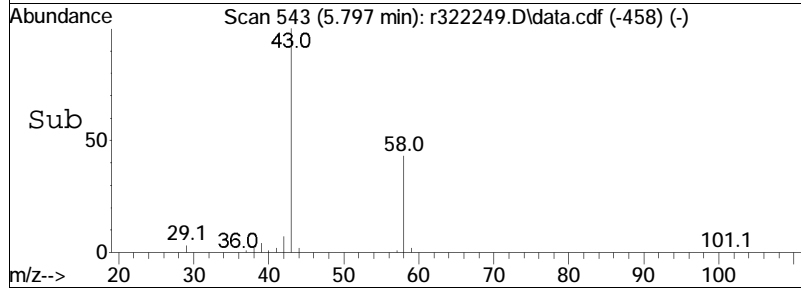
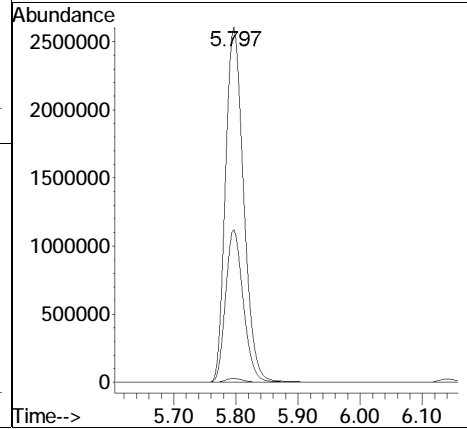
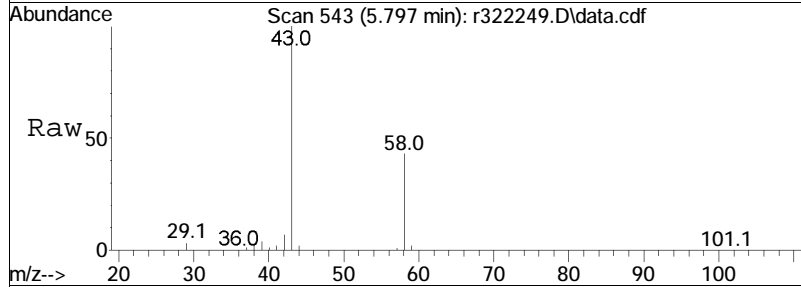
Quant Time: May 20 09:44:56 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0519T\TFS3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 15:52:12 2022  
Response via : Initial Calibration





#19  
 acetone  
 Concen: 233.82 ppbV  
 RT: 5.797 min Scan# 543  
 Delta R.T. -0.047 min  
 Lab File: r322249.D  
 Acq: 20 May 2022 8:10 AM

Tgt Ion	Resp	Lower	Upper
43	100		
58	43.0	39.8	59.8
57	1.2	1.0	1.6



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TFS3\_220516.M  
Data File : r322249.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/20/2020 0:8: 0 Instrument :  
Sample : WG1640711-5D,3,30,250 Quant Date : 5/20/2022 9:40 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

$$\text{DF} = V_{cf} / V_{ci}$$

Where:

$V_{ci}$  = volume of air in canister prior to pressurization, L

P =

### Conversion of ppbv to $\mu\text{g}/\text{m}^3$

$$\mu\text{g}/\text{m}^3 = (\text{ppbv}) * \text{MW} / 24.47$$

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)

May 20 2022, 01:58 pm

Work Group: WG1640147 for Department: 3 GC/MS

Created: 18-MAY-22 Due: Operator: JB

Sample	Client ID	C Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L2224240-01	VTX-IA-1	S TO15-LL	AIR	DONE	U	0605	0519	1D	Can-6
L2224240-02	VTX-IA-2	S TO15-LL	AIR	DONE	U	0605	0519	1D	Can-6
L2224240-03	VTX-IA-3	S TO15-LL	AIR	DONE	U	0605	0519	1D	Can-6
L2224240-04	VTX-IA-4	S TO15-LL	AIR	DONE	U	0605	0519	1D	Can-6
L2224240-05	VTX-IA-5	S TO15-LL	AIR	DONE	U	0605	0519	1D	Can-6
L2224240-06	VTX-AA-1	S TO15-LL	AIR	DONE	U	0605	0519	1D	Can-6
L2225019-01	BARKER-IA-B01	S TO15-LL	AIR	DONE	U	0610	0518	2E	Can-6
L2225019-02	BARKER-IA-B02	S TO15-LL	AIR	DONE	U	0610	0518	2E	Can-6
L2225019-03	BARKER-IA-B03	S TO15-LL	AIR	DONE	U	0610	0518	2E	Can-6
L2225019-04	BARKER-IA-B04	S TO15-LL	AIR	DONE	U	0610	0518	2E	Can-6
L2225019-05	BARKER-IA-B05	S TO15-LL	AIR	DONE	U	0610	0518	2E	Can-6
L2225019-06	BARKER-IA-B06	S TO15-LL	AIR	DONE	U	0610	0518	2E	Can-6
L2225019-07	BARKER-IA-B07	S TO15-LL	AIR	DONE	U	0610	0518	2E	Can-6
L2225019-08	BARKER-AA-01	S TO15-LL	AIR	DONE	U	0610	0518	2E	Can-6
L2225590-06	IA01	S TO15-LL	AIR	DONE	U	0611	0520	2E	Can-6
L2225590-07	IA02	S TO15-LL	AIR	DONE	U	0611	0520	2E	Can-6
L2225590-08	IA03	S TO15-LL	AIR	DONE	U	0611	0520	2E	Can-6
L2225590-09	IA04	S TO15-LL	AIR	DONE	U	0611	0520	2E	Can-6
L2225590-10	IA05	S TO15-LL	AIR	DONE	U	0611	0520	2E	Can-6
L2225590-11	AA01	S TO15-LL	AIR	DONE	U	0611	0520	2E	Can-6
WG1640147-1	MS BFB Tune Standard	S TO15-LL	AIR	DONE	U				
WG1640147-2	Continuing Calibrati	S TO15-LL	AIR	DONE	U				
WG1640147-3	Laboratory Control S	S TO15-LL	AIR	DONE	U				
WG1640147-4	Laboratory Method Bl	S TO15-LL	AIR	DONE	U				
WG1640147-5	Duplicate Sample	S TO15-LL	AIR	DONE	U				
Comments:									
WG1640147-5	L2225590-10								



ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

May 20 2022, 01:58 pm

Work Group: WG1640711 for Department: 3 GC/MS

Created: 19-MAY-22 Due: Operator: JB

Sample	Client ID	C Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L2225590-01	SSV01	S TO15-LL	SOIL_VAPOR	DONE	U	0611	0520	2E	Can-6
L2225590-02	SSV02	S TO15-LL	SOIL_VAPOR	DONE	U	0611	0520	2E	Can-6
L2225590-03	SSV03	S TO15-LL	SOIL_VAPOR	DONE	U	0611	0520	2E	Can-6
L2225590-04	SSV04	S TO15-LL	SOIL_VAPOR	DONE	U	0611	0520	2E	Can-6
L2225590-05	SSV05	S TO15-LL	SOIL_VAPOR	DONE	U	0611	0520	2E	Can-6
WG1640711-1	MS BFB Tune Standard	S TO15-LL	SOIL_VAPOR	DONE	U				
WG1640711-2	Continuing Calibrati	S TO15-LL	SOIL_VAPOR	DONE	U				
WG1640711-3	Laboratory Control S	S TO15-LL	SOIL_VAPOR	DONE	U				
WG1640711-4	Laboratory Method Bl	S TO15-LL	SOIL_VAPOR	DONE	U				
WG1640711-5	Duplicate Sample	S TO15-LL	SOIL_VAPOR	DONE	U				

Comments:

WG1640711-5 L2225590-04

# Alpha Analytical Air Lab Instrument Run Log

nt ID: Airpiano3  
 Date: 05/16/22  
 Initials: AR

Internal Standard/Surrogate IDs: SS20-028 / SS21-026  
 Internal Standard/Surrogate Volume: 100 ml  
 Sequence File Name: 220516.S

AS Position #	Sample ID	Acquisition Method	Data File ID	Standard ID or Batch ID #, ICAL Ref #	Comment (s)	Product/ sublist	Leak Check Pass? Y/N
1	BA3051601	TO15_SFS.qgm	R322150.qgd	250 mL			NA
1	BA3051602	TO15_SFS.qgm	R322151.qgd	250 mL			NA
1	BA3051603	TO15_SFS.qgm	R322152.qgd	250 mL			NA
1	TA3051601	TO15_SFS.qgm	R322153.qgd	250 mL	TUNE		NA
5	ITO15-SIMSTD0.02	TO15_SFS.qgm	R322154.qgd	50 mL SS21-036D	SIM ONLY	DEF	NA
5	ITO15-SIMSTD0.05	TO15_SFS.qgm	R322155.qgd	125 mL SS21-036D	SIM ONLY	DEF	NA
5	ITO15-SIMSTD0.1	TO15_SFS.qgm	R322156.qgd	250 mL SS21-036D	SIM ONLY	DEF	NA
6	ITO15-SIMSTD0.2	TO15_SFS.qgm	R322157.qgd	50 mL SS21-036C		DEF	NA
6	ITO15-SIMSTD0.5	TO15_SFS.qgm	R322158.qgd	125 mL SS21-036C		DEF	NA
6	ITO15-SIMSTD1.0	TO15_SFS.qgm	R322159.qgd	250 mL SS21-036C		DEF	NA
7	ITO15-SIMSTD5.0	TO15_SFS.qgm	R322160.qgd	125 mL SS21-036B		DEF	NA
7	ITO15-SIMSTD010	TO15_SFS.qgm	R322161.qgd	250 mL SS21-036B		DEF	NA
8	ITO15-SIMSTD020	TO15_SFS.qgm	R322162.qgd	50 mL SS21-036A		DEF	NA
8	ITO15-SIMSTD050	TO15_SFS.qgm	R322163.qgd	125 mL SS21-036A		DEF	NA
8	ITO15-LLSTD100	TO15_SFS.qgm	R322164.qgd	250 mL SS21-036A	LL ONLY	DEF	NA
1	BA3051601	TO15_SFS.qgm	R322165.qgd	250 mL		DEF	NA
1	BA3051602	TO15_SFS.qgm	R322166.qgd	250 mL		DEF	NA
2	CTO15-LLSTD010	TO15_SFS.qgm	R322167.qgd	250 mL SS22-004C	LL ICV	DEF ICV AP2	NA
2	CTO15-SIMSTD5.0	TO15_SFS.qgm	R322168.qgd	125 mL SS22-004C	SIM ICV	DEF ICV AP2	NA



# Alpha Analytical Air Lab Instrument Run Log

nt ID: Airpiano3  
 Date: 05/17/22  
 Initials: JB

Internal Standard/Surrogate IDs: SS20-028 / SS21-026  
 Internal Standard/Surrogate Volume: 100 ml  
 Sequence File Name: 220517.S

AS Position #	Sample ID	Acquisition Method	Data File ID	Standard ID or Batch ID #, ICAL Ref #	Comment (s)	Product/ sublist	Leak Check Pass? Y/N
1	TA3051801	TO15_SFS.qgm	R322192.qgd	250 mL	TUNE		N A
2	CA3051801	TO15_SFS.qgm	R322193.qgd	250mL SS22-006C	NJ CC FAILS		N A
3	CTO15-LLSTD10.0	TO15_SFS.qgm	R322194.qgd	250 mL SS22-005B	LL LCS	BF BC FAIL HIGH	N A
3	CTO15-SIMSTD05.0	TO15_SFS.qgm	R322195.qgd	125 mL SS22-005B	SIM LCS	C12DCE OUT IN ICV	N A
1	BA3051801	TO15_SFS.qgm	R322196.qgd	250 mL	LL BLANK		N A
1	BA3051802	TO15_SFS.qgm	R322197.qgd	250 mL	SIM BLANK		N A
1	L2225019-08,3,250,250	TO15_SFS.qgm	R322198.qgd	WG1640147,ICAL19030		NY-7SIM	Y
2	L2225590-11,3,250,250	TO15_SFS.qgm	R322199.qgd	WG1640147,ICAL19030		NY-7SIM	Y
3	L2224240-06,3,250,250	TO15_SFS.qgm	R322200.qgd	WG1640147,ICAL19030		NY-7SIM	Y
4	L2224240-05,3,250,250	TO15_SFS.qgm	R322201.qgd	WG1640147,ICAL19030	CIS12DCE HIT	NY-7SIM	Y
5	L2224240-04,3,250,250	TO15_SFS.qgm	R322202.qgd	WG1640147,ICAL19030	CIS12DCE HIT	NY-7SIM	Y
6	L2224240-03,3,250,250	TO15_SFS.qgm	R322203.qgd	WG1640147,ICAL19030	CIS12DCE HIT	NY-7SIM	Y
7	L2224240-02,3,250,250	TO15_SFS.qgm	R322204.qgd	WG1640147,ICAL19030	CIS12DCE HIT	NY-7SIM	Y
8	L2224240-01,3,250,250	TO15_SFS.qgm	R322205.qgd	WG1640147,ICAL19030	CIS12DCE HIT	NY-7SIM	Y
9	L2225590-10,3,250,250	TO15_SFS.qgm	R322206.qgd	WG1640147,ICAL19030		NY-7SIM	Y
9	L2225590-10DUP,3,250,250	TO15_SFS.qgm	R322207.qgd	WG1640147,ICAL19030	LL/SIM DUP	NY-7SIM	Y
10	L2225590-09,3,250,250	TO15_SFS.qgm	R322208.qgd	WG1640147,ICAL19030		NY-7SIM	Y
11	L2225590-08,3,250,250	TO15_SFS.qgm	R322209.qgd	WG1640147,ICAL19030		NY-7SIM	Y
12	L2225590-07,3,250,250	TO15_SFS.qgm	R322210.qgd	WG1640147,ICAL19030		NY-7SIM	Y
13	L2225590-06,3,250,250	TO15_SFS.qgm	R322211.qgd	WG1640147,ICAL19030		NY-7SIM	Y
14	L2225019-01,3,250,250	TO15_SFS.qgm	R322212.qgd	WG1640147,ICAL19030	11 DCE AND CIS12DCE HIT	NY-7SIM	Y
15	L2225019-02,3,250,250	TO15_SFS.qgm	R322213.qgd	WG1640147,ICAL19030	CIS12DCE HIT; ETOH OVERCAL	NY-7SIM	Y

## Alpha Analytical Air Lab Instrument Run Log

16	L2225019-03,3,250,250	TO15_SFS.qgm	R322214.qgd	WG1640147,ICAL19030	CIS12DCE HIT; ETOH OVERCAL	NY-7SIM	Y
1	L2225019-04,3,250,250	TO15_SFS.qgm	R322215.qgd	WG1640147,ICAL19030	11 DCE AND CIS12DCE HIT	NY-7SIM	Y
2	L2225019-05,3,250,250	TO15_SFS.qgm	R322216.qgd	WG1640147,ICAL19030	11DCE AND CIS12DCE HIT; ETOH OVERCAL	NY-7SIM	Y
3	L2225019-06,3,250,250	TO15_SFS.qgm	R322217.qgd	WG1640147,ICAL19030	CIS12DCE HIT	NY-7SIM	Y
4	L2225019-07,3,250,250	TO15_SFS.qgm	R322218.qgd	WG1640147,ICAL19030	MECL2 OVERCAL	NY-7SIM	Y
15	L2225019-02D,3,50,250	TO15_SFS.qgm	R322219.qgd	WG1640147,ICAL19030		ETOH	Y
16	L2225019-03D,3,75,250	TO15_SFS.qgm	R322220.qgd	WG1640147,ICAL19030		ETOH	Y
2	L2225019-05D,3,25,250	TO15_SFS.qgm	R322221.qgd	WG1640147,ICAL19030		ETOH	Y
4	L2225019-07D,3,75,250	TO15_SFS.qgm	R322222.qgd	WG1640147,ICAL19030		MECL2	Y

# Alpha Analytical Air Lab Instrument Run Log

Instrument ID: Airpiano3 Internal Standard/Surrogate IDs: SS20-028 / SS21-026  
 Date: 05/19/22 Internal Standard/Surrogate Volume: 100 ml  
 Initials: NL Sequence File Name: 220519.S

#	Sample ID	Method	ID	Ref #	(s)	Product/ sublist	S Y/N
1	TA3051901	TO15_SFS.qgm	R322223.qgd	250 mL	TUNE		NA
2	CA3051901	TO15_SFS.qgm	R322224.qgd	250mL SS22-006E	NJ CC FAILS		NA
3	CTO15-LLSTD10.0	TO15_SFS.qgm	R322225.qgd	250 mL SS22-005A	LL LCS		NA
3	CTO15-SIMSTD05.0	TO15_SFS.qgm	R322226.qgd	125 mL SS22-005A	SIM LCS		NA
1	BA3051901	TO15_SFS.qgm	R322227.qgd	250 mL	LL BLANK		NA
1	BA3051902	TO15_SFS.qgm	R322228.qgd	250 mL	SIM BLANK		NA
1	L2225590-01,3,250,250	TO15_SFS.qgm	R322229.qgd	WG1640710,ICAL19031		NY	Y
2	L2225590-02,3,250,250	TO15_SFS.qgm	R322230.qgd	WG1640710,ICAL19031		NY	Y
3	L2225590-03D,3,3,21,250	TO15_SFS.qgm	R322231.qgd	WG1640710,ICAL19031		NY	Y
4	L2225590-04,3,250,250	TO15_SFS.qgm	R322232.qgd	WG1640710,ICAL19031	ACETONE OVERCAL	NY	Y
4	L2225590-04DUP,3,250,250	TO15_SFS.qgm	R322233.qgd	WG1640710,ICAL19031	LL DUP	NY	Y
5	L2225590-05,3,250,250	TO15_SFS.qgm	R322234.qgd	WG1640710,ICAL19031		NY	Y
6	L2223605-03,3,250,250	TO15_SFS.qgm	R322235.qgd	WG1640710,ICAL19031	CANNOT REPORT, RERUN	IBM POK NS	Y
7	L2223617-03,3,250,250	TO15_SFS.qgm	R322236.qgd	WG1640710,ICAL19031	CANNOT REPORT, RERUN	IBM POK NS	Y
8	L2223617-06,3,250,250	TO15_SFS.qgm	R322237.qgd	WG1640710,ICAL19031	CANNOT REPORT, RERUN	IBM POK NS	Y
9	L2223617-09,3,250,250	TO15_SFS.qgm	R322238.qgd	WG1640710,ICAL19031	CANNOT REPORT, RERUN	IBM POK NS	Y
10	L2223605-02,3,250,250	TO15_SFS.qgm	R322239.qgd	WG1640710,ICAL19031	CANNOT REPORT, RERUN	IBM POK NS	Y
11	L2223617-02D,3,30,250	TO15_SFS.qgm	R322240.qgd	WG1640710,ICAL19031	CANNOT REPORT, RERUN	IBM POK NS	Y
11	L2223617-02DUPD,3,30,250	TO15_SFS.qgm	R322241.qgd	WG1640710,ICAL19031	CANNOT REPORT, RERUN	IBM POK NS	Y
12	L2223617-05,3,250,250	TO15_SFS.qgm	R322242.qgd	WG1640710,ICAL19031	CANNOT REPORT, RERUN	IBM POK NS	Y
13	L2223617-08,3,250,250	TO15_SFS.qgm	R322243.qgd	WG1640710,ICAL19031	CANNOT REPORT, RERUN	IBM POK NS	Y
14	L2223605-01D,3,135,250	TO15_SFS.qgm	R322244.qgd	WG1640710,ICAL19031	CANNOT REPORT, RERUN	IBM POK NS	Y
15	L2223617-01D,3,12.43,250	TO15_SFS.qgm	R322245.qgd	WG1640710,ICAL19031	CANNOT REPORT, RERUN	IBM POK NS	Y
16	L2223617-04D,3,5.2,250	TO15_SFS.qgm	R322246.qgd	WG1640710,ICAL19031	CANNOT REPORT, RERUN	IBM POK NS	Y
1	L2223617-07D,3,125,250	TO15_SFS.qgm	R322247.qgd	WG1640710,ICAL19031	CANNOT REPORT, RERUN	IBM POK NS	Y
4	L2225590-04D,3,30,250	TO15_SFS.qgm	R322248.qgd	WG1640710,ICAL19031		ACETONE	Y

# Alpha Analytical Air Lab Instrument Run Log

4	L2225590-04DUPD,3,30,250	TO15_SFS.qgm	R322249.qgd	WG1640710,ICAL19031		ACETONE	Y





**GC/MS VOA**  
**Air Analysis**  
**Selective Ion Monitoring**

# **Volatiles QC Summary**

# Lab Duplicate Sample Summary

## Form 3

### Air Volatiles

Client	: Langan Engineering & Environmental	Lab Number	: L2225590
Project Name	: 57-00, 57-05 47TH ST	Project Number	: 100965503
Client Sample ID	: IA05	Matrix	: AIR
Lab Sample ID	: L2225590-10	Analysis Date	: 05/18/22 23:47
Lab File ID	: R322206_EV2	DUP File ID	: r322207_Ev2
Dup Sample ID	: WG1640149-5	DUP Analysis Date	: 05/19/22 00:26

Parameter	Sample Concentration (ppbV)	Duplicate Concentration (ppbV)	RPD	RPD Limit
Vinyl chloride	ND	ND	NC	25
1,1-Dichloroethene	ND	ND	NC	25
cis-1,2-Dichloroethene	ND	ND	NC	25
1,1,1-Trichloroethane	ND	ND	NC	25
Carbon tetrachloride	0.092	0.098	6	25
Trichloroethene	ND	ND	NC	25
Tetrachloroethene	0.069	0.068	1	25



# Laboratory Control Sample Summary

## Form 3

### Air Volatiles

**Client** : Langan Engineering & Environmental      **Lab Number** : L2225590  
**Project Name** : 57-00, 57-05 47TH ST      **Project Number** : 100965503  
**Matrix** : AIR  
**LCS Sample ID** : WG1640149-3      **Analysis Date** : 05/18/22 14:29      **File ID** : r322195\_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	6.26	125				-	70-130	25
1,1-Dichloroethene	5	6.45	129				-	70-130	25
cis-1,2-Dichloroethene	5	6.31	126				-	70-130	25
1,1,1-Trichloroethane	5	6.21	124				-	70-130	25
Carbon tetrachloride	5	6.10	122				-	70-130	25
Trichloroethene	5	6.25	125				-	70-130	25
Tetrachloroethene	5	6.05	121				-	70-130	25



**Method Blank Summary  
Form 4  
Air Volatiles**

<b>Client</b>	<b>: Langan Engineering &amp; Environmental</b>	<b>Lab Number</b>	<b>: L2225590</b>
<b>Project Name</b>	<b>: 57-00, 57-05 47TH ST</b>	<b>Project Number</b>	<b>: 100965503</b>
<b>Lab Sample ID</b>	<b>: WG1640149-4</b>	<b>Lab File ID</b>	<b>: r322197_Ev2</b>
<b>Instrument ID</b>	<b>: AIRPIANO3</b>		
<b>Matrix</b>	<b>: AIR</b>	<b>Analysis Date</b>	<b>: 05/18/22 16:43</b>

<b>Client Sample No.</b>	<b>Lab Sample ID</b>	<b>Analysis Date</b>
WG1640149-3LCS	WG1640149-3	05/18/22 14:29
AA01	L2225590-11	05/18/22 18:56
IA05	L2225590-10	05/18/22 23:47
IA05DUP	WG1640149-5	05/19/22 00:26
IA04	L2225590-09	05/19/22 01:07
IA03	L2225590-08	05/19/22 01:46
IA02	L2225590-07	05/19/22 02:26
IA01	L2225590-06	05/19/22 03:06



**Instrument Performance Check (Tune) Summary  
Form 5  
Air Volatiles  
Bromofluorobenzene (BFB)**

Client	: Langan Engineering & Environmental	Lab Number	: L2225590
Project Name	: 57-00, 57-05 47TH ST	Project Number	: 100965503
Instrument ID	: AIRPIANO3	Analysis Date	: 05/16/22 20:39
Tune Standard	: WG1639637-1	Tune File ID	: r322153_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	39.7
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.5 (.6 )1
174	50.0 - 120.0% of mass 95	74
175	4.0 - 9.0% of mass 174	5.2 (7.1 )1
176	93.0 - 101% of mass 174	71.8 (97 )1
177	5.0 - 9.0% of mass 176	4.6 (6.4 )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	R1565322-1	R322154_EV2	05/16/22 21:15
STD0.05	R1565322-2	R322155_EV2	05/16/22 21:52
STD0.1	R1565322-3	R322156_EV2	05/16/22 22:32
STD0.2	R1565322-4	R322157_EV2	05/16/22 23:12
STD0.5	R1565322-5	R322158_EV2	05/16/22 23:53
STD1.0	R1565322-6	R322159_EV2	05/17/22 00:37
STD5.0	R1565322-7	R322160_EV2	05/17/22 01:18
STD010	R1565322-8	R322161_EV2	05/17/22 02:00
STD020	R1565322-9	R322162_EV2	05/17/22 02:39
STD050	R1565322-11	R322163_EV2	05/17/22 03:19
ICV QUANT	R1565322-10	R322168_EV2	05/17/22 11:55



**Instrument Performance Check (Tune) Summary  
Form 5  
Air Volatiles  
Bromofluorobenzene (BFB)**

Client	: Langan Engineering & Environmental	Lab Number	: L2225590
Project Name	: 57-00, 57-05 47TH ST	Project Number	: 100965503
Instrument ID	: AIRPIANO3	Analysis Date	: 05/18/22 12:23
Tune Standard	: WG1640149-1	Tune File ID	: r322192_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	8.0 - 40.0% of mass 95	14.1
75	30.0 - 66.0% of mass 95	38.8
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	0.5 (.6 )1
174	50.0 - 120.0% of mass 95	77.5
175	4.0 - 9.0% of mass 174	5.5 (7.1 )1
176	93.0 - 101% of mass 174	75.4 (97.2)1
177	5.0 - 9.0% of mass 176	5 (6.6 )2

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

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

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG1640149-2CCAL	WG1640149-2	R322195_EV2	05/18/22 14:29
WG1640149-3LCS	WG1640149-3	R322195_EV2	05/18/22 14:29
WG1640149-4BLANK	WG1640149-4	R322197_EV2	05/18/22 16:43
AA01	L2225590-11	R322199_EV2	05/18/22 18:56
IA05	L2225590-10	R322206_EV2	05/18/22 23:47
WG1640149-5DUP	WG1640149-5	R322207_EV2	05/19/22 00:26
IA04	L2225590-09	R322208_EV2	05/19/22 01:07
IA03	L2225590-08	R322209_EV2	05/19/22 01:46
IA02	L2225590-07	R322210_EV2	05/19/22 02:26
IA01	L2225590-06	R322211_EV2	05/19/22 03:06



# Internal Standard Area and RT Summary

## Form 8a

### Air Volatiles

Client	: Langan Engineering & Environmental	Lab Number	: L2225590
Project Name	: 57-00, 57-05 47TH ST	Project Number	: 100965503
Instrument ID	: AIRPIANO3	Analysis Date	: 05/18/22 14:29:00
Sample No	: WG1640149-2	Lab File ID	: R322195_EV2

	Bromochloromethane		1,4-Difluorobenzene		Chlorobenzene-d5	
	Area	RT	Area	RT	Area	RT
WG1640149-2	266528	9.53	836058	11.81	124605	16.56
Upper Limit	373139	9.86	1170481	12.14	174447	16.89
Lower Limit	159917	9.20	501635	11.48	74763	16.23
<b>Sample ID</b>						
WG1640149-3 LCS	266528	9.53	836058	11.81	124605	16.56
WG1640149-4 BLANK	248280	9.54	777502	11.82	116717	16.56
AA01	248915	9.53	773586	11.81	117867	16.56
IA05	261637	9.53	823120	11.81	122989	16.56
IA05 DUP	259534	9.53	818741	11.81	122354	16.56
IA04	261074	9.53	819938	11.81	123161	16.55
IA03	268056	9.53	844299	11.81	126277	16.55
IA02	262558	9.53	826699	11.81	123627	16.56
IA01	258744	9.53	817437	11.81	123122	16.56

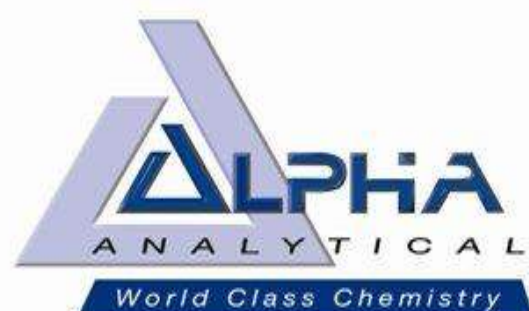
Area Upper Limit = +40% of internal standard area  
 Area Lower Limit = - 40% of internal standard area

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

\* Values outside of QC limits







Date Created: 02/18/22  
 Created By: Jason Hebert  
 File: PM11916-1  
 Page: 1

Volatile Organics in Air by TO-15 SIM (AIR)

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

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
1,1,1-Trichloroethane	71-55-6	0.02	0.0083	ppbV	70-130	25		25	25			
1,1,1,2-Tetrachloroethane	630-20-6	0.02	0.0053	ppbV	70-130	25		25	25			
1,1,2,2-Tetrachloroethane	79-34-5	0.02	0.0056	ppbV	70-130	25		25	25			
1,1,2-Trichloroethane	79-00-5	0.02	0.0058	ppbV	70-130	25		25	25			
1,1-Dichloroethane	75-34-3	0.02	0.0073	ppbV	70-130	25		25	25			
1,1-Dichloroethene	75-35-4	0.02	0.0084	ppbV	70-130	25		25	25			
1,2,4-Trimethylbenzene	95-63-6	0.02	0.0043	ppbV	70-130	25		25	25			
1,2-Dibromoethane	106-93-4	0.02	0.008	ppbV	70-130	25		25	25			
1,2-Dichlorobenzene	95-50-1	0.02	0.0098	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			
2,2,4-Trimethylpentane	540-84-1	0.2	0.0063	ppbV	70-130	25		25	25			
2-Hexanone	591-78-6	0.2	0.015	ppbV	70-130	25		25	25			
3-Chloropropene	107-05-1	0.2	0.0067	ppbV	70-130	25		25	25			
4-Ethyltoluene	622-96-8	0.02	0.0042	ppbV	70-130	25		25	25			
Benzene	71-43-2	0.1	0.005	ppbV	70-130	25		25	25			
Benzyl chloride	100-44-7	0.1	0.0072	ppbV	70-130	25		25	25			
Bromodichloromethane	75-27-4	0.02	0.0067	ppbV	70-130	25		25	25			
Bromoform	75-25-2	0.02	0.0065	ppbV	70-130	25		25	25			
Bromomethane	74-83-9	0.02	0.0085	ppbV	70-130	25		25	25			
Carbon disulfide	75-15-0	0.2	0.0138	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			
Chloromethane	74-87-3	0.2	0.024	ppbV	70-130	25		25	25			
cis-1,2-Dichloroethene	156-59-2	0.02	0.0096	ppbV	70-130	25		25	25			
trans-1,2-Dichloroethene	156-60-5	0.02	0.0076	ppbV	70-130	25		25	25			
1,2-Dichloroethene (total)	540-59-0	0.02	0.0076	ppbV				25	25			
cis-1,3-Dichloropropene	10061-01-5	0.02	0.007	ppbV	70-130	25		25	25			
1,3-Dichloropropene, Total	542-75-6	0.02	0.007	ppbV				25	25			
Cyclohexane	110-82-7	0.2	0.0064	ppbV	70-130	25		25	25			
Dibromochloromethane	124-48-1	0.02	0.0086	ppbV	70-130	25		25	25			
Dichlorodifluoromethane	75-71-8	0.2	0.018	ppbV	70-130	25		25	25			
Ethyl Alcohol	64-17-5	5	0.329	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			

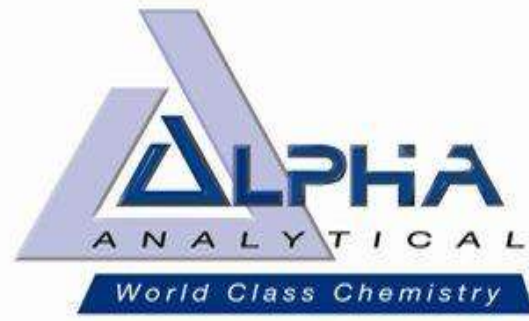
Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)  
 Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



8 Walkup Drive, Westborough, Massachusetts 01581 • 508-898-9220 • www.alphalab.com

Westborough, MA • Mansfield, MA • Bangor, ME • Portsmouth, NH • Mahwah, NJ • Albany, NY • Buffalo, NY • Holmes, PA





Date Created: 02/18/22  
 Created By: Jason Hebert  
 File: PM11916-1  
 Page: 2

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		
1,1,2-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			
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			
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			
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	0.1	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			
sec-Butylbenzene	135-98-8	0.2	0.0032	ppbV	70-130	25		25	25			
Isopropylbenzene	98-82-8	0.2	0.0053	ppbV	70-130	25		25	25			
Xylene (Total)	1330-20-7	0.02	0.0067	ppbV				25	25			
p-Isopropyltoluene	99-87-6	0.2	0.0045	ppbV	70-130	25		25	25			
Acetone	67-64-1	1	0.299	ppbV	40-160	25		25	25			
2-Butanone	78-93-3	0.5	0.027	ppbV	70-130	25		25	25			
4-Methyl-2-pentanone	108-10-1	0.5	0.012	ppbV	70-130	25		25	25			
1,2,3-Trichlorobenzene	87-61-6	0.05	0.0134	ppbV	70-130	25		25	25			
Acrolein	107-02-8	0.05	0.0387	ppbV	60-113	25		25	25			
1,2-Dichloroethane-d4	17060-07-0										70-130	
Toluene-d8	2037-26-5										70-130	
Bromofluorobenzene	460-00-4										70-130	

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

Westborough, MA • Mansfield, MA • Bangor, ME • Portsmouth, NH • Mahwah, NJ • Albany, NY • Buffalo, NY • Holmes, PA



# **Volatiles Sample Data**

# Results Summary

## Form 1

### Volatile Organics in Air by SIM

Client : Langan Engineering & Environmental	Lab Number : L2225590
Project Name : 57-00, 57-05 47TH ST	Project Number : 100965503
Lab ID : L2225590-06	Date Collected : 05/12/22 17:21
Client ID : IA01	Date Received : 05/13/22
Sample Location : MASPETH, NY	Date Analyzed : 05/19/22 03:06
Sample Matrix : AIR	Dilution Factor : 1
Analytical Method : 48,TO-15-SIM	Analyst : TS
Lab File ID : R322211_EV2	Instrument ID : AIRPIANO3
Sample Amount : 250 ml	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	0.093	0.020	--	0.585	0.126	--	
79-01-6	Trichloroethene	ND	0.020	--	ND	0.107	--	U
127-18-4	Tetrachloroethene	0.055	0.020	--	0.373	0.136	--	



**Results Summary**  
**Form 1**  
**Volatile Organics in Air by SIM**

<b>Client</b> : Langan Engineering & Environmental <b>Project Name</b> : 57-00, 57-05 47TH ST <b>Lab ID</b> : L2225590-07 <b>Client ID</b> : IA02 <b>Sample Location</b> : MASPETH, NY <b>Sample Matrix</b> : AIR <b>Analytical Method</b> : 48,TO-15-SIM <b>Lab File ID</b> : R322210_EV2 <b>Sample Amount</b> : 250 ml	<b>Lab Number</b> : L2225590 <b>Project Number</b> : 100965503 <b>Date Collected</b> : 05/12/22 17:01 <b>Date Received</b> : 05/13/22 <b>Date Analyzed</b> : 05/19/22 02:26 <b>Dilution Factor</b> : 1 <b>Analyst</b> : TS <b>Instrument ID</b> : AIRPIANO3 <b>GC Column</b> : 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	0.097	0.020	--	0.610	0.126	--	
79-01-6	Trichloroethene	ND	0.020	--	ND	0.107	--	U
127-18-4	Tetrachloroethene	0.061	0.020	--	0.414	0.136	--	



**Results Summary**  
**Form 1**  
**Volatile Organics in Air by SIM**

Client : Langan Engineering & Environmental  
 Project Name : 57-00, 57-05 47TH ST  
 Lab ID : L2225590-08  
 Client ID : IA03  
 Sample Location : MASPETH, NY  
 Sample Matrix : AIR  
 Analytical Method : 48,TO-15-SIM  
 Lab File ID : R322209\_EV2  
 Sample Amount : 250 ml

Lab Number : L2225590  
 Project Number : 100965503  
 Date Collected : 05/12/22 17:20  
 Date Received : 05/13/22  
 Date Analyzed : 05/19/22 01:46  
 Dilution Factor : 1  
 Analyst : TS  
 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	0.094	0.020	--	0.591	0.126	--	
79-01-6	Trichloroethene	ND	0.020	--	ND	0.107	--	U
127-18-4	Tetrachloroethene	0.067	0.020	--	0.454	0.136	--	



# Results Summary

## Form 1

### Volatile Organics in Air by SIM

**Client** : Langan Engineering & Environmental  
**Project Name** : 57-00, 57-05 47TH ST  
**Lab ID** : L2225590-09  
**Client ID** : IA04  
**Sample Location** : MASPETH, NY  
**Sample Matrix** : AIR  
**Analytical Method** : 48,TO-15-SIM  
**Lab File ID** : R322208\_EV2  
**Sample Amount** : 250 ml

**Lab Number** : L2225590  
**Project Number** : 100965503  
**Date Collected** : 05/12/22 18:40  
**Date Received** : 05/13/22  
**Date Analyzed** : 05/19/22 01:07  
**Dilution Factor** : 1  
**Analyst** : TS  
**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	0.093	0.020	--	0.585	0.126	--	
79-01-6	Trichloroethene	ND	0.020	--	ND	0.107	--	U
127-18-4	Tetrachloroethene	0.070	0.020	--	0.475	0.136	--	



# Results Summary

## Form 1

### Volatile Organics in Air by SIM

**Client** : Langan Engineering & Environmental  
**Project Name** : 57-00, 57-05 47TH ST  
**Lab ID** : L2225590-10  
**Client ID** : IA05  
**Sample Location** : MASPETH, NY  
**Sample Matrix** : AIR  
**Analytical Method** : 48,TO-15-SIM  
**Lab File ID** : R322206\_EV2  
**Sample Amount** : 250 ml

**Lab Number** : L2225590  
**Project Number** : 100965503  
**Date Collected** : 05/12/22 17:58  
**Date Received** : 05/13/22  
**Date Analyzed** : 05/18/22 23:47  
**Dilution Factor** : 1  
**Analyst** : TS  
**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	0.092	0.020	--	0.579	0.126	--	
79-01-6	Trichloroethene	ND	0.020	--	ND	0.107	--	U
127-18-4	Tetrachloroethene	0.069	0.020	--	0.468	0.136	--	





**Results Summary**  
**Form 1**  
**Volatile Organics in Air by SIM**

Client : Langan Engineering & Environmental  
 Project Name : 57-00, 57-05 47TH ST  
 Lab ID : L2225590-11  
 Client ID : AA01  
 Sample Location : MASPETH, NY  
 Sample Matrix : AIR  
 Analytical Method : 48,TO-15-SIM  
 Lab File ID : R322199\_EV2  
 Sample Amount : 250 ml

Lab Number : L2225590  
 Project Number : 100965503  
 Date Collected : 05/12/22 17:30  
 Date Received : 05/13/22  
 Date Analyzed : 05/18/22 18:56  
 Dilution Factor : 1  
 Analyst : TS  
 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	0.096	0.020	--	0.604	0.126	--	
79-01-6	Trichloroethene	ND	0.020	--	ND	0.107	--	U
127-18-4	Tetrachloroethene	0.060	0.020	--	0.407	0.136	--	



# Results Summary

## Form 1

### Volatile Organics in Air by SIM

Client : Langan Engineering & Environmental	Lab Number : L2225590
Project Name : 57-00, 57-05 47TH ST	Project Number : 100965503
Lab ID : WG1640149-4	Date Collected : NA
Client ID : WG1640149-4BLANK	Date Received : NA
Sample Location :	Date Analyzed : 05/18/22 16:43
Sample Matrix : AIR	Dilution Factor : 1
Analytical Method : 48,TO-15-SIM	Analyst : TS
Lab File ID : R322197_EV2	Instrument ID : AIRPIANO3
Sample Amount : 250 ml	GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	--	ND	0.051	--	U
75-35-4	1,1-Dichloroethene	ND	0.020	--	ND	0.079	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--	U
56-23-5	Carbon tetrachloride	ND	0.020	--	ND	0.126	--	U
79-01-6	Trichloroethene	ND	0.020	--	ND	0.107	--	U
127-18-4	Tetrachloroethene	ND	0.020	--	ND	0.136	--	U



# Results Summary

## Form 1

### Volatile Organics in Air by SIM

Client : Langan Engineering & Environmental	Lab Number : L2225590
Project Name : 57-00, 57-05 47TH ST	Project Number : 100965503
Lab ID : WG1640149-5	Date Collected : 05/12/22 17:58
Client ID : IA05DUP	Date Received : 05/13/22
Sample Location :	Date Analyzed : 05/19/22 00:26
Sample Matrix : AIR	Dilution Factor : 1
Analytical Method : 48,TO-15-SIM	Analyst : TS
Lab File ID : R322207_EV2	Instrument ID : AIRPIANO3
Sample Amount : 250 ml	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	0.098	0.020	--	0.616	0.126	--	
79-01-6	Trichloroethene	ND	0.020	--	ND	0.107	--	U
127-18-4	Tetrachloroethene	0.068	0.020	--	0.461	0.136	--	



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\  
 Data File : r322199\_Ev2.D  
 Acq On : 18 May 2022 6:56 PM  
 Operator : AIRPIANO3:TS  
 Sample : L2225590-11,3,250,250  
 Misc : WG1640149,ICAL19031  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 18 22:31:24 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 17:30:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\r322195\_Ev2.D  
 Sub List : 7-NY-SIM - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.533	49	248915	10.000	ppbV	-0.03
Standard Area =	266528		Recovery =		93.39%	
33) 1,4-difluorobenzene	11.813	114	773586	10.000	ppbV	-0.03
Standard Area =	836058		Recovery =		92.53%	
51) chlorobenzene-D5	16.558	54	117867	10.000	ppbV	-0.02
Standard Area =	124605		Recovery =		94.59%	

System Monitoring Compounds

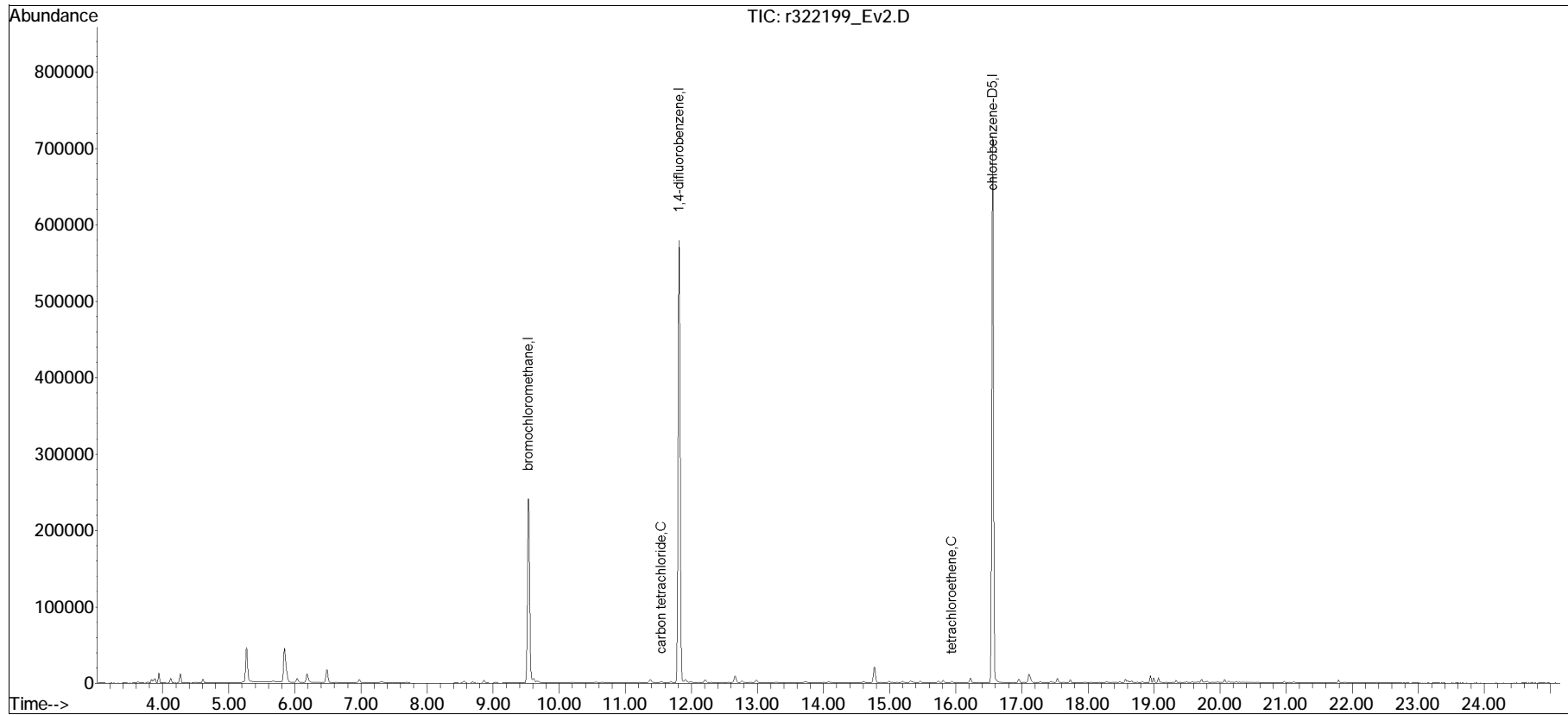
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
6) vinyl chloride	0.000		0		N.D.	
17) 1,1-dichloroethene	6.740		0		N.D.	
28) cis-1,2-dichloroethene	0.000		0		N.D.	
36) 1,1,1-trichloroethane	0.000		0		N.D.	
38) carbon tetrachloride	11.547	117	1526	0.096	ppbV	95
44) trichloroethene	12.560		0		N.D.	
57) tetrachloroethene	15.942	166	1336	0.060	ppbV	97

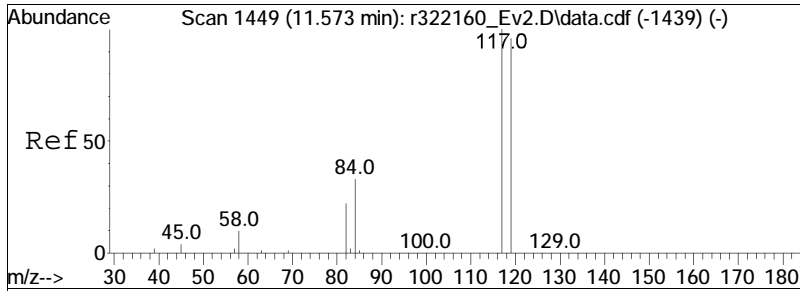
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : 7-NY-SIM - .\Data\Airpiano3\2022\05\0518SIM\r322195\_Ev2.D

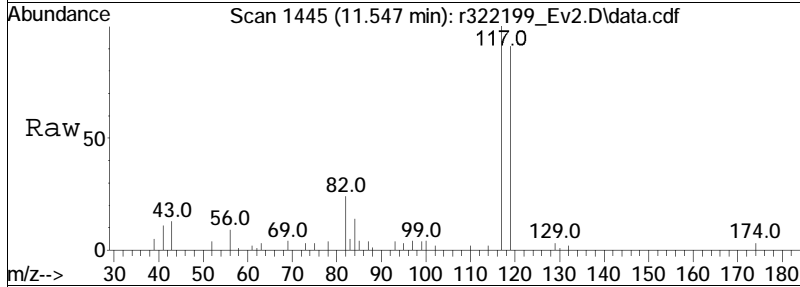
Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\  
Data File : r322199\_Ev2.D  
Acq On : 18 May 2022 6:56 PM  
Operator : AIRPIANO3:TS  
Sample : L2225590-11,3,250,250  
Misc : WG1640149,ICAL19031  
ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 18 22:31:24 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\TSIM3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 17:30:54 2022  
Response via : Initial Calibration

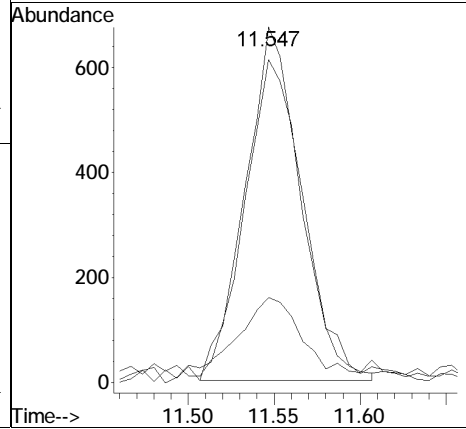
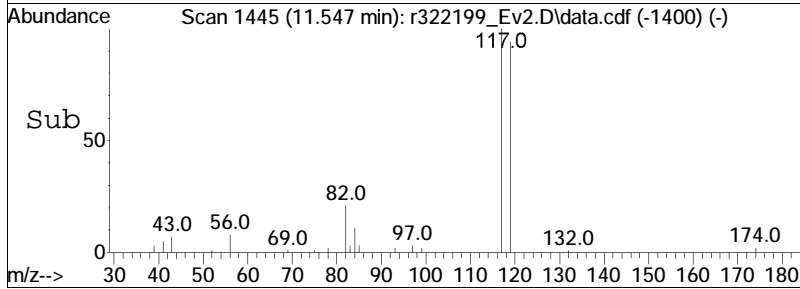


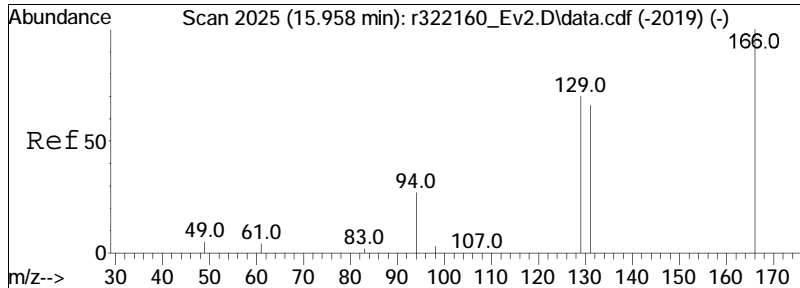


#38  
 carbon tetrachloride  
 Concen: 0.10 ppbV  
 RT: 11.547 min Scan# 1445  
 Delta R.T. -0.027 min  
 Lab File: r322199\_Ev2.D  
 Acq: 18 May 2022 6:56 PM



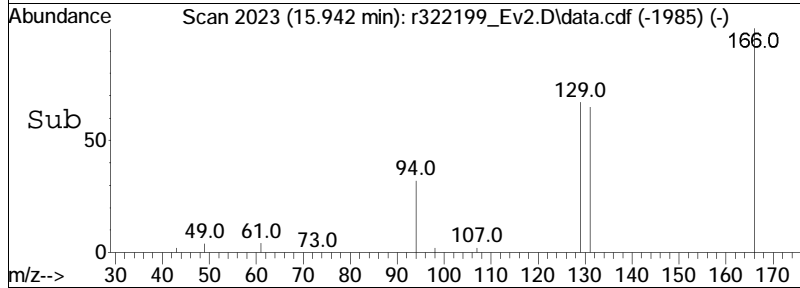
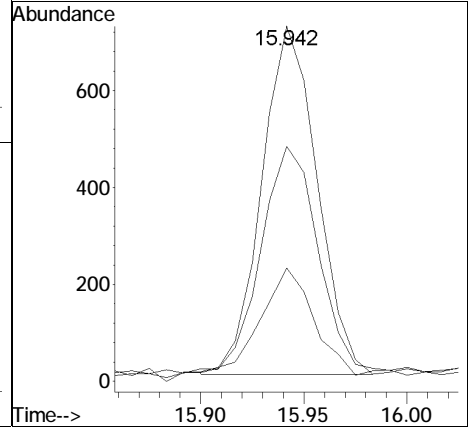
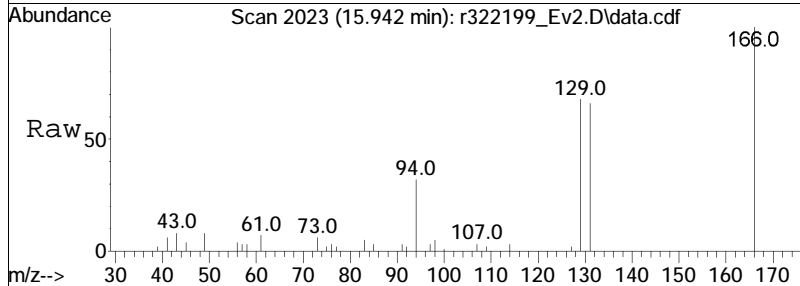
Tgt Ion	Resp	Lower	Upper
117	100		
119	90.8	77.0	115.4
82	23.9	17.8	26.8





#57  
 tetrachloroethene  
 Concen: 0.06 ppbV  
 RT: 15.942 min Scan# 2023  
 Delta R.T. -0.017 min  
 Lab File: r322199\_Ev2.D  
 Acq: 18 May 2022 6:56 PM

Tgt Ion	Ratio	Lower	Upper
166	100		
131	66.2	53.0	79.4
94	31.9	22.0	33.0



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322199\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/18/2020 0:6: 6 Instrument :  
Sample : L2225590-11,3,250,250 Quant Date : 5/18/2022 10:31 pm

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



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\  
 Data File : r322206\_Ev2.D  
 Acq On : 18 May 2022 11:47 PM  
 Operator : AIRPIANO3:TS  
 Sample : L2225590-10,3,250,250  
 Misc : WG1640149,ICAL19031  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 09:04:48 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 17:30:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\r322195\_Ev2.D  
 Sub List : 7-NY-SIM - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.533	49	261637	10.000	ppbV	-0.03
Standard Area =	266528		Recovery =	98.16%		
33) 1,4-difluorobenzene	11.813	114	823120	10.000	ppbV	-0.03
Standard Area =	836058		Recovery =	98.45%		
51) chlorobenzene-D5	16.558	54	122989	10.000	ppbV	-0.02
Standard Area =	124605		Recovery =	98.70%		

System Monitoring Compounds

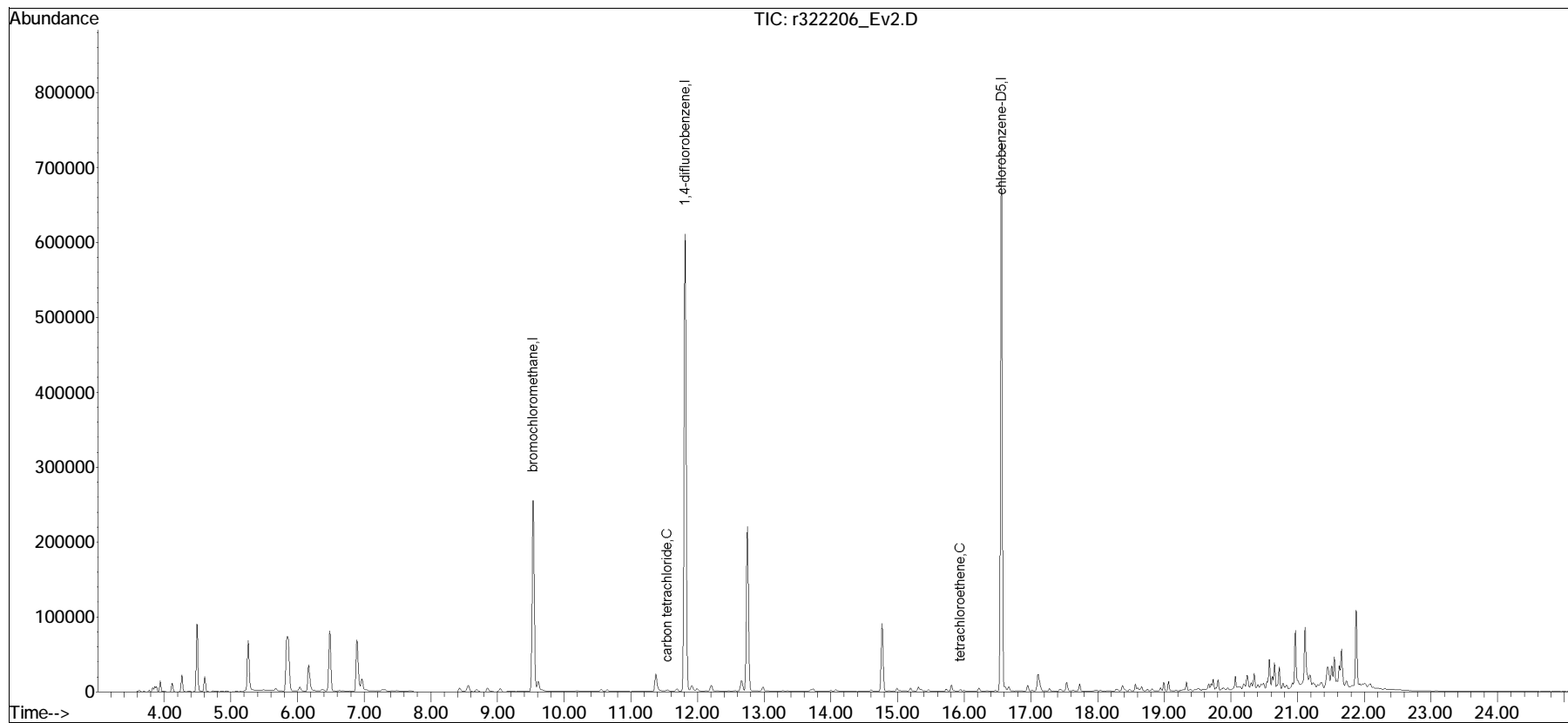
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
6) vinyl chloride	0.000		0		N.D.	
17) 1,1-dichloroethene	6.740		0		N.D.	
28) cis-1,2-dichloroethene	0.000		0		N.D.	
36) 1,1,1-trichloroethane	10.817		0		N.D.	
38) carbon tetrachloride	11.547	117	1565	0.092	ppbV	87
44) trichloroethene	0.000		0		N.D.	
57) tetrachloroethene	15.942	166	1605	0.069	ppbV	96

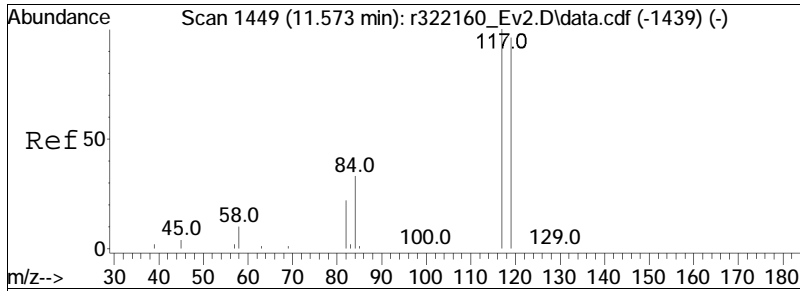
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : 7-NY-SIM - .\Data\Airpiano3\2022\05\0518SIM\r322195\_Ev2.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\  
Data File : r322206\_Ev2.D  
Acq On : 18 May 2022 11:47 PM  
Operator : AIRPIANO3:TS  
Sample : L2225590-10,3,250,250  
Misc : WG1640149,ICAL19031  
ALS Vial : 0 Sample Multiplier: 1

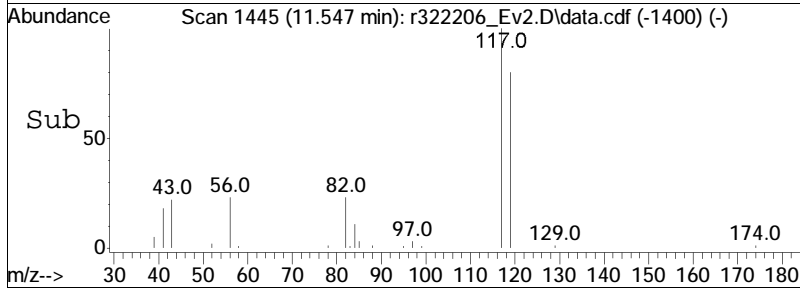
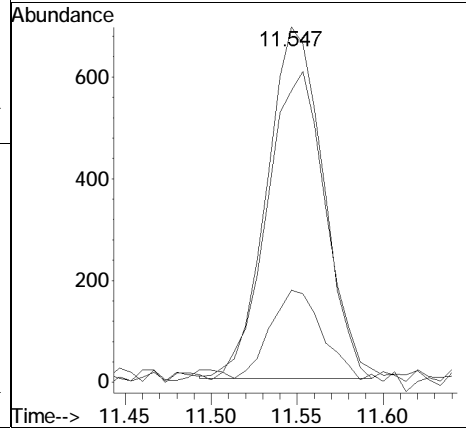
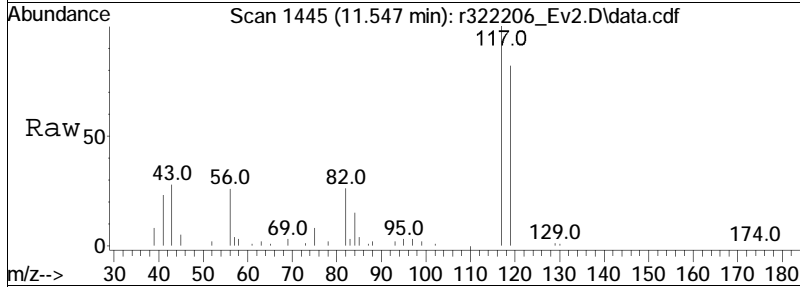
Quant Time: May 19 09:04:48 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\TSIM3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 17:30:54 2022  
Response via : Initial Calibration

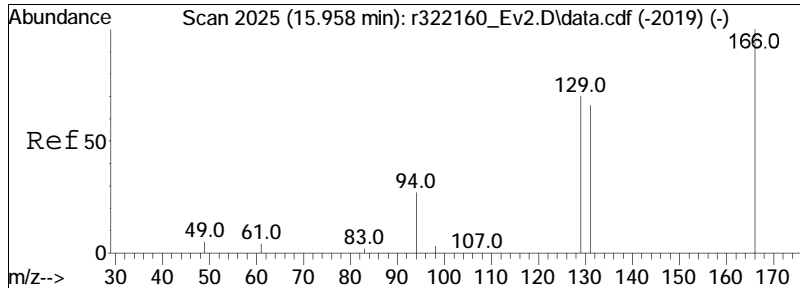




#38  
 carbon tetrachloride  
 Concen: 0.09 ppbV  
 RT: 11.547 min Scan# 1445  
 Delta R.T. -0.027 min  
 Lab File: r322206\_Ev2.D  
 Acq: 18 May 2022 11:47 PM

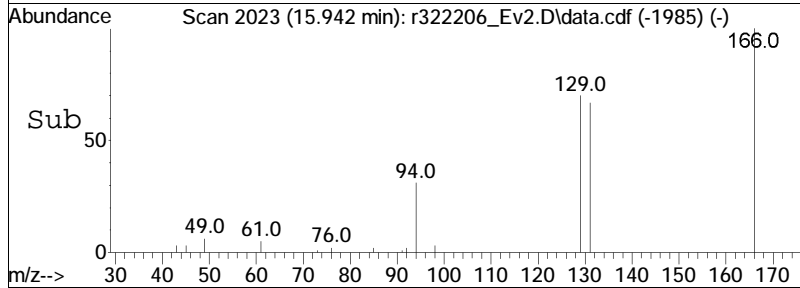
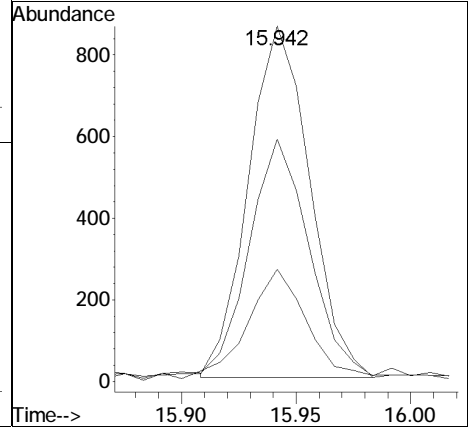
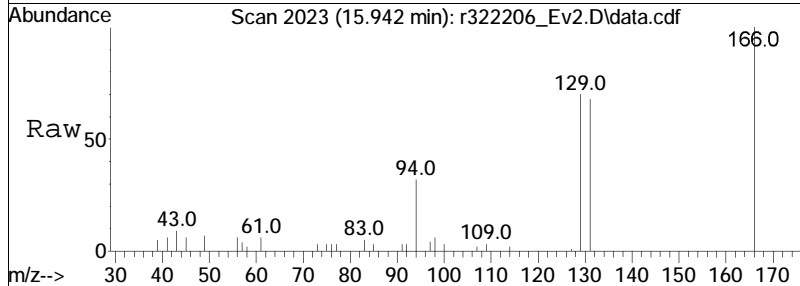
Tgt Ion	Ratio	Resp	Lower	Upper
117	100	1565		
119	82.1		77.0	115.4
82	25.9		17.8	26.8





#57  
 tetrachloroethene  
 Concen: 0.07 ppbV  
 RT: 15.942 min Scan# 2023  
 Delta R.T. -0.017 min  
 Lab File: r322206\_Ev2.D  
 Acq: 18 May 2022 11:47 PM

Tgt Ion	Ratio	Lower	Upper
166	100		
131	68.2	53.0	79.4
94	31.6	22.0	33.0



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322206\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/18/2020 0:1: 7 Instrument :  
Sample : L2225590-10,3,250,250 Quant Date : 5/19/2022 9:04 am

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\  
 Data File : r322208\_Ev2.D  
 Acq On : 19 May 2022 1:07 AM  
 Operator : AIRPIANO3:TS  
 Sample : L2225590-09,3,250,250  
 Misc : WG1640149,ICAL19031  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 09:05:48 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 17:30:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\r322195\_Ev2.D  
 Sub List : 7-NY-SIM - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.533	49	261074	10.000	ppbV	-0.03
Standard Area =	266528		Recovery =		97.95%	
33) 1,4-difluorobenzene	11.813	114	819938	10.000	ppbV	-0.03
Standard Area =	836058		Recovery =		98.07%	
51) chlorobenzene-D5	16.550	54	123161	10.000	ppbV	-0.02
Standard Area =	124605		Recovery =		98.84%	

System Monitoring Compounds

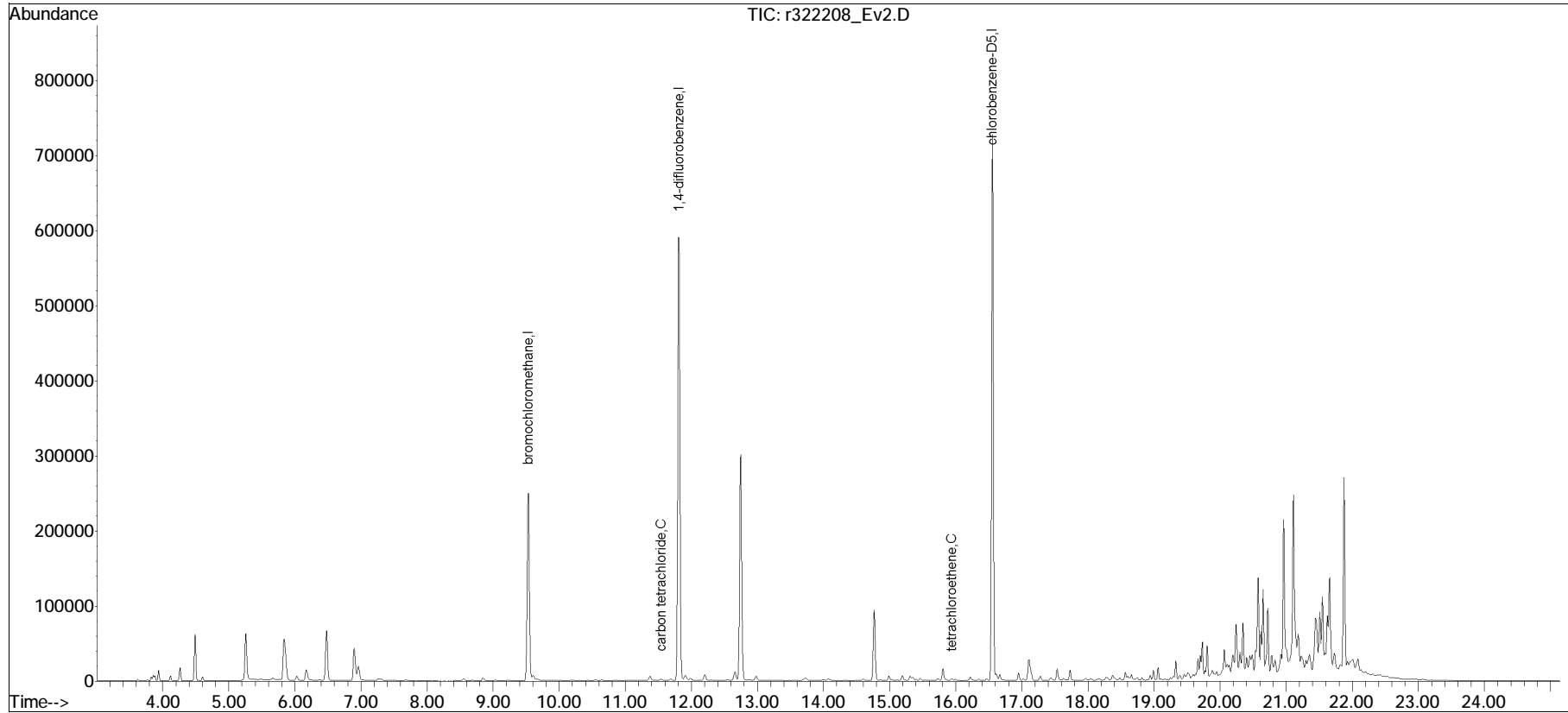
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
6) vinyl chloride	0.000		0		N.D.	
17) 1,1-dichloroethene	6.740		0		N.D.	
28) cis-1,2-dichloroethene	0.000		0		N.D.	
36) 1,1,1-trichloroethane	10.825		0		N.D.	
38) carbon tetrachloride	11.547	117	1579	0.093	ppbV	99
44) trichloroethene	12.620		0		N.D.	
57) tetrachloroethene	15.942	166	1648	0.070	ppbV	96

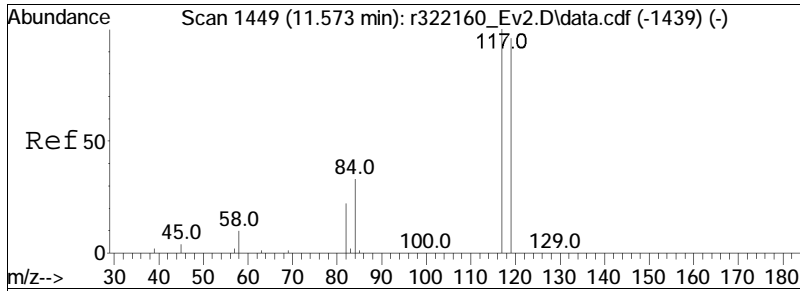
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : 7-NY-SIM - .\Data\Airpiano3\2022\05\0518SIM\r322195\_Ev2.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\  
Data File : r322208\_Ev2.D  
Acq On : 19 May 2022 1:07 AM  
Operator : AIRPIANO3:TS  
Sample : L2225590-09,3,250,250  
Misc : WG1640149,ICAL19031  
ALS Vial : 0 Sample Multiplier: 1

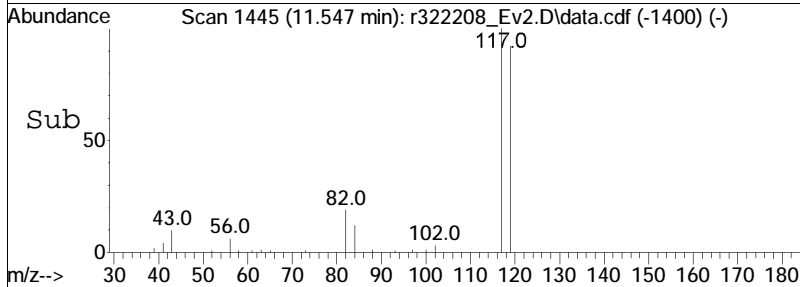
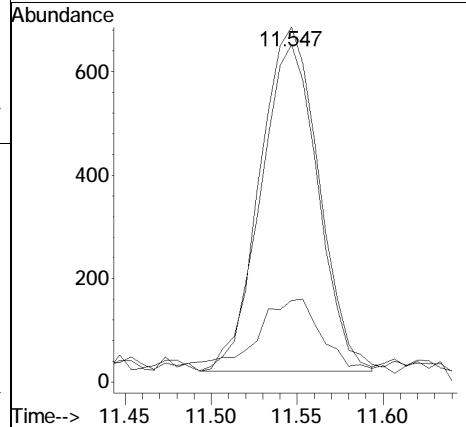
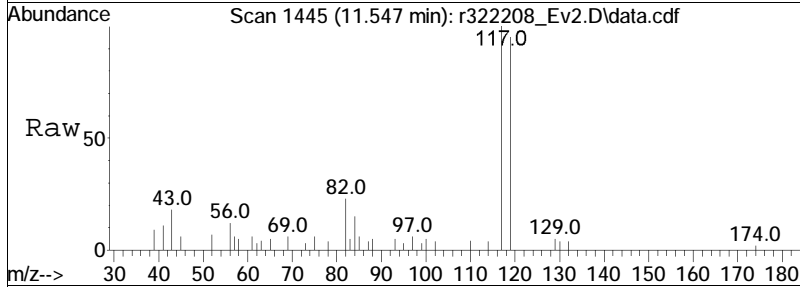
Quant Time: May 19 09:05:48 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\TSIM3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 17:30:54 2022  
Response via : Initial Calibration



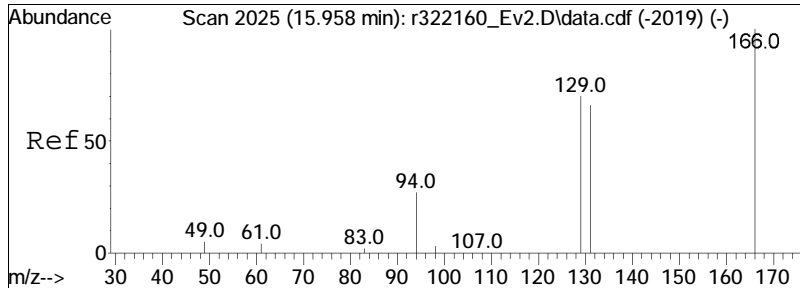


#38  
 carbon tetrachloride  
 Concen: 0.09 ppbV  
 RT: 11.547 min Scan# 1445  
 Delta R.T. -0.027 min  
 Lab File: r322208\_Ev2.D  
 Acq: 19 May 2022 1:07 AM

Tgt Ion	Ratio	Resp	Lower	Upper
117	100	1579		
119	95.0	77.0	115.4	
82	23.0	17.8	26.8	

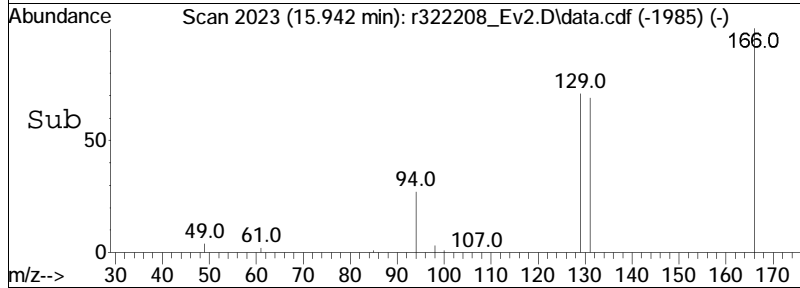
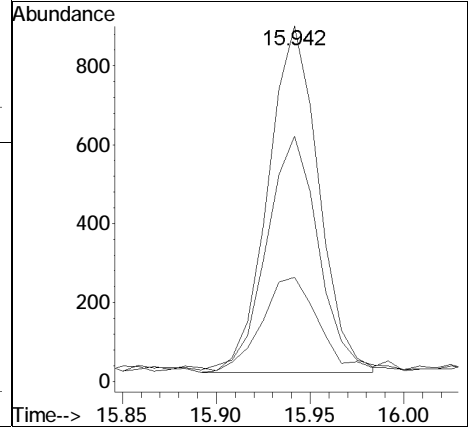
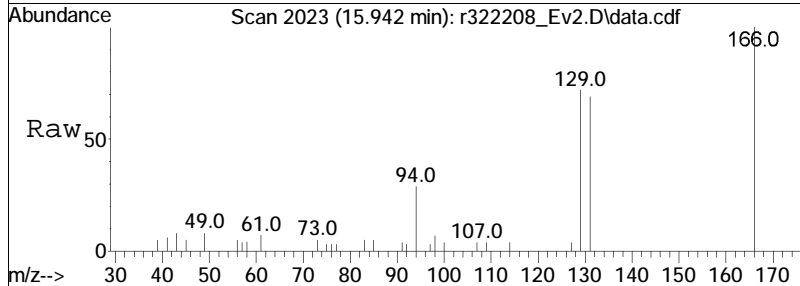






#57  
 tetrachloroethene  
 Concen: 0.07 ppbV  
 RT: 15.942 min Scan# 2023  
 Delta R.T. -0.017 min  
 Lab File: r322208\_Ev2.D  
 Acq: 19 May 2022 1:07 AM

Tgt Ion	Ratio	Lower	Upper
166	100		
131	69.0	53.0	79.4
94	29.3	22.0	33.0



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322208\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:1: 7 Instrument :  
Sample : L2225590-09,3,250,250 Quant Date : 5/19/2022 9:05 am

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\  
 Data File : r322209\_Ev2.D  
 Acq On : 19 May 2022 1:46 AM  
 Operator : AIRPIANO3:TS  
 Sample : L2225590-08,3,250,250  
 Misc : WG1640149,ICAL19031  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 17:20:06 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 17:30:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\r322195\_Ev2.D  
 Sub List : 7-NY-SIM - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.533	49	268056	10.000	ppbV	-0.03
Standard Area =	266528		Recovery =	100.57%		
33) 1,4-difluorobenzene	11.813	114	844299	10.000	ppbV	-0.03
Standard Area =	836058		Recovery =	100.99%		
51) chlorobenzene-D5	16.550	54	126277	10.000	ppbV	-0.02
Standard Area =	124605		Recovery =	101.34%		

System Monitoring Compounds

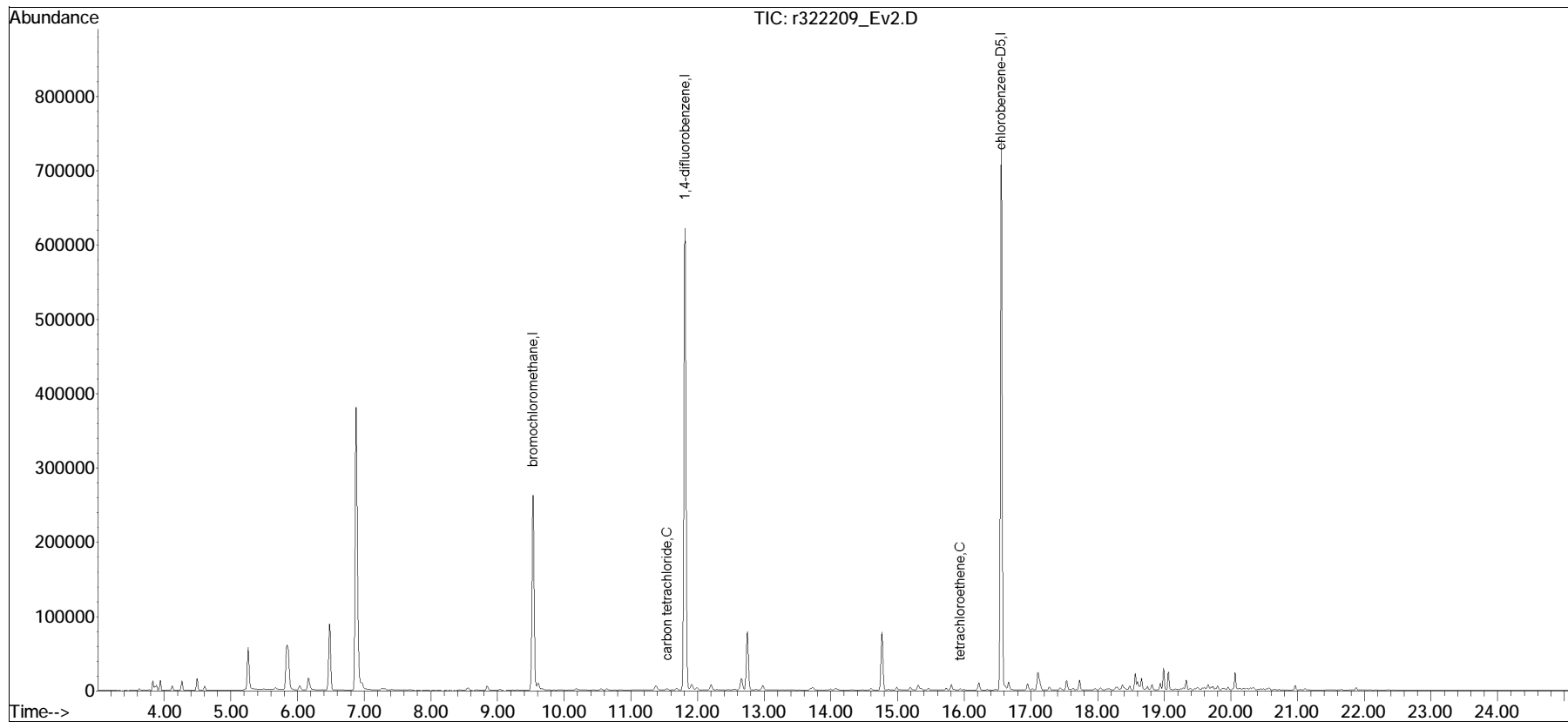
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
6) vinyl chloride	0.000		0		N.D.	
17) 1,1-dichloroethene	0.000		0		N.D.	d
28) cis-1,2-dichloroethene	0.000		0		N.D.	
36) 1,1,1-trichloroethane	0.000		0		N.D.	
38) carbon tetrachloride	11.547	117	1632	0.094	ppbV	99
44) trichloroethene	0.000		0		N.D.	
57) tetrachloroethene	15.942	166	1605	0.067	ppbV	97

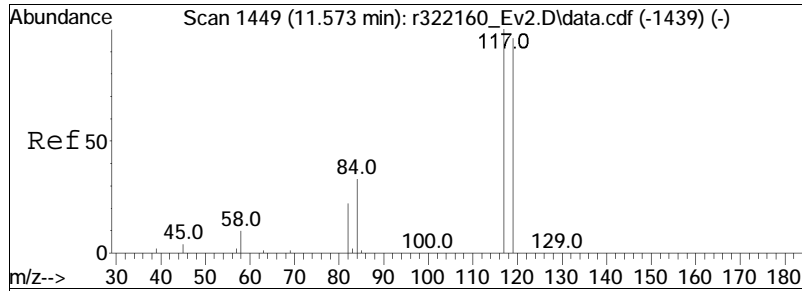
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : 7-NY-SIM - .\Data\Airpiano3\2022\05\0518SIM\r322195\_Ev2.D

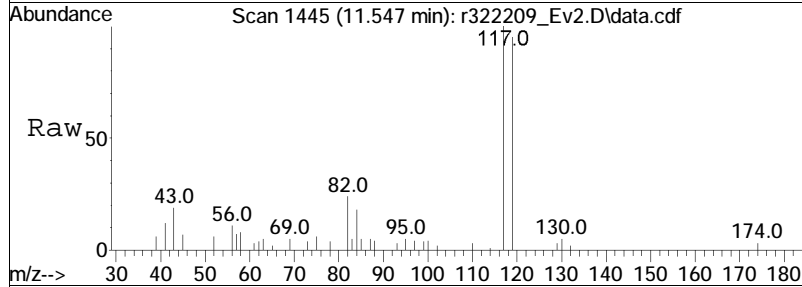
Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\  
Data File : r322209\_Ev2.D  
Acq On : 19 May 2022 1:46 AM  
Operator : AIRPIANO3:TS  
Sample : L2225590-08,3,250,250  
Misc : WG1640149,ICAL19031  
ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 17:20:06 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\TSIM3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 17:30:54 2022  
Response via : Initial Calibration

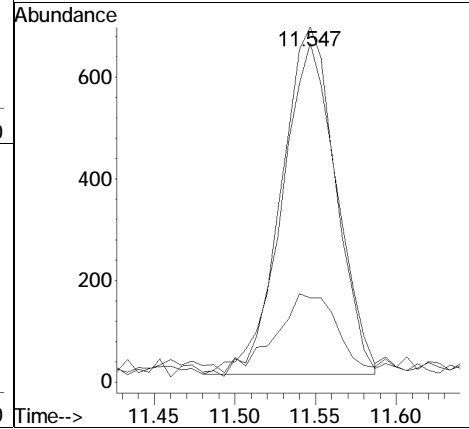
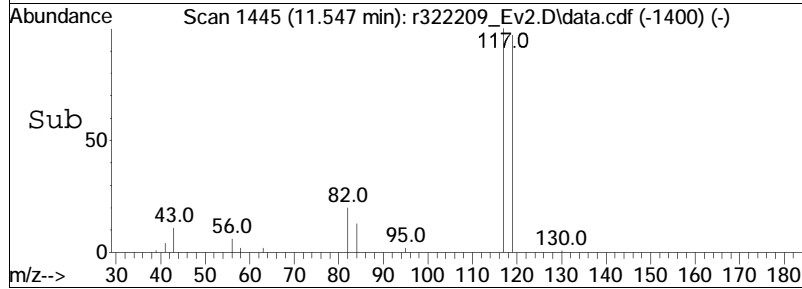


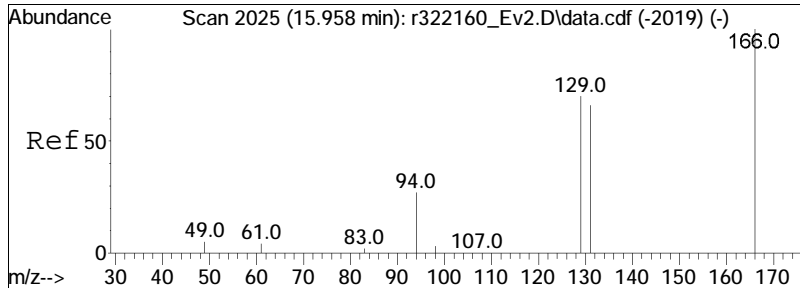


#38  
 carbon tetrachloride  
 Concen: 0.09 ppbV  
 RT: 11.547 min Scan# 1445  
 Delta R.T. -0.027 min  
 Lab File: r322209\_Ev2.D  
 Acq: 19 May 2022 1:46 AM



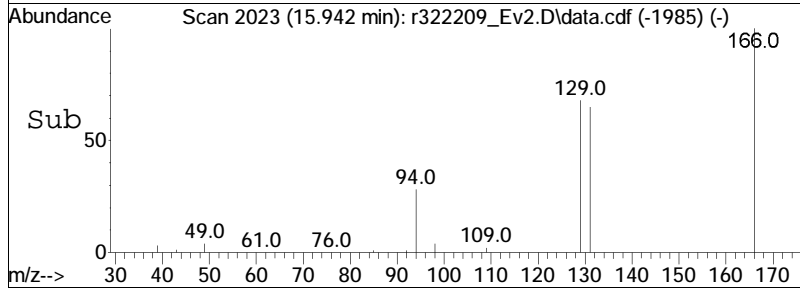
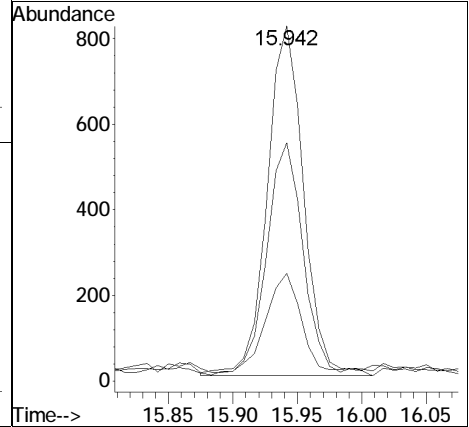
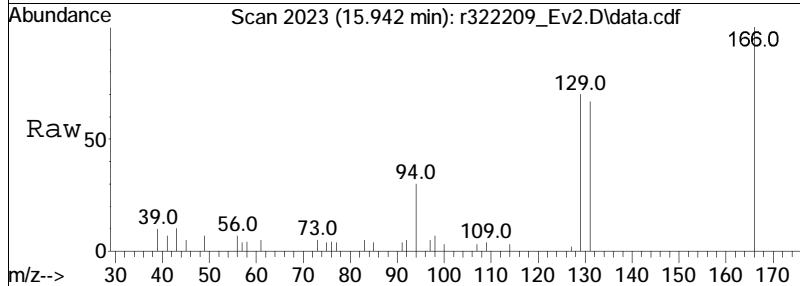
Tgt Ion	Ratio	Resp	Lower	Upper
117	100	1632		
119	95.4	77.0	115.4	
82	23.8	17.8	26.8	





#57  
 tetrachloroethene  
 Concen: 0.07 ppbV  
 RT: 15.942 min Scan# 2023  
 Delta R.T. -0.017 min  
 Lab File: r322209\_Ev2.D  
 Acq: 19 May 2022 1:46 AM

Tgt Ion	Ratio	Lower	Upper
166	100		
131	67.2	53.0	79.4
94	30.4	22.0	33.0



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322209\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:1: 6 Instrument :  
Sample : L2225590-08,3,250,250 Quant Date : 5/19/2022 9:05 am

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\  
 Data File : r322210\_Ev2.D  
 Acq On : 19 May 2022 2:26 AM  
 Operator : AIRPIANO3:TS  
 Sample : L2225590-07,3,250,250  
 Misc : WG1640149,ICAL19031  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 17:20:20 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 17:30:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\r322195\_Ev2.D  
 Sub List : 7-NY-SIM - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.533	49	262558	10.000	ppbV	-0.03
Standard Area =	266528		Recovery =	98.51%		
33) 1,4-difluorobenzene	11.813	114	826699	10.000	ppbV	-0.03
Standard Area =	836058		Recovery =	98.88%		
51) chlorobenzene-D5	16.558	54	123627	10.000	ppbV	-0.02
Standard Area =	124605		Recovery =	99.22%		

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
6) vinyl chloride	0.000		0		N.D.	
17) 1,1-dichloroethene	0.000		0		N.D. d	
28) cis-1,2-dichloroethene	0.000		0		N.D.	
36) 1,1,1-trichloroethane	10.833		0		N.D.	
38) carbon tetrachloride	11.547	117	1653	0.097	ppbV	94
44) trichloroethene	12.620		0		N.D.	
57) tetrachloroethene	15.942	166	1432	0.061	ppbV	98

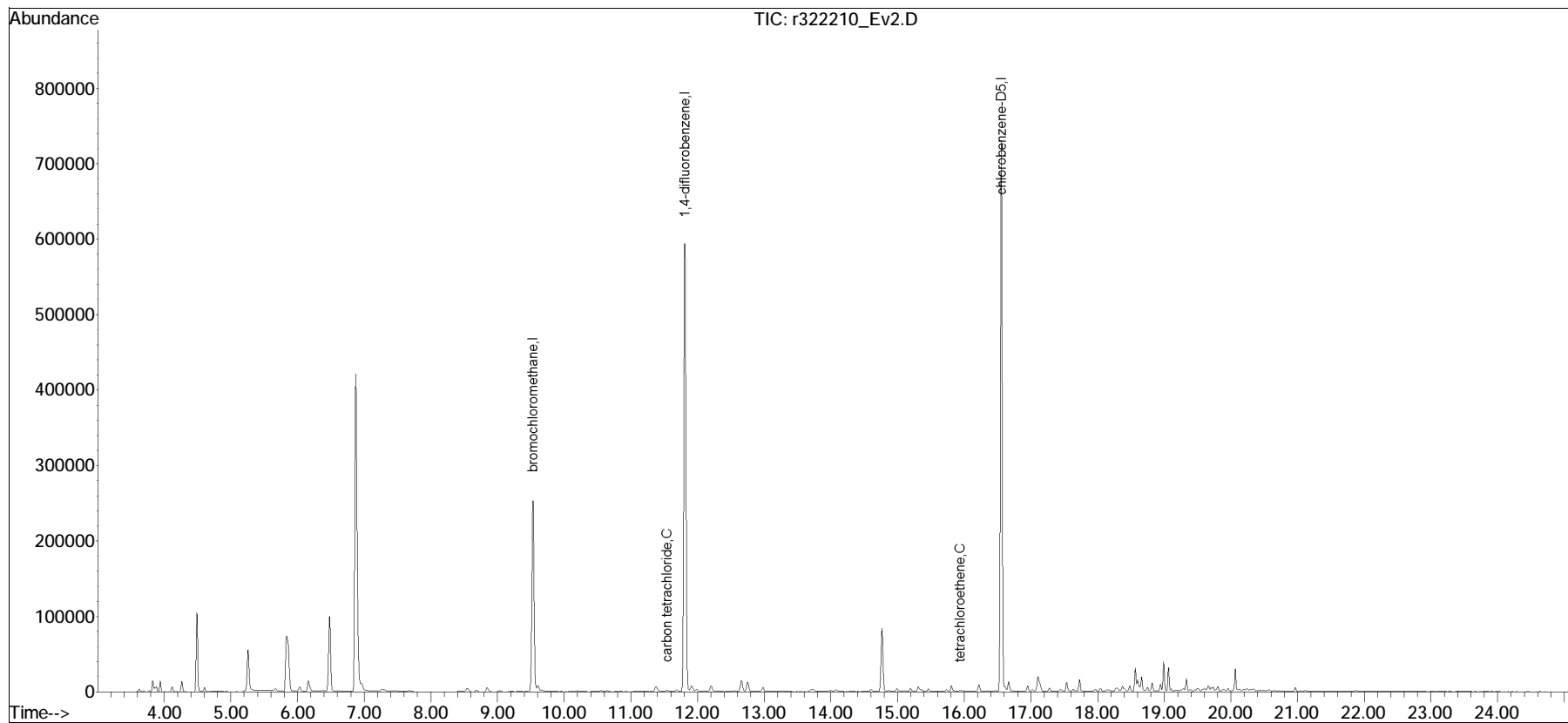
(#) = qualifier out of range (m) = manual integration (+) = signals summed

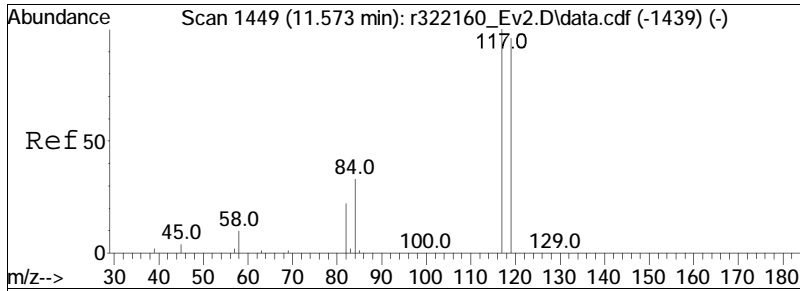


Sub List : 7-NY-SIM - .\Data\Airpiano3\2022\05\0518SIM\r322195\_Ev2.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\  
Data File : r322210\_Ev2.D  
Acq On : 19 May 2022 2:26 AM  
Operator : AIRPIANO3:TS  
Sample : L2225590-07,3,250,250  
Misc : WG1640149,ICAL19031  
ALS Vial : 0 Sample Multiplier: 1

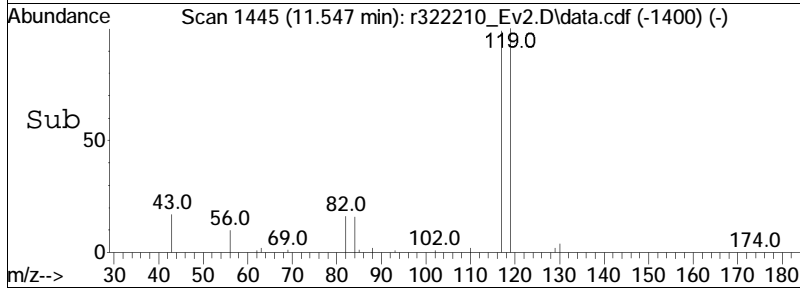
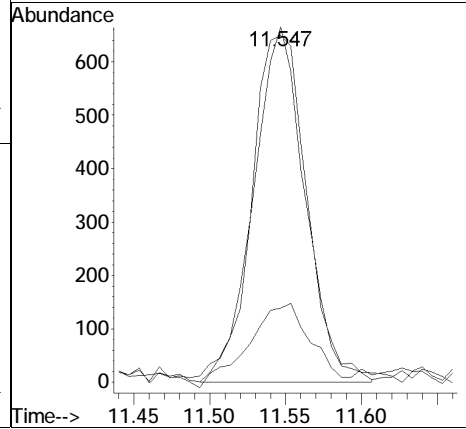
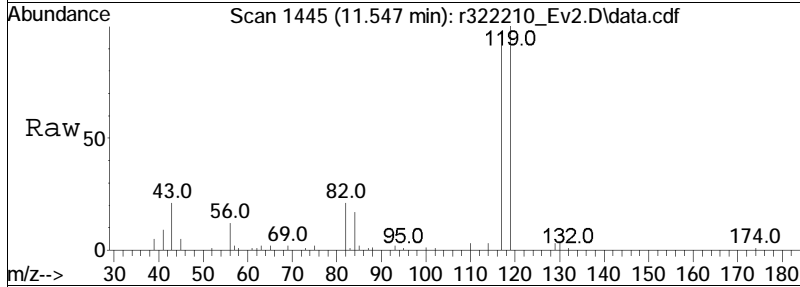
Quant Time: May 19 17:20:20 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\TSIM3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 17:30:54 2022  
Response via : Initial Calibration

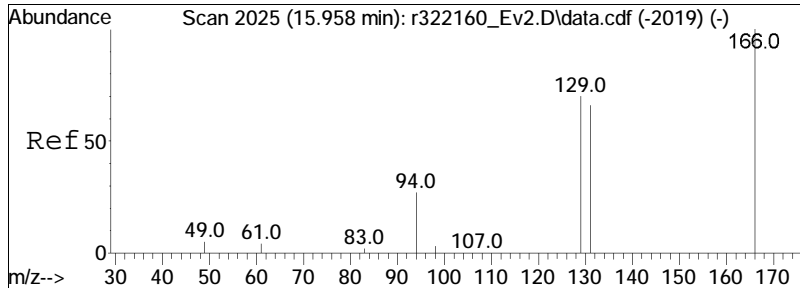




#38  
 carbon tetrachloride  
 Concen: 0.10 ppbV  
 RT: 11.547 min Scan# 1445  
 Delta R.T. -0.027 min  
 Lab File: r322210\_Ev2.D  
 Acq: 19 May 2022 2:26 AM

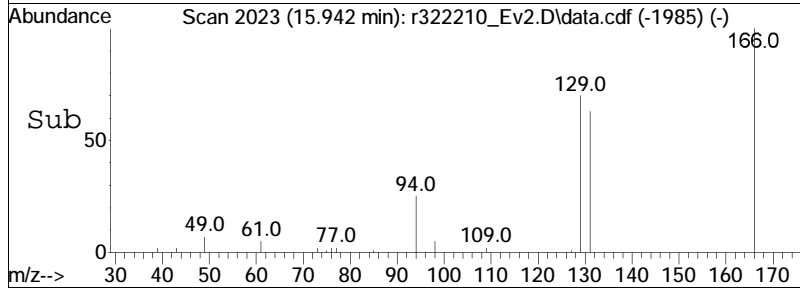
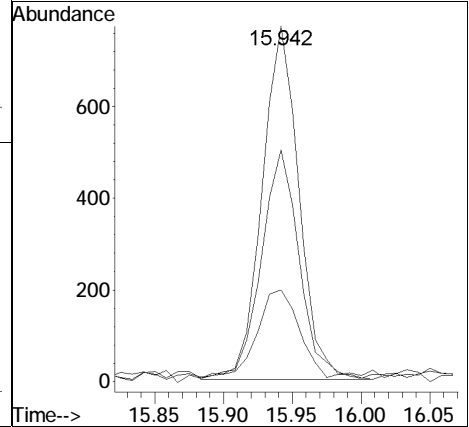
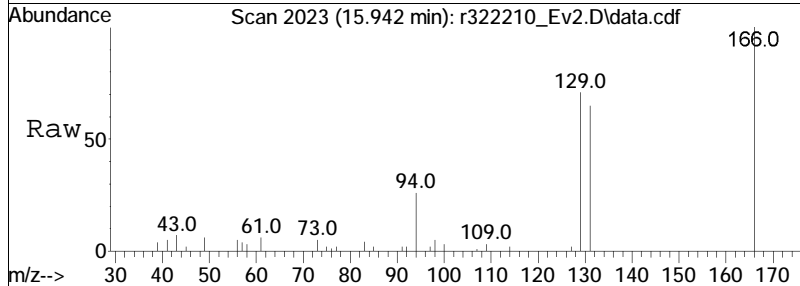
Tgt Ion	Ratio	Resp	Lower	Upper
117	100	1653		
119	102.5	77.0	115.4	
82	21.4	17.8	26.8	





#57  
 tetrachloroethene  
 Concen: 0.06 ppbV  
 RT: 15.942 min Scan# 2023  
 Delta R.T. -0.017 min  
 Lab File: r322210\_Ev2.D  
 Acq: 19 May 2022 2:26 AM

Tgt Ion	Ratio	Lower	Upper
166	100		
131	65.2	53.0	79.4
94	25.8	22.0	33.0



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322210\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:2: 6 Instrument :  
Sample : L2225590-07,3,250,250 Quant Date : 5/19/2022 9:06 am

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\  
 Data File : r322211\_Ev2.D  
 Acq On : 19 May 2022 3:06 AM  
 Operator : AIRPIANO3:TS  
 Sample : L2225590-06,3,250,250  
 Misc : WG1640149,ICAL19031  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 17:20:34 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 17:30:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\r322195\_Ev2.D  
 Sub List : 7-NY-SIM - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.533	49	258744	10.000	ppbV	-0.03
Standard Area =	266528		Recovery =		97.08%	
33) 1,4-difluorobenzene	11.813	114	817437	10.000	ppbV	-0.03
Standard Area =	836058		Recovery =		97.77%	
51) chlorobenzene-D5	16.558	54	123122	10.000	ppbV	-0.02
Standard Area =	124605		Recovery =		98.81%	

System Monitoring Compounds

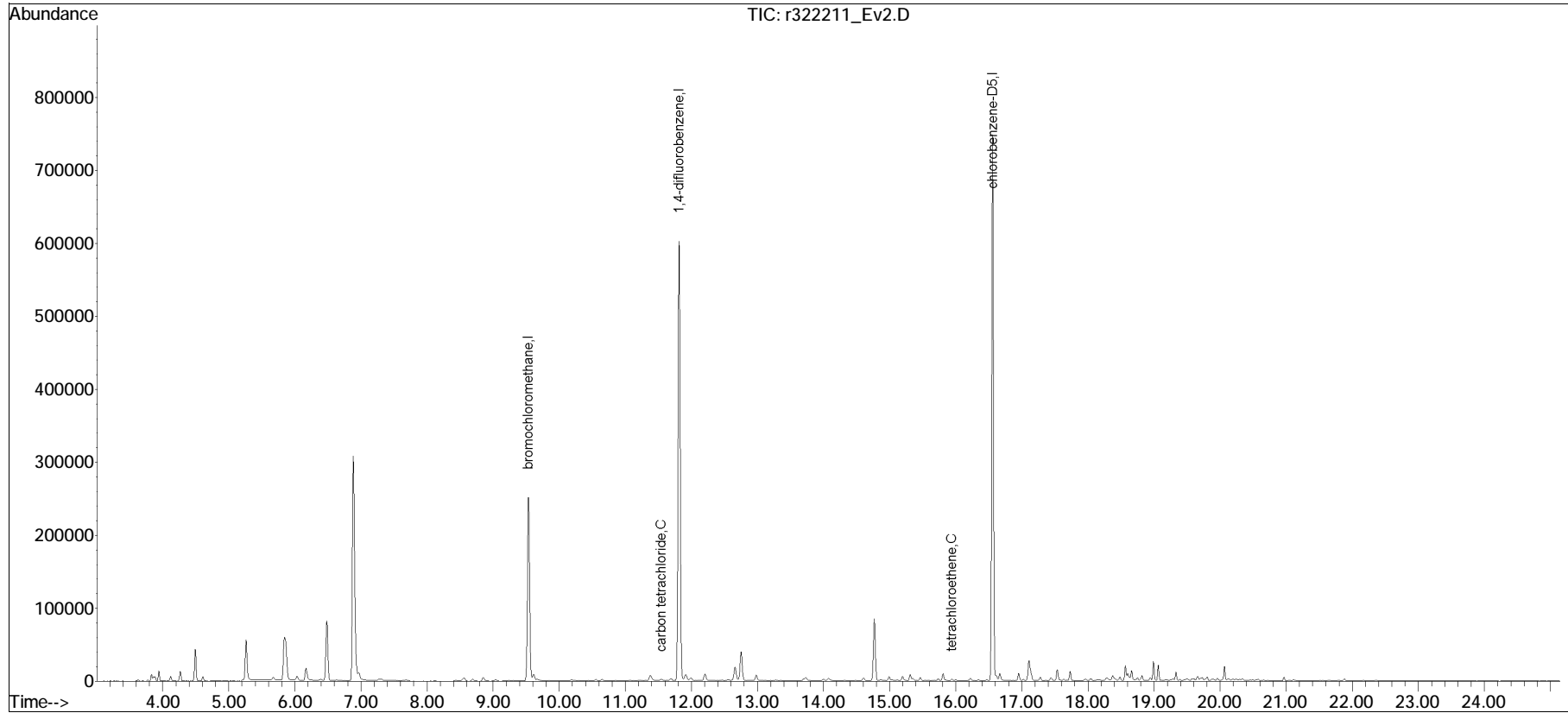
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
6) vinyl chloride	0.000		0		N.D.	
17) 1,1-dichloroethene	0.000		0		N.D.	d
28) cis-1,2-dichloroethene	0.000		0		N.D.	
36) 1,1,1-trichloroethane	0.000		0		N.D.	
38) carbon tetrachloride	11.547	117	1574	0.093	ppbV	99
44) trichloroethene	0.000		0		N.D.	
57) tetrachloroethene	15.942	166	1286	0.055	ppbV	98

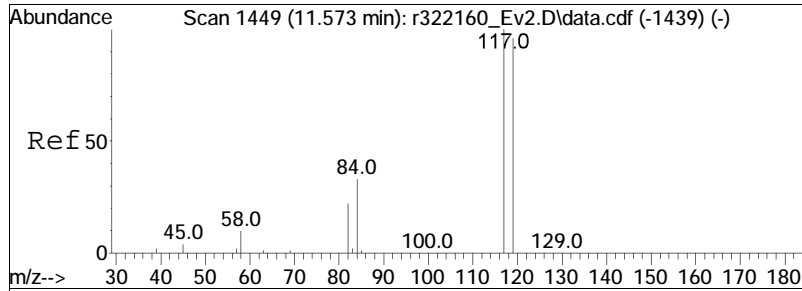
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : 7-NY-SIM - .\Data\Airpiano3\2022\05\0518SIM\r322195\_Ev2.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\  
Data File : r322211\_Ev2.D  
Acq On : 19 May 2022 3:06 AM  
Operator : AIRPIANO3:TS  
Sample : L2225590-06,3,250,250  
Misc : WG1640149,ICAL19031  
ALS Vial : 0 Sample Multiplier: 1

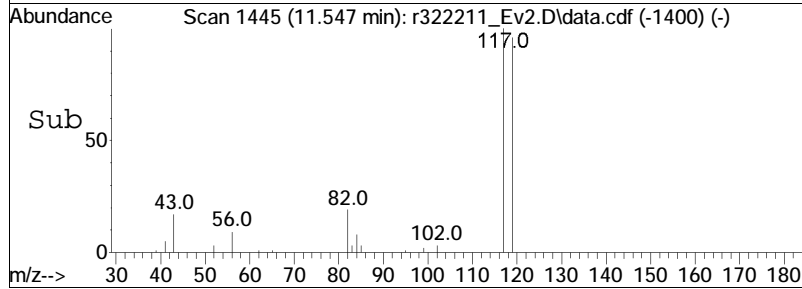
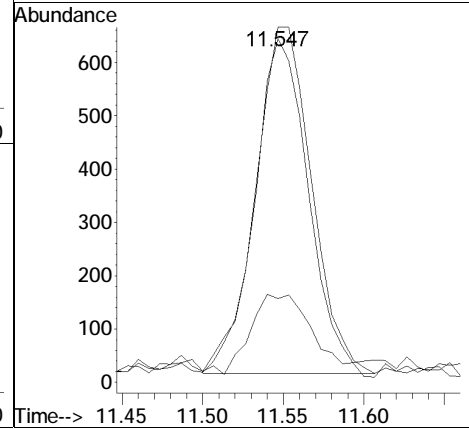
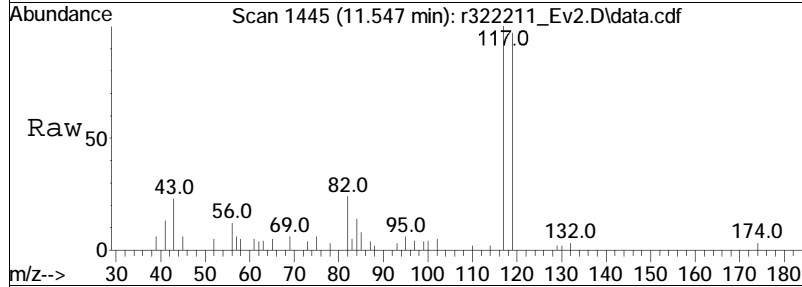
Quant Time: May 19 17:20:34 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\TSIM3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 17:30:54 2022  
Response via : Initial Calibration

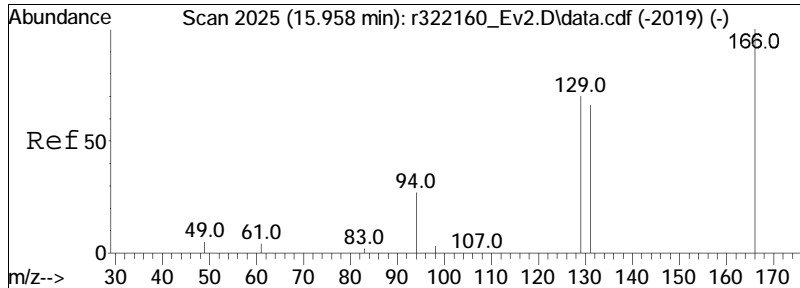




#38  
 carbon tetrachloride  
 Concen: 0.09 ppbV  
 RT: 11.547 min Scan# 1445  
 Delta R.T. -0.027 min  
 Lab File: r322211\_Ev2.D  
 Acq: 19 May 2022 3:06 AM

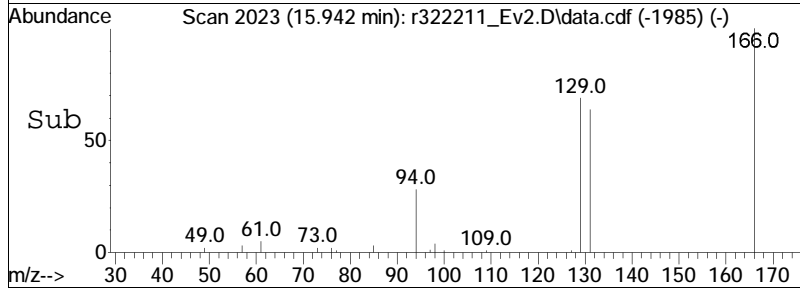
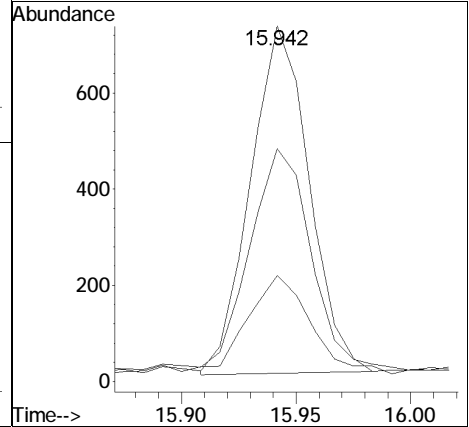
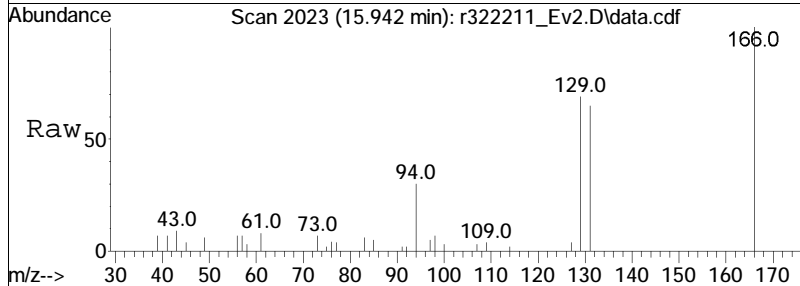
Tgt Ion	Ratio	Resp	Lower	Upper
117	100	1574		
119	96.7	77.0	115.4	
82	23.6	17.8	26.8	





#57  
 tetrachloroethene  
 Concen: 0.06 ppbV  
 RT: 15.942 min Scan# 2023  
 Delta R.T. -0.017 min  
 Lab File: r322211\_Ev2.D  
 Acq: 19 May 2022 3:06 AM

Tgt Ion	Ratio	Lower	Upper
166	100		
131	65.5	53.0	79.4
94	29.8	22.0	33.0





Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322211\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:3: 6 Instrument :  
Sample : L2225590-06,3,250,250 Quant Date : 5/19/2022 9:06 am

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

# **Volatiles Standards Data**

# **Initial Calibration**

# Initial Calibration Summary

## Form 6

### Air Volatiles

**Client** : Langan Engineering & Environmental      **Lab Number** : L2225590  
**Project Name** : 57-00, 57-05 47TH ST      **Project Number** : 100965503  
**Instrument ID** : AIRPIANO3      **Ical Ref** : ICAL19031  
**Calibration dates** : 05/16/22 21:15    05/17/22 03:19

Calibration Files

0.02=r322154\_Ev2.D    0.05=r322155\_Ev2.D    0.1 =r322156\_Ev2.D    0.2 =r322157\_Ev2.D    0.5 =r322158\_Ev2.D  
 1.0 =r322159\_Ev2.D    5.0 =r322160\_Ev2.D    10.0=r322161\_Ev2.D    20.0=r322162\_Ev2.D    50.0=r322163\_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				0.475	0.472	0.469	0.281	0.270	0.358	0.339	0.3806	23.86
3) dichlorodifluoromethane				0.920	0.947	0.951	0.690	0.678	0.868	0.763	0.8310	14.33
4) C chloromethane				0.429	0.445	0.436	0.292	0.289	0.375	0.355	0.3743	17.70
5) Freon-114		0.926	0.880	1.191	1.220	1.215	0.889	0.881	1.153	1.029	1.0426	14.58
6) C vinyl chloride	0.352	0.363	0.357	0.526	0.547	0.542	0.399	0.405	0.550	0.530	0.4571	19.32
7) C 1,3-butadiene	0.322	0.286	0.261	0.419	0.437	0.438	0.314	0.317	0.435	0.416	0.3646	19.35
8) C bromomethane	0.488	0.447	0.409	0.430	0.452	0.452	0.325	0.327	0.440	0.420	0.4190	12.80
9) C chloroethane	0.255	0.265	0.244	0.280	0.277	0.280	0.199	0.202	0.293	0.289	0.2586	13.17
10) ethanol					0.531	0.527	0.328	0.304	0.431	0.396	0.4194	22.94
11) C vinyl bromide				0.421	0.442	0.441	0.320	0.322	0.442	0.424	0.4018	13.84
12) C acrolein		1.427	1.327	0.639	0.646	0.636	0.197	0.198	0.263	0.258	0.6212	75.65#
13) acetone				0.762	0.676	0.666	0.403	0.393	0.503	0.479	0.5546	26.30
14) trichlorofluoromethane		1.374	1.502	0.832	0.883	0.823	0.643	0.638	0.749	0.795	0.9156	33.75#
15) isopropyl alcohol				0.615	0.673	0.714	0.529	0.554	0.786	0.756	0.6609	14.97
16) C acrylonitrile			0.473	0.404	0.437	0.449	0.318	0.328	0.465	0.476	0.4189	15.19
17) C 1,1-dichloroethene	0.458	0.435	0.427	0.637	0.666	0.677	0.510	0.521	0.719	0.707	0.5758	20.31
18) tertiary butyl alcohol				0.630	0.730	0.774	0.631	0.673	1.006	1.039	0.7835	21.90
19) C methylene chloride					0.841	0.837	0.519	0.524	0.571	0.555	0.6412	24.05
20) C 3-chloropropene				0.561	0.594	0.612	0.459	0.471	0.664	0.657	0.5740	14.40
21) C carbon disulfide				1.501	1.572	1.601	1.175	1.193	1.652	1.591	1.4692	13.61
22) Freon 113		0.935	0.905	0.864	0.900	0.901	0.668	0.669	0.901	0.868	0.8456	12.13
23) trans-1,2-dichloroethene	0.530	0.527	0.504	0.650	0.680	0.698	0.515	0.526	0.740	0.735	0.6105	16.15
24) C 1,1-dichloroethane	0.638	0.605	0.576	0.796	0.823	0.832	0.622	0.629	0.877	0.877	0.7275	16.90
25) C MTBE	0.756	0.810	0.787	1.168	1.227	1.260	0.941	0.962	1.342	1.296	1.0549	21.61
26) C vinyl acetate					0.881	0.885	0.638	0.662	1.029	1.053	0.8579	20.54
27) C 2-butanone				1.118	1.172	1.188	0.737	0.755	1.031	1.007	1.0012	18.66
28) cis-1,2-dichloroethene	0.475	0.426	0.423	0.585	0.608	0.616	0.467	0.475	0.665	0.664	0.5404	17.86
29) Ethyl Acetate				0.149	0.160	0.163	0.127	0.130	0.190	0.198	0.1595	17.10
30) C chloroform	0.768	0.653	0.656	0.816	0.860	0.874	0.657	0.664	0.915	0.877	0.7740	13.90
31) Tetrahydrofuran				0.541	0.578	0.586	0.436	0.447	0.630	0.625	0.5490	14.43
32) C 1,2-dichloroethane	0.414	0.434	0.401	0.608	0.559	0.542	0.394	0.394	0.535	0.511	0.4794	16.72
33) I 1,4-difluorobenzene	-----ISTD-----											
34) C hexane				0.283	0.297	0.304	0.219	0.223	0.305	0.300	0.2759	13.88
35) s 1,2-dichloroethane-D4				0.296	0.293	0.300	0.302	0.300	0.294	0.285	0.2959	1.94
36) C 1,1,1-trichloroethane	0.187	0.156	0.150	0.220	0.222	0.225	0.169	0.171	0.257	0.254	0.2013	19.73



# Initial Calibration Summary

## Form 6

### Air Volatiles

**Client** : Langan Engineering & Environmental      **Lab Number** : L2225590  
**Project Name** : 57-00, 57-05 47TH ST      **Project Number** : 100965503  
**Instrument ID** : AIRPIANO3      **Ical Ref** : ICAL19031  
**Calibration dates** : 05/16/22 21:15      05/17/22 03:19

Calibration Files

0.02=r322154\_Ev2.D    0.05=r322155\_Ev2.D    0.1 =r322156\_Ev2.D    0.2 =r322157\_Ev2.D    0.5 =r322158\_Ev2.D  
 1.0 =r322159\_Ev2.D    5.0 =r322160\_Ev2.D    10.0=r322161\_Ev2.D    20.0=r322162\_Ev2.D    50.0=r322163\_Ev2.D

Compound	0.02	0.05	0.1	0.2	0.5	1.0	5.0	10.0	20.0	50.0	Avg	%RSD
37) C benzene			0.991	0.702	0.677	0.684	0.418	0.426	0.594	0.588	0.6351	28.54
38) C carbon tetrachloride	0.205	0.224	0.213	0.192	0.208	0.213	0.164	0.170	0.239	0.231	0.2060	11.90
39) cyclohexane				0.282	0.292	0.305	0.225	0.229	0.330	0.339	0.2861	15.67
40) Dibromomethane		0.195	0.150	0.176	0.164	0.168	0.120	0.121	0.171	0.168	0.1592	15.58
41) C 1,2-dichloropropane	0.159	0.136	0.131	0.178	0.183	0.183	0.136	0.138	0.195	0.200	0.1639	16.40
42) bromodichloromethane	0.203	0.221	0.203	0.276	0.284	0.292	0.216	0.223	0.322	0.320	0.2559	18.66
43) C 1,4-dioxane			0.085	0.116	0.112	0.117	0.086	0.091	0.134	0.139	0.1099	19.16
44) C trichloroethene	0.163	0.205	0.176	0.238	0.246	0.249	0.187	0.189	0.262	0.256	0.2171	17.03
45) C 2,2,4-trimethylpentane				0.907	0.920	0.948	0.672	0.696	0.975	0.958	0.8678	14.74
46) heptane				0.325	0.337	0.344	0.246	0.249	0.348	0.343	0.3129	14.56
47) C cis-1,3-dichloropropene	0.108	0.098	0.112	0.180	0.202	0.219	0.177	0.189	0.277	0.279	0.1841	35.14#
48) C 4-methyl-2-pentanone					0.348	0.374	0.288	0.295	0.411	0.404	0.3534	14.92
49) trans-1,3-dichloropropene	0.181	0.159	0.156	0.217	0.235	0.244	0.194	0.204	0.295	0.296	0.2181	22.85
50) C 1,1,2-trichloroethane	0.146	0.128	0.138	0.184	0.191	0.199	0.147	0.149	0.207	0.208	0.1697	18.30
51) I chlorobenzene-D5	-----ISTD-----											
52) C toluene		7.204	7.187	3.992	4.172	4.195	3.006	3.024	4.173	4.129	4.5648	34.29#
53) s toluene-D8				6.360	6.378	6.535	6.597	6.497	6.497	6.571	6.4906	1.40
54) 2-hexanone				1.747	2.153	2.425	1.797	1.866	2.583	2.519	2.1557	16.59
55) dibromochloromethane	1.232	1.238	1.209	1.711	1.870	1.972	1.488	1.540	2.165	2.100	1.6527	22.10
56) C 1,2-dibromoethane	1.444	1.594	1.408	1.823	1.947	2.037	1.532	1.543	2.118	2.082	1.7528	15.89
57) C tetrachloroethene	2.031	1.707	1.612	2.011	2.082	2.124	1.568	1.577	2.169	2.100	1.8981	13.14
58) 1,1,1,2-tetrachloroethane	1.367	1.117	1.031	1.355	1.457	1.539	1.167	1.197	1.676	1.612	1.3518	16.28
59) C chlorobenzene	3.204	2.932	2.947	3.560	3.674	3.705	2.672	2.690	3.662	3.527	3.2574	12.82
60) C ethylbenzene	3.574	3.806	3.714	4.417	4.742	4.948	3.635	3.689	5.106	5.029	4.2660	15.09
61) C m+p-xylene	2.933	2.959	3.043	3.602	3.964	4.147	3.086	3.089	4.224	3.979	3.5026	15.22
62) C bromoform	1.160	1.186	1.088	1.556	1.694	1.821	1.383	1.455	2.093	2.032	1.5467	23.17
63) C styrene	2.613	2.448	2.378	3.151	3.461	3.697	2.779	2.821	3.913	3.813	3.1073	18.65
64) C 1,1,2,2-tetrachloroethane	2.297	2.124	2.101	2.645	2.919	3.061	2.280	2.336	3.244	3.018	2.6026	16.43
65) C o-xylene	3.181	3.100	3.086	3.704	4.066	4.271	3.110	3.111	4.230	3.907	3.5767	14.23
66) 1,2,3-Trichloropropane	1.764	1.853	1.760	2.187	2.448	2.563	1.894	1.918	2.675	2.614	2.1676	17.25
67) s bromofluorobenzene				3.870	4.010	4.051	4.169	4.173	4.179	4.220	4.0959	3.06
68) C isopropylbenzene				5.695	6.184	6.425	4.599	4.607	6.209	5.817	5.6480	13.37
69) Bromobenzene				2.975	3.288	3.416	2.506	2.560	3.562	3.407	3.1022	13.82
70) 4-ethyl toluene	4.034	4.007	4.045	5.376	6.177	6.577	4.864	4.853	6.549	6.091	5.2572	19.86
71) 1,3,5-trimethylbenzene	2.514	2.517	2.607	4.730	6.019	6.235	4.187	4.196	5.591	5.175	4.3772	32.77#
72) tert-butylbenzene				5.015	5.624	5.907	4.363	4.344	5.640	4.749	5.0917	12.58



# Initial Calibration Summary

## Form 6

### Air Volatiles

<b>Client</b> : Langan Engineering & Environmental	<b>Lab Number</b> : L2225590
<b>Project Name</b> : 57-00, 57-05 47TH ST	<b>Project Number</b> : 100965503
<b>Instrument ID</b> : AIRPIANO3	<b>Ical Ref</b> : ICAL19031
<b>Calibration dates</b> : 05/16/22 21:15 05/17/22 03:19	

Calibration Files

0.02=r322154\_Ev2.D 0.05=r322155\_Ev2.D 0.1 =r322156\_Ev2.D 0.2 =r322157\_Ev2.D 0.5 =r322158\_Ev2.D  
 1.0 =r322159\_Ev2.D 5.0 =r322160\_Ev2.D 10.0=r322161\_Ev2.D 20.0=r322162\_Ev2.D 50.0=r322163\_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	2.992	3.150	3.228	4.497	5.140	5.448	4.116	4.104	5.386	4.560	4.2622	21.49
74) C Benzyl Chloride			0.886	1.194	1.542	2.065	2.023	2.422	3.935	3.906	2.2469	50.95#
75) 1,3-dichlorobenzene	2.121	2.454	2.854	3.114	3.826	4.102	3.089	3.079	4.081	3.747	3.2468	20.88
76) C 1,4-dichlorobenzene	2.121	2.623	2.852	3.111	3.901	4.172	3.116	3.130	4.121	3.812	3.2958	20.74
77) sec-butylbenzene				6.998	7.853	8.220	6.135	6.085	8.000	7.207	7.2140	12.03
78) p-isopropyltoluene				5.862	6.672	7.056	5.274	5.240	6.738	5.537	6.0542	12.48
79) 1,2-dichlorobenzene	2.554	2.638	2.756	3.165	3.597	3.843	2.873	2.911	3.856	3.649	3.1843	15.95
80) n-butylbenzene				4.411	5.182	5.522	4.285	4.357	5.913	5.389	5.0086	13.05
81) 1,2-dibromo-3-chloropr...	0.866	0.704	0.778	0.967	1.194	1.328	1.133	1.186	1.601	1.475	1.1233	26.35
82) C 1,2,4-trichlorobenzene		1.871	1.955	2.148	2.538	2.808	2.324	2.402	3.189	3.063	2.4776	18.83
83) naphthalene		5.022	5.490	5.739	6.921	7.594	6.146	6.259	7.883	7.306	6.4845	15.33
84) 1,2,3-trichlorobenzene		2.164	2.243	2.262	2.674	2.912	2.362	2.395	3.048	2.911	2.5524	13.22
85) C hexachlorobutadiene		2.110	2.179	2.459	2.778	2.904	2.207	2.190	2.664	2.354	2.4273	12.02



Response Factor Report

Method Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Method File : TSIM3\_220516.M  
 Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 Last Update : Tue May 17 17:30:54 2022  
 Response Via : Initial Calibration

Calibration Files

0.02=r322154\_Ev2.D 0.05=r322155\_Ev2.D 0.1 =r322156\_Ev2.D 0.2 =r322157\_Ev2.D 0.5 =r322158\_Ev2.D  
 1.0 =r322159\_Ev2.D 5.0 =r322160\_Ev2.D 10.0=r322161\_Ev2.D 20.0=r322162\_Ev2.D 50.0=r322163\_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				0.475	0.472	0.469	0.281	0.270	0.358	0.339	0.3806	23.86
3) dichlorodifluorome...				0.920	0.947	0.951	0.690	0.678	0.868	0.763	0.8310	14.33
4) C chloromethane				0.429	0.445	0.436	0.292	0.289	0.375	0.355	0.3743	17.70
5) Freon-114		0.926	0.880	1.191	1.220	1.215	0.889	0.881	1.153	1.029	1.0426	14.58
6) C vinyl chloride	0.352	0.363	0.357	0.526	0.547	0.542	0.399	0.405	0.550	0.530	0.4571	19.32
7) C 1,3-butadiene	0.322	0.286	0.261	0.419	0.437	0.438	0.314	0.317	0.435	0.416	0.3646	19.35
8) C bromomethane	0.488	0.447	0.409	0.430	0.452	0.452	0.325	0.327	0.440	0.420	0.4190	12.80
9) C chloroethane	0.255	0.265	0.244	0.280	0.277	0.280	0.199	0.202	0.293	0.289	0.2586	13.17
10) ethanol					0.531	0.527	0.328	0.304	0.431	0.396	0.4194	22.94
11) C vinyl bromide				0.421	0.442	0.441	0.320	0.322	0.442	0.424	0.4018	13.84
12) C acrolein		1.427	1.327	0.639	0.646	0.636	0.197	0.198	0.263	0.258	0.6212	75.65#
13) acetone				0.762	0.676	0.666	0.403	0.393	0.503	0.479	0.5546	26.30
14) trichlorofluoromet...		1.374	1.502	0.832	0.883	0.823	0.643	0.638	0.749	0.795	0.9156	33.75#
15) isopropyl alcohol				0.615	0.673	0.714	0.529	0.554	0.786	0.756	0.6609	14.97
16) C acrylonitrile			0.473	0.404	0.437	0.449	0.318	0.328	0.465	0.476	0.4189	15.19
17) C 1,1-dichloroethene	0.458	0.435	0.427	0.637	0.666	0.677	0.510	0.521	0.719	0.707	0.5758	20.31
18) tertiary butyl alc...				0.630	0.730	0.774	0.631	0.673	1.006	1.039	0.7835	21.90
19) C methylene chloride					0.841	0.837	0.519	0.524	0.571	0.555	0.6412	24.05
20) C 3-chloropropene				0.561	0.594	0.612	0.459	0.471	0.664	0.657	0.5740	14.40
21) C carbon disulfide				1.501	1.572	1.601	1.175	1.193	1.652	1.591	1.4692	13.61
22) Freon 113		0.935	0.905	0.864	0.900	0.901	0.668	0.669	0.901	0.868	0.8456	12.13
23) trans-1,2-dichloro...	0.530	0.527	0.504	0.650	0.680	0.698	0.515	0.526	0.740	0.735	0.6105	16.15
24) C 1,1-dichloroethane	0.638	0.605	0.576	0.796	0.823	0.832	0.622	0.629	0.877	0.877	0.7275	16.90
25) C MTBE	0.756	0.810	0.787	1.168	1.227	1.260	0.941	0.962	1.342	1.296	1.0549	21.61
26) C vinyl acetate					0.881	0.885	0.638	0.662	1.029	1.053	0.8579	20.54
27) C 2-butanone				1.118	1.172	1.188	0.737	0.755	1.031	1.007	1.0012	18.66
28) cis-1,2-dichloroet...	0.475	0.426	0.423	0.585	0.608	0.616	0.467	0.475	0.665	0.664	0.5404	17.86
29) Ethyl Acetate				0.149	0.160	0.163	0.127	0.130	0.190	0.198	0.1595	17.10
30) C chloroform	0.768	0.653	0.656	0.816	0.860	0.874	0.657	0.664	0.915	0.877	0.7740	13.90
31) Tetrahydrofuran				0.541	0.578	0.586	0.436	0.447	0.630	0.625	0.5490	14.43

Response Factor Report

Method Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Method File : TSIM3\_220516.M  
 Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 Last Update : Tue May 17 17:30:54 2022  
 Response Via : Initial Calibration

Calibration Files

0.02=r322154\_Ev2.D 0.05=r322155\_Ev2.D 0.1 =r322156\_Ev2.D 0.2 =r322157\_Ev2.D 0.5 =r322158\_Ev2.D  
 1.0 =r322159\_Ev2.D 5.0 =r322160\_Ev2.D 10.0=r322161\_Ev2.D 20.0=r322162\_Ev2.D 50.0=r322163\_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	0.414	0.434	0.401	0.608	0.559	0.542	0.394	0.394	0.535	0.511	0.4794	16.72
33) I 1,4-difluorobenzene	-----ISTD-----											
34) C hexane				0.283	0.297	0.304	0.219	0.223	0.305	0.300	0.2759	13.88
35) s 1,2-dichloroethane-D4				0.296	0.293	0.300	0.302	0.300	0.294	0.285	0.2959	1.94
36) C 1,1,1-trichloroethane	0.187	0.156	0.150	0.220	0.222	0.225	0.169	0.171	0.257	0.254	0.2013	19.73
37) C benzene			0.991	0.702	0.677	0.684	0.418	0.426	0.594	0.588	0.6351	28.54
38) C carbon tetrachloride	0.205	0.224	0.213	0.192	0.208	0.213	0.164	0.170	0.239	0.231	0.2060	11.90
39) cyclohexane				0.282	0.292	0.305	0.225	0.229	0.330	0.339	0.2861	15.67
40) Dibromomethane		0.195	0.150	0.176	0.164	0.168	0.120	0.121	0.171	0.168	0.1592	15.58
41) C 1,2-dichloropropane	0.159	0.136	0.131	0.178	0.183	0.183	0.136	0.138	0.195	0.200	0.1639	16.40
42) bromodichloromethane	0.203	0.221	0.203	0.276	0.284	0.292	0.216	0.223	0.322	0.320	0.2559	18.66
43) C 1,4-dioxane			0.085	0.116	0.112	0.117	0.086	0.091	0.134	0.139	0.1099	19.16
44) C trichloroethene	0.163	0.205	0.176	0.238	0.246	0.249	0.187	0.189	0.262	0.256	0.2171	17.03
45) C 2,2,4-trimethylpen...				0.907	0.920	0.948	0.672	0.696	0.975	0.958	0.8678	14.74
46) heptane				0.325	0.337	0.344	0.246	0.249	0.348	0.343	0.3129	14.56
47) C cis-1,3-dichloropr...	0.108	0.098	0.112	0.180	0.202	0.219	0.177	0.189	0.277	0.279	0.1841	35.14#
48) C 4-methyl-2-pentanone					0.348	0.374	0.288	0.295	0.411	0.404	0.3534	14.92
49) trans-1,3-dichloro...	0.181	0.159	0.156	0.217	0.235	0.244	0.194	0.204	0.295	0.296	0.2181	22.85
50) C 1,1,2-trichloroethane	0.146	0.128	0.138	0.184	0.191	0.199	0.147	0.149	0.207	0.208	0.1697	18.30
51) I chlorobenzene-D5	-----ISTD-----											
52) C toluene		7.204	7.187	3.992	4.172	4.195	3.006	3.024	4.173	4.129	4.5648	34.29#
53) s toluene-D8				6.360	6.378	6.535	6.597	6.497	6.497	6.571	6.4906	1.40
54) 2-hexanone				1.747	2.153	2.425	1.797	1.866	2.583	2.519	2.1557	16.59
55) dibromochloromethane	1.232	1.238	1.209	1.711	1.870	1.972	1.488	1.540	2.165	2.100	1.6527	22.10
56) C 1,2-dibromoethane	1.444	1.594	1.408	1.823	1.947	2.037	1.532	1.543	2.118	2.082	1.7528	15.89
57) C tetrachloroethene	2.031	1.707	1.612	2.011	2.082	2.124	1.568	1.577	2.169	2.100	1.8981	13.14
58) 1,1,1,2-tetrachlor...	1.367	1.117	1.031	1.355	1.457	1.539	1.167	1.197	1.676	1.612	1.3518	16.28
59) C chlorobenzene	3.204	2.932	2.947	3.560	3.674	3.705	2.672	2.690	3.662	3.527	3.2574	12.82
60) C ethylbenzene	3.574	3.806	3.714	4.417	4.742	4.948	3.635	3.689	5.106	5.029	4.2660	15.09
61) C m+p-xylene	2.933	2.959	3.043	3.602	3.964	4.147	3.086	3.089	4.224	3.979	3.5026	15.22



Response Factor Report

Method Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Method File : TSIM3\_220516.M  
 Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 Last Update : Tue May 17 17:30:54 2022  
 Response Via : Initial Calibration

Calibration Files

0.02=r322154\_Ev2.D 0.05=r322155\_Ev2.D 0.1 =r322156\_Ev2.D 0.2 =r322157\_Ev2.D 0.5 =r322158\_Ev2.D  
 1.0 =r322159\_Ev2.D 5.0 =r322160\_Ev2.D 10.0=r322161\_Ev2.D 20.0=r322162\_Ev2.D 50.0=r322163\_Ev2.D

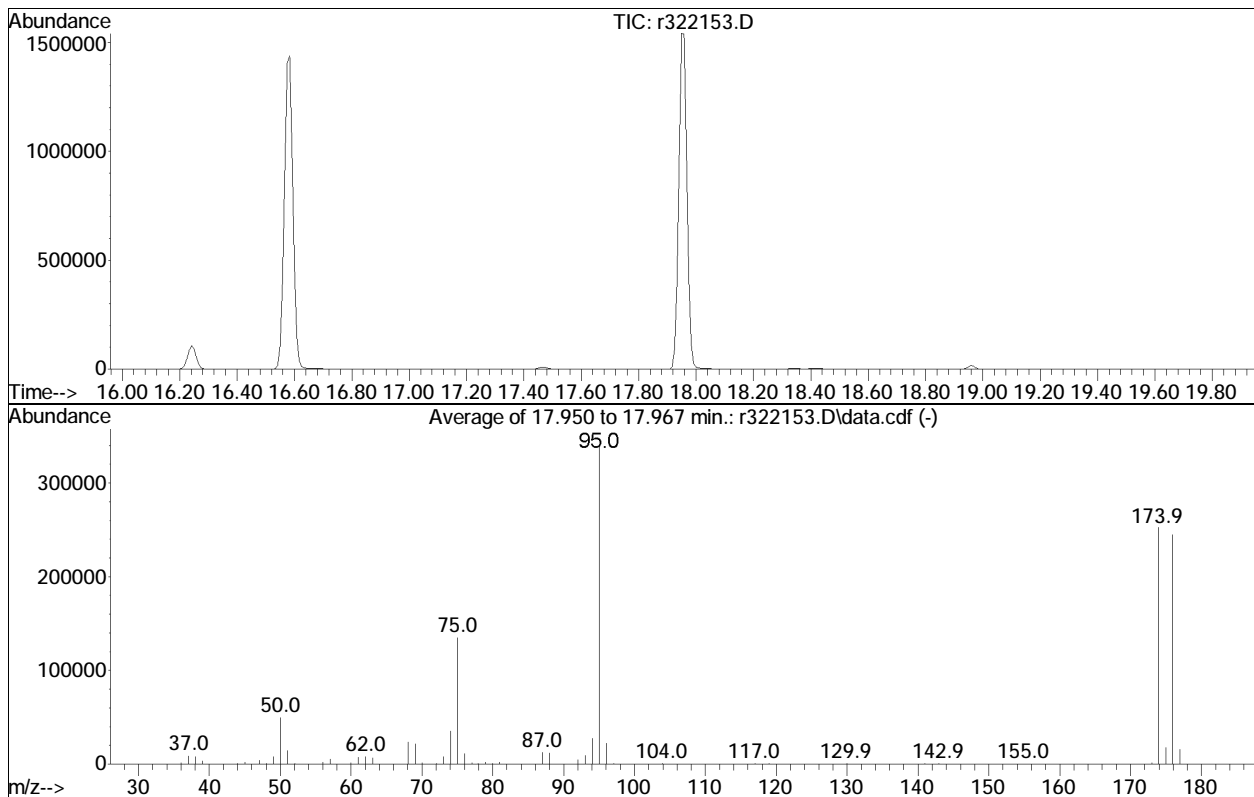
Compound	0.02	0.05	0.1	0.2	0.5	1.0	5.0	10.0	20.0	50.0	Avg	%RSD
62) C bromoform	1.160	1.186	1.088	1.556	1.694	1.821	1.383	1.455	2.093	2.032	1.5467	23.17
63) C styrene	2.613	2.448	2.378	3.151	3.461	3.697	2.779	2.821	3.913	3.813	3.1073	18.65
64) C 1,1,2,2-tetrachlor...	2.297	2.124	2.101	2.645	2.919	3.061	2.280	2.336	3.244	3.018	2.6026	16.43
65) C o-xylene	3.181	3.100	3.086	3.704	4.066	4.271	3.110	3.111	4.230	3.907	3.5767	14.23
66) 1,2,3-Trichloropro...	1.764	1.853	1.760	2.187	2.448	2.563	1.894	1.918	2.675	2.614	2.1676	17.25
67) s bromofluorobenzene				3.870	4.010	4.051	4.169	4.173	4.179	4.220	4.0959	3.06
68) C isopropylbenzene				5.695	6.184	6.425	4.599	4.607	6.209	5.817	5.6480	13.37
69) Bromobenzene				2.975	3.288	3.416	2.506	2.560	3.562	3.407	3.1022	13.82
70) 4-ethyl toluene	4.034	4.007	4.045	5.376	6.177	6.577	4.864	4.853	6.549	6.091	5.2572	19.86
71) 1,3,5-trimethylben...	2.514	2.517	2.607	4.730	6.019	6.235	4.187	4.196	5.591	5.175	4.3772	32.77#
72) tert-butylbenzene				5.015	5.624	5.907	4.363	4.344	5.640	4.749	5.0917	12.58
73) 1,2,4-trimethylben...	2.992	3.150	3.228	4.497	5.140	5.448	4.116	4.104	5.386	4.560	4.2622	21.49
74) C Benzyl Chloride			0.886	1.194	1.542	2.065	2.023	2.422	3.935	3.906	2.2469	50.95#
75) 1,3-dichlorobenzene	2.121	2.454	2.854	3.114	3.826	4.102	3.089	3.079	4.081	3.747	3.2468	20.88
76) C 1,4-dichlorobenzene	2.121	2.623	2.852	3.111	3.901	4.172	3.116	3.130	4.121	3.812	3.2958	20.74
77) sec-butylbenzene				6.998	7.853	8.220	6.135	6.085	8.000	7.207	7.2140	12.03
78) p-isopropyltoluene				5.862	6.672	7.056	5.274	5.240	6.738	5.537	6.0542	12.48
79) 1,2-dichlorobenzene	2.554	2.638	2.756	3.165	3.597	3.843	2.873	2.911	3.856	3.649	3.1843	15.95
80) n-butylbenzene				4.411	5.182	5.522	4.285	4.357	5.913	5.389	5.0086	13.05
81) 1,2-dibromo-3-chlo...	0.866	0.704	0.778	0.967	1.194	1.328	1.133	1.186	1.601	1.475	1.1233	26.35
82) C 1,2,4-trichloroben...		1.871	1.955	2.148	2.538	2.808	2.324	2.402	3.189	3.063	2.4776	18.83
83) naphthalene		5.022	5.490	5.739	6.921	7.594	6.146	6.259	7.883	7.306	6.4845	15.33
84) 1,2,3-trichloroben...		2.164	2.243	2.262	2.674	2.912	2.362	2.395	3.048	2.911	2.5524	13.22
85) C hexachlorobutadiene		2.110	2.179	2.459	2.778	2.904	2.207	2.190	2.664	2.354	2.4273	12.02

(#) = Out of Range

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322153.D  
 Acq On : 16 May 2022 8:39 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1639637-1,3,250,250  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Integration File: rteint.p

Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 Last Update : Tue May 17 17:30:54 2022



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	14.6	49888	PASS
75	95	30	66	39.7	135317	PASS
95	95	100	100	100.0	341023	PASS
96	95	5	9	6.5	22142	PASS
173	174	0.00	2	0.6	1606	PASS
174	95	50	120	74.0	252386	PASS
175	174	4	9	7.1	17843	PASS
176	174	93	101	97.0	244906	PASS
177	176	5	9	6.4	15780	PASS

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322154\_Ev2.D  
 Acq On : 16 May 2022 9:15 PM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-SIMSTD0.02  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 16:59:25 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 14:26:18 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\r322160\_Ev2.D  
 Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) bromochloromethane	9.550	49	238895	10.000	ppbV	0.00
Standard Area =	249837		Recovery =	95.62%		
33) 1,4-difluorobenzene	11.833	114	734932	10.000	ppbV	0.00
Standard Area =	791968		Recovery =	92.80%		
51) chlorobenzene-D5	16.575	54	110801	10.000	ppbV	0.00
Standard Area =	120616		Recovery =	91.86%		
<b>System Monitoring Compounds</b>						
35) 1,2-dichloroethane-D4	10.450	65	107	0.005	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	0.05%#		
53) toluene-D8	14.675	98	374	0.005	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	0.05%#		
67) bromofluorobenzene	17.958	95	649	0.014	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	0.14%#		
<b>Target Compounds</b>						
						Qvalue
2) propylene	3.868	41	453M6	0.067	ppbV	
3) dichlorodifluoromethane	3.952	85	1295	0.079	ppbV	95
4) chloromethane	4.132	50	741	0.106	ppbV	97
5) Freon-114	4.258	85	459	0.022	ppbV #	93
6) vinyl chloride	4.390	62	168	0.018	ppbV #	60
7) 1,3-butadiene	4.558	54	154	0.021	ppbV #	81
8) bromomethane	4.882	94	233	0.030	ppbV	95
9) chloroethane	5.092	64	122	0.026	ppbV	93
10) ethanol	5.290	31	6771	0.864	ppbV	100
11) vinyl bromide	5.530	106	165M4	0.022	ppbV	
12) acrolein	5.693	56	910	0.193	ppbV #	83
13) acetone	5.867	43	5694	0.591	ppbV #	94
14) trichlorofluoromethane	6.050	101	740M4	0.048	ppbV	
15) isopropyl alcohol	6.210	45	1223	0.097	ppbV #	92
16) acrylonitrile	6.433	53	235M4	0.031	ppbV	
17) 1,1-dichloroethene	6.824	61	219M4	0.018	ppbV	
18) tertiary butyl alcohol	6.962	59	273	0.018	ppbV #	9
19) methylene chloride	6.992	49	4055	0.327	ppbV	100
20) 3-chloropropene	7.130	41	178M4	0.016	ppbV	
21) carbon disulfide	7.286	76	571	0.020	ppbV #	1
22) Freon 113	7.328	101	397	0.025	ppbV	98
23) trans-1,2-dichloroethene	8.125	61	253	0.021	ppbV	94
24) 1,1-dichloroethane	8.358	63	305	0.021	ppbV #	74

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322154\_Ev2.D  
 Acq On : 16 May 2022 9:15 PM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-SIMSTD0.02  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 16:59:25 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 14:26:18 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\r322160\_Ev2.D  
 Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
25) MTBE	8.492	73	361	0.016	ppbV	#	64
26) vinyl acetate	8.575	43	828M4	0.054	ppbV		
27) 2-butanone	8.892	43	1165	0.066	ppbV	#	92
28) cis-1,2-dichloroethene	9.367	61	227	0.020	ppbV		87
29) Ethyl Acetate	9.700	61	77M4	0.025	ppbV		
30) chloroform	9.717	83	367	0.023	ppbV	#	80
31) Tetrahydrofuran	10.233	42	253	0.024	ppbV	#	76
32) 1,2-dichloroethane	10.575	62	198	0.021	ppbV	#	63
34) hexane	9.633	57	676	0.042	ppbV	#	55
36) 1,1,1-trichloroethane	10.867	97	275	0.022	ppbV	#	71
37) benzene	11.393	78	2483	0.081	ppbV		95
38) carbon tetrachloride	11.567	117	302	0.025	ppbV		92
39) cyclohexane	11.713	56	316	0.019	ppbV	#	89
40) Dibromomethane	12.320	93	454	0.051	ppbV	#	83
41) 1,2-dichloropropane	12.353	63	233	0.023	ppbV	#	74
42) bromodichloromethane	12.580	83	298	0.019	ppbV	#	94
43) 1,4-dioxane	12.687	88	264	0.042	ppbV	#	61
44) trichloroethene	12.633	130	239	0.017	ppbV		98
45) 2,2,4-trimethylpentane	12.687	57	1810	0.037	ppbV	#	87
46) heptane	13.000	43	488	0.027	ppbV		96
47) cis-1,3-dichloropropene	14.300	75	159M4	0.012	ppbV		
48) 4-methyl-2-pentanone	13.742	43	256	0.012	ppbV	#	87
49) trans-1,3-dichloropropene	13.650	75	266	0.019	ppbV	#	54
50) 1,1,2-trichloroethane	14.483	97	214	0.020	ppbV	#	92
52) toluene	14.792	91	1609	0.048	ppbV		97
54) 2-hexanone	15.133	43	230M4	0.012	ppbV		
55) dibromochloromethane	15.233	129	273	0.017	ppbV	#	90
56) 1,2-dibromoethane	15.492	107	320	0.019	ppbV		94
57) tetrachloroethene	15.958	166	450	0.026	ppbV	#	89
58) 1,1,1,2-tetrachloroethane	16.600	131	303	0.023	ppbV	#	90
59) chlorobenzene	16.617	112	710	0.024	ppbV		92
60) ethylbenzene	16.967	91	792	0.020	ppbV		99
61) m+p-xylene	17.133	91	1300	0.038	ppbV		95
62) bromoform	17.200	173	257	0.017	ppbV	#	84
63) styrene	17.467	104	579	0.019	ppbV	#	84
64) 1,1,2,2-tetrachloroethane	17.558	83	509M4	0.020	ppbV		
65) o-xylene	17.558	91	705	0.020	ppbV		92
66) 1,2,3-Trichloropropane	17.675	75	391	0.019	ppbV	#	81
68) isopropylbenzene	18.067	105	853	0.017	ppbV		91
69) Bromobenzene	18.142	77	444	0.016	ppbV		84

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322154\_Ev2.D  
 Acq On : 16 May 2022 9:15 PM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-SIMSTD0.02  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 16:59:25 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 14:26:18 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\r322160\_Ev2.D  
 Sub List : Default-ICV-AP2 - All compounds listed

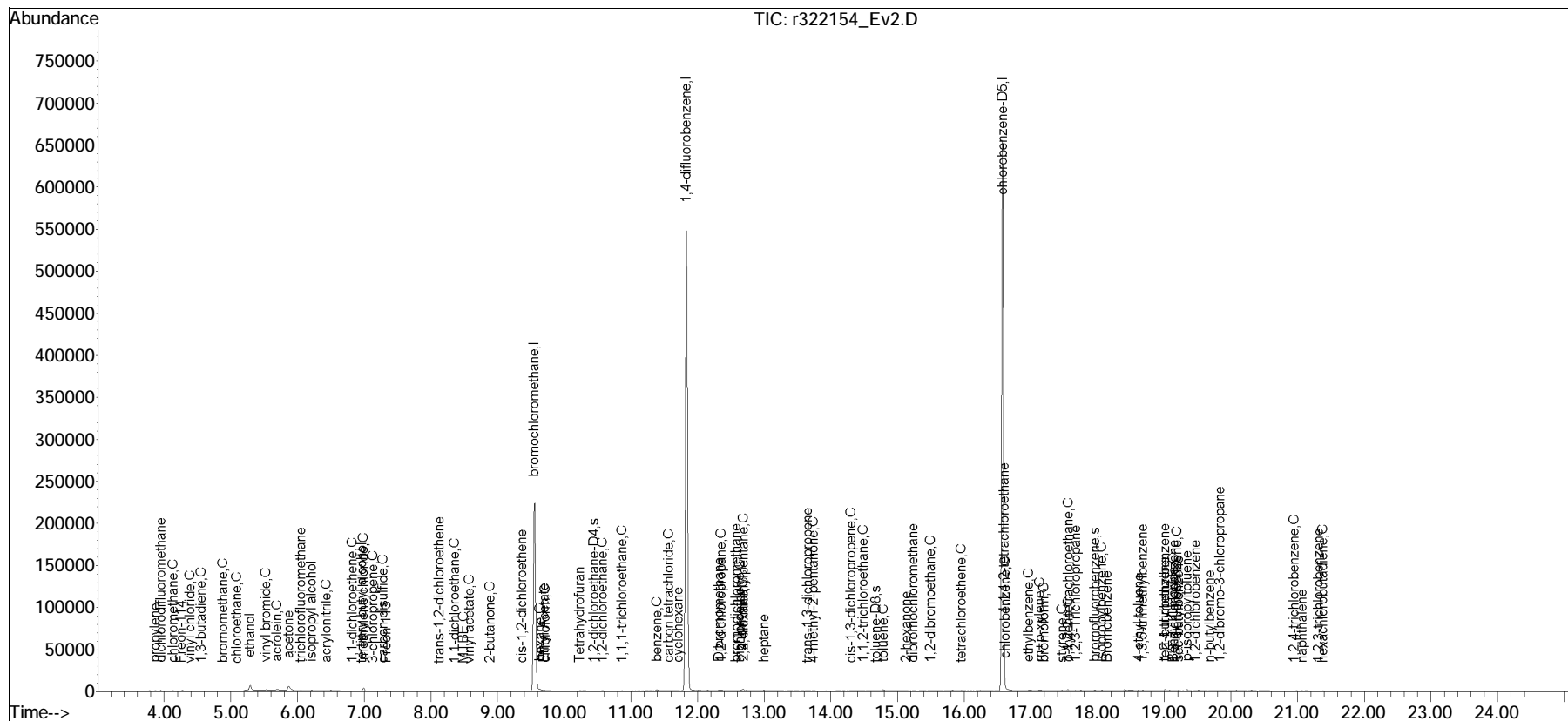
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
70) 4-ethyl toluene	18.617	105	894	0.017	ppbV	#	91
71) 1,3,5-trimethylbenzene	18.675	105	557	0.012	ppbV	#	97
72) tert-butylbenzene	19.008	119	733	0.015	ppbV	#	87
73) 1,2,4-trimethylbenzene	19.008	105	663	0.015	ppbV		97
74) Benzyl Chloride	19.133	91	179	0.008	ppbV	#	62
75) 1,3-dichlorobenzene	19.142	146	470	0.014	ppbV		93
76) 1,4-dichlorobenzene	19.192	146	470M4	0.014	ppbV		
77) sec-butylbenzene	19.217	105	1003	0.015	ppbV		97
78) p-isopropyltoluene	19.342	119	789	0.014	ppbV		94
79) 1,2-dichlorobenzene	19.467	146	566	0.018	ppbV	#	85
80) n-butylbenzene	19.683	91	593	0.012	ppbV		89
81) 1,2-dibromo-3-chloropr...	19.833	75	192	0.015	ppbV	#	72
82) 1,2,4-trichlorobenzene	20.950	180	370	0.014	ppbV	#	62
83) naphthalene	21.067	128	1204	0.018	ppbV	#	77
84) 1,2,3-trichlorobenzene	21.317	180	389	0.015	ppbV	#	83
85) hexachlorobutadiene	21.375	225	463	0.019	ppbV	#	83

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

Sub List : Default-ICV-AP2 - All compounds listed16SIM\_I\r322160\_Ev2.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
Data File : r322154\_Ev2.D  
Acq On : 16 May 2022 9:15 PM  
Operator : AIRPIANO3:TS  
Sample : ITO15-SIMSTD0.02  
Misc : WG1639637  
ALS Vial : 0 Sample Multiplier: 1

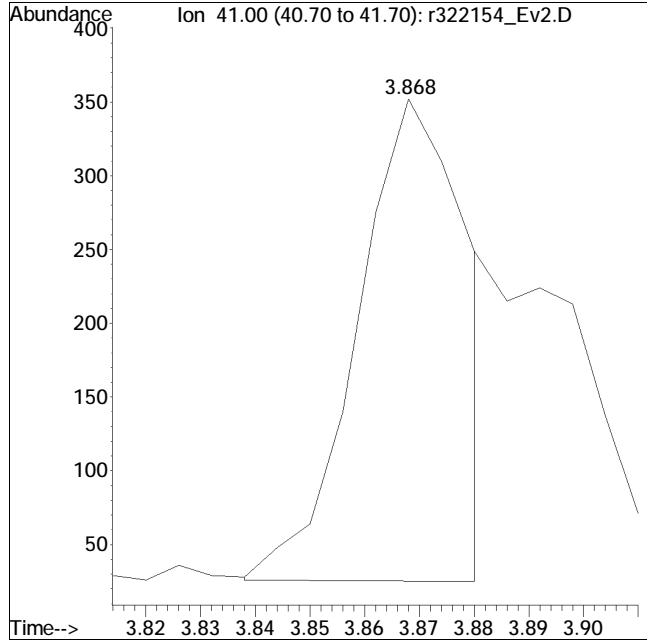
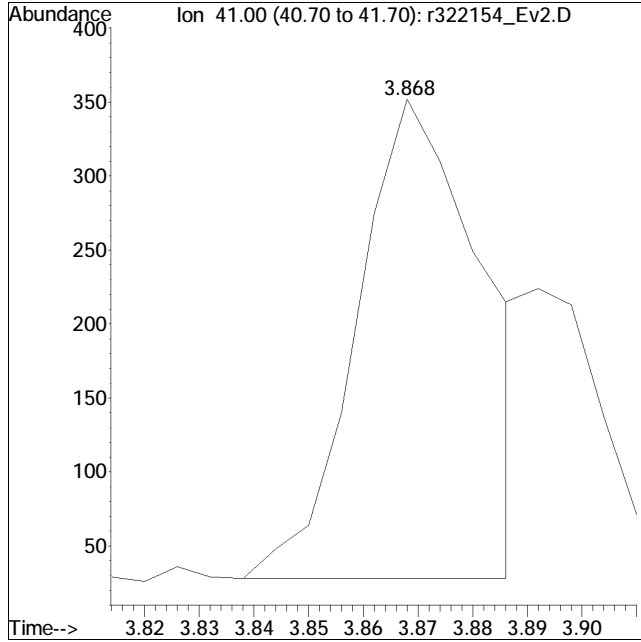
Quant Time: May 17 16:59:25 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 14:26:18 2022  
Response via : Initial Calibration



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322154\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/16/2020 0:9: 5 Instrument :  
Sample : ITO15-SIMSTD0.02 Quant Date : 5/17/2022 2:26 pm

Compound #2: propylene



Original Peak Response = 514

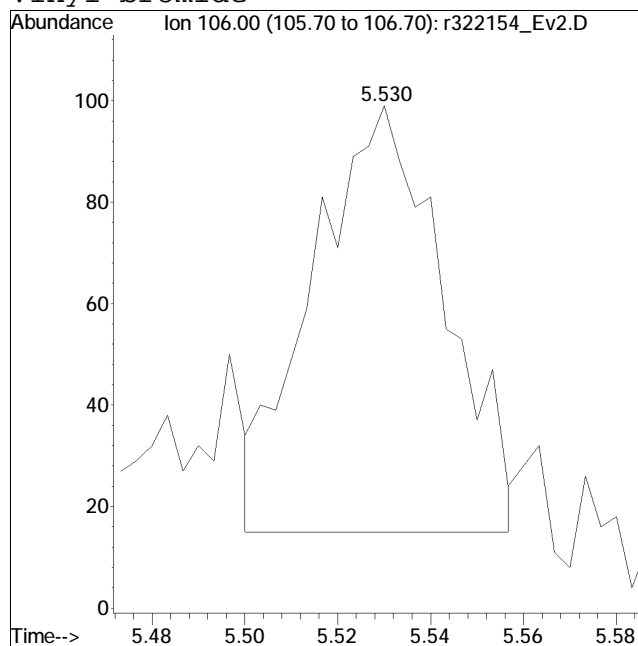
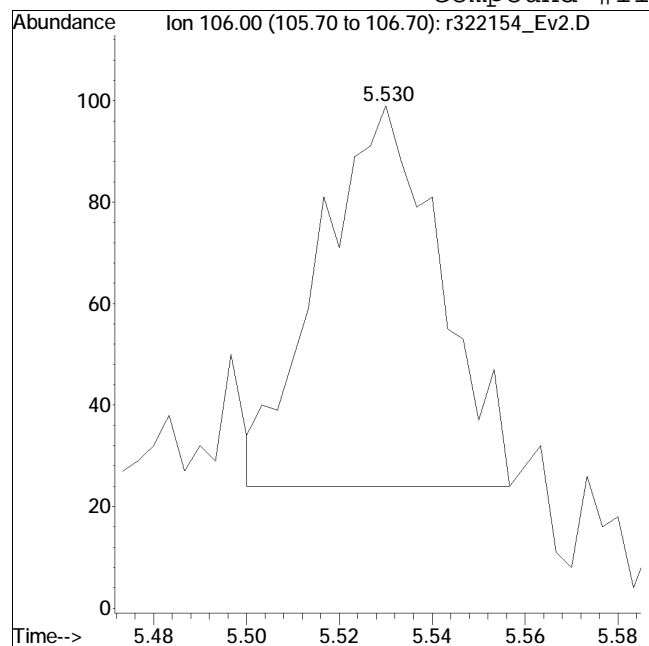
Manual Peak Response = 453 M6

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

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322154\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/16/2020 0:9: 5 Instrument :  
Sample : ITO15-SIMSTD0.02 Quant Date : 5/17/2022 2:26 pm

Compound #11: vinyl bromide



Original Peak Response = 135

Manual Peak Response = 165 M4

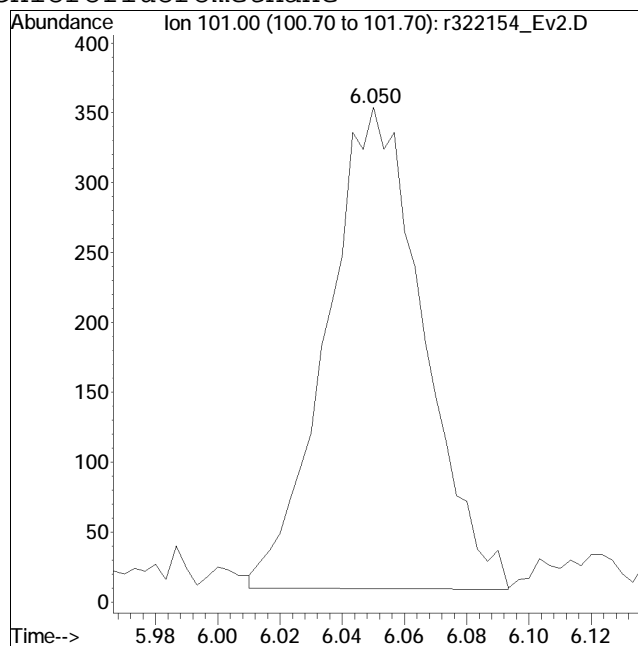
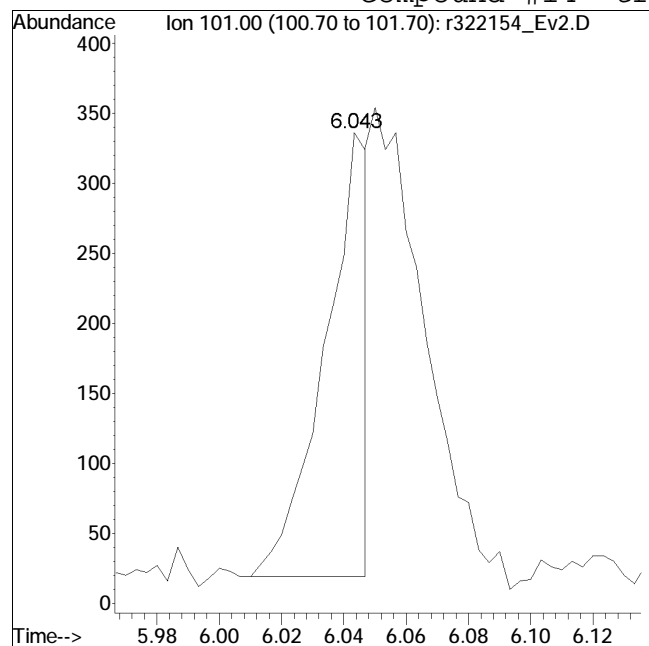
M4 = Poor automated baseline construction.



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322154\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/16/2020 0:9: 5 Instrument :  
Sample : ITO15-SIMSTD0.02 Quant Date : 5/17/2022 2:26 pm

Compound #14: trichlorofluoromethane



Original Peak Response = 300

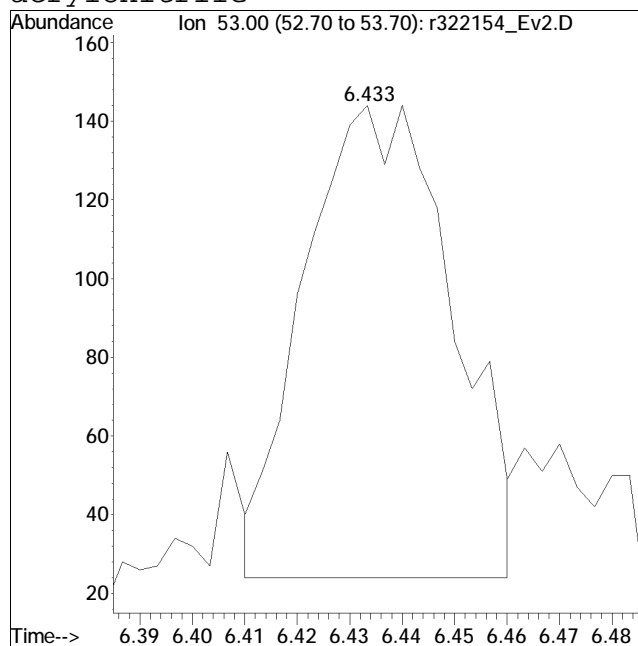
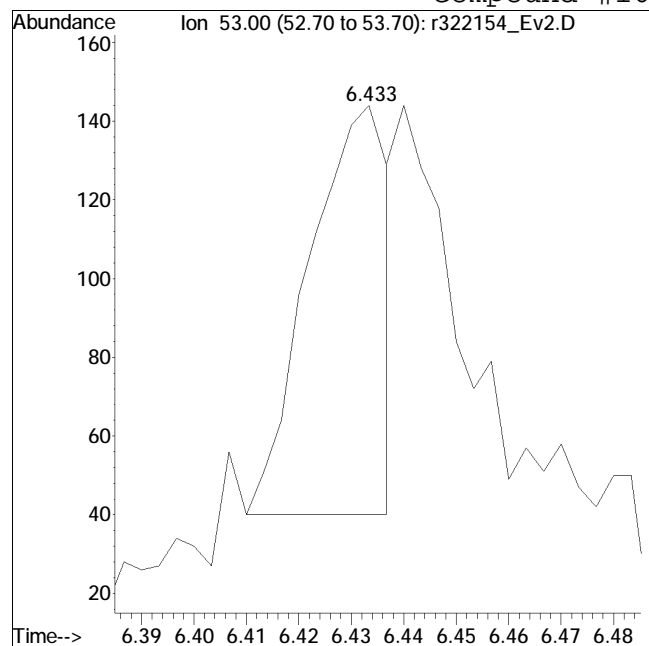
Manual Peak Response = 740 M4

M4 = Poor automated baseline construction.

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322154\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/16/2020 0:9: 5 Instrument :  
Sample : ITO15-SIMSTD0.02 Quant Date : 5/17/2022 2:26 pm

Compound #16: acrylonitrile



Original Peak Response = 108

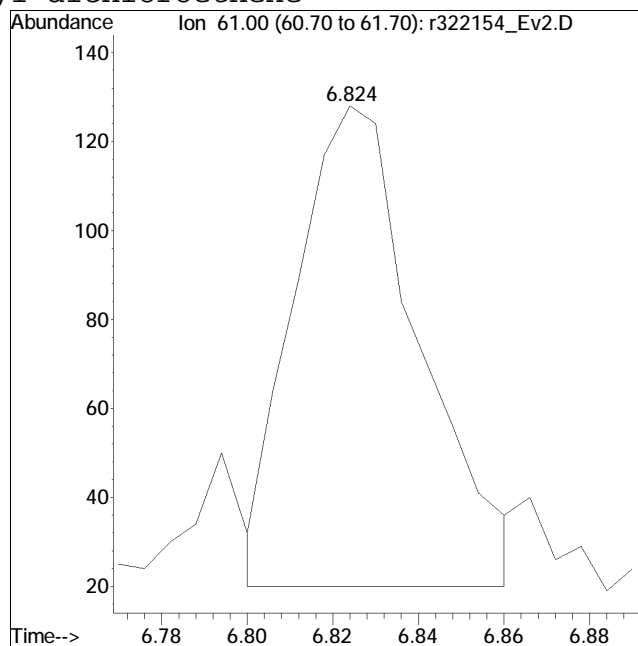
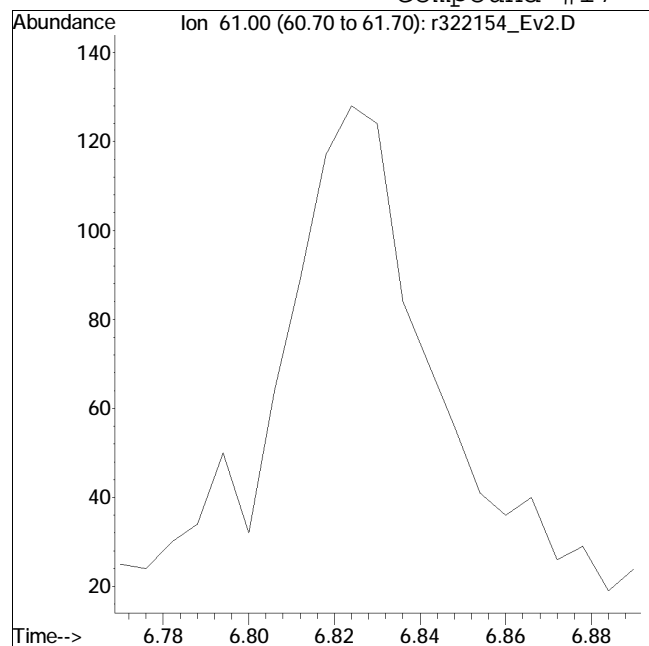
Manual Peak Response = 235 M4

M4 = Poor automated baseline construction.

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322154\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/16/2020 0:9: 5 Instrument :  
Sample : ITO15-SIMSTD0.02 Quant Date : 5/17/2022 2:26 pm

Compound #17: 1,1-dichloroethene



Original Peak Response =

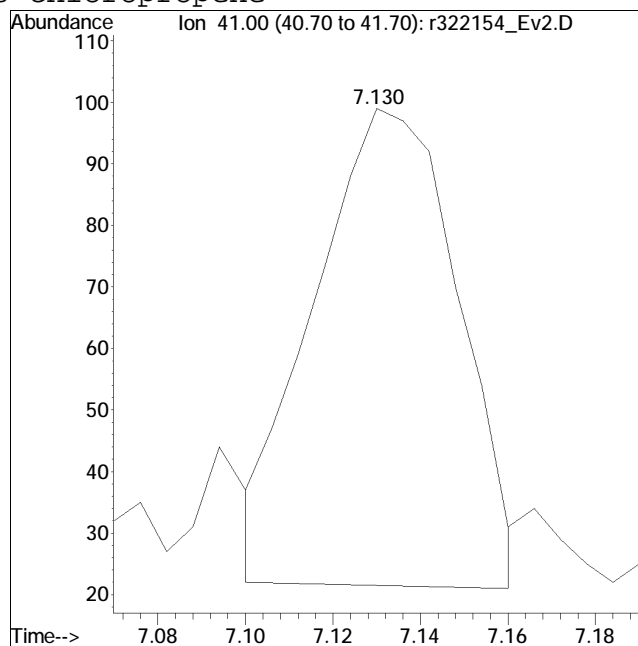
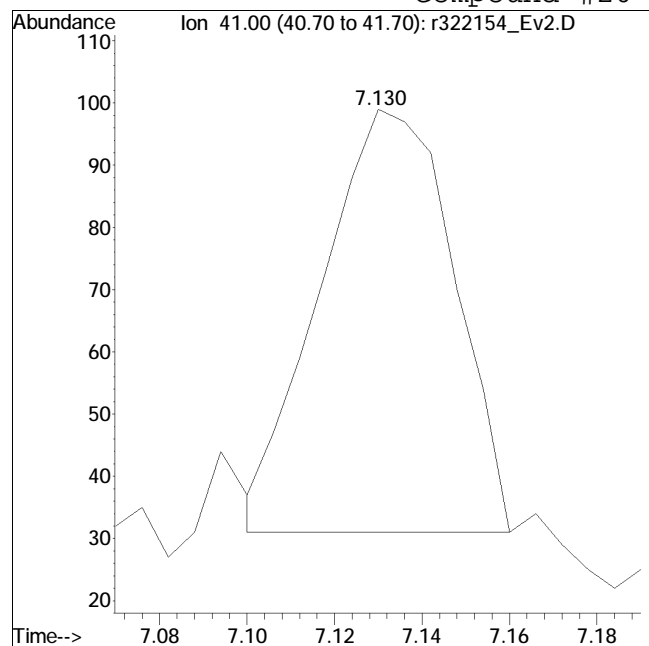
Manual Peak Response = 219 M4

M4 = Poor automated baseline construction.

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322154\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/16/2020 0:9: 5 Instrument :  
Sample : ITO15-SIMSTD0.02 Quant Date : 5/17/2022 2:26 pm

Compound #20: 3-chloropropene



Original Peak Response = 144

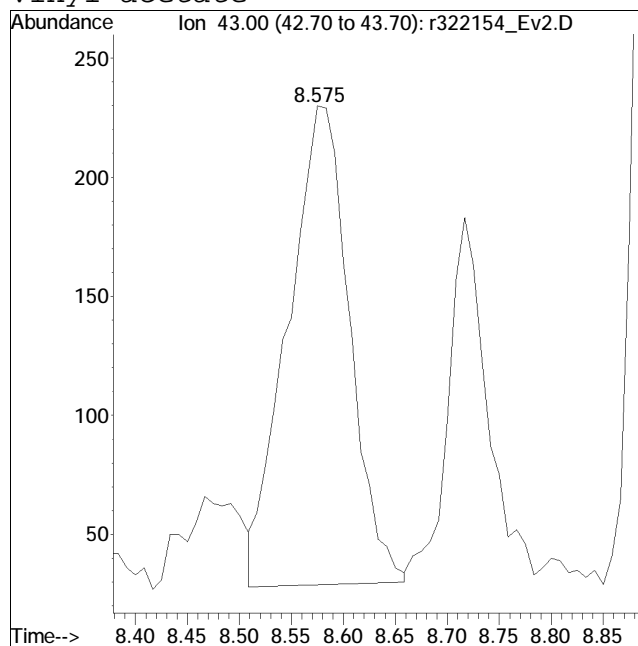
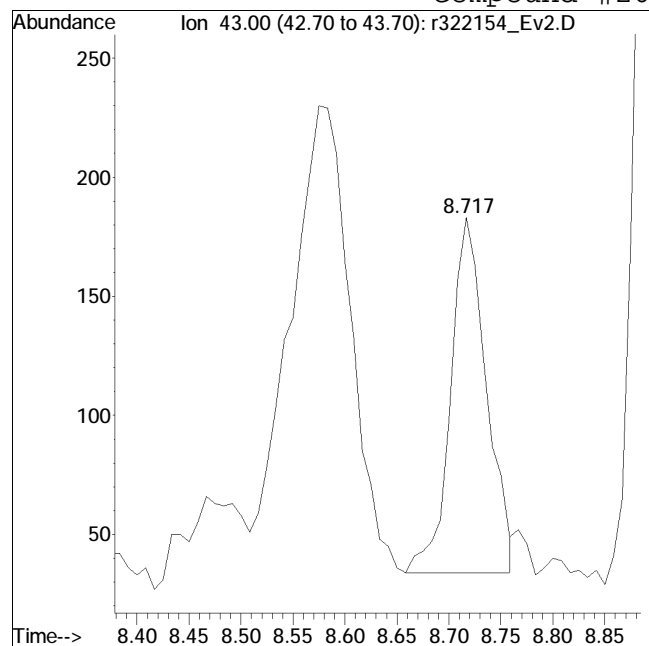
Manual Peak Response = 178 M4

M4 = Poor automated baseline construction.

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322154\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/16/2020 0:9: 5 Instrument :  
Sample : ITO15-SIMSTD0.02 Quant Date : 5/17/2022 2:26 pm

Compound #26: vinyl acetate



Original Peak Response = 357

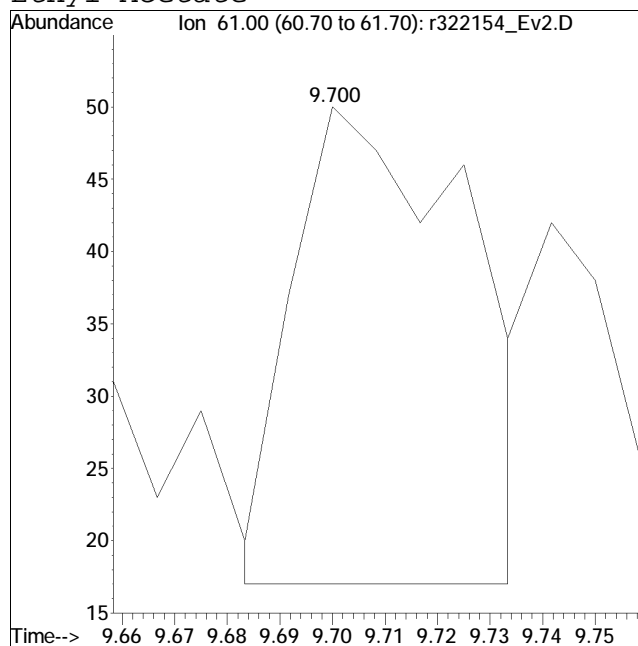
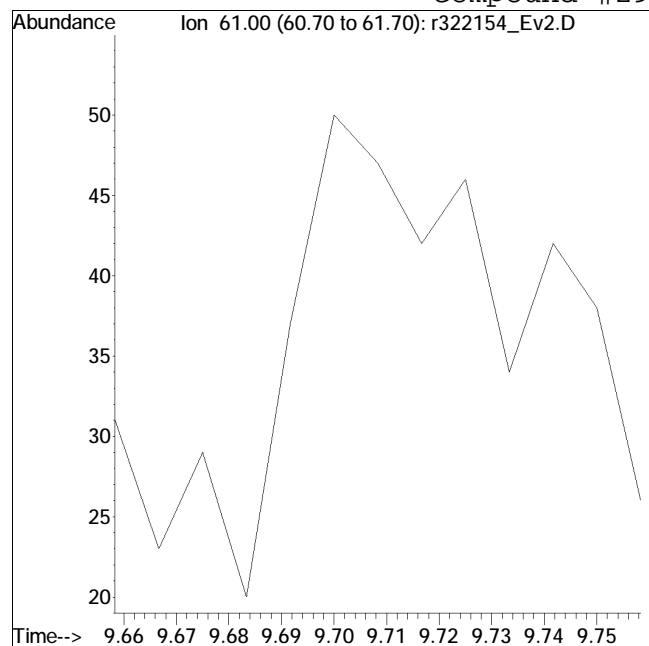
Manual Peak Response = 828 M4

M4 = Poor automated baseline construction.

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322154\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/16/2020 0:9: 5 Instrument :  
Sample : ITO15-SIMSTD0.02 Quant Date : 5/17/2022 2:26 pm

Compound #29: Ethyl Acetate



Original Peak Response = 0

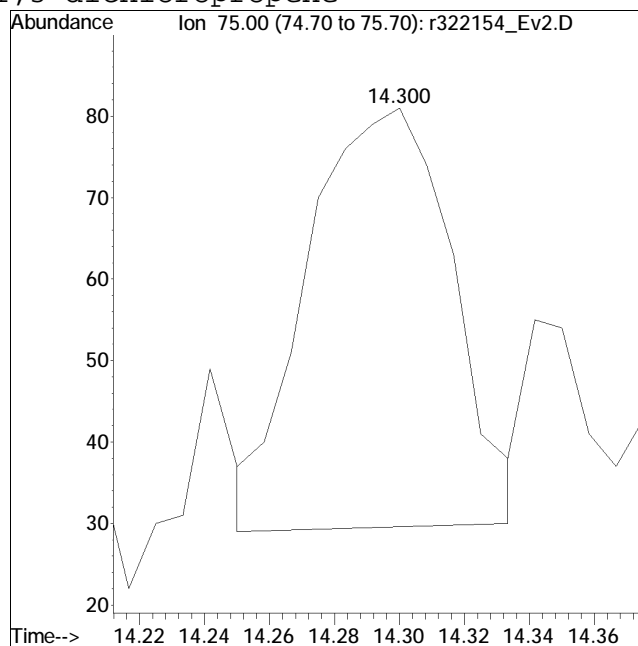
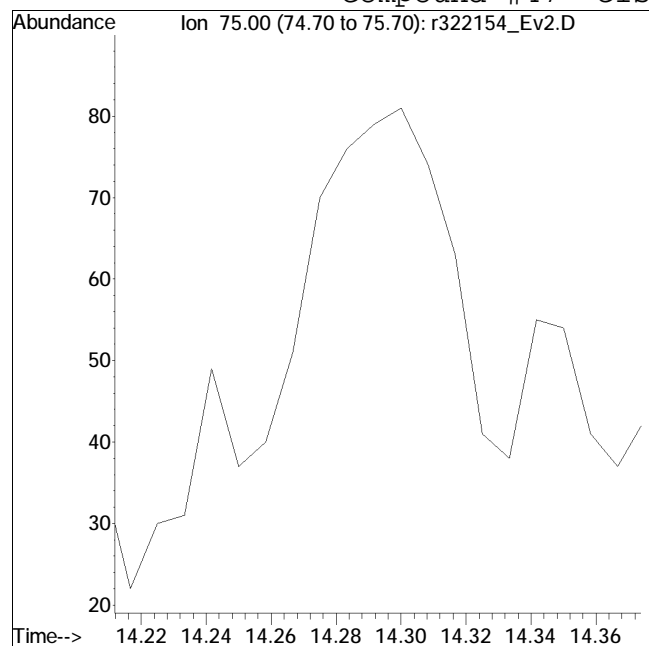
Manual Peak Response = 77 M4

M4 = Poor automated baseline construction.

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322154\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/16/2020 0:9: 5 Instrument :  
Sample : ITO15-SIMSTD0.02 Quant Date : 5/17/2022 2:26 pm

Compound #47: cis-1,3-dichloropropene



Original Peak Response =

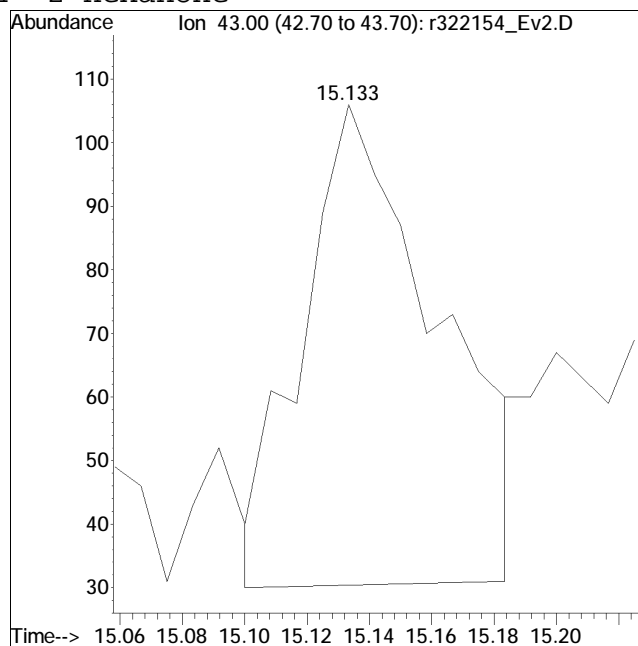
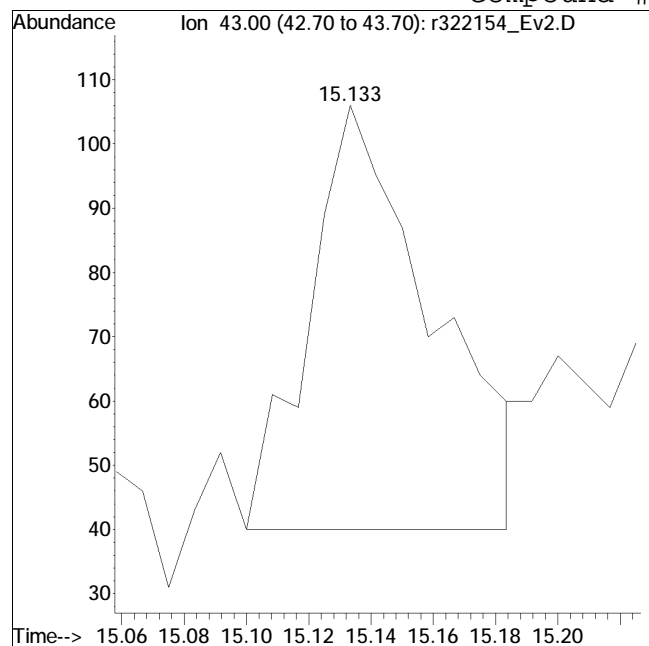
Manual Peak Response = 159 M4

M4 = Poor automated baseline construction.

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322154\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/16/2020 0:9: 5 Instrument :  
Sample : ITO15-SIMSTD0.02 Quant Date : 5/17/2022 2:26 pm

Compound #54: 2-hexanone



Original Peak Response = 182

Manual Peak Response = 230 M4

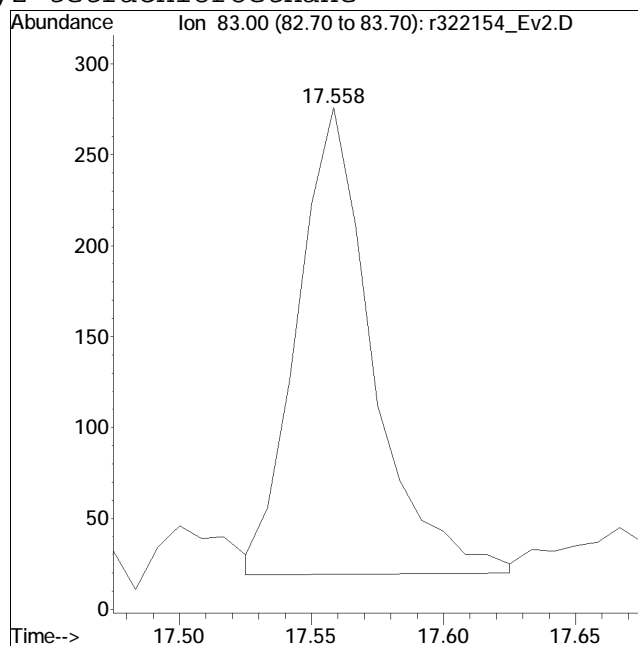
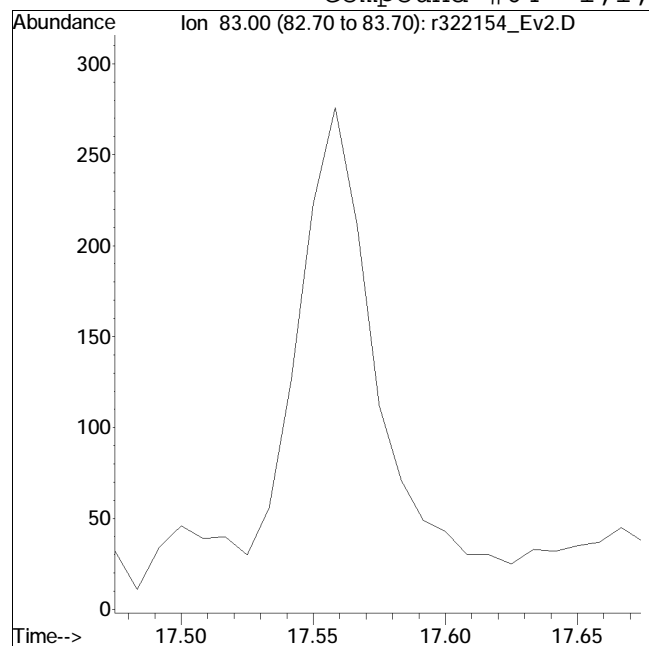
M4 = Poor automated baseline construction.



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322154\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/16/2020 0:9: 5 Instrument :  
Sample : ITO15-SIMSTD0.02 Quant Date : 5/17/2022 2:26 pm

Compound #64: 1,1,2,2-tetrachloroethane



Original Peak Response =

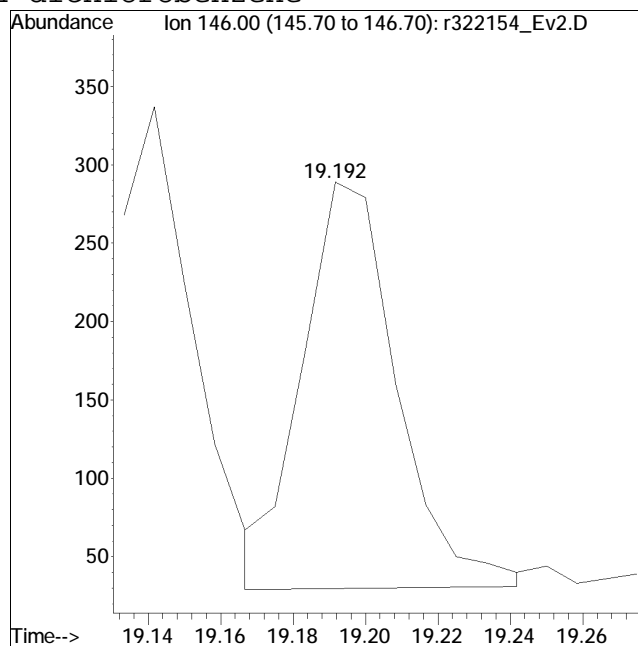
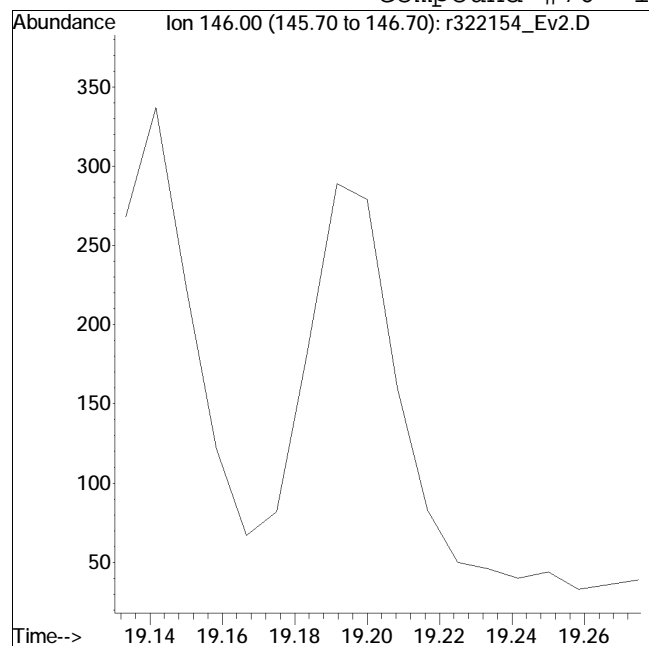
Manual Peak Response = 509 M4

M4 = Poor automated baseline construction.

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322154\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/16/2020 0:9: 5 Instrument :  
Sample : ITO15-SIMSTD0.02 Quant Date : 5/17/2022 2:26 pm

Compound #76: 1,4-dichlorobenzene



Original Peak Response =

Manual Peak Response = 470 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322155\_Ev2.D  
 Acq On : 16 May 2022 9:52 PM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-SIMSTD0.05  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 17:08:32 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 14:26:18 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\r322160\_Ev2.D  
 Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) bromochloromethane	9.558	49	235219	10.000	ppbV	0.00
Standard Area =	249837		Recovery =	94.15%		
33) 1,4-difluorobenzene	11.833	114	720225	10.000	ppbV	0.00
Standard Area =	791968		Recovery =	90.94%		
51) chlorobenzene-D5	16.575	54	107417	10.000	ppbV	0.00
Standard Area =	120616		Recovery =	89.06%		
<b>System Monitoring Compounds</b>						
35) 1,2-dichloroethane-D4	10.450	65	174	0.008	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	0.08%#		
53) toluene-D8	14.683	98	503	0.007	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	0.07%#		
67) bromofluorobenzene	17.958	95	423	0.009	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	0.09%#		
<b>Target Compounds</b>						
						Qvalue
2) propylene	3.874	41	1034	0.156	ppbV	99
3) dichlorodifluoromethane	3.952	85	3172	0.195	ppbV	99
4) chloromethane	4.138	50	1806	0.263	ppbV	98
5) Freon-114	4.264	85	1089	0.052	ppbV	98
6) vinyl chloride	4.396	62	427	0.045	ppbV	93
7) 1,3-butadiene	4.558	54	336	0.045	ppbV	90
8) bromomethane	4.882	94	526	0.069	ppbV	99
9) chloroethane	5.104	64	312	0.067	ppbV #	68
10) ethanol	5.293	31	15048	1.951	ppbV	100
11) vinyl bromide	5.530	106	308	0.041	ppbV	96
12) acrolein	5.693	56	1678	0.362	ppbV	96
13) acetone	5.867	43	13268	1.400	ppbV #	96
14) trichlorofluoromethane	6.053	101	1616	0.107	ppbV	96
15) isopropyl alcohol	6.213	45	3239	0.260	ppbV #	92
16) acrylonitrile	6.437	53	572M4	0.077	ppbV	
17) 1,1-dichloroethene	6.830	61	512	0.043	ppbV #	90
18) tertiary butyl alcohol	6.968	59	658	0.044	ppbV #	1
19) methylene chloride	6.998	49	9754	0.799	ppbV	98
20) 3-chloropropene	7.136	41	477	0.044	ppbV	88
21) carbon disulfide	7.292	76	1424	0.052	ppbV #	1
22) Freon 113	7.334	101	1100	0.070	ppbV	98
23) trans-1,2-dichloroethene	8.133	61	620	0.051	ppbV	90
24) 1,1-dichloroethane	8.367	63	711	0.049	ppbV	90

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322155\_Ev2.D  
 Acq On : 16 May 2022 9:52 PM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-SIMSTD0.05  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 17:08:32 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 14:26:18 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\r322160\_Ev2.D  
 Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
25) MTBE	8.483	73	953	0.043	ppbV	#	80
26) vinyl acetate	8.583	43	1426M4	0.095	ppbV		
27) 2-butanone	8.892	43	2550	0.147	ppbV	#	92
28) cis-1,2-dichloroethene	9.367	61	501	0.046	ppbV		88
29) Ethyl Acetate	9.700	61	178M4	0.060	ppbV		
30) chloroform	9.725	83	768	0.050	ppbV	#	87
31) Tetrahydrofuran	10.233	42	578	0.056	ppbV	#	82
32) 1,2-dichloroethane	10.575	62	511	0.055	ppbV	#	76
34) hexane	9.633	57	1575	0.100	ppbV	#	54
36) 1,1,1-trichloroethane	10.867	97	563	0.046	ppbV	#	85
37) benzene	11.393	78	4299	0.143	ppbV		98
38) carbon tetrachloride	11.573	117	808	0.068	ppbV	#	88
39) cyclohexane	11.713	56	820	0.051	ppbV		94
40) Dibromomethane	12.327	93	702	0.081	ppbV	#	95
41) 1,2-dichloropropane	12.360	63	490	0.050	ppbV		86
42) bromodichloromethane	12.587	83	795	0.051	ppbV	#	97
43) 1,4-dioxane	12.680	88	410	0.066	ppbV	#	62
44) trichloroethene	12.640	130	740	0.055	ppbV		95
45) 2,2,4-trimethylpentane	12.687	57	3418	0.071	ppbV	#	93
46) heptane	13.000	43	1057M4	0.060	ppbV		
47) cis-1,3-dichloropropene	14.283	75	353	0.028	ppbV	#	73
48) 4-methyl-2-pentanone	13.733	43	810	0.039	ppbV	#	92
49) trans-1,3-dichloropropene	13.658	75	572	0.041	ppbV	#	89
50) 1,1,2-trichloroethane	14.483	97	462	0.044	ppbV		95
52) toluene	14.792	91	3869	0.120	ppbV		97
54) 2-hexanone	15.125	43	583	0.030	ppbV		94
55) dibromochloromethane	15.242	129	665	0.042	ppbV	#	94
56) 1,2-dibromoethane	15.492	107	856	0.052	ppbV		93
57) tetrachloroethene	15.958	166	917	0.054	ppbV	#	96
58) 1,1,1,2-tetrachloroethane	16.608	131	600	0.048	ppbV		98
59) chlorobenzene	16.617	112	1575	0.055	ppbV		96
60) ethylbenzene	16.967	91	2044	0.052	ppbV		93
61) m+p-xylene	17.133	91	3179	0.096	ppbV		99
62) bromoform	17.208	173	637	0.043	ppbV		94
63) styrene	17.467	104	1315	0.044	ppbV		95
64) 1,1,2,2-tetrachloroethane	17.558	83	1141	0.047	ppbV		96
65) o-xylene	17.550	91	1665	0.050	ppbV		100
66) 1,2,3-Trichloropropane	17.675	75	995	0.049	ppbV	#	94
68) isopropylbenzene	18.067	105	2079	0.042	ppbV		98
69) Bromobenzene	18.142	77	1181	0.044	ppbV		92

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322155\_Ev2.D  
 Acq On : 16 May 2022 9:52 PM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-SIMSTD0.05  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 17:08:32 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 14:26:18 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\r322160\_Ev2.D  
 Sub List : Default-ICV-AP2 - All compounds listed

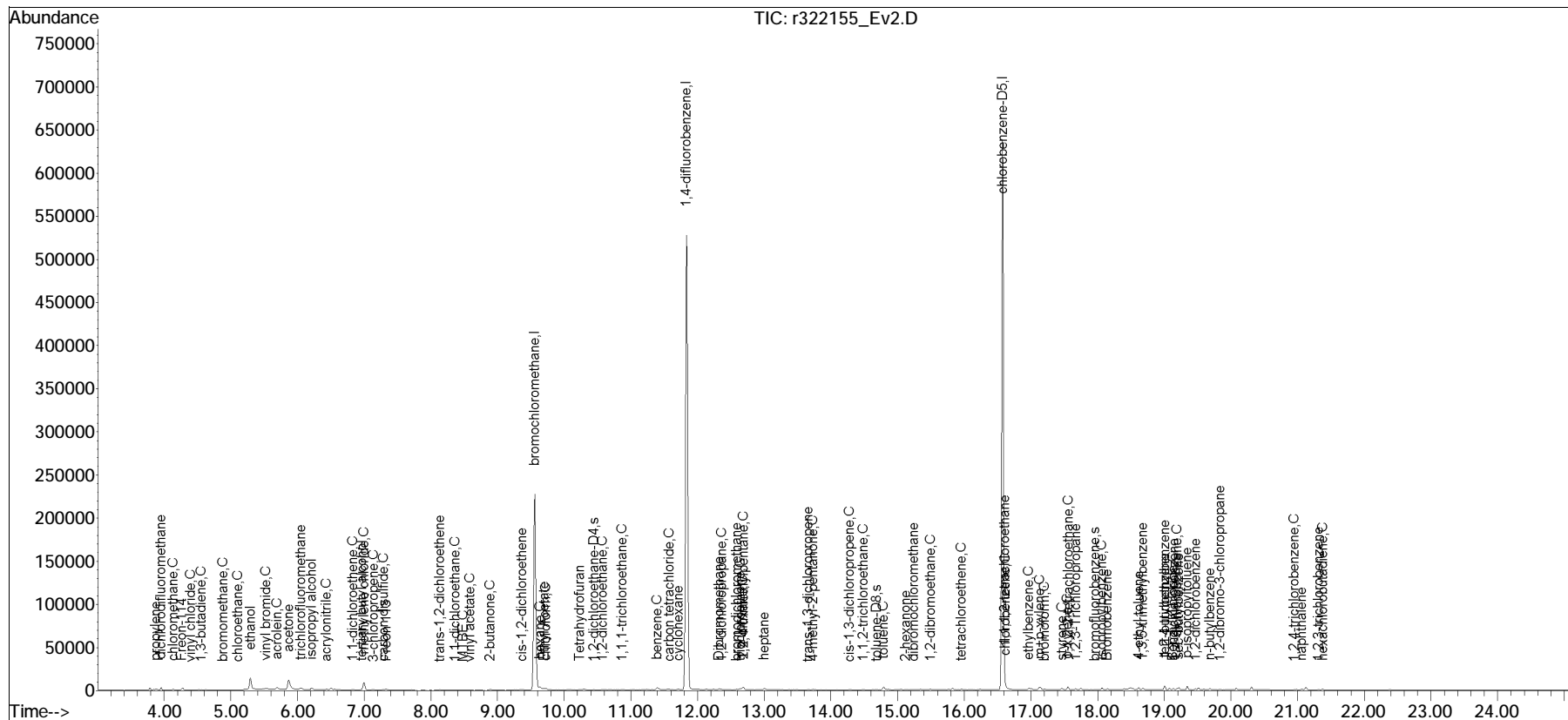
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
70) 4-ethyl toluene	18.617	105	2152	0.041	ppbV	#	97
71) 1,3,5-trimethylbenzene	18.675	105	1352	0.030	ppbV	#	98
72) tert-butylbenzene	19.008	119	2013	0.043	ppbV		94
73) 1,2,4-trimethylbenzene	19.008	105	1692	0.038	ppbV		96
74) Benzyl Chloride	19.125	91	449	0.021	ppbV		92
75) 1,3-dichlorobenzene	19.142	146	1318	0.040	ppbV		96
76) 1,4-dichlorobenzene	19.192	146	1409	0.042	ppbV		98
77) sec-butylbenzene	19.217	105	2601	0.039	ppbV		97
78) p-isopropyltoluene	19.342	119	2158	0.038	ppbV		98
79) 1,2-dichlorobenzene	19.467	146	1417	0.046	ppbV		91
80) n-butylbenzene	19.683	91	1779	0.039	ppbV		91
81) 1,2-dibromo-3-chloropr...	19.833	75	378	0.031	ppbV	#	82
82) 1,2,4-trichlorobenzene	20.950	180	1005	0.040	ppbV	#	90
83) naphthalene	21.058	128	2697	0.041	ppbV	#	94
84) 1,2,3-trichlorobenzene	21.317	180	1162	0.046	ppbV	#	91
85) hexachlorobutadiene	21.375	225	1133	0.048	ppbV	#	94

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

Sub List : Default-ICV-AP2 - All compounds listed16SIM\_I\r322160\_Ev2.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
Data File : r322155\_Ev2.D  
Acq On : 16 May 2022 9:52 PM  
Operator : AIRPIANO3:TS  
Sample : ITO15-SIMSTD0.05  
Misc : WG1639637  
ALS Vial : 0 Sample Multiplier: 1

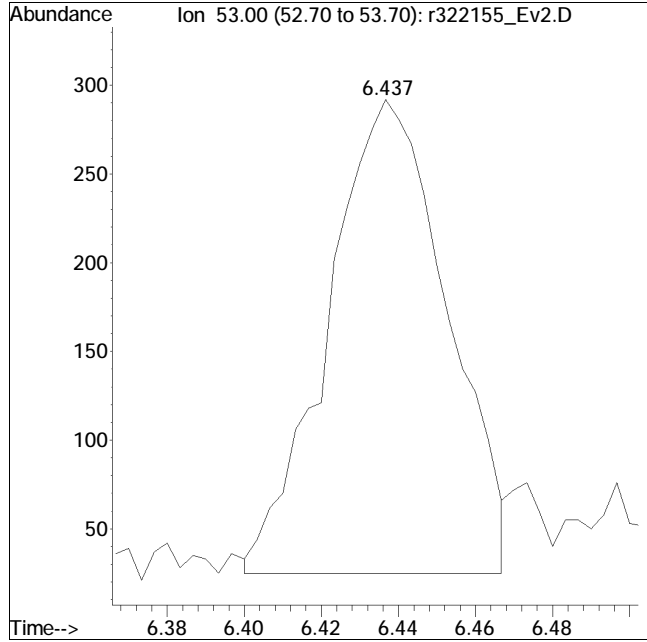
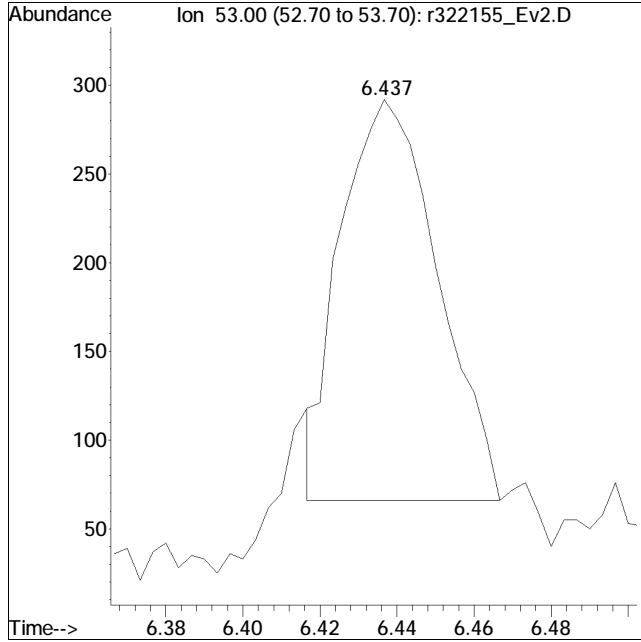
Quant Time: May 17 17:08:32 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 14:26:18 2022  
Response via : Initial Calibration



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322155\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/16/2020 0:9: 2 Instrument :  
Sample : ITO15-SIMSTD0.05 Quant Date : 5/17/2022 2:26 pm

Compound #16: acrylonitrile



Original Peak Response = 394

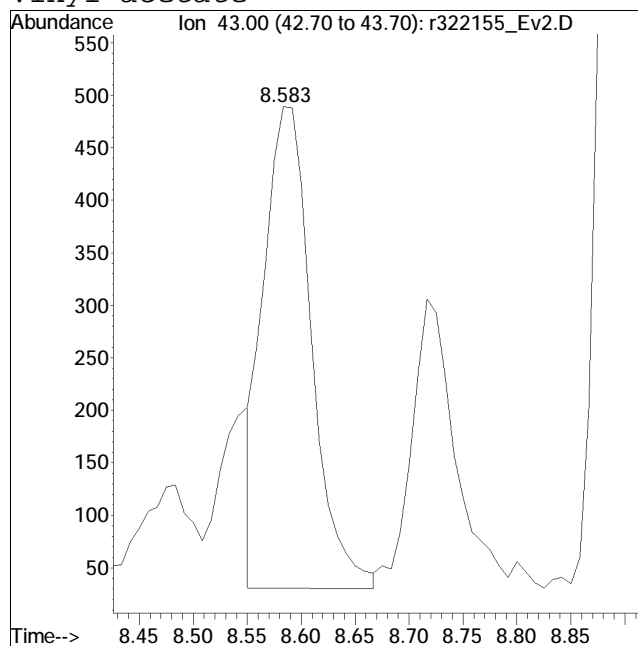
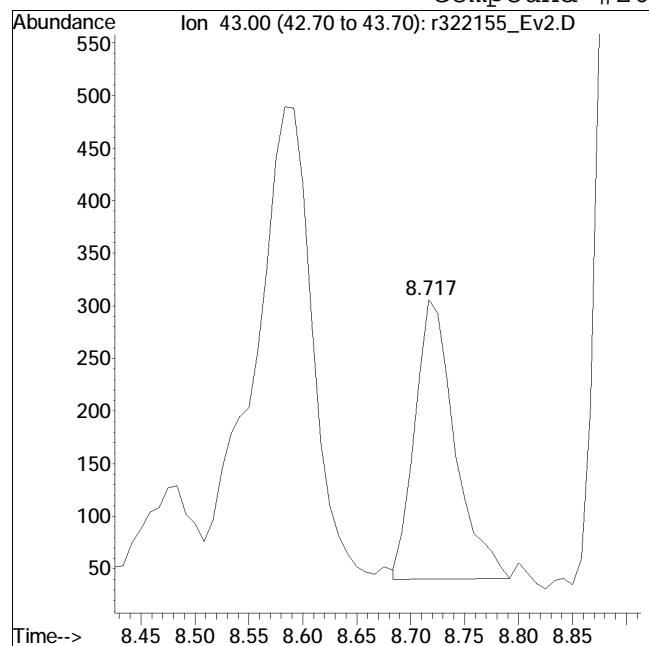
Manual Peak Response = 572 M4

M4 = Poor automated baseline construction.

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322155\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/16/2020 0:9: 2 Instrument :  
Sample : ITO15-SIMSTD0.05 Quant Date : 5/17/2022 2:26 pm

Compound #26: vinyl acetate



Original Peak Response = 683

Manual Peak Response = 1426 M4

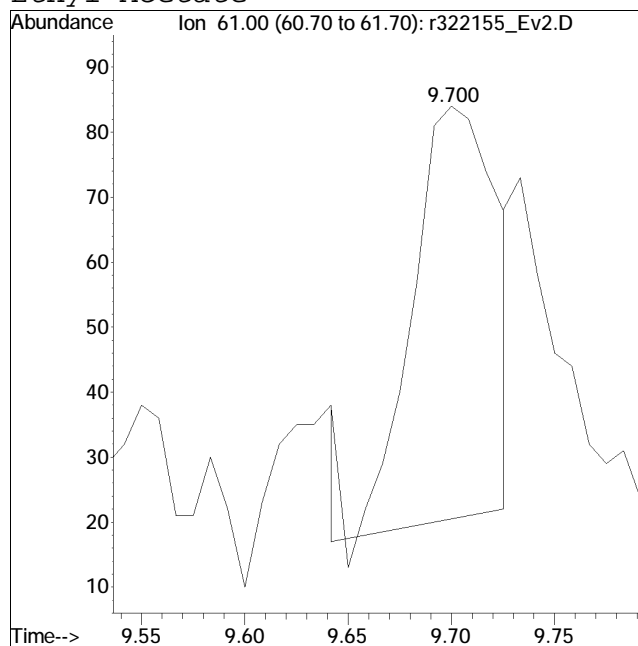
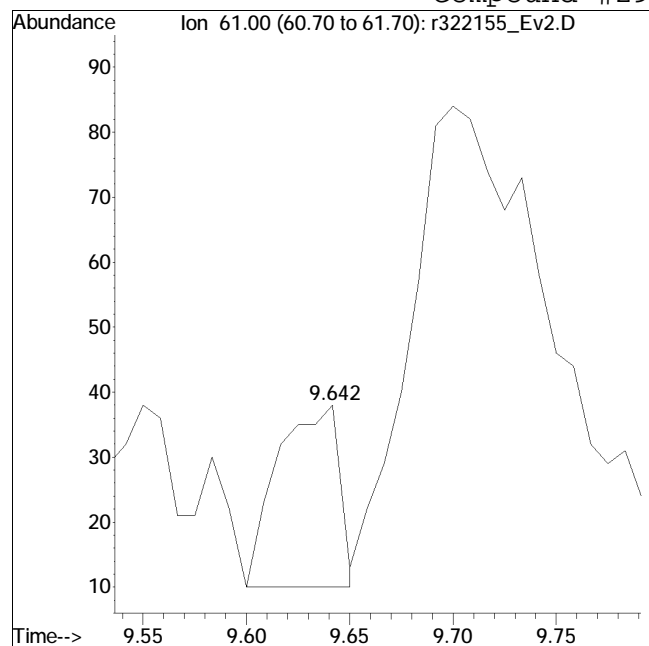
M4 = Poor automated baseline construction.



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322155\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/16/2020 0:9: 2 Instrument :  
Sample : ITO15-SIMSTD0.05 Quant Date : 5/17/2022 2:26 pm

Compound #29: Ethyl Acetate



Original Peak Response = 58

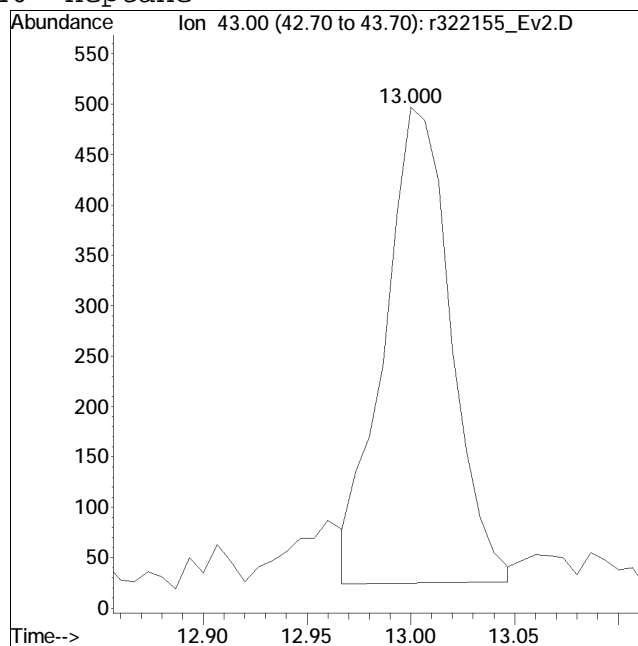
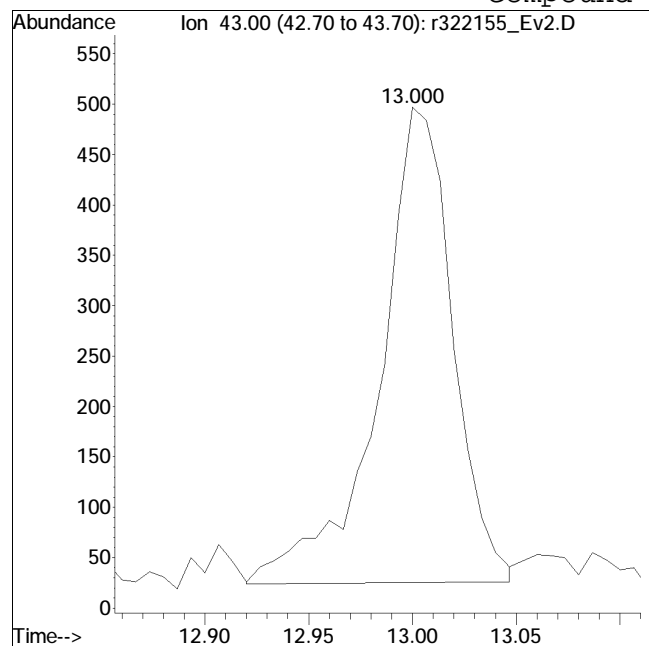
Manual Peak Response = 178 M4

M4 = Poor automated baseline construction.

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322155\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/16/2020 0:9: 2 Instrument :  
Sample : ITO15-SIMSTD0.05 Quant Date : 5/17/2022 2:26 pm

Compound #46: heptane



Original Peak Response = 1166

Manual Peak Response = 1057 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322156\_Ev2.D  
 Acq On : 16 May 2022 10:32 PM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-SIMSTD0.1  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 17:12:05 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 14:26:18 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\r322160\_Ev2.D  
 Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) bromochloromethane	9.558	49	237680	10.000	ppbV	0.00
Standard Area =	249837		Recovery =	95.13%		
33) 1,4-difluorobenzene	11.840	114	740816	10.000	ppbV	0.00
Standard Area =	791968		Recovery =	93.54%		
51) chlorobenzene-D5	16.575	54	110234	10.000	ppbV	0.00
Standard Area =	120616		Recovery =	91.39%		
<b>System Monitoring Compounds</b>						
35) 1,2-dichloroethane-D4	10.450	65	373	0.017	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	0.17%#		
53) toluene-D8	14.683	98	978	0.013	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	0.13%#		
67) bromofluorobenzene	17.958	95	592	0.013	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	0.13%#		
<b>Target Compounds</b>						
						Qvalue
2) propylene	3.874	41	1694M6	0.254	ppbV	
3) dichlorodifluoromethane	3.952	85	6396	0.390	ppbV	100
4) chloromethane	4.138	50	3555	0.513	ppbV	100
5) Freon-114	4.264	85	2092	0.099	ppbV	99
6) vinyl chloride	4.396	62	848	0.089	ppbV	90
7) 1,3-butadiene	4.564	54	621	0.083	ppbV	93
8) bromomethane	4.882	94	972	0.126	ppbV	100
9) chloroethane	5.098	64	581	0.123	ppbV #	86
10) ethanol	5.290	31	29211	3.748	ppbV	99
11) vinyl bromide	5.530	106	669	0.088	ppbV	96
12) acrolein	5.693	56	3153	0.674	ppbV	99
13) acetone	5.863	43	26544	2.771	ppbV #	99
14) trichlorofluoromethane	6.057	101	3570	0.233	ppbV	99
15) isopropyl alcohol	6.210	45	6104	0.486	ppbV #	96
16) acrylonitrile	6.437	53	1125	0.149	ppbV	98
17) 1,1-dichloroethene	6.830	61	1014	0.084	ppbV	94
18) tertiary butyl alcohol	6.956	59	1324	0.088	ppbV #	87
19) methylene chloride	6.998	49	19339	1.567	ppbV	98
20) 3-chloropropene	7.136	41	894	0.082	ppbV	96
21) carbon disulfide	7.292	76	2960	0.106	ppbV #	39
22) Freon 113	7.334	101	2151	0.136	ppbV	98
23) trans-1,2-dichloroethene	8.133	61	1198	0.098	ppbV	99
24) 1,1-dichloroethane	8.367	63	1370	0.093	ppbV	90

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322156\_Ev2.D  
 Acq On : 16 May 2022 10:32 PM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-SIMSTD0.1  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 17:12:05 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 14:26:18 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\r322160\_Ev2.D  
 Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
25) MTBE	8.483	73	1871	0.084	ppbV	#	91
26) vinyl acetate	8.592	43	2805	0.185	ppbV		94
27) 2-butanone	8.883	43	5114	0.292	ppbV		99
28) cis-1,2-dichloroethene	9.367	61	1006	0.091	ppbV		98
29) Ethyl Acetate	9.700	61	386M4	0.128	ppbV		
30) chloroform	9.725	83	1560	0.100	ppbV	#	94
31) Tetrahydrofuran	10.225	42	1136	0.110	ppbV		98
32) 1,2-dichloroethane	10.575	62	954	0.102	ppbV	#	94
34) hexane	9.633	57	3150	0.194	ppbV	#	52
36) 1,1,1-trichloroethane	10.867	97	1113	0.089	ppbV		98
37) benzene	11.400	78	7340	0.237	ppbV		96
38) carbon tetrachloride	11.573	117	1580	0.130	ppbV		94
39) cyclohexane	11.713	56	1561	0.094	ppbV		94
40) Dibromomethane	12.327	93	1110	0.125	ppbV	#	100
41) 1,2-dichloropropane	12.353	63	974	0.097	ppbV	#	94
42) bromodichloromethane	12.587	83	1503	0.094	ppbV	#	96
43) 1,4-dioxane	12.680	88	626	0.098	ppbV	#	68
44) trichloroethene	12.640	130	1302	0.094	ppbV		97
45) 2,2,4-trimethylpentane	12.687	57	6155	0.124	ppbV		97
46) heptane	13.007	43	2030	0.112	ppbV		95
47) cis-1,3-dichloropropene	14.283	75	828	0.063	ppbV		92
48) 4-methyl-2-pentanone	13.725	43	1898	0.089	ppbV		97
49) trans-1,3-dichloropropene	13.658	75	1158	0.081	ppbV	#	88
50) 1,1,2-trichloroethane	14.483	97	1021	0.094	ppbV		96
52) toluene	14.792	91	7923	0.239	ppbV		99
54) 2-hexanone	15.108	43	1346	0.068	ppbV		96
55) dibromochloromethane	15.242	129	1333	0.081	ppbV		97
56) 1,2-dibromoethane	15.492	107	1552	0.092	ppbV		100
57) tetrachloroethene	15.958	166	1777	0.103	ppbV		98
58) 1,1,1,2-tetrachloroethane	16.600	131	1136	0.088	ppbV		96
59) chlorobenzene	16.617	112	3249	0.110	ppbV		99
60) ethylbenzene	16.967	91	4094	0.102	ppbV		100
61) m+p-xylene	17.125	91	6709	0.197	ppbV		100
62) bromoform	17.208	173	1199	0.079	ppbV		99
63) styrene	17.458	104	2621	0.086	ppbV		99
64) 1,1,2,2-tetrachloroethane	17.558	83	2316	0.092	ppbV		98
65) o-xylene	17.550	91	3402	0.099	ppbV		99
66) 1,2,3-Trichloropropane	17.667	75	1940	0.093	ppbV	#	94
68) isopropylbenzene	18.067	105	4363	0.086	ppbV		100
69) Bromobenzene	18.142	77	2523	0.091	ppbV		98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322156\_Ev2.D  
 Acq On : 16 May 2022 10:32 PM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-SIMSTD0.1  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 17:12:05 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 14:26:18 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\r322160\_Ev2.D  
 Sub List : Default-ICV-AP2 - All compounds listed

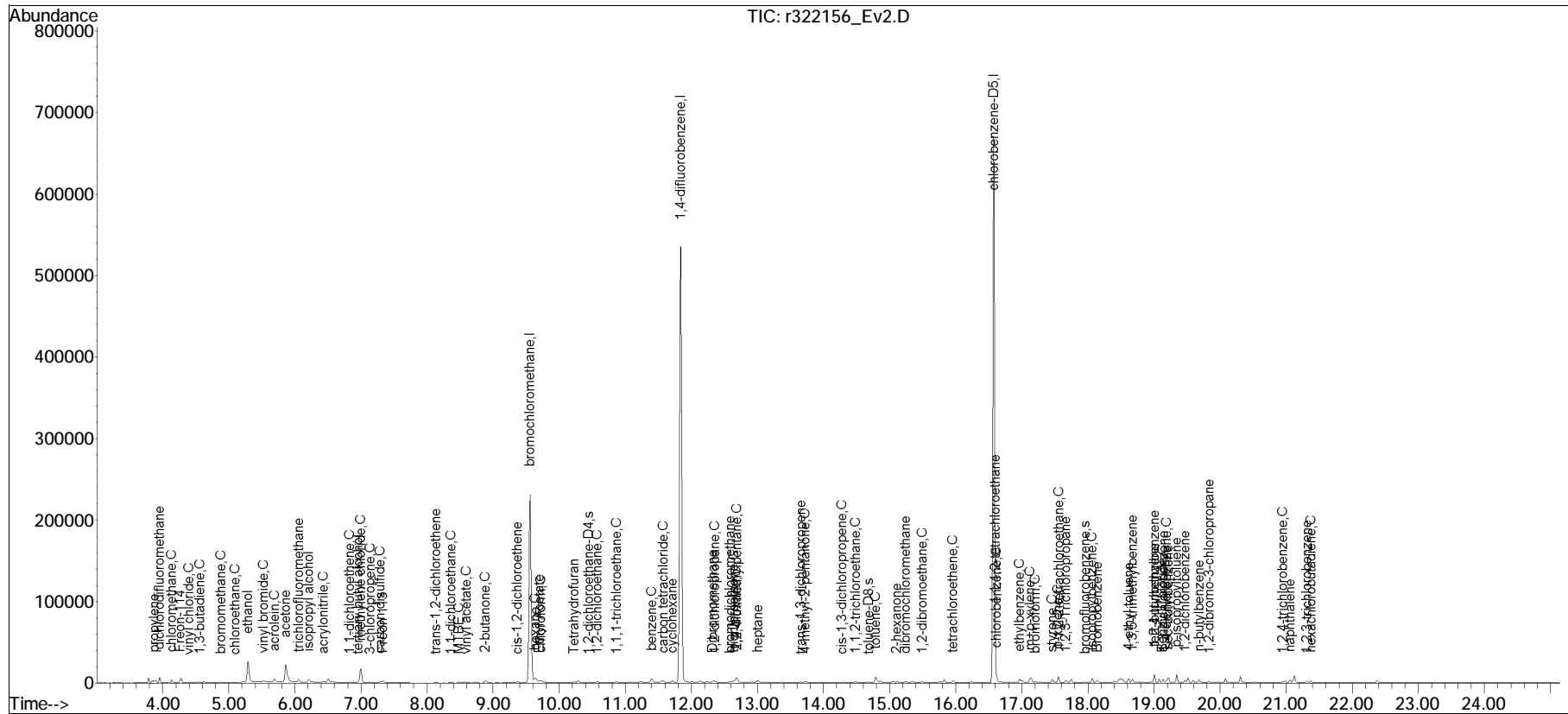
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
70) 4-ethyl toluene	18.617	105	4459	0.083	ppbV		99
71) 1,3,5-trimethylbenzene	18.675	105	2874	0.062	ppbV #		95
72) tert-butylbenzene	19.008	119	4121	0.086	ppbV		97
73) 1,2,4-trimethylbenzene	19.008	105	3558	0.078	ppbV		97
74) Benzyl Chloride	19.125	91	977	0.044	ppbV		93
75) 1,3-dichlorobenzene	19.142	146	3146	0.092	ppbV		99
76) 1,4-dichlorobenzene	19.192	146	3144	0.092	ppbV		98
77) sec-butylbenzene	19.217	105	5562	0.082	ppbV		98
78) p-isopropyltoluene	19.342	119	4532	0.078	ppbV		99
79) 1,2-dichlorobenzene	19.467	146	3038	0.096	ppbV		92
80) n-butylbenzene	19.683	91	3591	0.076	ppbV		97
81) 1,2-dibromo-3-chloropr...	19.833	75	858	0.069	ppbV #		85
82) 1,2,4-trichlorobenzene	20.950	180	2155	0.084	ppbV		95
83) naphthalene	21.058	128	6052	0.089	ppbV		98
84) 1,2,3-trichlorobenzene	21.317	180	2473	0.095	ppbV		98
85) hexachlorobutadiene	21.375	225	2402	0.099	ppbV		97

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

Sub List : Default-ICV-AP2 - All compounds listed16SIM\_I\r322160\_Ev2.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
Data File : r322156\_Ev2.D  
Acq On : 16 May 2022 10:32 PM  
Operator : AIRPIANO3:TS  
Sample : ITO15-SIMSTD0.1  
Misc : WG1639637  
ALS Vial : 0 Sample Multiplier: 1

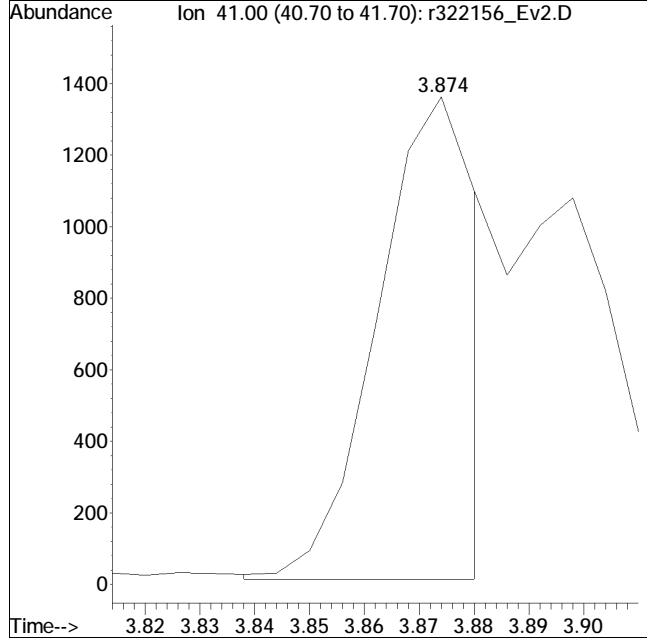
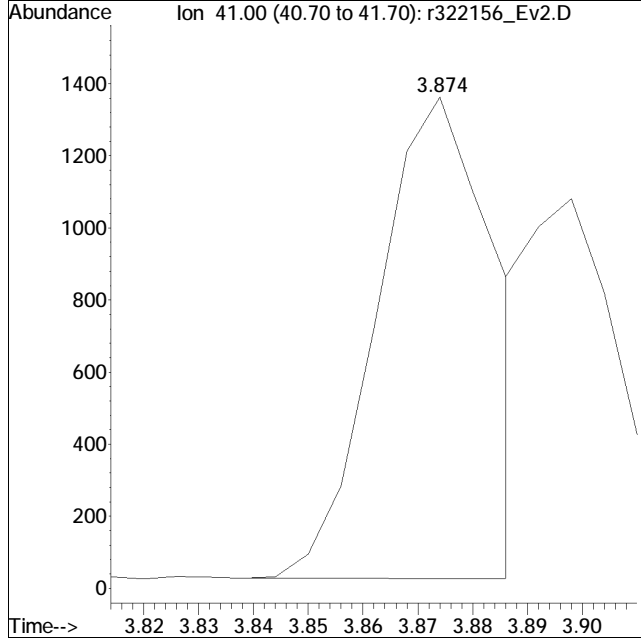
Quant Time: May 17 17:12:05 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 14:26:18 2022  
Response via : Initial Calibration



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322156\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/16/2020 0:0: 2 Instrument :  
Sample : ITO15-SIMSTD0.1 Quant Date : 5/17/2022 2:26 pm

Compound #2: propylene



Original Peak Response = 1964

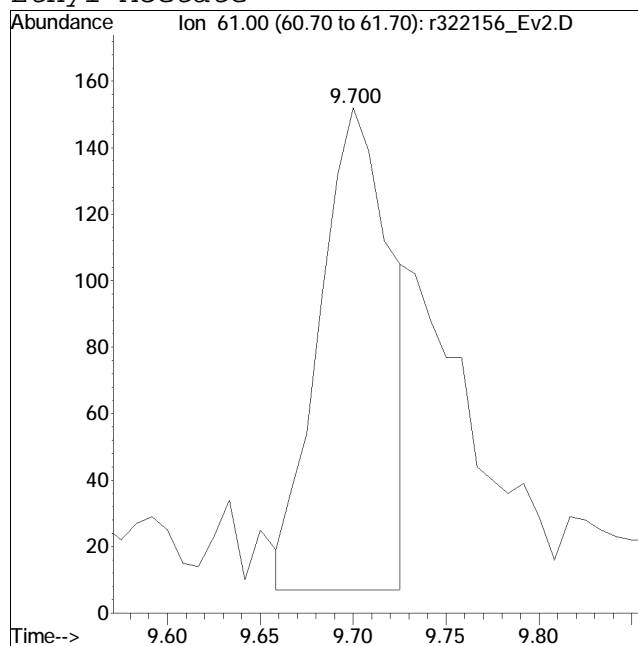
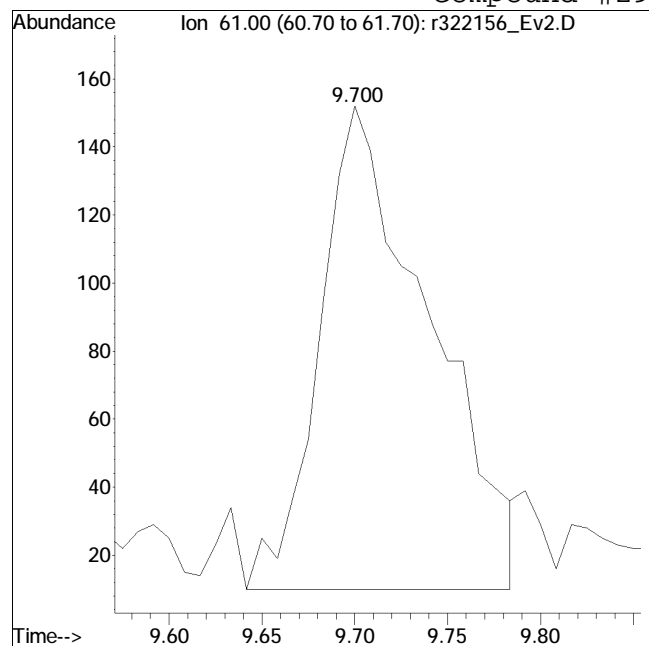
Manual Peak Response = 1694 M6

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

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322156\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/16/2020 0:0: 2 Instrument :  
Sample : ITO15-SIMSTD0.1 Quant Date : 5/17/2022 2:26 pm

Compound #29: Ethyl Acetate



Original Peak Response = 583

Manual Peak Response = 386 M4

M4 = Poor automated baseline construction.



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322157\_Ev2.D  
 Acq On : 16 May 2022 11:12 PM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-SIMSTD0.2  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 17:17:15 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 14:26:18 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\r322160\_Ev2.D  
 Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) bromochloromethane	9.558	49	236368	10.000	ppbV	0.00
Standard Area =	249837		Recovery =	94.61%		
33) 1,4-difluorobenzene	11.833	114	735408	10.000	ppbV	0.00
Standard Area =	791968		Recovery =	92.86%		
51) chlorobenzene-D5	16.575	54	111998	10.000	ppbV	0.00
Standard Area =	120616		Recovery =	92.86%		
<b>System Monitoring Compounds</b>						
35) 1,2-dichloroethane-D4	10.442	65	218024	9.828	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	98.28%		
53) toluene-D8	14.675	98	712340	9.642	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	96.42%		
67) bromofluorobenzene	17.950	95	433420	9.283	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	92.83%		
<b>Target Compounds</b>						
						Qvalue
2) propylene	3.868	41	2246M6	0.338	ppbV	
3) dichlorodifluoromethane	3.952	85	4350	0.267	ppbV	99
4) chloromethane	4.132	50	2027	0.294	ppbV	99
5) Freon-114	4.258	85	5629	0.268	ppbV	97
6) vinyl chloride	4.390	62	2488	0.264	ppbV	100
7) 1,3-butadiene	4.558	54	1980	0.267	ppbV	99
8) bromomethane	4.876	94	2031	0.265	ppbV	99
9) chloroethane	5.098	64	1322	0.281	ppbV	92
10) ethanol	5.287	31	11944	1.541	ppbV	99
11) vinyl bromide	5.530	106	1992	0.263	ppbV	97
12) acrolein	5.693	56	3022	0.649	ppbV	99
13) acetone	5.863	43	18004	1.890	ppbV	87
14) trichlorofluoromethane	6.053	101	3934	0.259	ppbV	98
15) isopropyl alcohol	6.203	45	7272	0.582	ppbV	99
16) acrylonitrile	6.437	53	1911	0.255	ppbV	97
17) 1,1-dichloroethene	6.824	61	3011	0.250	ppbV	98
18) tertiary butyl alcohol	6.944	59	2980	0.200	ppbV #	88
19) methylene chloride	6.992	49	3957	0.322	ppbV	99
20) 3-chloropropene	7.136	41	2654	0.245	ppbV	98
21) carbon disulfide	7.286	76	7094	0.255	ppbV #	81
22) Freon 113	7.328	101	4083	0.259	ppbV	98
23) trans-1,2-dichloroethene	8.125	61	3074	0.253	ppbV	95
24) 1,1-dichloroethane	8.367	63	3761	0.256	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322157\_Ev2.D  
 Acq On : 16 May 2022 11:12 PM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-SIMSTD0.2  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 17:17:15 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 14:26:18 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\r322160\_Ev2.D  
 Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) MTBE	8.475	73	5522	0.248	ppbV	99
26) vinyl acetate	8.592	43	3647	0.242	ppbV	97
27) 2-butanone	8.875	43	5286	0.303	ppbV	100
28) cis-1,2-dichloroethene	9.367	61	2766	0.251	ppbV	97
29) Ethyl Acetate	9.692	61	704	0.235	ppbV	70
30) chloroform	9.717	83	3858	0.249	ppbV	98
31) Tetrahydrofuran	10.208	42	2556	0.248	ppbV	98
32) 1,2-dichloroethane	10.575	62	2874	0.309	ppbV	96
34) hexane	9.633	57	4167	0.259	ppbV #	74
36) 1,1,1-trichloroethane	10.867	97	3238	0.261	ppbV	99
37) benzene	11.393	78	10332	0.336	ppbV	96
38) carbon tetrachloride	11.573	117	2819	0.234	ppbV	96
39) cyclohexane	11.713	56	4144	0.250	ppbV	97
40) Dibromomethane	12.327	93	2588	0.293	ppbV #	98
41) 1,2-dichloropropane	12.353	63	2615	0.262	ppbV	96
42) bromodichloromethane	12.587	83	4065	0.256	ppbV	99
43) 1,4-dioxane	12.667	88	1705M6	0.270	ppbV	
44) trichloroethene	12.633	130	3507	0.255	ppbV	95
45) 2,2,4-trimethylpentane	12.680	57	13337	0.270	ppbV	97
46) heptane	13.000	43	4777	0.265	ppbV	99
47) cis-1,3-dichloropropene	14.283	75	2648	0.203	ppbV	94
48) 4-methyl-2-pentanone	13.717	43	4493	0.212	ppbV	100
49) trans-1,3-dichloropropene	13.650	75	3198	0.224	ppbV	95
50) 1,1,2-trichloroethane	14.475	97	2704	0.250	ppbV	98
52) toluene	14.792	91	8943	0.266	ppbV	99
54) 2-hexanone	15.100	43	3913	0.194	ppbV	98
55) dibromochloromethane	15.242	129	3833	0.230	ppbV	99
56) 1,2-dibromoethane	15.492	107	4083	0.238	ppbV	99
57) tetrachloroethene	15.958	166	4504	0.257	ppbV	99
58) 1,1,1,2-tetrachloroethane	16.600	131	3035	0.232	ppbV	98
59) chlorobenzene	16.617	112	7975	0.266	ppbV	99
60) ethylbenzene	16.967	91	9895	0.243	ppbV	100
61) m+p-xylene	17.133	91	16135	0.467	ppbV	98
62) bromoform	17.200	173	3486	0.225	ppbV	100
63) styrene	17.458	104	7057	0.227	ppbV	99
64) 1,1,2,2-tetrachloroethane	17.550	83	5925	0.232	ppbV	100
65) o-xylene	17.550	91	8296	0.238	ppbV	99
66) 1,2,3-Trichloropropane	17.667	75	4898	0.231	ppbV	98
68) isopropylbenzene	18.067	105	12757	0.248	ppbV	100
69) Bromobenzene	18.142	77	6663	0.237	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322157\_Ev2.D  
 Acq On : 16 May 2022 11:12 PM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-SIMSTD0.2  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 17:17:15 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 14:26:18 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\r322160\_Ev2.D  
 Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) 4-ethyl toluene	18.617	105	12041	0.221	ppbV	99
71) 1,3,5-trimethylbenzene	18.675	105	10595	0.226	ppbV	98
72) tert-butylbenzene	19.000	119	11234	0.230	ppbV	100
73) 1,2,4-trimethylbenzene	19.008	105	10074	0.219	ppbV	94
74) Benzyl Chloride	19.125	91	2675	0.118	ppbV	97
75) 1,3-dichlorobenzene	19.133	146	6975	0.202	ppbV	96
76) 1,4-dichlorobenzene	19.192	146	6968	0.200	ppbV	95
77) sec-butylbenzene	19.217	105	15676	0.228	ppbV	98
78) p-isopropyltoluene	19.342	119	13131	0.222	ppbV	98
79) 1,2-dichlorobenzene	19.467	146	7090	0.220	ppbV	97
80) n-butylbenzene	19.683	91	9881	0.206	ppbV	94
81) 1,2-dibromo-3-chloropr...	19.833	75	2167	0.171	ppbV #	87
82) 1,2,4-trichlorobenzene	20.942	180	4811	0.185	ppbV	98
83) naphthalene	21.058	128	12855	0.187	ppbV	100
84) 1,2,3-trichlorobenzene	21.308	180	5066	0.191	ppbV	98
85) hexachlorobutadiene	21.375	225	5509	0.223	ppbV	98

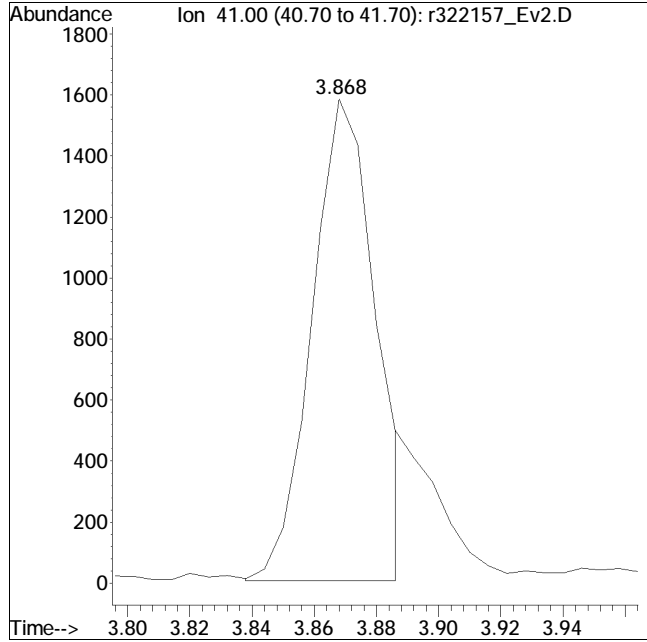
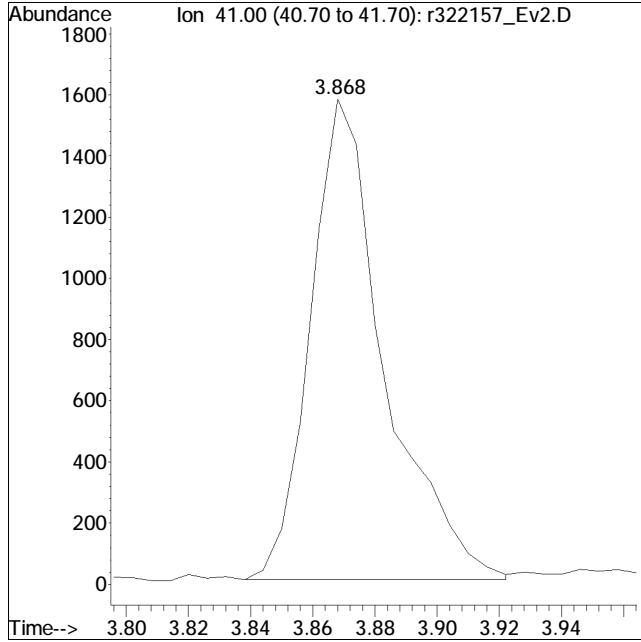
(#) = qualifier out of range (m) = manual integration (+) = signals summed



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322157\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/16/2020 0:1: 2 Instrument :  
Sample : ITO15-SIMSTD0.2 Quant Date : 5/17/2022 2:27 pm

Compound #2: propylene



Original Peak Response = 2597

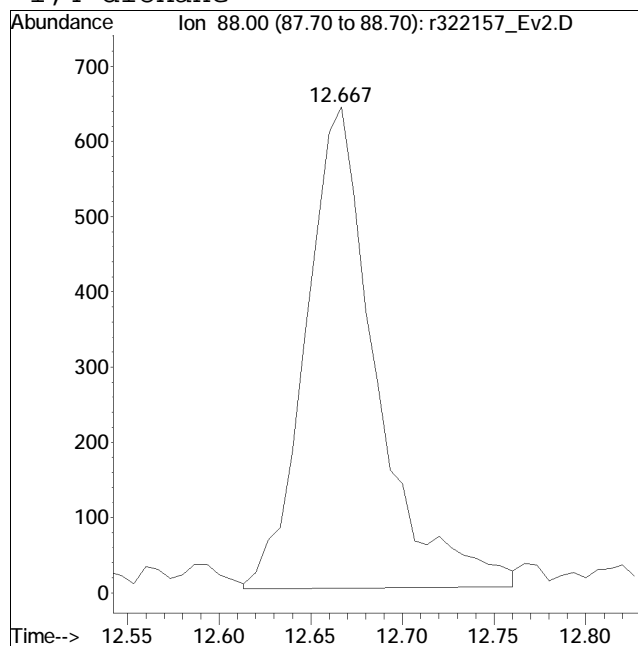
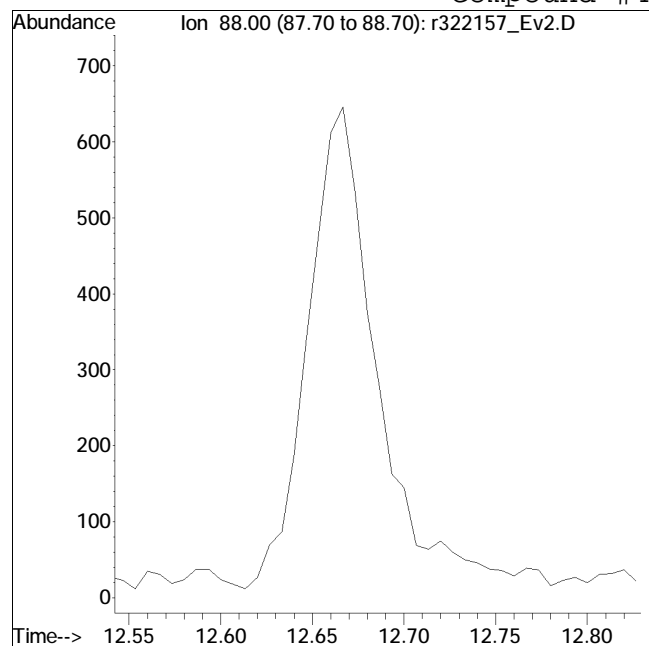
Manual Peak Response = 2246 M6

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

# Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322157\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/16/2020 0:1: 2 Instrument :  
Sample : ITO15-SIMSTD0.2 Quant Date : 5/17/2022 2:27 pm

## Compound #43: 1,4-dioxane



Original Peak Response =

Manual Peak Response = 1705 M6

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322158\_Ev2.D  
 Acq On : 16 May 2022 11:53 PM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-SIMSTD0.5  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 17:20:46 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 14:26:18 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\r322160\_Ev2.D  
 Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) bromochloromethane	9.558	49	239276	10.000	ppbV	0.00
Standard Area =	249837		Recovery =	95.77%		
33) 1,4-difluorobenzene	11.833	114	750168	10.000	ppbV	0.00
Standard Area =	791968		Recovery =	94.72%		
51) chlorobenzene-D5	16.575	54	113893	10.000	ppbV	0.00
Standard Area =	120616		Recovery =	94.43%		
<b>System Monitoring Compounds</b>						
35) 1,2-dichloroethane-D4	10.442	65	220164	9.729	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	97.29%		
53) toluene-D8	14.675	98	726432	9.669	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	96.69%		
67) bromofluorobenzene	17.950	95	456726	9.620	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	96.20%		
<b>Target Compounds</b>						
						Qvalue
2) propylene	3.868	41	5643M6	0.839	ppbV	
3) dichlorodifluoromethane	3.952	85	11329	0.686	ppbV	100
4) chloromethane	4.132	50	5328	0.763	ppbV	99
5) Freon-114	4.258	85	14590	0.686	ppbV	97
6) vinyl chloride	4.390	62	6546	0.685	ppbV	99
7) 1,3-butadiene	4.558	54	5229	0.695	ppbV	99
8) bromomethane	4.876	94	5413	0.697	ppbV	100
9) chloroethane	5.098	64	3319	0.697	ppbV	97
10) ethanol	5.280	31	31741	4.046	ppbV	99
11) vinyl bromide	5.530	106	5284	0.689	ppbV	97
12) acrolein	5.690	56	7728	1.640	ppbV	98
13) acetone	5.857	43	40440	4.194	ppbV	100
14) trichlorofluoromethane	6.050	101	10564	0.686	ppbV	99
15) isopropyl alcohol	6.193	45	20122	1.591	ppbV	99
16) acrylonitrile	6.430	53	5233	0.689	ppbV	99
17) 1,1-dichloroethene	6.824	61	7969	0.652	ppbV	99
18) tertiary butyl alcohol	6.932	59	8730	0.578	ppbV	100
19) methylene chloride	6.992	49	10056	0.809	ppbV	97
20) 3-chloropropene	7.136	41	7101	0.647	ppbV	98
21) carbon disulfide	7.286	76	18804	0.669	ppbV #	93
22) Freon 113	7.328	101	10764	0.674	ppbV	98
23) trans-1,2-dichloroethene	8.125	61	8141	0.661	ppbV	95
24) 1,1-dichloroethane	8.367	63	9843	0.661	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322158\_Ev2.D  
 Acq On : 16 May 2022 11:53 PM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-SIMSTD0.5  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 17:20:46 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 14:26:18 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\r322160\_Ev2.D  
 Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) MTBE	8.467	73	14685	0.652	ppbV	99
26) vinyl acetate	8.592	43	10535	0.690	ppbV	97
27) 2-butanone	8.867	43	14027	0.795	ppbV	100
28) cis-1,2-dichloroethene	9.367	61	7272	0.651	ppbV	99
29) Ethyl Acetate	9.683	61	1913	0.631	ppbV	78
30) chloroform	9.717	83	10293	0.655	ppbV	98
31) Tetrahydrofuran	10.200	42	6913	0.662	ppbV	97
32) 1,2-dichloroethane	10.575	62	6689	0.710	ppbV	98
34) hexane	9.633	57	11149	0.679	ppbV	83
36) 1,1,1-trichloroethane	10.867	97	8340	0.660	ppbV	100
37) benzene	11.393	78	25400	0.810	ppbV	98
38) carbon tetrachloride	11.573	117	7784	0.633	ppbV	97
39) cyclohexane	11.713	56	10942	0.648	ppbV	98
40) Dibromomethane	12.320	93	6156	0.683	ppbV #	100
41) 1,2-dichloropropane	12.353	63	6848	0.671	ppbV	99
42) bromodichloromethane	12.587	83	10644	0.657	ppbV	98
43) 1,4-dioxane	12.653	88	4206	0.652	ppbV	90
44) trichloroethene	12.640	130	9216	0.657	ppbV	98
45) 2,2,4-trimethylpentane	12.687	57	34500	0.684	ppbV	98
46) heptane	13.007	43	12632	0.686	ppbV	98
47) cis-1,3-dichloropropene	14.275	75	7559	0.568	ppbV	96
48) 4-methyl-2-pentanone	13.708	43	13068	0.604	ppbV	99
49) trans-1,3-dichloropropene	13.650	75	8798	0.605	ppbV	97
50) 1,1,2-trichloroethane	14.475	97	7179	0.651	ppbV	99
52) toluene	14.792	91	23757	0.694	ppbV	99
54) 2-hexanone	15.083	43	12258	0.599	ppbV	96
55) dibromochloromethane	15.242	129	10651	0.628	ppbV	100
56) 1,2-dibromoethane	15.492	107	11089	0.635	ppbV	98
57) tetrachloroethene	15.958	166	11858	0.664	ppbV	99
58) 1,1,1,2-tetrachloroethane	16.608	131	8298	0.624	ppbV	95
59) chlorobenzene	16.617	112	20921	0.687	ppbV	100
60) ethylbenzene	16.967	91	27002	0.652	ppbV	100
61) m+p-xylene	17.133	91	45146	1.284	ppbV	99
62) bromoform	17.200	173	9647	0.612	ppbV	99
63) styrene	17.458	104	19711	0.623	ppbV	99
64) 1,1,2,2-tetrachloroethane	17.550	83	16625	0.640	ppbV	100
65) o-xylene	17.550	91	23152	0.654	ppbV	99
66) 1,2,3-Trichloropropane	17.667	75	13939	0.646	ppbV	99
68) isopropylbenzene	18.067	105	35213	0.672	ppbV	99
69) Bromobenzene	18.142	77	18725	0.656	ppbV	99



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322158\_Ev2.D  
 Acq On : 16 May 2022 11:53 PM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-SIMSTD0.5  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 17:20:46 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 14:26:18 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\r322160\_Ev2.D  
 Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) 4-ethyl toluene	18.617	105	35174	0.635	ppbV	98
71) 1,3,5-trimethylbenzene	18.675	105	34278	0.719	ppbV	98
72) tert-butylbenzene	19.000	119	32027	0.645	ppbV	99
73) 1,2,4-trimethylbenzene	19.008	105	29272	0.624	ppbV	93
74) Benzyl Chloride	19.125	91	8783	0.381	ppbV	96
75) 1,3-dichlorobenzene	19.133	146	21789	0.619	ppbV	98
76) 1,4-dichlorobenzene	19.192	146	22213	0.626	ppbV	93
77) sec-butylbenzene	19.217	105	44719	0.640	ppbV	99
78) p-isopropyltoluene	19.342	119	37992	0.632	ppbV	99
79) 1,2-dichlorobenzene	19.467	146	20481	0.626	ppbV	99
80) n-butylbenzene	19.683	91	29508	0.605	ppbV	92
81) 1,2-dibromo-3-chloropr...	19.825	75	6798	0.527	ppbV	93
82) 1,2,4-trichlorobenzene	20.942	180	14455	0.546	ppbV	99
83) naphthalene	21.058	128	39411	0.563	ppbV	99
84) 1,2,3-trichlorobenzene	21.308	180	15229	0.566	ppbV	99
85) hexachlorobutadiene	21.375	225	15821	0.629	ppbV	99

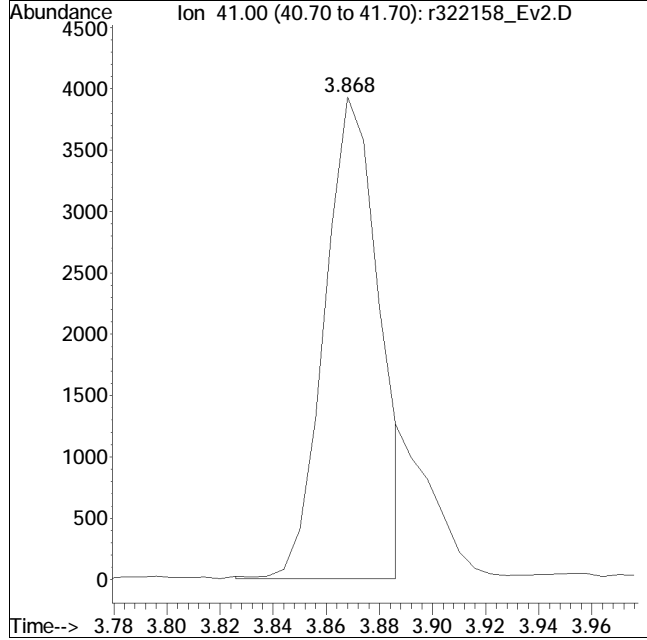
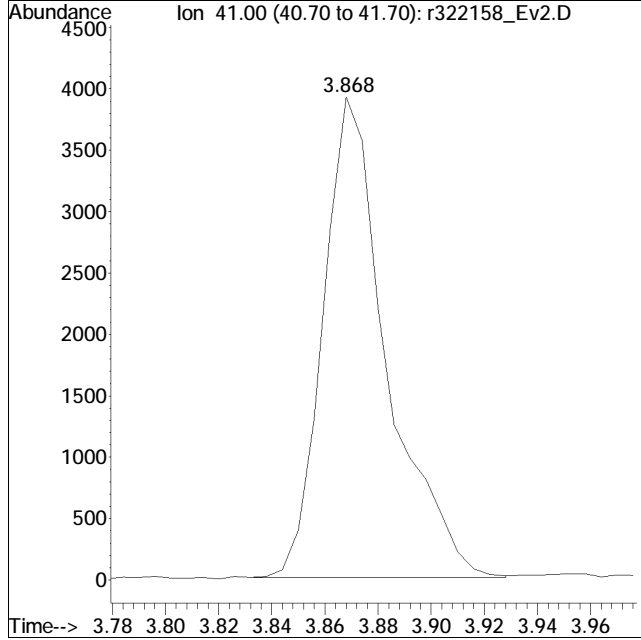
(#) = qualifier out of range (m) = manual integration (+) = signals summed



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322158\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/16/2020 0:1: 3 Instrument :  
Sample : ITO15-SIMSTD0.5 Quant Date : 5/17/2022 2:27 pm

Compound #2: propylene



Original Peak Response = 6519

Manual Peak Response = 5643 M6

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322159\_Ev2.D  
 Acq On : 17 May 2022 12:37 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-SIMSTD1.0  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 17:21:53 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 14:26:18 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\r322160\_Ev2.D  
 Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) bromochloromethane	9.550	49	244630	10.000	ppbV	0.00
Standard Area = 249837			Recovery =		97.92%	
33) 1,4-difluorobenzene	11.833	114	766356	10.000	ppbV	0.00
Standard Area = 791968			Recovery =		96.77%	
51) chlorobenzene-D5	16.575	54	117043	10.000	ppbV	0.00
Standard Area = 120616			Recovery =		97.04%	
<b>System Monitoring Compounds</b>						
35) 1,2-dichloroethane-D4	10.442	65	229854	9.943	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		99.43%	
53) toluene-D8	14.675	98	764868	9.906	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		99.06%	
67) bromofluorobenzene	17.950	95	474121	9.717	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		97.17%	
<b>Target Compounds</b>						
						Qvalue
2) propylene	3.868	41	11482M6	1.670	ppbV	
3) dichlorodifluoromethane	3.952	85	23264	1.378	ppbV	99
4) chloromethane	4.132	50	10665	1.494	ppbV	99
5) Freon-114	4.258	85	29713	1.366	ppbV	97
6) vinyl chloride	4.390	62	13247	1.356	ppbV	100
7) 1,3-butadiene	4.558	54	10727	1.395	ppbV	99
8) bromomethane	4.876	94	11068	1.394	ppbV	100
9) chloroethane	5.098	64	6846	1.406	ppbV	99
10) ethanol	5.277	31	64464	8.037	ppbV	99
11) vinyl bromide	5.530	106	10781	1.375	ppbV	99
12) acrolein	5.687	56	15569	3.232	ppbV	99
13) acetone	5.850	43	81505	8.268	ppbV	99
14) trichlorofluoromethane	6.050	101	20142	1.280	ppbV	100
15) isopropyl alcohol	6.187	45	43663	3.376	ppbV	100
16) acrylonitrile	6.430	53	10995	1.415	ppbV	99
17) 1,1-dichloroethene	6.824	61	16571	1.327	ppbV	99
18) tertiary butyl alcohol	6.926	59	18937	1.226	ppbV	100
19) methylene chloride	6.992	49	20473	1.612	ppbV	98
20) 3-chloropropene	7.130	41	14976	1.335	ppbV	98
21) carbon disulfide	7.286	76	39165	1.363	ppbV	97
22) Freon 113	7.328	101	22050	1.350	ppbV	99
23) trans-1,2-dichloroethene	8.125	61	17072	1.356	ppbV	96
24) 1,1-dichloroethane	8.358	63	20359	1.337	ppbV	100

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322159\_Ev2.D  
 Acq On : 17 May 2022 12:37 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-SIMSTD1.0  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 17:21:53 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 14:26:18 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\r322160\_Ev2.D  
 Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) MTBE	8.458	73	30818	1.338	ppbV	99
26) vinyl acetate	8.583	43	21638	1.386	ppbV	99
27) 2-butanone	8.858	43	29074	1.612	ppbV	100
28) cis-1,2-dichloroethene	9.367	61	15066	1.320	ppbV	98
29) Ethyl Acetate	9.675	61	3981	1.285	ppbV	83
30) chloroform	9.717	83	21382	1.331	ppbV	98
31) Tetrahydrofuran	10.183	42	14344	1.344	ppbV	97
32) 1,2-dichloroethane	10.575	62	13266	1.377	ppbV	99
34) hexane	9.633	57	23315	1.390	ppbV	93
36) 1,1,1-trichloroethane	10.867	97	17278	1.338	ppbV	100
37) benzene	11.393	78	52405	1.637	ppbV	98
38) carbon tetrachloride	11.573	117	16336	1.301	ppbV	97
39) cyclohexane	11.713	56	23395	1.356	ppbV	100
40) Dibromomethane	12.320	93	12877	1.399	ppbV #	99
41) 1,2-dichloropropane	12.353	63	14029	1.347	ppbV	98
42) bromodichloromethane	12.587	83	22352	1.350	ppbV	99
43) 1,4-dioxane	12.647	88	8990	1.364	ppbV	99
44) trichloroethene	12.633	130	19072	1.332	ppbV	97
45) 2,2,4-trimethylpentane	12.680	57	72631	1.410	ppbV	99
46) heptane	13.000	43	26367	1.401	ppbV	97
47) cis-1,3-dichloropropene	14.275	75	16753	1.232	ppbV	99
48) 4-methyl-2-pentanone	13.700	43	28675	1.298	ppbV	99
49) trans-1,3-dichloropropene	13.650	75	18702	1.258	ppbV	99
50) 1,1,2-trichloroethane	14.475	97	15263	1.355	ppbV	99
52) toluene	14.792	91	49095	1.395	ppbV	100
54) 2-hexanone	15.083	43	28387	1.350	ppbV	99
55) dibromochloromethane	15.233	129	23086	1.326	ppbV	99
56) 1,2-dibromoethane	15.483	107	23838	1.329	ppbV	99
57) tetrachloroethene	15.958	166	24858	1.355	ppbV	99
58) 1,1,1,2-tetrachloroethane	16.600	131	18009	1.319	ppbV	99
59) chlorobenzene	16.617	112	43364	1.387	ppbV	99
60) ethylbenzene	16.967	91	57917	1.361	ppbV	99
61) m+p-xylene	17.133	91	97065	2.687	ppbV	100
62) bromoform	17.200	173	21311	1.316	ppbV	99
63) styrene	17.458	104	43268	1.330	ppbV	100
64) 1,1,2,2-tetrachloroethane	17.550	83	35825	1.342	ppbV	99
65) o-xylene	17.550	91	49990	1.373	ppbV	100
66) 1,2,3-Trichloropropane	17.667	75	30001	1.354	ppbV	99
68) isopropylbenzene	18.067	105	75203	1.397	ppbV	100
69) Bromobenzene	18.142	77	39983	1.363	ppbV	100

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322159\_Ev2.D  
 Acq On : 17 May 2022 12:37 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-SIMSTD1.0  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 17:21:53 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 14:26:18 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\r322160\_Ev2.D  
 Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) 4-ethyl toluene	18.617	105	76978	1.352	ppbV	99
71) 1,3,5-trimethylbenzene	18.675	105	72982	1.489	ppbV	99
72) tert-butylbenzene	19.000	119	69132	1.354	ppbV	100
73) 1,2,4-trimethylbenzene	19.008	105	63764	1.323	ppbV	92
74) Benzyl Chloride	19.117	91	24171	1.021	ppbV	99
75) 1,3-dichlorobenzene	19.133	146	48016	1.328	ppbV	100
76) 1,4-dichlorobenzene	19.192	146	48825	1.339	ppbV	91
77) sec-butylbenzene	19.217	105	96206	1.340	ppbV	99
78) p-isopropyltoluene	19.342	119	82583	1.338	ppbV	99
79) 1,2-dichlorobenzene	19.467	146	44978	1.337	ppbV	99
80) n-butylbenzene	19.683	91	64636	1.289	ppbV	91
81) 1,2-dibromo-3-chloropr...	19.825	75	15545	1.172	ppbV	96
82) 1,2,4-trichlorobenzene	20.942	180	32860	1.208	ppbV	99
83) naphthalene	21.050	128	88888	1.236	ppbV	100
84) 1,2,3-trichlorobenzene	21.308	180	34084	1.233	ppbV	99
85) hexachlorobutadiene	21.375	225	33994	1.316	ppbV	99

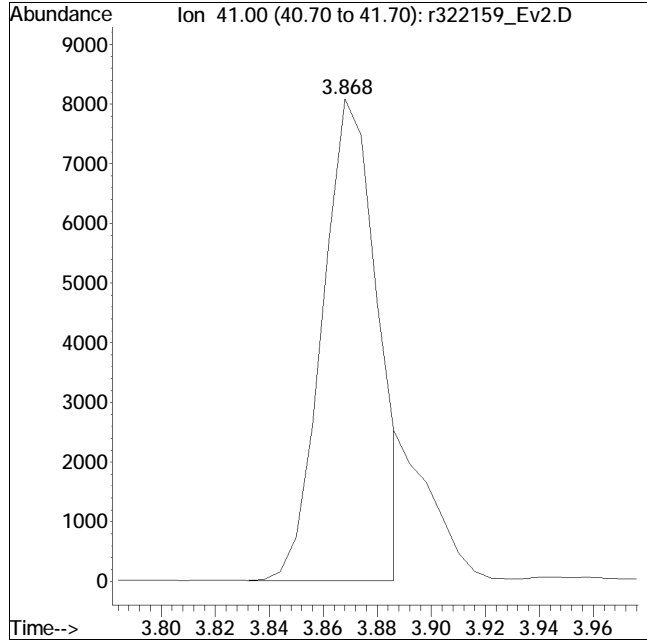
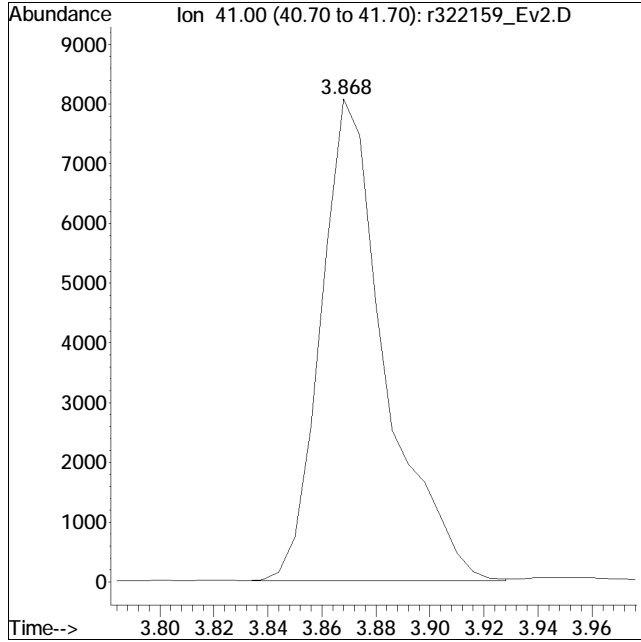
(#) = qualifier out of range (m) = manual integration (+) = signals summed



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322159\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/17/2020 0:2: 7 Instrument :  
Sample : ITO15-SIMSTD1.0 Quant Date : 5/17/2022 2:27 pm

Compound #2: propylene



Original Peak Response = 13387

Manual Peak Response = 11482 M6

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



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322160\_Ev2.D  
 Acq On : 17 May 2022 1:18 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-SIMSTD5.0  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:23:33 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Mon Apr 04 13:23:26 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\r322160\_Ev2.D  
 Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) bromochloromethane	9.558	49	249837	10.000	ppbV	-0.02
Standard Area =	249837		Recovery =	100.00%		
33) 1,4-difluorobenzene	11.840	114	791968	10.000	ppbV	-0.02
Standard Area =	791968		Recovery =	100.00%		
51) chlorobenzene-D5	16.575	54	120616	10.000	ppbV	-0.02
Standard Area =	120616		Recovery =	100.00%		
<b>System Monitoring Compounds</b>						
35) 1,2-dichloroethane-D4	10.450	65	238905	11.771	ppbV	-0.03
Spiked Amount	10.000	Range 70 - 130	Recovery =	117.71%		
53) toluene-D8	14.675	98	795657	9.333	ppbV	-0.02
Spiked Amount	10.000	Range 70 - 130	Recovery =	93.33%		
67) bromofluorobenzene	17.950	95	502812	8.312	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	83.12%		
<b>Target Compounds</b>						
						Qvalue
2) propylene	3.868	41	35116M6	2.752	ppbV	
3) dichlorodifluoromethane	3.952	85	86184	3.828	ppbV	98
4) chloromethane	4.132	50	36454	3.922	ppbV	98
5) Freon-114	4.264	85	111112	3.843	ppbV	95
6) vinyl chloride	4.396	62	49873	3.587	ppbV	97
7) 1,3-butadiene	4.558	54	39257	4.454	ppbV #	66
8) bromomethane	4.876	94	40540	3.355	ppbV	97
9) chloroethane	5.098	64	24862	3.000	ppbV #	92
10) ethanol	5.273	31	204785	20.504	ppbV	87
11) vinyl bromide	5.533	106	40024	2.962	ppbV	96
12) acrolein	5.687	56	24597	3.287	ppbV	99
13) acetone	5.847	43	251701	13.817	ppbV #	83
14) trichlorofluoromethane	6.053	101	80375	2.697	ppbV	98
15) isopropyl alcohol	6.180	45	165088	6.994	ppbV	98
16) acrylonitrile	6.430	53	39668	3.364	ppbV	99
17) 1,1-dichloroethene	6.830	61	63764	2.928	ppbV	98
18) tertiary butyl alcohol	6.914	59	78869	2.390	ppbV	96
19) methylene chloride	6.998	49	64867	4.382	ppbV	88
20) 3-chloropropene	7.136	41	57287	2.622	ppbV	96
21) carbon disulfide	7.292	76	146751	3.158	ppbV	99
22) Freon 113	7.334	101	83426	2.851	ppbV	91
23) trans-1,2-dichloroethene	8.133	61	64298	2.832	ppbV	97
24) 1,1-dichloroethane	8.367	63	77755	2.800	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322160\_Ev2.D  
 Acq On : 17 May 2022 1:18 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-SIMSTD5.0  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:23:33 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Mon Apr 04 13:23:26 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\r322160\_Ev2.D  
 Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) MTBE	8.450	73	117610	3.034	ppbV	98
26) vinyl acetate	8.583	43	79732	2.470	ppbV	96
27) 2-butanone	8.850	43	92105	2.962	ppbV	99
28) cis-1,2-dichloroethene	9.367	61	58303	2.902	ppbV	95
29) Ethyl Acetate	9.667	61	15820	2.652	ppbV	83
30) chloroform	9.725	83	82010	3.362	ppbV	96
31) Tetrahydrofuran	10.175	42	54482	2.769	ppbV	97
32) 1,2-dichloroethane	10.575	62	49212	2.900	ppbV #	94
34) hexane	9.633	57	86677	3.333	ppbV	91
36) 1,1,1-trichloroethane	10.867	97	66730	2.859	ppbV #	95
37) benzene	11.400	78	165460	3.070	ppbV	100
38) carbon tetrachloride	11.573	117	64898	3.391	ppbV	98
39) cyclohexane	11.713	56	89177	3.302	ppbV	95
40) Dibromomethane	12.320	93	47554	2.897	ppbV #	92
41) 1,2-dichloropropane	12.353	63	53834	3.040	ppbV	97
42) bromodichloromethane	12.587	83	85555	3.596	ppbV	98
43) 1,4-dioxane	12.633	88	34053	2.752	ppbV	89
44) trichloroethene	12.640	130	73999	3.623	ppbV	96
45) 2,2,4-trimethylpentane	12.687	57	266137M6	3.127	ppbV	
46) heptane	13.007	43	97221	3.297	ppbV	97
47) cis-1,3-dichloropropene	14.275	75	70260	3.681	ppbV	94
48) 4-methyl-2-pentanone	13.692	43	114131	3.345	ppbV	94
49) trans-1,3-dichloropropene	13.650	75	76814	3.545	ppbV	96
50) 1,1,2-trichloroethane	14.475	97	58183	3.190	ppbV	94
52) toluene	14.792	91	181316	2.411	ppbV	100
54) 2-hexanone	15.075	43	108383	3.601	ppbV	94
55) dibromochloromethane	15.242	129	89739	3.761	ppbV	99
56) 1,2-dibromoethane	15.483	107	92403	3.711	ppbV	98
57) tetrachloroethene	15.958	166	94534	3.587	ppbV	98
58) 1,1,1,2-tetrachloroethane	16.600	131	70376	3.432	ppbV	97
59) chlorobenzene	16.617	112	161153	3.741	ppbV	100
60) ethylbenzene	16.967	91	219234	2.949	ppbV	89
61) m+p-xylene	17.133	91	372276	6.222	ppbV	85
62) bromoform	17.200	173	83415	3.516	ppbV	98
63) styrene	17.458	104	167617	3.654	ppbV	98
64) 1,1,2,2-tetrachloroethane	17.550	83	137502	3.572	ppbV	99
65) o-xylene	17.550	91	187555	3.090	ppbV	89
66) 1,2,3-Trichloropropane	17.667	75	114198	3.812	ppbV #	86
68) isopropylbenzene	18.067	105	277374	3.419	ppbV	98
69) Bromobenzene	18.142	77	151150	3.524	ppbV	100

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322160\_Ev2.D  
 Acq On : 17 May 2022 1:18 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-SIMSTD5.0  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 15:23:33 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Mon Apr 04 13:23:26 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\r322160\_Ev2.D  
 Sub List : Default-ICV-AP2 - All compounds listed

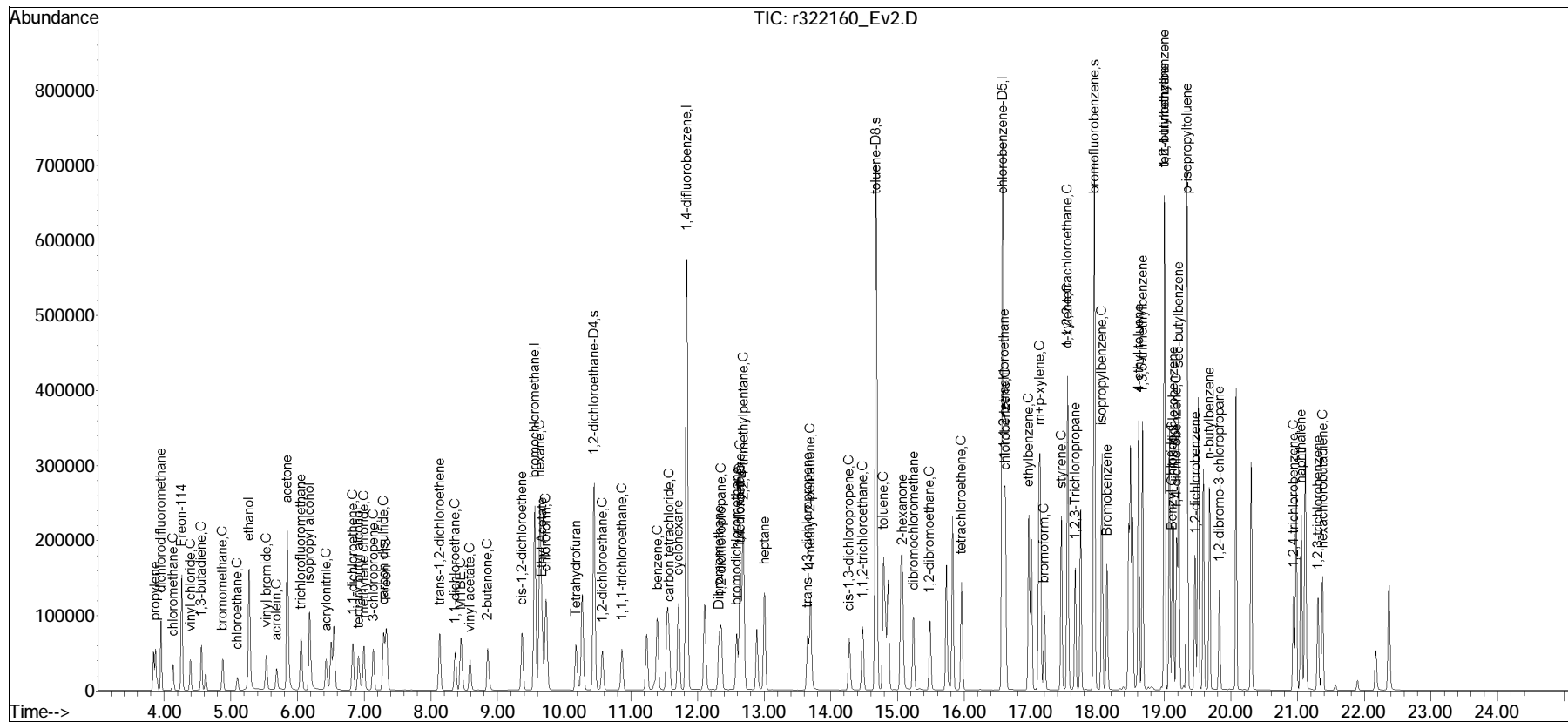
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) 4-ethyl toluene	18.617	105	293359	3.780	ppbV	97
71) 1,3,5-trimethylbenzene	18.675	105	252536	3.833	ppbV	96
72) tert-butylbenzene	19.000	119	263100	3.632	ppbV	97
73) 1,2,4-trimethylbenzene	19.000	105	248251	3.943	ppbV	99
74) Benzyl Chloride	19.117	91	122026	2.259	ppbV	98
75) 1,3-dichlorobenzene	19.133	146	186310	3.952	ppbV	98
76) 1,4-dichlorobenzene	19.183	146	187910	3.951	ppbV	92
77) sec-butylbenzene	19.217	105	370018	3.585	ppbV	97
78) p-isopropyltoluene	19.342	119	318066	3.697	ppbV	100
79) 1,2-dichlorobenzene	19.467	146	173277	3.850	ppbV	99
80) n-butylbenzene	19.675	91	258444	3.073	ppbV	97
81) 1,2-dibromo-3-chloropr...	19.825	75	68327	3.944	ppbV	96
82) 1,2,4-trichlorobenzene	20.942	180	140155	3.483	ppbV	97
83) naphthalene	21.050	128	370683	3.681	ppbV	100
84) 1,2,3-trichlorobenzene	21.308	180	142476	3.664	ppbV	97
85) hexachlorobutadiene	21.375	225	133094	3.971	ppbV	97

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

Sub List : Default-ICV-AP2 - All compounds listed16SIM\_I\r322160\_Ev2.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
Data File : r322160\_Ev2.D  
Acq On : 17 May 2022 1:18 AM  
Operator : AIRPIANO3:TS  
Sample : ITO15-SIMSTD5.0  
Misc : WG1639637  
ALS Vial : 0 Sample Multiplier: 1

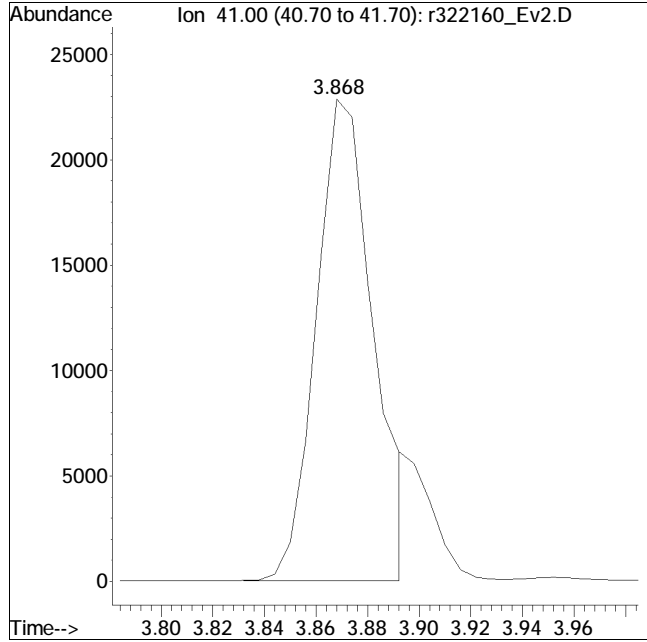
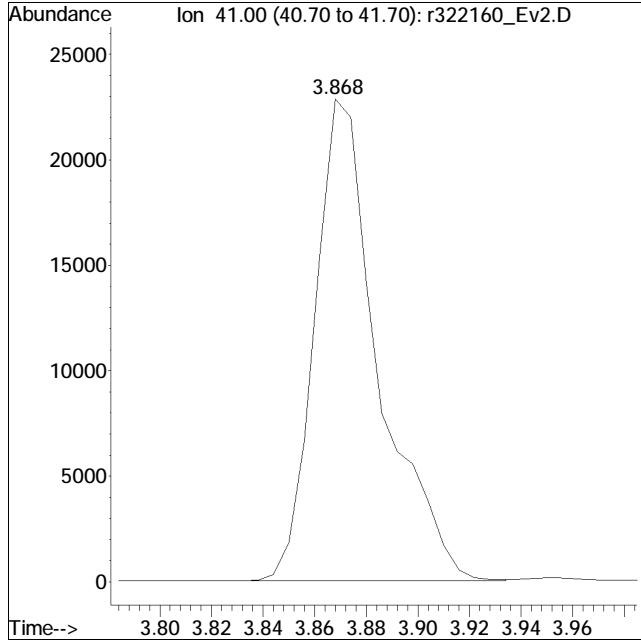
Quant Time: May 17 15:23:33 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Mon Apr 04 13:23:26 2022  
Response via : Initial Calibration



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322160\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/17/2020 0:1: 8 Instrument :  
Sample : ITO15-SIMSTD5.0 Quant Date : 5/17/2022 2:22 pm

Compound #2: propylene



Original Peak Response = 39239

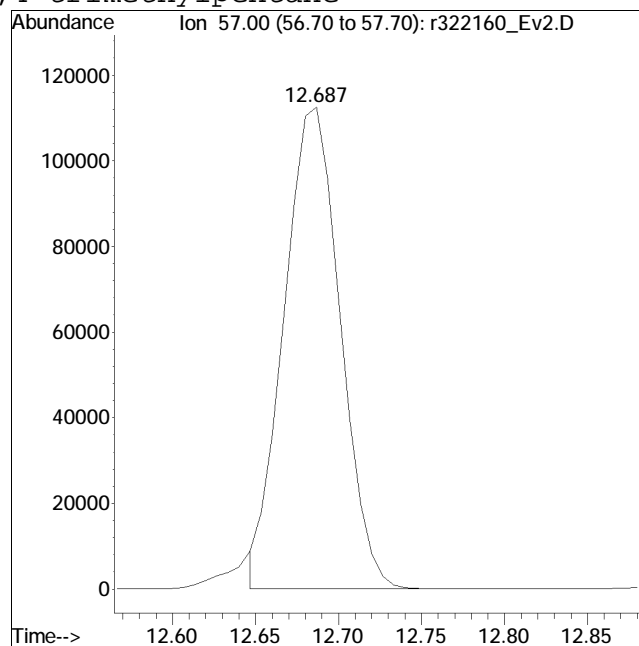
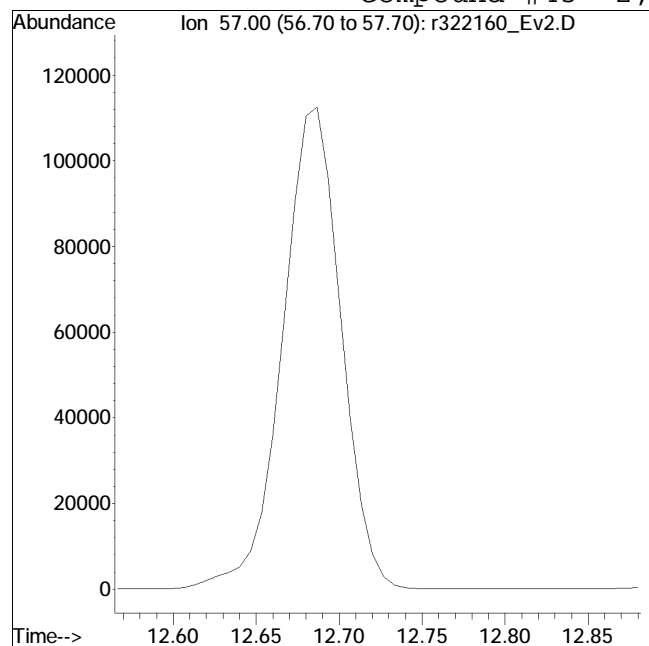
Manual Peak Response = 35116 M6

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

# Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322160\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/17/2020 0:1: 8 Instrument :  
Sample : ITO15-SIMSTD5.0 Quant Date : 5/17/2022 2:22 pm

## Compound #45: 2,2,4-trimethylpentane



Original Peak Response =

Manual Peak Response = 266137 M6

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322161\_Ev2.D  
 Acq On : 17 May 2022 2:00 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-SIMSTD010  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 17:27:48 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 14:26:18 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\r322160\_Ev2.D  
 Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) bromochloromethane	9.558	49	258081	10.000	ppbV	0.00
Standard Area =	249837		Recovery =	103.30%		
33) 1,4-difluorobenzene	11.840	114	816315	10.000	ppbV	0.00
Standard Area =	791968		Recovery =	103.07%		
51) chlorobenzene-D5	16.575	54	124712	10.000	ppbV	0.00
Standard Area =	120616		Recovery =	103.40%		
<b>System Monitoring Compounds</b>						
35) 1,2-dichloroethane-D4	10.450	65	245042	9.951	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	99.51%		
53) toluene-D8	14.675	98	810267	9.849	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	98.49%		
67) bromofluorobenzene	17.950	95	520444	10.011	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	100.11%		
<b>Target Compounds</b>						
						Qvalue
2) propylene	3.868	41	69682M6	9.605	ppbV	
3) dichlorodifluoromethane	3.952	85	175076	9.833	ppbV	100
4) chloromethane	4.132	50	74496	9.891	ppbV	100
5) Freon-114	4.258	85	227355	9.904	ppbV	98
6) vinyl chloride	4.390	62	104401	10.132	ppbV	99
7) 1,3-butadiene	4.558	54	81738	10.078	ppbV	99
8) bromomethane	4.876	94	84290	10.064	ppbV	100
9) chloroethane	5.098	64	52095	10.142	ppbV	97
10) ethanol	5.270	31	392357	46.369	ppbV	100
11) vinyl bromide	5.530	106	83154	10.056	ppbV	99
12) acrolein	5.683	56	51112	10.058	ppbV	99
13) acetone	5.840	43	507209	48.769	ppbV	99
14) trichlorofluoromethane	6.053	101	164639	9.915	ppbV	100
15) isopropyl alcohol	6.173	45	357351	26.193	ppbV	100
16) acrylonitrile	6.427	53	84669	10.331	ppbV	99
17) 1,1-dichloroethene	6.824	61	134379	10.201	ppbV	98
18) tertiary butyl alcohol	6.902	59	173799	10.666	ppbV	99
19) methylene chloride	6.992	49	135290	10.095	ppbV	100
20) 3-chloropropene	7.136	41	121531	10.268	ppbV	99
21) carbon disulfide	7.286	76	308014	10.159	ppbV	100
22) Freon 113	7.328	101	172740	10.022	ppbV	100
23) trans-1,2-dichloroethene	8.133	61	135772	10.221	ppbV	99
24) 1,1-dichloroethane	8.367	63	162348	10.106	ppbV	100

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322161\_Ev2.D  
 Acq On : 17 May 2022 2:00 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-SIMSTD010  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 17:27:48 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 14:26:18 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\r322160\_Ev2.D  
 Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) MTBE	8.450	73	248158	10.213	ppbV	98
26) vinyl acetate	8.583	43	170795	10.368	ppbV	98
27) 2-butanone	8.850	43	194767	10.235	ppbV	97
28) cis-1,2-dichloroethene	9.367	61	122578	10.176	ppbV	100
29) Ethyl Acetate	9.667	61	33632	10.290	ppbV	83
30) chloroform	9.725	83	171260	10.108	ppbV	99
31) Tetrahydrofuran	10.167	42	115446	10.256	ppbV	100
32) 1,2-dichloroethane	10.575	62	101732	10.006	ppbV	99
34) hexane	9.633	57	181980	10.184	ppbV	97
36) 1,1,1-trichloroethane	10.867	97	139438	10.136	ppbV	99
37) benzene	11.400	78	347911	10.200	ppbV	100
38) carbon tetrachloride	11.573	117	139117	10.398	ppbV	98
39) cyclohexane	11.713	56	187288	10.188	ppbV	99
40) Dibromomethane	12.320	93	99050	10.104	ppbV #	100
41) 1,2-dichloropropane	12.353	63	112735	10.158	ppbV	100
42) bromodichloromethane	12.587	83	181895	10.313	ppbV	100
43) 1,4-dioxane	12.627	88	73988	10.540	ppbV	98
44) trichloroethene	12.640	130	154569	10.132	ppbV	98
45) 2,2,4-trimethylpentane	12.687	57	567750M6	10.348	ppbV	
46) heptane	13.000	43	202914	10.124	ppbV	99
47) cis-1,3-dichloropropene	14.275	75	154267	10.651	ppbV	99
48) 4-methyl-2-pentanone	13.692	43	240917	10.240	ppbV	98
49) trans-1,3-dichloropropene	13.650	75	166476	10.513	ppbV	99
50) 1,1,2-trichloroethane	14.475	97	121280	10.111	ppbV	99
52) toluene	14.792	91	377178	10.060	ppbV	100
54) 2-hexanone	15.067	43	232699	10.382	ppbV	99
55) dibromochloromethane	15.242	129	192083	10.351	ppbV	99
56) 1,2-dibromoethane	15.483	107	192376	10.068	ppbV	100
57) tetrachloroethene	15.958	166	196683	10.061	ppbV	100
58) 1,1,1,2-tetrachloroethane	16.600	131	149296	10.259	ppbV	99
59) chlorobenzene	16.617	112	335484	10.067	ppbV	99
60) ethylbenzene	16.967	91	460053	10.148	ppbV	99
61) m+p-xylene	17.133	91	770449	20.016	ppbV	99
62) bromoform	17.200	173	181406	10.517	ppbV	99
63) styrene	17.458	104	351802	10.150	ppbV	100
64) 1,1,2,2-tetrachloroethane	17.550	83	291375	10.247	ppbV	99
65) o-xylene	17.550	91	388013	10.004	ppbV	100
66) 1,2,3-Trichloropropane	17.667	75	239171	10.128	ppbV	99
68) isopropylbenzene	18.067	105	574516	10.016	ppbV	99
69) Bromobenzene	18.142	77	319262	10.214	ppbV	99



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322161\_Ev2.D  
 Acq On : 17 May 2022 2:00 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-SIMSTD010  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 17:27:48 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 14:26:18 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\r322160\_Ev2.D  
 Sub List : Default-ICV-AP2 - All compounds listed

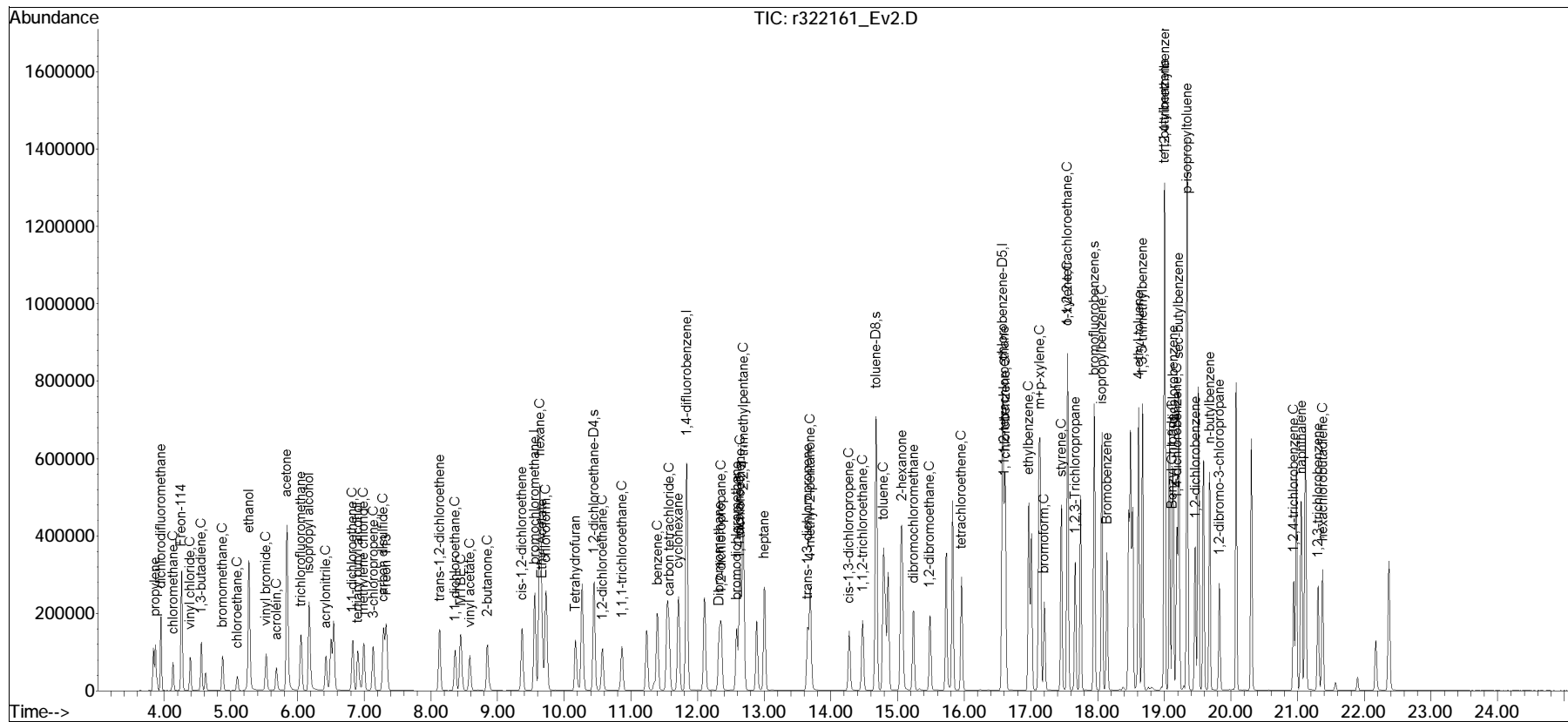
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) 4-ethyl toluene	18.617	105	605171	9.976	ppbV	99
71) 1,3,5-trimethylbenzene	18.675	105	523271	10.020	ppbV	100
72) tert-butylbenzene	19.000	119	541779	9.958	ppbV	100
73) 1,2,4-trimethylbenzene	19.008	105	511834	9.970	ppbV	92
74) Benzyl Chloride	19.117	91	302070	11.971	ppbV	100
75) 1,3-dichlorobenzene	19.133	146	383947	9.966	ppbV	99
76) 1,4-dichlorobenzene	19.192	146	390349	10.045	ppbV	92
77) sec-butylbenzene	19.217	105	758843	9.917	ppbV	100
78) p-isopropyltoluene	19.342	119	653540	9.936	ppbV	100
79) 1,2-dichlorobenzene	19.467	146	363073	10.133	ppbV	99
80) n-butylbenzene	19.683	91	543366	10.167	ppbV	91
81) 1,2-dibromo-3-chloropr...	19.825	75	147900	10.467	ppbV	99
82) 1,2,4-trichlorobenzene	20.942	180	299557	10.336	ppbV	99
83) naphthalene	21.058	128	780565	10.183	ppbV	99
84) 1,2,3-trichlorobenzene	21.308	180	298673	10.137	ppbV	100
85) hexachlorobutadiene	21.375	225	273163	9.925	ppbV	100

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

Sub List : Default-ICV-AP2 - All compounds listed16SIM\_I\r322160\_Ev2.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
Data File : r322161\_Ev2.D  
Acq On : 17 May 2022 2:00 AM  
Operator : AIRPIANO3:TS  
Sample : ITO15-SIMSTD010  
Misc : WG1639637  
ALS Vial : 0 Sample Multiplier: 1

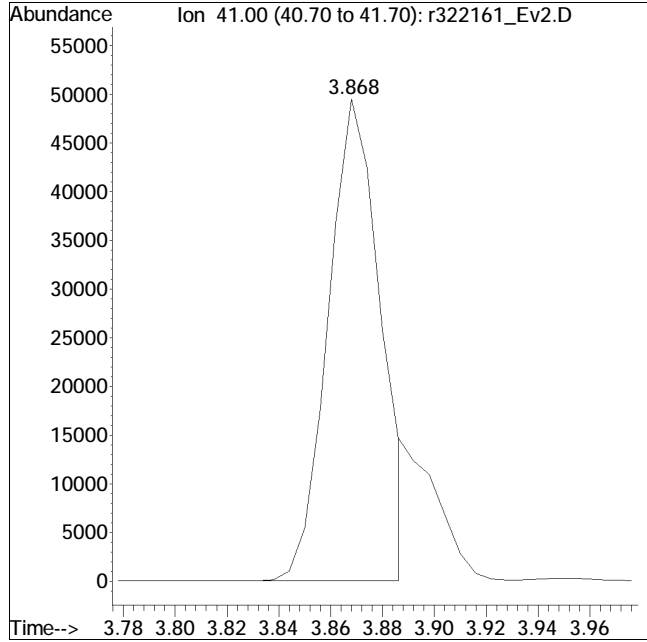
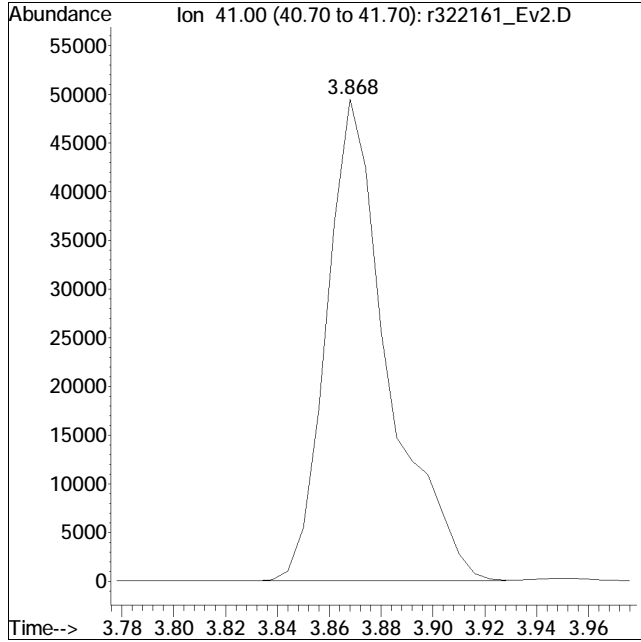
Quant Time: May 17 17:27:48 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 14:26:18 2022  
Response via : Initial Calibration



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322161\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/17/2020 0:2: 0 Instrument :  
Sample : ITO15-SIMSTD010 Quant Date : 5/17/2022 2:27 pm

Compound #2: propylene



Original Peak Response = 81777

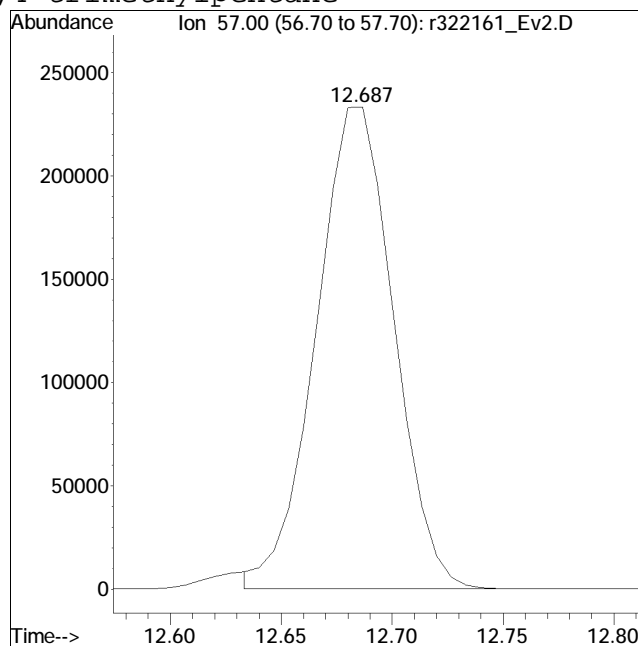
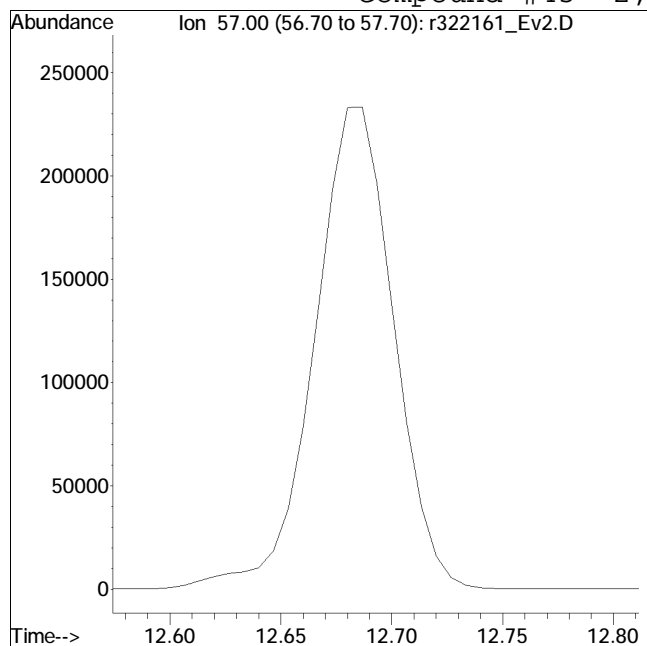
Manual Peak Response = 69682 M6

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

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322161\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/17/2020 0:2: 0 Instrument :  
Sample : ITO15-SIMSTD010 Quant Date : 5/17/2022 2:27 pm

Compound #45: 2,2,4-trimethylpentane



Original Peak Response =

Manual Peak Response = 567750 M6

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322162\_Ev2.D  
 Acq On : 17 May 2022 2:39 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-SIMSTD020  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 17:28:19 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 14:26:18 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\r322160\_Ev2.D  
 Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) bromochloromethane	9.558	49	268526	10.000	ppbV	0.00
Standard Area =	249837		Recovery =	107.48%		
33) 1,4-difluorobenzene	11.840	114	838941	10.000	ppbV	0.00
Standard Area =	791968		Recovery =	105.93%		
51) chlorobenzene-D5	16.575	54	128025	10.000	ppbV	0.00
Standard Area =	120616		Recovery =	106.14%		
<b>System Monitoring Compounds</b>						
35) 1,2-dichloroethane-D4	10.450	65	246923	9.757	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	97.57%		
53) toluene-D8	14.675	98	831720	9.848	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	98.48%		
67) bromofluorobenzene	17.950	95	535024	10.025	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	100.25%		
<b>Target Compounds</b>						
						Qvalue
2) propylene	3.868	41	192186M6	25.460	ppbV	
3) dichlorodifluoromethane	3.952	85	466171	25.163	ppbV	100
4) chloromethane	4.132	50	201316	25.691	ppbV	99
5) Freon-114	4.264	85	619272	25.928	ppbV	99
6) vinyl chloride	4.396	62	295560	27.569	ppbV	100
7) 1,3-butadiene	4.558	54	233517	27.672	ppbV	97
8) bromomethane	4.882	94	236465	27.135	ppbV	99
9) chloroethane	5.098	64	157577	29.485	ppbV	98
10) ethanol	5.277	31	1156857	131.399	ppbV	100
11) vinyl bromide	5.533	106	237388	27.592	ppbV	99
12) acrolein	5.683	56	141167	26.699	ppbV	99
13) acetone	5.840	43	1351433	124.888	ppbV	96
14) trichlorofluoromethane	6.053	101	402125	23.275	ppbV	99
15) isopropyl alcohol	6.177	45	1055881	74.384	ppbV	99
16) acrylonitrile	6.430	53	249957	29.313	ppbV	99
17) 1,1-dichloroethene	6.830	61	386302	28.183	ppbV	100
18) tertiary butyl alcohol	6.902	59	540307	31.869	ppbV	98
19) methylene chloride	6.998	49	306706	21.996	ppbV	96
20) 3-chloropropene	7.136	41	356654	28.962	ppbV	99
21) carbon disulfide	7.292	76	887357	28.129	ppbV	98
22) Freon 113	7.334	101	483754	26.975	ppbV	99
23) trans-1,2-dichloroethene	8.133	61	397501	28.759	ppbV	100
24) 1,1-dichloroethane	8.367	63	470975	28.178	ppbV	100

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322162\_Ev2.D  
 Acq On : 17 May 2022 2:39 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-SIMSTD020  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 17:28:19 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 14:26:18 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\r322160\_Ev2.D  
 Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) MTBE	8.442	73	720638	28.504	ppbV	98
26) vinyl acetate	8.583	43	552779	32.252	ppbV	97
27) 2-butanone	8.842	43	553686	27.965	ppbV	99
28) cis-1,2-dichloroethene	9.367	61	357195	28.501	ppbV	98
29) Ethyl Acetate	9.667	61	101923	29.971	ppbV	76
30) chloroform	9.725	83	491187	27.863	ppbV	99
31) Tetrahydrofuran	10.158	42	338146	28.873	ppbV	99
32) 1,2-dichloroethane	10.575	62	287419	27.170	ppbV	99
34) hexane	9.633	57	512487	27.908	ppbV	98
36) 1,1,1-trichloroethane	10.867	97	432020	30.558	ppbV	99
37) benzene	11.400	78	996770	28.435	ppbV	100
38) carbon tetrachloride	11.573	117	401480	29.200	ppbV	97
39) cyclohexane	11.713	56	554483	29.348	ppbV	98
40) Dibromomethane	12.327	93	286407	28.428	ppbV #	99
41) 1,2-dichloropropane	12.353	63	327876	28.747	ppbV	98
42) bromodichloromethane	12.587	83	540200	29.803	ppbV	100
43) 1,4-dioxane	12.627	88	225218	31.217	ppbV	93
44) trichloroethene	12.640	130	439038	28.004	ppbV	97
45) 2,2,4-trimethylpentane	12.687	57	1635235	29.002	ppbV	99
46) heptane	13.007	43	583487	28.328	ppbV	98
47) cis-1,3-dichloropropene	14.275	75	464309	31.192	ppbV	98
48) 4-methyl-2-pentanone	13.683	43	689081	28.498	ppbV	97
49) trans-1,3-dichloropropene	13.650	75	494516	30.387	ppbV	98
50) 1,1,2-trichloroethane	14.475	97	347678	28.205	ppbV	97
52) toluene	14.792	91	1068392	27.757	ppbV	100
54) 2-hexanone	15.067	43	661438	28.748	ppbV	97
55) dibromochloromethane	15.233	129	554349	29.099	ppbV	99
56) 1,2-dibromoethane	15.483	107	542437	27.653	ppbV	100
57) tetrachloroethene	15.958	166	555495	27.680	ppbV	99
58) 1,1,1,2-tetrachloroethane	16.600	131	429264	28.733	ppbV	99
59) chlorobenzene	16.617	112	937556	27.406	ppbV	98
60) ethylbenzene	16.967	91	1307276	28.089	ppbV	100
61) m+p-xylene	17.133	91	2163030	54.740	ppbV	98
62) bromoform	17.200	173	535911	30.264	ppbV	99
63) styrene	17.458	104	1001859	28.156	ppbV	100
64) 1,1,2,2-tetrachloroethane	17.550	83	830565	28.454	ppbV	100
65) o-xylene	17.550	91	1083166	27.205	ppbV	99
66) 1,2,3-Trichloropropane	17.667	75	685040	28.258	ppbV	98
68) isopropylbenzene	18.067	105	1589900	27.001	ppbV	97
69) Bromobenzene	18.142	77	912170	28.428	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322162\_Ev2.D  
 Acq On : 17 May 2022 2:39 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-SIMSTD020  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 17:28:19 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 14:26:18 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\r322160\_Ev2.D  
 Sub List : Default-ICV-AP2 - All compounds listed

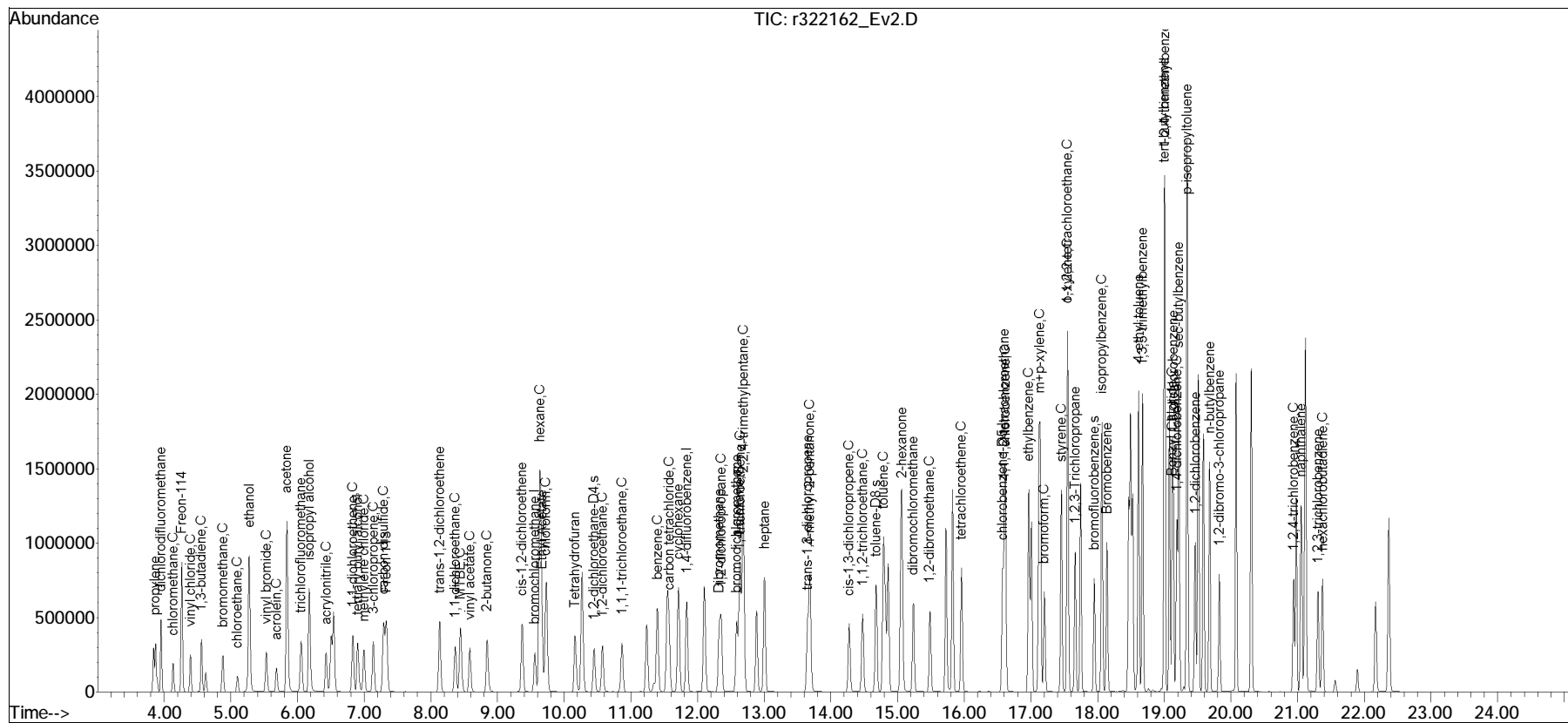
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) 4-ethyl toluene	18.617	105	1676875	26.927	ppbV	98
71) 1,3,5-trimethylbenzene	18.675	105	1431681	26.706	ppbV	98
72) tert-butylbenzene	19.000	119	1444194	25.857	ppbV	98
73) 1,2,4-trimethylbenzene	19.008	105	1378997	26.167	ppbV	92
74) Benzyl Chloride	19.117	91	1007608	38.897	ppbV	99
75) 1,3-dichlorobenzene	19.133	146	1044991	26.421	ppbV	99
76) 1,4-dichlorobenzene	19.192	146	1055178	26.452	ppbV	92
77) sec-butylbenzene	19.217	105	2048321	26.077	ppbV	98
78) p-isopropyltoluene	19.342	119	1725360	25.553	ppbV	97
79) 1,2-dichlorobenzene	19.467	146	987269	26.840	ppbV	98
80) n-butylbenzene	19.683	91	1514058	27.597	ppbV	91
81) 1,2-dibromo-3-chloropr...	19.825	75	409975	28.265	ppbV	95
82) 1,2,4-trichlorobenzene	20.942	180	816605	27.446	ppbV	100
83) naphthalene	21.050	128	2018508	25.651	ppbV	100
84) 1,2,3-trichlorobenzene	21.308	180	780396	25.802	ppbV	99
85) hexachlorobutadiene	21.375	225	682110	24.142	ppbV	97

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

Sub List : Default-ICV-AP2 - All compounds listed16SIM\_I\r322160\_Ev2.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
Data File : r322162\_Ev2.D  
Acq On : 17 May 2022 2:39 AM  
Operator : AIRPIANO3:TS  
Sample : ITO15-SIMSTD020  
Misc : WG1639637  
ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 17:28:19 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 14:26:18 2022  
Response via : Initial Calibration

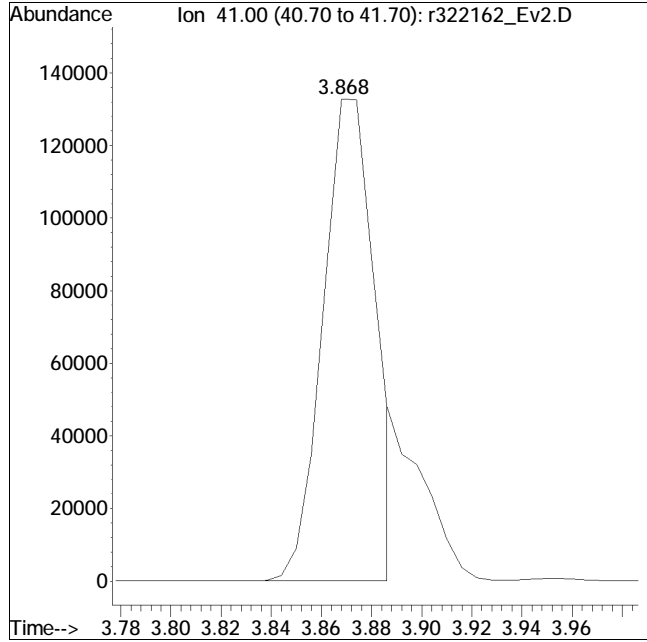
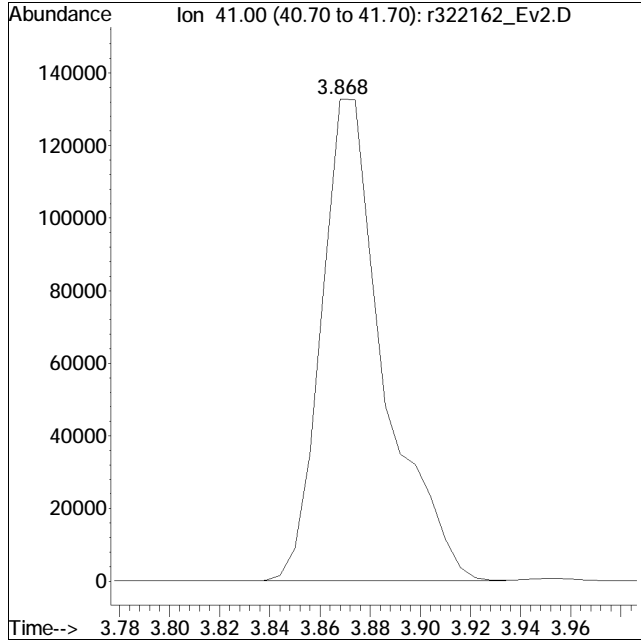




Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322162\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/17/2020 0:2: 9 Instrument :  
Sample : ITO15-SIMSTD020 Quant Date : 5/17/2022 2:27 pm

Compound #2: propylene



Original Peak Response = 230574

Manual Peak Response = 192186 M6

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322163\_Ev2.D  
 Acq On : 17 May 2022 3:19 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-SIMSTD050  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 17:30:15 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 14:26:18 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\r322160\_Ev2.D  
 Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) bromochloromethane	9.558	49	288486	10.000	ppbV	0.00
Standard Area =	249837		Recovery =	115.47%		
33) 1,4-difluorobenzene	11.840	114	886443	10.000	ppbV	0.00
Standard Area =	791968		Recovery =	111.93%		
51) chlorobenzene-D5	16.575	54	134032	10.000	ppbV	0.00
Standard Area =	120616		Recovery =	111.12%		
<b>System Monitoring Compounds</b>						
35) 1,2-dichloroethane-D4	10.450	65	252553	9.445	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	94.45%		
53) toluene-D8	14.675	98	880694	9.961	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	99.61%		
67) bromofluorobenzene	17.950	95	565591	10.123	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	101.23%		
<b>Target Compounds</b>						
						Qvalue
2) propylene	3.868	41	489075M6	60.308	ppbV	
3) dichlorodifluoromethane	3.952	85	1100050	55.270	ppbV	99
4) chloromethane	4.132	50	511556	60.765	ppbV	100
5) Freon-114	4.258	85	1484328	57.846	ppbV	100
6) vinyl chloride	4.390	62	764541	66.380	ppbV	100
7) 1,3-butadiene	4.558	54	600591	66.247	ppbV	99
8) bromomethane	4.876	94	606457	64.777	ppbV	100
9) chloroethane	5.098	64	417375	72.693	ppbV	94
10) ethanol	5.277	31	2857505	302.107	ppbV	98
11) vinyl bromide	5.530	106	611821	66.192	ppbV	98
12) acrolein	5.680	56	372339	65.548	ppbV	98
13) acetone	5.837	43	3451297	296.872	ppbV	93
14) trichlorofluoromethane	6.050	101	1147422	61.816	ppbV	99
15) isopropyl alcohol	6.177	45	2725093	178.693	ppbV	98
16) acrylonitrile	6.427	53	685957	74.879	ppbV	98
17) 1,1-dichloroethene	6.824	61	1019735	69.249	ppbV	99
18) tertiary butyl alcohol	6.896	59	1498990	82.299	ppbV	95
19) methylene chloride	6.992	49	800588	53.443	ppbV	95
20) 3-chloropropene	7.136	41	948042	71.659	ppbV	97
21) carbon disulfide	7.286	76	2294382	67.700	ppbV	98
22) Freon 113	7.328	101	1251579	64.962	ppbV	99
23) trans-1,2-dichloroethene	8.133	61	1059541	71.355	ppbV	97
24) 1,1-dichloroethane	8.367	63	1265075	70.451	ppbV	100

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322163\_Ev2.D  
 Acq On : 17 May 2022 3:19 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-SIMSTD050  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 17:30:15 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 14:26:18 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\r322160\_Ev2.D  
 Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) MTBE	8.442	73	1869286	68.823	ppbV	96
26) vinyl acetate	8.583	43	1518716	82.479	ppbV #	94
27) 2-butanone	8.842	43	1451902	68.258	ppbV	96
28) cis-1,2-dichloroethene	9.367	61	957867	71.140	ppbV	99
29) Ethyl Acetate	9.658	61	285753	78.214	ppbV	87
30) chloroform	9.725	83	1265380	66.812	ppbV	99
31) Tetrahydrofuran	10.158	42	901376	71.640	ppbV	97
32) 1,2-dichloroethane	10.575	62	737068	64.854	ppbV	97
34) hexane	9.633	57	1327912	68.437	ppbV	97
36) 1,1,1-trichloroethane	10.867	97	1127956	75.509	ppbV	97
37) benzene	11.400	78	2607704	70.403	ppbV	99
38) carbon tetrachloride	11.573	117	1022749	70.399	ppbV	96
39) cyclohexane	11.713	56	1500783	75.178	ppbV	96
40) Dibromomethane	12.327	93	744958	69.980	ppbV #	98
41) 1,2-dichloropropane	12.353	63	886009	73.520	ppbV	97
42) bromodichloromethane	12.587	83	1419280	74.105	ppbV	100
43) 1,4-dioxane	12.620	88	614868	80.659	ppbV	92
44) trichloroethene	12.640	130	1135981	68.576	ppbV	98
45) 2,2,4-trimethylpentane	12.687	57	4246233M6	71.273	ppbV	
46) heptane	13.007	43	1518128	69.755	ppbV	97
47) cis-1,3-dichloropropene	14.275	75	1238600	78.750	ppbV	96
48) 4-methyl-2-pentanone	13.683	43	1788673	70.009	ppbV	93
49) trans-1,3-dichloropropene	13.650	75	1310778	76.228	ppbV	96
50) 1,1,2-trichloroethane	14.475	97	921084	70.718	ppbV	95
52) toluene	14.792	91	2767394	68.675	ppbV	99
54) 2-hexanone	15.067	43	1688035	70.079	ppbV	95
55) dibromochloromethane	15.242	129	1407518	70.573	ppbV	99
56) 1,2-dibromoethane	15.492	107	1395478	67.952	ppbV	99
57) tetrachloroethene	15.958	166	1407612	66.998	ppbV	99
58) 1,1,1,2-tetrachloroethane	16.600	131	1080309	69.070	ppbV	100
59) chlorobenzene	16.617	112	2363719	65.997	ppbV	98
60) ethylbenzene	16.967	91	3370263	69.171	ppbV	98
61) m+p-xylene	17.133	91	5333089	128.917	ppbV	97
62) bromoform	17.208	173	1361522	73.442	ppbV	98
63) styrene	17.458	104	2555181	68.591	ppbV	99
64) 1,1,2,2-tetrachloroethane	17.550	83	2022736	66.191	ppbV	100
65) o-xylene	17.550	91	2618631	62.822	ppbV	94
66) 1,2,3-Trichloropropane	17.667	75	1751985	69.030	ppbV	97
68) isopropylbenzene	18.067	105	3898078	63.234	ppbV	95
69) Bromobenzene	18.142	77	2283516	67.977	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322163\_Ev2.D  
 Acq On : 17 May 2022 3:19 AM  
 Operator : AIRPIANO3:TS  
 Sample : ITO15-SIMSTD050  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 17:30:15 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 14:26:18 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\r322160\_Ev2.D  
 Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) 4-ethyl toluene	18.617	105	4082066	62.610	ppbV	95
71) 1,3,5-trimethylbenzene	18.675	105	3468074	61.792	ppbV	96
72) tert-butylbenzene	19.000	119	3182634	54.429	ppbV	91
73) 1,2,4-trimethylbenzene	19.008	105	3055959	55.389	ppbV	90
74) Benzyl Chloride	19.117	91	2617911	96.531	ppbV	96
75) 1,3-dichlorobenzene	19.133	146	2511074	60.644	ppbV	97
76) 1,4-dichlorobenzene	19.192	146	2554415	61.166	ppbV	93
77) sec-butylbenzene	19.217	105	4829840	58.732	ppbV	93
78) p-isopropyltoluene	19.342	119	3710917M6	52.497	ppbV	
79) 1,2-dichlorobenzene	19.467	146	2445696	63.508	ppbV	97
80) n-butylbenzene	19.675	91	3611703	62.880	ppbV	95
81) 1,2-dibromo-3-chloropr...	19.825	75	988722	65.110	ppbV	91
82) 1,2,4-trichlorobenzene	20.942	180	2052820	65.904	ppbV	99
83) naphthalene	21.050	128	4896370	59.434	ppbV	99
84) 1,2,3-trichlorobenzene	21.300	180	1950875	61.610	ppbV	99
85) hexachlorobutadiene	21.375	225	1577766	53.340	ppbV	92

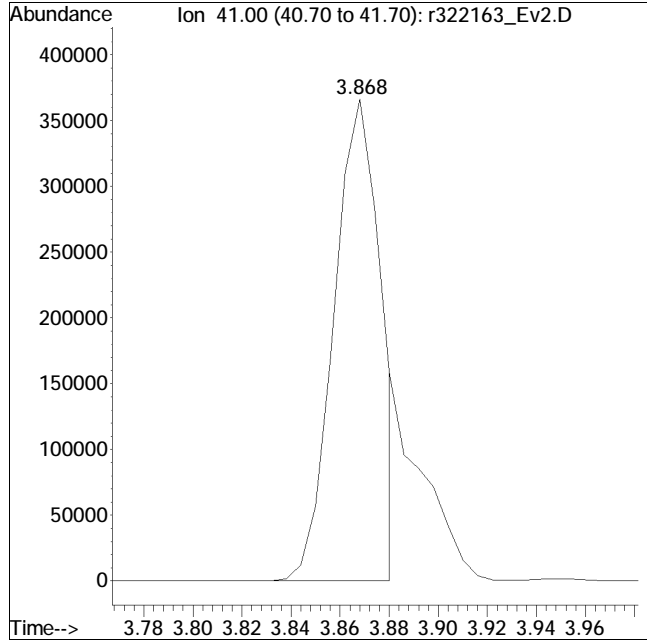
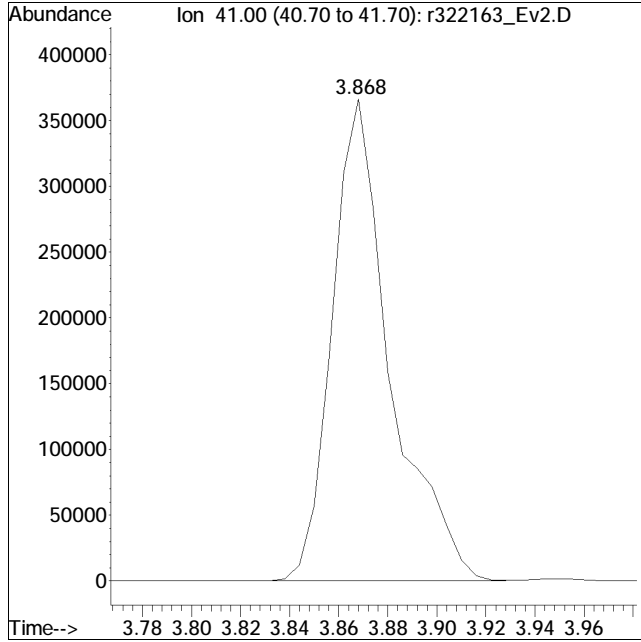
(#) = qualifier out of range (m) = manual integration (+) = signals summed



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322163\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/17/2020 0:3: 9 Instrument :  
Sample : ITO15-SIMSTD050 Quant Date : 5/17/2022 2:27 pm

Compound #2: propylene



Original Peak Response = 602808

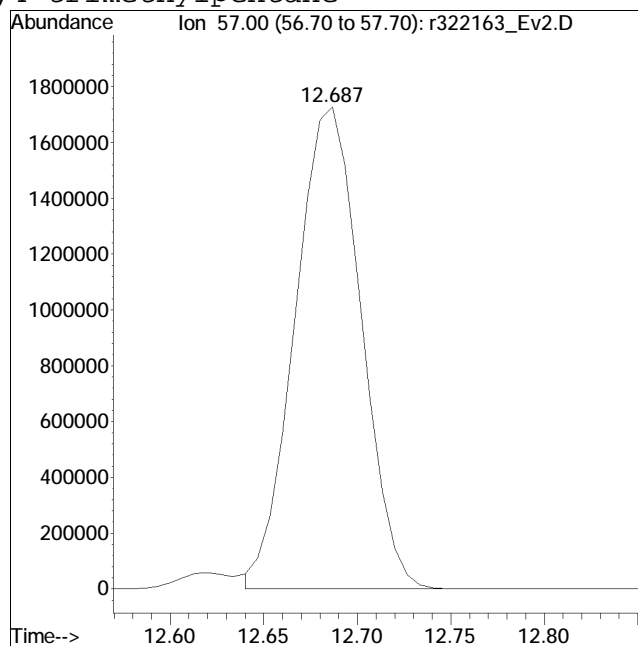
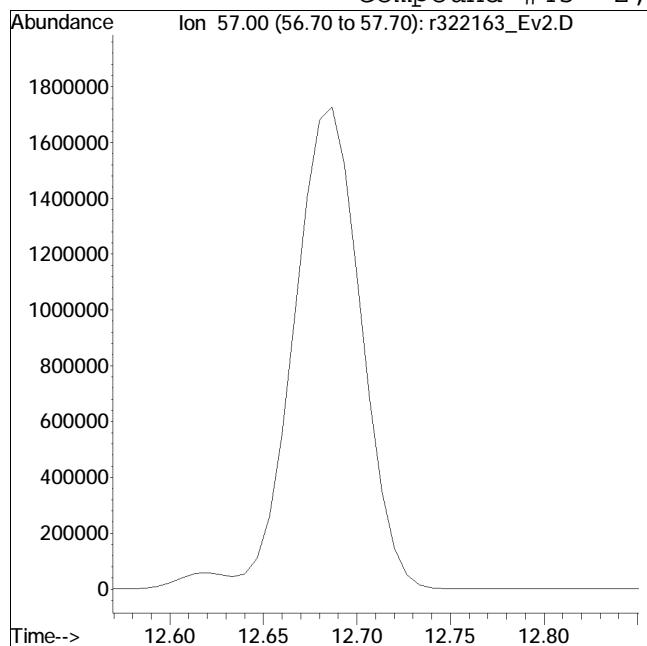
Manual Peak Response = 489075 M6

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

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322163\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/17/2020 0:3: 9 Instrument :  
Sample : ITO15-SIMSTD050 Quant Date : 5/17/2022 2:27 pm

Compound #45: 2,2,4-trimethylpentane



Original Peak Response =

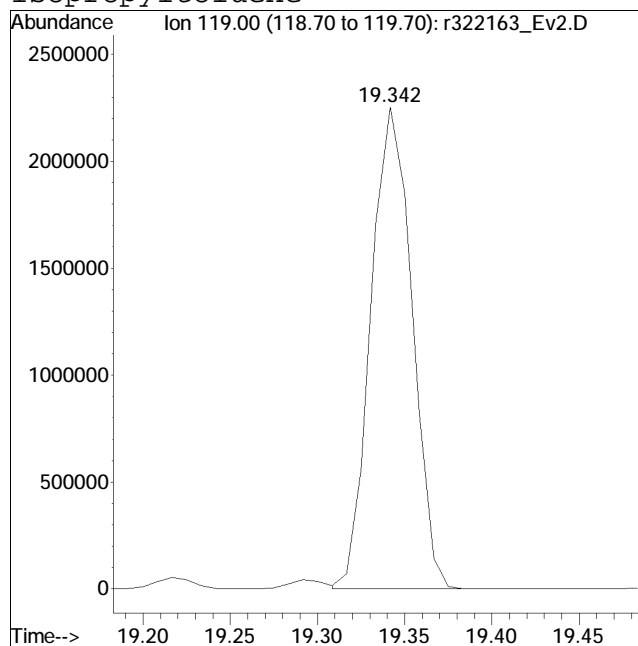
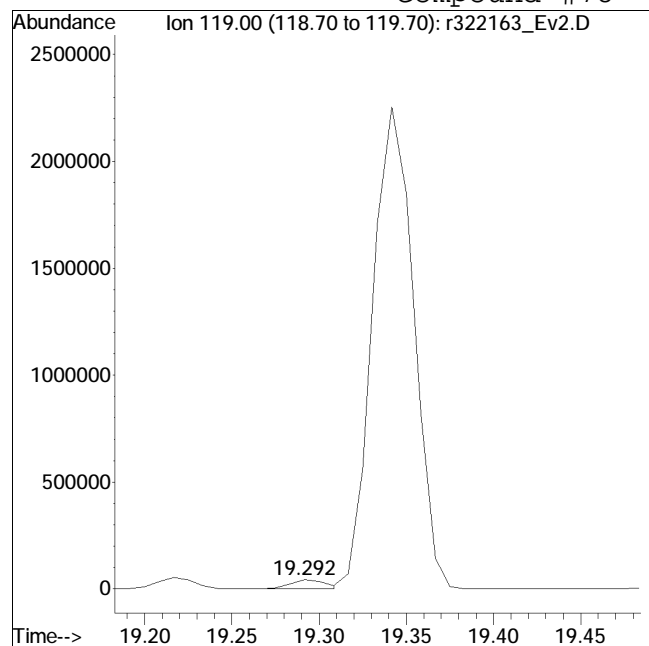
Manual Peak Response = 4246233 M6

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

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322163\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/17/2020 0:3: 9 Instrument :  
Sample : ITO15-SIMSTD050 Quant Date : 5/17/2022 2:27 pm

Compound #78: p-isopropyltoluene



Original Peak Response = 62479

Manual Peak Response = 3710917 M6

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



Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322168\_Ev2.D  
 Acq On : 17 May 2022 11:55 AM  
 Operator : AIRPIANO3:TS  
 Sample : CTO15-SIMSTD5.0  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 17:37:07 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 17:30:54 2022  
 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	110	0.00
2	propylene	0.381	0.430	-12.9	169#	0.00
3	dichlorodifluoromethane	0.831	0.813	2.2	130	0.00
4 C	chloromethane	0.374	0.370	1.1	140	0.00
5	Freon-114	1.043	1.166	-11.8	145#	0.00
6 C	vinyl chloride	0.457	0.569	-24.5	157#	-0.01
7 C	1,3-butadiene	0.365	0.448	-22.7	157#	0.00
8 C	bromomethane	0.419	0.461	-10.0	157#	0.00
9 C	chloroethane	0.259	0.295	-13.9	164#	0.00
10	ethanol	0.419	0.413	1.4	139	0.00
11 C	vinyl bromide	0.402	0.445	-10.7	153#	0.00
12 C	acrolein	0.621	0.243	60.9#	136	0.00
13	acetone	0.555	0.670	-20.7	183#	-0.01
14	trichlorofluoromethane	0.916	0.852	7.0	146#	0.00
15	isopropyl alcohol	0.661	0.806	-21.9	168#	-0.01
16 C	acrylonitrile	0.419	0.480	-14.6	167#	-0.01
17 C	1,1-dichloroethene	0.576	0.796	-38.2#	172#	-0.01
18	tertiary butyl alcohol	0.783	1.044	-33.3#	182#	-0.02
19 C	methylene chloride	0.641	0.592	7.6	126	-0.01
20 C	3-chloropropene	0.574	0.752	-31.0#	181#	-0.01
21 C	carbon disulfide	1.469	1.592	-8.4	150#	-0.01
22	Freon 113	0.846	0.981	-16.0	162#	-0.01
23	trans-1,2-dichloroethene	0.610	0.798	-30.8#	171#	0.00
24 C	1,1-dichloroethane	0.728	0.978	-34.3#	173#	0.00
25 C	MTBE	1.055	1.354	-28.3	159#	0.00
26 C	vinyl acetate	0.858	0.930	-8.4	161#	0.00
27 C	2-butanone	1.001	1.040	-3.9	156#	0.00
28	cis-1,2-dichloroethene	0.540	0.748	-38.5#	177#	0.00
29	Ethyl Acetate	0.159	0.213	-34.0#	185#	0.00
30 C	chloroform	0.774	0.965	-24.7	162#	0.00
31	Tetrahydrofuran	0.549	0.641	-16.8	162#	-0.02
32 C	1,2-dichloroethane	0.479	0.531	-10.9	149#	0.00
33 I	1,4-difluorobenzene	1.000	1.000	0.0	111	-0.01
34 C	hexane	0.276	0.339	-22.8	172#	0.00
35 s	1,2-dichloroethane-D4	0.296	0.277	6.4	102	-0.02
36 C	1,1,1-trichloroethane	0.201	0.245	-21.9	162#	0.00
37 C	benzene	0.635	0.598	5.8	159#	-0.01
38 C	carbon tetrachloride	0.206	0.231	-12.1	157#	-0.01

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322168\_Ev2.D  
 Acq On : 17 May 2022 11:55 AM  
 Operator : AIRPIANO3:TS  
 Sample : CTO15-SIMSTD5.0  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 17:37:07 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 17:30:54 2022  
 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	0.286	0.361	-26.2	178#	0.00
40	Dibromomethane	0.159	0.172	-8.2	159#	0.00
41 C	1,2-dichloropropane	0.164	0.216	-31.7#	177#	0.00
42	bromodichloromethane	0.256	0.326	-27.3	168#	0.00
43 C	1,4-dioxane	0.110	0.147	-33.6#	191#	-0.01
44 C	trichloroethene	0.217	0.278	-28.1	165#	-0.01
45 C	2,2,4-trimethylpentane	0.868	1.090	-25.6	180#	-0.01
46	heptane	0.313	0.353	-12.8	160#	-0.01
47 C	cis-1,3-dichloropropene	0.184	0.231	-25.5	145#	0.00
48 C	4-methyl-2-pentanone	0.353	0.407	-15.3	157#	0.00
49	trans-1,3-dichloropropene	0.218	0.297	-36.2#	170#	0.00
50 C	1,1,2-trichloroethane	0.170	0.224	-31.8#	169#	0.00
51 I	chlorobenzene-D5	1.000	1.000	0.0	108	0.00
52 C	toluene	4.565	4.727	-3.5	170#	0.00
53 s	toluene-D8	6.491	6.843	-5.4	112	0.00
54	2-hexanone	2.156	2.478	-14.9	149#	0.00
55	dibromochloromethane	1.653	2.364	-43.0#	172#	0.00
56 C	1,2-dibromoethane	1.753	2.161	-23.3	152#	0.00
57 C	tetrachloroethene	1.898	2.395	-26.2	165#	0.00
58	1,1,1,2-tetrachloroethane	1.352	1.681	-24.3	156#	0.00
59 C	chlorobenzene	3.257	3.906	-19.9	158#	0.00
60 C	ethylbenzene	4.266	5.843	-37.0#	174#	0.00
61 C	m+p-xylene	3.503	4.772	-36.2#	167#	0.00
62 C	bromoform	1.547	2.220	-43.5#	174#	0.00
63 C	styrene	3.107	4.007	-29.0	156#	0.00
64 C	1,1,2,2-tetrachloroethane	2.603	3.617	-39.0#	171#	0.00
65 C	o-xylene	3.577	4.851	-35.6#	169#	0.00
66	1,2,3-Trichloropropane	2.168	2.525	-16.5	144#	0.00
67 s	bromofluorobenzene	4.096	4.342	-6.0	113	0.00
68 C	isopropylbenzene	5.648	6.362	-12.6	150#	0.00
69	Bromobenzene	3.102	3.481	-12.2	150#	0.00
70	4-ethyl toluene	5.257	6.722	-27.9	149#	0.00
71	1,3,5-trimethylbenzene	4.377	5.883	-34.4#	152#	0.00
72	tert-butylbenzene	5.092	6.060	-19.0	150#	0.02
73	1,2,4-trimethylbenzene	4.262	5.862	-37.5#	154#	0.02
74 C	Benzyl Chloride	2.247	3.674	-63.5#	196#	0.02
75	1,3-dichlorobenzene	3.247	4.404	-35.6#	154#	0.03
76 C	1,4-dichlorobenzene	3.296	4.311	-30.8#	150#	0.03

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322168\_Ev2.D  
 Acq On : 17 May 2022 11:55 AM  
 Operator : AIRPIANO3:TS  
 Sample : CTO15-SIMSTD5.0  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 17:37:07 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 17:30:54 2022  
 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	7.214	8.007	-11.0	141#	0.03
78	p-isopropyltoluene	6.054	6.881	-13.7	141#	0.03
79	1,2-dichlorobenzene	3.184	4.074	-28.0	153#	0.04
80	n-butylbenzene	5.009	6.283	-25.4	158#	0.05
81	1,2-dibromo-3-chloropropane	1.123	1.461	-30.1#	139	0.05
82 C	1,2,4-trichlorobenzene	2.478	3.278	-32.3#	152#	0.06
83	naphthalene	6.485	8.490	-30.9#	149#	0.06
84	1,2,3-trichlorobenzene	2.552	3.183	-24.7	146#	0.05
85 C	hexachlorobutadiene	2.427	3.021	-24.5	148#	0.05

\* Evaluation of CC level amount vs concentration.  
 (#) = Out of Range SPCC's out = 0 CCC's out = 15

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322168\_Ev2.D  
 Acq On : 17 May 2022 11:55 AM  
 Operator : AIRPIANO3:TS  
 Sample : CTO15-SIMSTD5.0  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 17:37:07 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 17:30:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\r322160\_Ev2.D  
 Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) bromochloromethane	9.550	49	275628	10.000	ppbV	0.00
Standard Area =	249837		Recovery =	110.32%		
33) 1,4-difluorobenzene	11.827	114	881164	10.000	ppbV	-0.01
Standard Area =	791968		Recovery =	111.26%		
51) chlorobenzene-D5	16.567	54	130374	10.000	ppbV	0.00
Standard Area =	120616		Recovery =	108.09%		
<b>System Monitoring Compounds</b>						
35) 1,2-dichloroethane-D4	10.433	65	243751	9.350	ppbV	-0.02
Spiked Amount	10.000	Range 70 - 130	Recovery =	93.50%		
53) toluene-D8	14.667	98	892152	10.543	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	105.43%		
67) bromofluorobenzene	17.942	95	566052	10.600	ppbV	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery =	106.00%		
<b>Target Compounds</b>						
						Qvalue
2) propylene	3.862	41	59312M6	5.654	ppbV	
3) dichlorodifluoromethane	3.946	85	112084	4.893	ppbV	99
4) chloromethane	4.126	50	50950	4.939	ppbV	100
5) Freon-114	4.258	85	160751	5.594	ppbV	96
6) vinyl chloride	4.384	62	78479	6.230	ppbV	100
7) 1,3-butadiene	4.552	54	61721	6.142	ppbV	96
8) bromomethane	4.870	94	63495	5.498	ppbV	99
9) chloroethane	5.092	64	40719	5.714	ppbV	92
10) ethanol	5.263	31	284813	24.636	ppbV	99
11) vinyl bromide	5.523	106	61333	5.538	ppbV	97
12) acrolein	5.677	56	33449	1.954	ppbV	96
13) acetone	5.833	43	461476	30.191	ppbV	100
14) trichlorofluoromethane	6.047	101	117353	4.650	ppbV	99
15) isopropyl alcohol	6.167	45	277586	15.237	ppbV	97
16) acrylonitrile	6.417	53	66133	5.728	ppbV	98
17) 1,1-dichloroethene	6.818	61	109768	6.916	ppbV	99
18) tertiary butyl alcohol	6.896	59	143899	6.664	ppbV	94
19) methylene chloride	6.986	49	81545	4.614	ppbV	91
20) 3-chloropropene	7.124	41	103628	6.550	ppbV	95
21) carbon disulfide	7.280	76	219411	5.418	ppbV	97
22) Freon 113	7.322	101	135220	5.801	ppbV	99
23) trans-1,2-dichloroethene	8.125	61	110000	6.537	ppbV	99
24) 1,1-dichloroethane	8.358	63	134783	6.721	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322168\_Ev2.D  
 Acq On : 17 May 2022 11:55 AM  
 Operator : AIRPIANO3:TS  
 Sample : CTO15-SIMSTD5.0  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 17:37:07 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 17:30:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\r322160\_Ev2.D  
 Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) MTBE	8.442	73	186552	6.416	ppbV	94
26) vinyl acetate	8.575	43	128227	5.423	ppbV	94
27) 2-butanone	8.842	43	143283	5.192	ppbV	96
28) cis-1,2-dichloroethene	9.358	61	103060	6.919	ppbV	99
29) Ethyl Acetate	9.658	61	29311	6.668	ppbV #	57
30) chloroform	9.717	83	132954	6.232	ppbV	97
31) Tetrahydrofuran	10.158	42	88390	5.841	ppbV	98
32) 1,2-dichloroethane	10.567	62	73158	5.537	ppbV	98
34) hexane	9.625	57	149295	6.140	ppbV	90
36) 1,1,1-trichloroethane	10.858	97	108157	6.098	ppbV	98
37) benzene	11.387	78	263438	4.707	ppbV	99
38) carbon tetrachloride	11.560	117	101645	5.600	ppbV	99
39) cyclohexane	11.707	56	159126	6.313	ppbV	97
40) Dibromomethane	12.313	93	75830	5.404	ppbV #	96
41) 1,2-dichloropropane	12.347	63	95065	6.583	ppbV	96
42) bromodichloromethane	12.580	83	143458	6.361	ppbV	98
43) 1,4-dioxane	12.620	88	64929	6.703	ppbV	96
44) trichloroethene	12.627	130	122285	6.392	ppbV	96
45) 2,2,4-trimethylpentane	12.673	57	480244M6	6.280	ppbV	
46) heptane	12.993	43	155721	5.649	ppbV	94
47) cis-1,3-dichloropropene	14.267	75	101660	6.268	ppbV	97
48) 4-methyl-2-pentanone	13.683	43	179344	5.760	ppbV	90
49) trans-1,3-dichloropropene	13.642	75	130891	6.812	ppbV	96
50) 1,1,2-trichloroethane	14.467	97	98596	6.595	ppbV	96
52) toluene	14.783	91	308119	5.177	ppbV	100
54) 2-hexanone	15.067	43	161535	5.748	ppbV	91
55) dibromochloromethane	15.233	129	154087	7.151	ppbV	100
56) 1,2-dibromoethane	15.483	107	140873	6.165	ppbV	100
57) tetrachloroethene	15.958	166	156127	6.309	ppbV	96
58) 1,1,1,2-tetrachloroethane	16.600	131	109578	6.217	ppbV	99
59) chlorobenzene	16.608	112	254596	5.995	ppbV	98
60) ethylbenzene	16.967	91	380859	6.848	ppbV	96
61) m+p-xylene	17.125	91	622093	13.623	ppbV	93
62) bromoform	17.200	173	144728	7.177	ppbV	99
63) styrene	17.450	104	261203	6.448	ppbV	99
64) 1,1,2,2-tetrachloroethane	17.542	83	235800	6.949	ppbV	100
65) o-xylene	17.542	91	316233	6.782	ppbV	92
66) 1,2,3-Trichloropropane	17.658	75	164586	5.824	ppbV	98
68) isopropylbenzene	18.058	105	414729	5.632	ppbV	98
69) Bromobenzene	18.133	77	226900	5.610	ppbV	97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
 Data File : r322168\_Ev2.D  
 Acq On : 17 May 2022 11:55 AM  
 Operator : AIRPIANO3:TS  
 Sample : CTO15-SIMSTD5.0  
 Misc : WG1639637  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 17 17:37:07 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 17:30:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\r322160\_Ev2.D  
 Sub List : Default-ICV-AP2 - All compounds listed

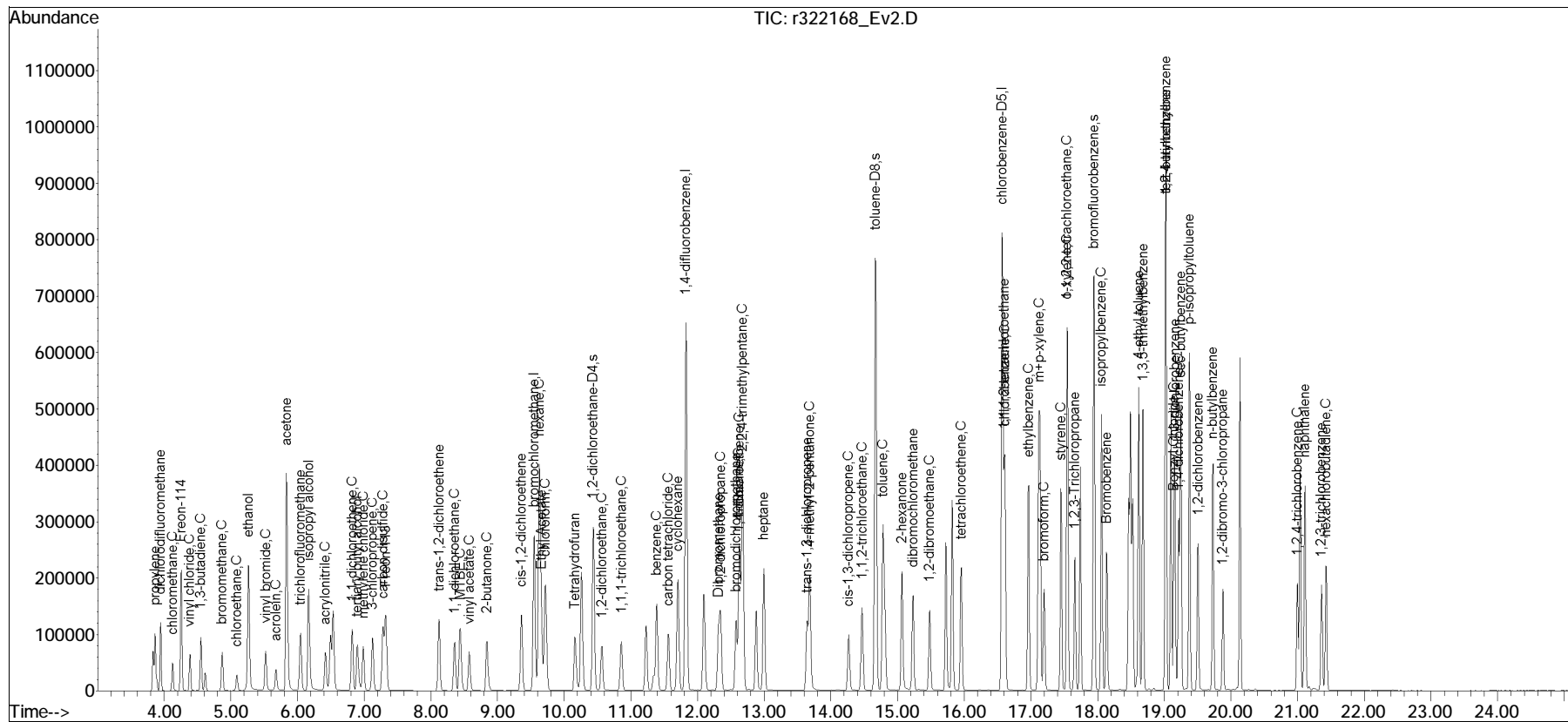
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) 4-ethyl toluene	18.617	105	438173	6.393	ppbV	98
71) 1,3,5-trimethylbenzene	18.683	105	383488	6.720	ppbV	94
72) tert-butylbenzene	19.025	119	395063	5.951	ppbV	100
73) 1,2,4-trimethylbenzene	19.025	105	382131	6.877	ppbV	92
74) Benzyl Chloride	19.142	91	239526	8.177	ppbV	99
75) 1,3-dichlorobenzene	19.158	146	287059	6.782	ppbV	99
76) 1,4-dichlorobenzene	19.217	146	281041M6	6.541	ppbV	
77) sec-butylbenzene	19.250	105	521967	5.550	ppbV	96
78) p-isopropyltoluene	19.375	119	448547M6	5.683	ppbV	
79) 1,2-dichlorobenzene	19.508	146	265545	6.396	ppbV	99
80) n-butylbenzene	19.725	91	409600	6.273	ppbV	97
81) 1,2-dibromo-3-chloropr...	19.875	75	95226	6.502	ppbV	91
82) 1,2,4-trichlorobenzene	21.000	180	213687	6.615	ppbV	98
83) naphthalene	21.108	128	553415	6.546	ppbV	98
84) 1,2,3-trichlorobenzene	21.358	180	207520	6.236	ppbV	99
85) hexachlorobutadiene	21.425	225	196940	6.223	ppbV	99

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

Sub List : Default-ICV-AP2 - All compounds listed16SIM\_I\r322160\_Ev2.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\  
Data File : r322168\_Ev2.D  
Acq On : 17 May 2022 11:55 AM  
Operator : AIRPIANO3:TS  
Sample : CTO15-SIMSTD5.0  
Misc : WG1639637  
ALS Vial : 0 Sample Multiplier: 1

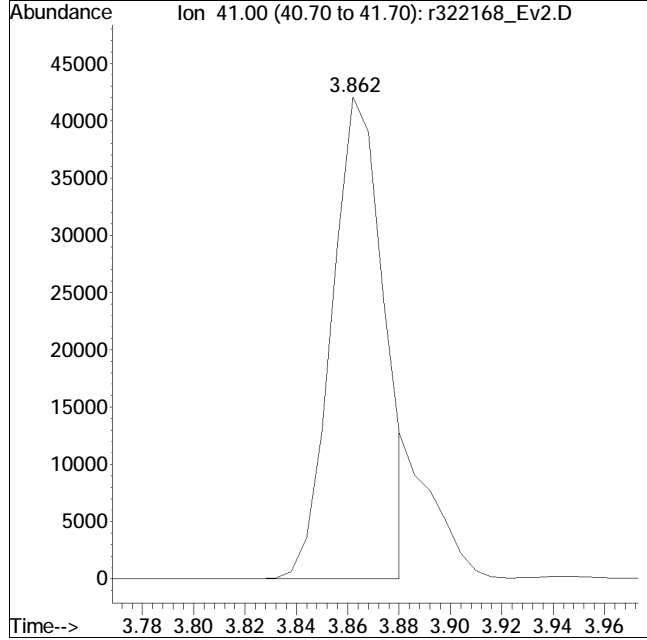
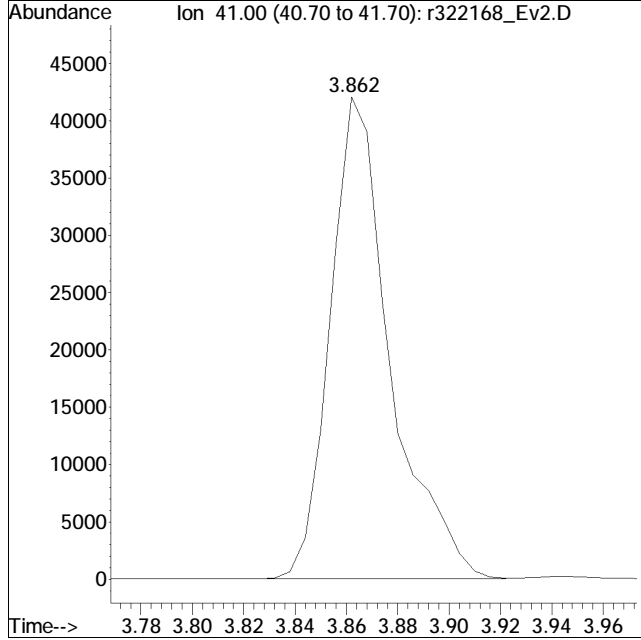
Quant Time: May 17 17:37:07 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0516SIM\_I\TSIM3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 17:30:54 2022  
Response via : Initial Calibration



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322168\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/17/2020 0:1: 5 Instrument :  
Sample : CTO15-SIMSTD5.0 Quant Date : 5/17/2022 5:33 pm

Compound #2: propylene



Original Peak Response = 68287

Manual Peak Response = 59312 M6

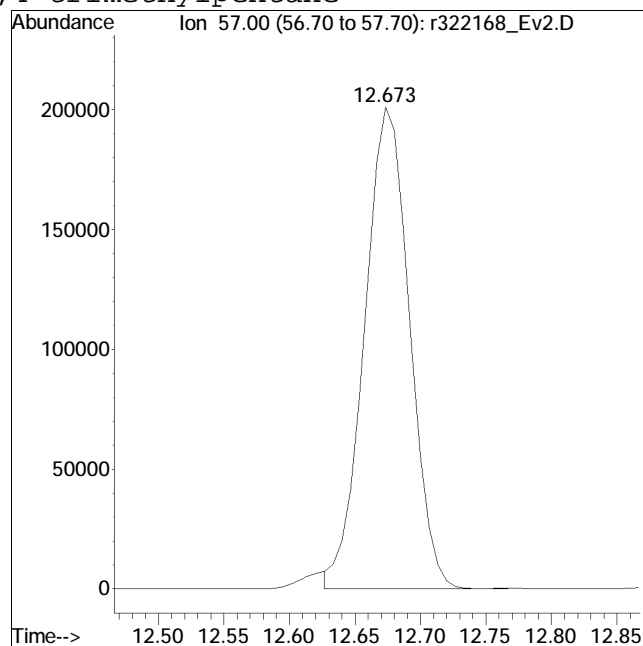
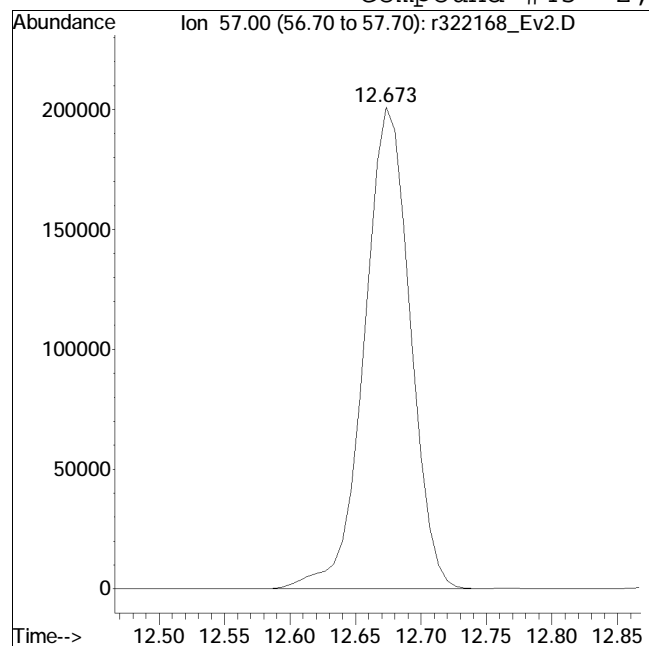
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322168\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/17/2020 0:1: 5 Instrument :  
Sample : CTO15-SIMSTD5.0 Quant Date : 5/17/2022 5:33 pm

Compound #45: 2,2,4-trimethylpentane



Original Peak Response = 489682

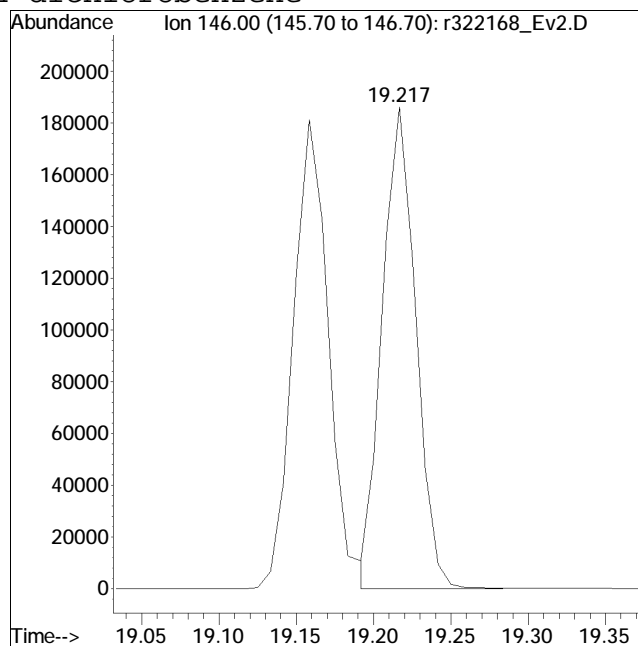
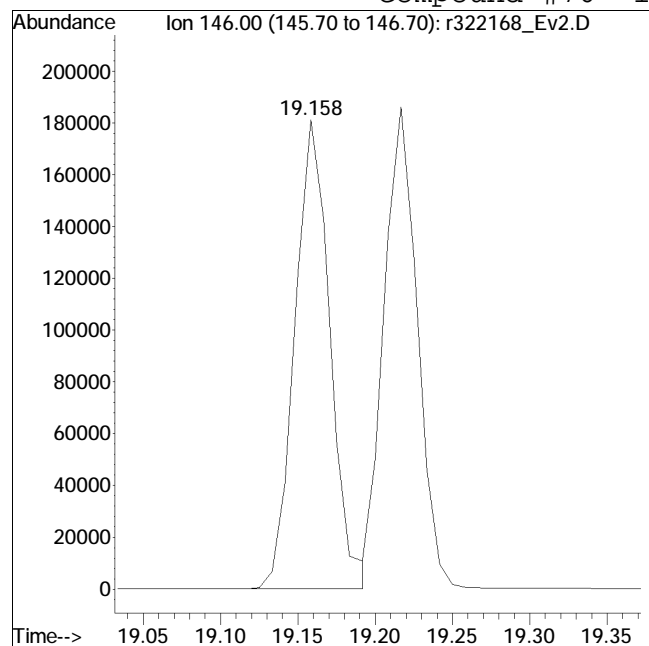
Manual Peak Response = 480244 M6

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

# Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322168\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/17/2020 0:1: 5 Instrument :  
Sample : CT015-SIMSTD5.0 Quant Date : 5/17/2022 5:33 pm

## Compound #76: 1,4-dichlorobenzene



Original Peak Response = 287059

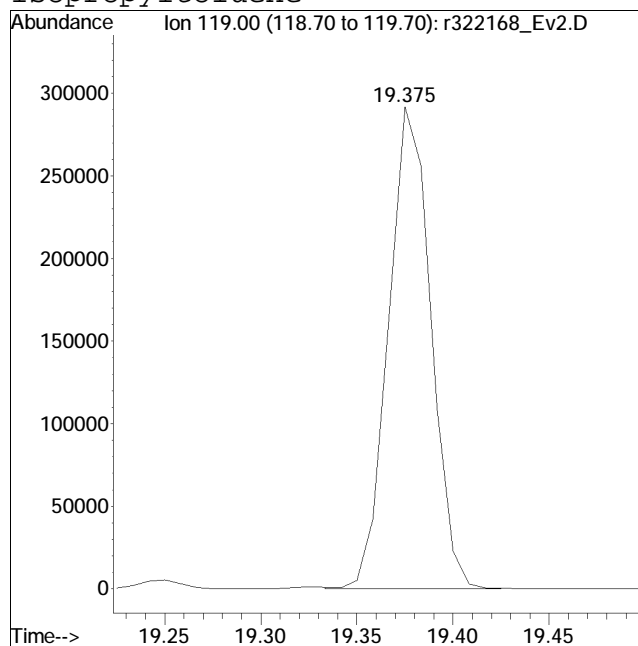
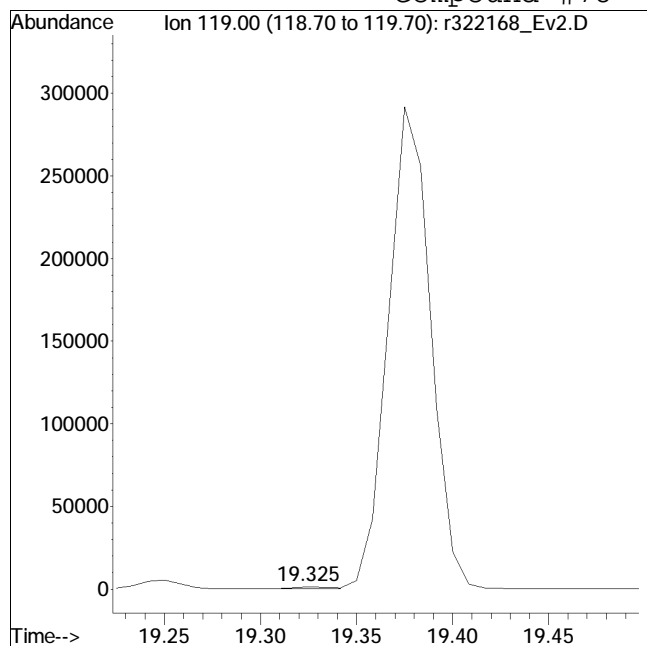
Manual Peak Response = 281041 M6

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

Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322168\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/17/2020 0:1: 5 Instrument :  
Sample : CT015-SIMSTD5.0 Quant Date : 5/17/2022 5:33 pm

Compound #78: p-isopropyltoluene



Original Peak Response = 1935

Manual Peak Response = 448547 M6

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

# **Continuing Calibration**

# Calibration Verification Summary

## Form 7

### Air Volatiles

Client : Langan Engineering & Environmental  
 Project Name : 57-00, 57-05 47TH ST  
 Instrument ID : AIRPIANO3  
 Lab File ID : R322195\_EV2  
 Sample No : WG1640149-2  
 Channel :

Lab Number : L2225590  
 Project Number : 100965503  
 Calibration Date : 05/18/22 14:29  
 Init. Calib. Date(s) : 05/16/22 05/17/22  
 Init. Calib. Times : 21:15 03:19

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
bromochloromethane	1	1	-	0	30	107	-0.03
propylene	0.381	0.396	-	-3.9	30	150	-0.01
dichlorodifluoromethane	0.831	0.929	-	-11.8	30	144	-0.01
chloromethane	0.374	0.396	-	-5.9	30	145	-0.01
Freon-114	1.043	1.241	-	-19	30	149	-0.02
vinyl chloride	0.457	0.572	-	-25.2	30	153	-0.02
1,3-butadiene	0.365	0.472	-	-29.3	30	160	-0.02
bromomethane	0.419	0.461	-	-10	30	152	-0.02
chloroethane	0.259	0.286	-	-10.4	30	153	-0.02
ethanol	0.419	0.43	-	-2.6	30	140	-0.02
vinyl bromide	0.402	0.449	-	-11.7	30	149	-0.02
acrolein	0.621	0.248	-	60.1*	30	134	-0.02
acetone	0.555	0.592	-	-6.7	30	157	-0.03
trichlorofluoromethane	0.916	0.907	-	1	30	150	-0.02
isopropyl alcohol	0.661	0.838	-	-26.8	30	169	-0.03
acrylonitrile	0.419	0.451	-	-7.6	30	152	-0.03
1,1-dichloroethene	0.576	0.743	-	-29	30	155	-0.02
tertiary butyl alcohol	0.783	0.982	-	-25.4	30	166	-0.03
methylene chloride	0.641	0.598	-	6.7	30	123	-0.02
3-chloropropene	0.574	0.718	-	-25.1	30	167	-0.02
carbon disulfide	1.469	1.584	-	-7.8	30	144	-0.02
Freon 113	0.846	0.961	-	-13.6	30	154	-0.02
trans-1,2-dichloroethene	0.61	0.721	-	-18.2	30	149	-0.03
1,1-dichloroethane	0.728	0.895	-	-22.9	30	153	-0.03
MTBE	1.055	1.386	-	-31.4*	30	157	-0.02
vinyl acetate	0.858	0.914	-	-6.5	30	153	-0.03
2-butanone	1.001	1.044	-	-4.3	30	151	-0.03
cis-1,2-dichloroethene	0.54	0.682	-	-26.3	30	156	-0.03
Ethyl Acetate	0.159	0.192	-	-20.8	30	162	-0.02
chloroform	0.774	0.956	-	-23.5	30	155	-0.03
Tetrahydrofuran	0.549	0.622	-	-13.3	30	152	-0.03
1,2-dichloroethane	0.479	0.55	-	-14.8	30	149	-0.02
1,4-difluorobenzene	1	1	-	0	30	106	-0.03
hexane	0.276	0.309	-	-12	30	149	-0.03
1,1,1-trichloroethane	0.201	0.25	-	-24.4	30	157	-0.03
benzene	0.635	0.593	-	6.6	30	150	-0.03
carbon tetrachloride	0.206	0.251	-	-21.8	30	162	-0.03
cyclohexane	0.286	0.331	-	-15.7	30	155	-0.02
Dibromomethane	0.159	0.163	-	-2.5	30	143	-0.02
1,2-dichloropropane	0.164	0.199	-	-21.3	30	154	-0.02
bromodichloromethane	0.256	0.324	-	-26.6	30	158	-0.03
1,4-dioxane	0.11	0.132	-	-20	30	162	-0.03
trichloroethene	0.217	0.271	-	-24.9	30	153	-0.03

\* Value outside of QC limits.



# Calibration Verification Summary

## Form 7

### Air Volatiles

Client : Langan Engineering & Environmental  
 Project Name : 57-00, 57-05 47TH ST  
 Instrument ID : AIRPIANO3  
 Lab File ID : R322195\_EV2  
 Sample No : WG1640149-2  
 Channel :

Lab Number : L2225590  
 Project Number : 100965503  
 Calibration Date : 05/18/22 14:29  
 Init. Calib. Date(s) : 05/16/22 05/17/22  
 Init. Calib. Times : 21:15 03:19

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
2,2,4-trimethylpentane	0.868	1.023	-	-17.9	30	161	-.03
heptane	0.313	0.358	-	-14.4	30	154	-.03
cis-1,3-dichloropropene	0.184	0.239	-	-29.9	30	142	-.03
4-methyl-2-pentanone	0.353	0.421	-	-19.3	30	154	-.03
trans-1,3-dichloropropene	0.218	0.304	-	-39.4*	30	165	-.03
1,1,2-trichloroethane	0.17	0.216	-	-27.1	30	155	-.03
chlorobenzene-D5	1	1	-	0	30	103	-.02
toluene	4.565	4.36	-	4.5	30	150	-.02
2-hexanone	2.156	2.57	-	-19.2	30	148	-.02
dibromochloromethane	1.653	2.326	-	-40.7*	30	161	-.03
1,2-dibromoethane	1.753	2.235	-	-27.5	30	151	-.02
tetrachloroethene	1.898	2.296	-	-21	30	151	-.02
1,1,1,2-tetrachloroethane	1.352	1.65	-	-22	30	146	-.02
chlorobenzene	3.257	3.942	-	-21	30	152	-.02
ethylbenzene	4.266	5.343	-	-25.2	30	152	-.02
m+p-xylene	3.503	4.468	-	-27.5	30	150	-.02
bromoform	1.547	2.183	-	-41.1*	30	163	-.02
styrene	3.107	4.057	-	-30.6*	30	151	-.02
1,1,2,2-tetrachloroethane	2.603	3.367	-	-29.4	30	153	-.02
o-xylene	3.577	4.568	-	-27.7	30	152	-.02
1,2,3-Trichloropropane	2.168	2.573	-	-18.7	30	140	-.02
isopropylbenzene	5.648	6.534	-	-15.7	30	147	-.02
Bromobenzene	3.102	3.482	-	-12.3	30	144	-.02
4-ethyl toluene	5.257	6.936	-	-31.9*	30	147	0
1,3,5-trimethylbenzene	4.377	6.134	-	-40.1*	30	151	0
tert-butylbenzene	5.092	5.977	-	-17.4	30	142	0
1,2,4-trimethylbenzene	4.262	6.04	-	-41.7*	30	152	.02
Benzyl Chloride	2.247	3.415	-	-52*	30	174	.02
1,3-dichlorobenzene	3.247	4.453	-	-37.1*	30	149	.02
1,4-dichlorobenzene	3.296	4.476	-	-35.8*	30	148	.02
sec-butylbenzene	7.214	8.348	-	-15.7	30	141	.02
p-isopropyltoluene	6.054	6.696	-	-10.6	30	131	.03
1,2-dichlorobenzene	3.184	4.189	-	-31.6*	30	151	.03
n-butylbenzene	5.009	5.911	-	-18	30	142	.04
1,2-dibromo-3-chloropropan	1.123	1.566	-	-39.4*	30	143	.04
1,2,4-trichlorobenzene	2.478	3.273	-	-32.1*	30	145	.04
naphthalene	6.485	8.349	-	-28.7	30	140	.05
1,2,3-trichlorobenzene	2.552	3.234	-	-26.7	30	141	.04
hexachlorobutadiene	2.427	3.127	-	-28.8	30	146	.04

\* Value outside of QC limits.



Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\  
 Data File : r322195\_Ev2.D  
 Acq On : 18 May 2022 2:29 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640149-2,3,250,250  
 Misc : WG1640149,ICAL19031  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 18 16:43:16 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 17:30:54 2022  
 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	107	-0.03
2	propylene	0.381	0.396	-3.9	150#	-0.01
3	dichlorodifluoromethane	0.831	0.929	-11.8	144#	-0.01
4 C	chloromethane	0.374	0.396	-5.9	145#	-0.01
5	Freon-114	1.043	1.241	-19.0	149#	-0.02
6 C	vinyl chloride	0.457	0.572	-25.2	153#	-0.02
7 C	1,3-butadiene	0.365	0.472	-29.3	160#	-0.02
8 C	bromomethane	0.419	0.461	-10.0	152#	-0.02
9 C	chloroethane	0.259	0.286	-10.4	153#	-0.02
10	ethanol	0.419	0.430	-2.6	140	-0.02
11 C	vinyl bromide	0.402	0.449	-11.7	149#	-0.02
12 C	acrolein	0.621	0.248	60.1#	134	-0.02
13	acetone	0.555	0.592	-6.7	157#	-0.03
14	trichlorofluoromethane	0.916	0.907	1.0	150#	-0.02
15	isopropyl alcohol	0.661	0.838	-26.8	169#	-0.03
16 C	acrylonitrile	0.419	0.451	-7.6	152#	-0.03
17 C	1,1-dichloroethene	0.576	0.743	-29.0	155#	-0.02
18	tertiary butyl alcohol	0.783	0.982	-25.4	166#	-0.03
19 C	methylene chloride	0.641	0.598	6.7	123	-0.02
20 C	3-chloropropene	0.574	0.718	-25.1	167#	-0.02
21 C	carbon disulfide	1.469	1.584	-7.8	144#	-0.02
22	Freon 113	0.846	0.961	-13.6	154#	-0.02
23	trans-1,2-dichloroethene	0.610	0.721	-18.2	149#	-0.03
24 C	1,1-dichloroethane	0.728	0.895	-22.9	153#	-0.03
25 C	MTBE	1.055	1.386	-31.4#	157#	-0.02
26 C	vinyl acetate	0.858	0.914	-6.5	153#	-0.03
27 C	2-butanone	1.001	1.044	-4.3	151#	-0.03
28	cis-1,2-dichloroethene	0.540	0.682	-26.3	156#	-0.03
29	Ethyl Acetate	0.159	0.192	-20.8	162#	-0.02
30 C	chloroform	0.774	0.956	-23.5	155#	-0.03
31	Tetrahydrofuran	0.549	0.622	-13.3	152#	-0.03
32 C	1,2-dichloroethane	0.479	0.550	-14.8	149#	-0.02
33 I	1,4-difluorobenzene	1.000	1.000	0.0	106	-0.03
34 C	hexane	0.276	0.309	-12.0	149#	-0.03
36 C	1,1,1-trichloroethane	0.201	0.250	-24.4	157#	-0.03
37 C	benzene	0.635	0.593	6.6	150#	-0.03
38 C	carbon tetrachloride	0.206	0.251	-21.8	162#	-0.03
39	cyclohexane	0.286	0.331	-15.7	155#	-0.02

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\  
 Data File : r322195\_Ev2.D  
 Acq On : 18 May 2022 2:29 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640149-2,3,250,250  
 Misc : WG1640149,ICAL19031  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 18 16:43:16 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 17:30:54 2022  
 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	0.159	0.163	-2.5	143#	-0.02
41 C	1,2-dichloropropane	0.164	0.199	-21.3	154#	-0.02
42	bromodichloromethane	0.256	0.324	-26.6	158#	-0.03
43 C	1,4-dioxane	0.110	0.132	-20.0	162#	-0.03
44 C	trichloroethene	0.217	0.271	-24.9	153#	-0.03
45 C	2,2,4-trimethylpentane	0.868	1.023	-17.9	161#	-0.03
46	heptane	0.313	0.358	-14.4	154#	-0.03
47 C	cis-1,3-dichloropropene	0.184	0.239	-29.9	142#	-0.03
48 C	4-methyl-2-pentanone	0.353	0.421	-19.3	154#	-0.03
49	trans-1,3-dichloropropene	0.218	0.304	-39.4#	165#	-0.03
50 C	1,1,2-trichloroethane	0.170	0.216	-27.1	155#	-0.03
51 I	chlorobenzene-D5	1.000	1.000	0.0	103	-0.02
52 C	toluene	4.565	4.360	4.5	150#	-0.02
54	2-hexanone	2.156	2.570	-19.2	148#	-0.02
55	dibromochloromethane	1.653	2.326	-40.7#	161#	-0.03
56 C	1,2-dibromoethane	1.753	2.235	-27.5	151#	-0.02
57 C	tetrachloroethene	1.898	2.296	-21.0	151#	-0.02
58	1,1,1,2-tetrachloroethane	1.352	1.650	-22.0	146#	-0.02
59 C	chlorobenzene	3.257	3.942	-21.0	152#	-0.02
60 C	ethylbenzene	4.266	5.343	-25.2	152#	-0.02
61 C	m+p-xylene	3.503	4.468	-27.5	150#	-0.02
62 C	bromoform	1.547	2.183	-41.1#	163#	-0.02
63 C	styrene	3.107	4.057	-30.6#	151#	-0.02
64 C	1,1,2,2-tetrachloroethane	2.603	3.367	-29.4	153#	-0.02
65 C	o-xylene	3.577	4.568	-27.7	152#	-0.02
66	1,2,3-Trichloropropane	2.168	2.573	-18.7	140#	-0.02
68 C	isopropylbenzene	5.648	6.534	-15.7	147#	-0.02
69	Bromobenzene	3.102	3.482	-12.3	144#	-0.02
70	4-ethyl toluene	5.257	6.936	-31.9#	147#	0.00
71	1,3,5-trimethylbenzene	4.377	6.134	-40.1#	151#	0.00
72	tert-butylbenzene	5.092	5.977	-17.4	142#	0.00
73	1,2,4-trimethylbenzene	4.262	6.040	-41.7#	152#	0.02
74 C	Benzyl Chloride	2.247	3.415	-52.0#	174#	0.02
75	1,3-dichlorobenzene	3.247	4.453	-37.1#	149#	0.02
76 C	1,4-dichlorobenzene	3.296	4.476	-35.8#	148#	0.02
77	sec-butylbenzene	7.214	8.348	-15.7	141#	0.02
78	p-isopropyltoluene	6.054	6.696	-10.6	131	0.03
79	1,2-dichlorobenzene	3.184	4.189	-31.6#	151#	0.03



Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\  
 Data File : r322195\_Ev2.D  
 Acq On : 18 May 2022 2:29 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640149-2,3,250,250  
 Misc : WG1640149,ICAL19031  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 18 16:43:16 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 17:30:54 2022  
 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	5.009	5.911	-18.0	142#	0.04
81	1,2-dibromo-3-chloropropane	1.123	1.566	-39.4#	143#	0.04
82 C	1,2,4-trichlorobenzene	2.478	3.273	-32.1#	145#	0.04
83	naphthalene	6.485	8.349	-28.7	140#	0.05
84	1,2,3-trichlorobenzene	2.552	3.234	-26.7	141#	0.04
85 C	hexachlorobutadiene	2.427	3.127	-28.8	146#	0.04

\* Evaluation of CC level amount vs concentration.  
 (#) = Out of Range SPCC's out = 0 CCC's out = 7

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\  
 Data File : r322195\_Ev2.D  
 Acq On : 18 May 2022 2:29 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640149-2,3,250,250  
 Misc : WG1640149,ICAL19031  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 18 16:43:16 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 17:30:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\r322195\_Ev2.D  
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) bromochloromethane	9.533	49	266528	10.000	ppbV	-0.03
Standard Area =	266528		Recovery =	100.00%		
33) 1,4-difluorobenzene	11.813	114	836058	10.000	ppbV	-0.03
Standard Area =	836058		Recovery =	100.00%		
51) chlorobenzene-D5	16.558	54	124605	10.000	ppbV	-0.02
Standard Area =	124605		Recovery =	100.00%		

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) propylene	3.856	41	52717M6	5.197	ppbV	
3) dichlorodifluoromethane	3.940	85	123737	5.587	ppbV	99
4) chloromethane	4.120	50	52772	5.290	ppbV	100
5) Freon-114	4.246	85	165314	5.949	ppbV	99
6) vinyl chloride	4.378	62	76194	6.255	ppbV	100
7) 1,3-butadiene	4.540	54	62891	6.472	ppbV	100
8) bromomethane	4.858	94	61444	5.502	ppbV	100
9) chloroethane	5.080	64	38071	5.524	ppbV	97
10) ethanol	5.250	31	286639	25.641	ppbV	100
11) vinyl bromide	5.510	106	59774	5.582	ppbV	99
12) acrolein	5.663	56	33073	1.998	ppbV	99
13) acetone	5.820	43	394640	26.700	ppbV	98
14) trichlorofluoromethane	6.030	101	120905	4.955	ppbV	99
15) isopropyl alcohol	6.153	45	279045	15.840	ppbV	100
16) acrylonitrile	6.403	53	60128	5.386	ppbV	99
17) 1,1-dichloroethene	6.806	61	98970	6.449	ppbV	100
18) tertiary butyl alcohol	6.884	59	130859	6.267	ppbV	99
19) methylene chloride	6.974	49	79660	4.661	ppbV	98
20) 3-chloropropene	7.112	41	95747	6.259	ppbV	99
21) carbon disulfide	7.268	76	211087	5.391	ppbV	99
22) Freon 113	7.310	101	128129	5.685	ppbV	99
23) trans-1,2-dichloroethene	8.108	61	96103	5.906	ppbV	100
24) 1,1-dichloroethane	8.342	63	119318	6.153	ppbV	100
25) MTBE	8.425	73	184758	6.571	ppbV	99
26) vinyl acetate	8.558	43	121788	5.326	ppbV	99
27) 2-butanone	8.825	43	139194	5.216	ppbV	99
28) cis-1,2-dichloroethene	9.342	61	90864	6.309	ppbV	99
29) Ethyl Acetate	9.642	61	25630	6.030	ppbV	93
30) chloroform	9.700	83	127382	6.175	ppbV	100

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\  
 Data File : r322195\_Ev2.D  
 Acq On : 18 May 2022 2:29 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640149-2,3,250,250  
 Misc : WG1640149,ICAL19031  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 18 16:43:16 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 17:30:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\r322195\_Ev2.D  
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Tetrahydrofuran	10.150	42	82920	5.667	ppbV	97
32) 1,2-dichloroethane	10.550	62	73251	5.733	ppbV	99
34) hexane	9.608	57	129077	5.595	ppbV	96
36) 1,1,1-trichloroethane	10.842	97	104493	6.209	ppbV	99
37) benzene	11.373	78	247827	4.667	ppbV	98
38) carbon tetrachloride	11.547	117	105042	6.100	ppbV	95
39) cyclohexane	11.693	56	138162	5.777	ppbV	98
40) Dibromomethane	12.300	93	68007	5.108	ppbV #	100
41) 1,2-dichloropropane	12.333	63	83151	6.069	ppbV	99
42) bromodichloromethane	12.560	83	135352	6.326	ppbV	99
43) 1,4-dioxane	12.607	88	55246	6.011	ppbV	97
44) trichloroethene	12.613	130	113490	6.252	ppbV	96
45) 2,2,4-trimethylpentane	12.660	57	427685	5.895	ppbV	100
46) heptane	12.980	43	149618	5.720	ppbV	100
47) cis-1,3-dichloropropene	14.250	75	100106	6.505	ppbV	99
48) 4-methyl-2-pentanone	13.667	43	175862	5.953	ppbV	99
49) trans-1,3-dichloropropene	13.625	75	126973	6.965	ppbV	100
50) 1,1,2-trichloroethane	14.450	97	90306	6.366	ppbV	98
52) toluene	14.767	91	271668	4.776	ppbV	99
54) 2-hexanone	15.050	43	160116	5.961	ppbV	98
55) dibromochloromethane	15.217	129	144920	7.037	ppbV	100
56) 1,2-dibromoethane	15.467	107	139257	6.376	ppbV	100
57) tetrachloroethene	15.942	166	143053	6.048	ppbV	99
58) 1,1,1,2-tetrachloroethane	16.583	131	102814	6.104	ppbV	98
59) chlorobenzene	16.600	112	245598	6.051	ppbV	99
60) ethylbenzene	16.950	91	332889	6.262	ppbV	99
61) m+p-xylene	17.117	91	556698	12.755	ppbV	99
62) bromoform	17.183	173	136028	7.058	ppbV	100
63) styrene	17.442	104	252731	6.527	ppbV	100
64) 1,1,2,2-tetrachloroethane	17.533	83	209749	6.468	ppbV	100
65) o-xylene	17.533	91	284610	6.386	ppbV	100
66) 1,2,3-Trichloropropane	17.650	75	160318	5.936	ppbV	99
68) isopropylbenzene	18.050	105	407109	5.785	ppbV	100
69) Bromobenzene	18.125	77	216939	5.612	ppbV	99
70) 4-ethyl toluene	18.608	105	432100	6.596	ppbV	100
71) 1,3,5-trimethylbenzene	18.667	105	382151	7.006	ppbV	100
72) tert-butylbenzene	19.008	119	372387	5.869	ppbV	100
73) 1,2,4-trimethylbenzene	19.017	105	376286	7.085	ppbV #	89
74) Benzyl Chloride	19.133	91	212763	7.599	ppbV	97
75) 1,3-dichlorobenzene	19.150	146	277443	6.858	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\  
 Data File : r322195\_Ev2.D  
 Acq On : 18 May 2022 2:29 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640149-2,3,250,250  
 Misc : WG1640149,ICAL19031  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 18 16:43:16 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 17:30:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\r322195\_Ev2.D  
 Sub List : Default-LCS-AP2 - All compounds listed

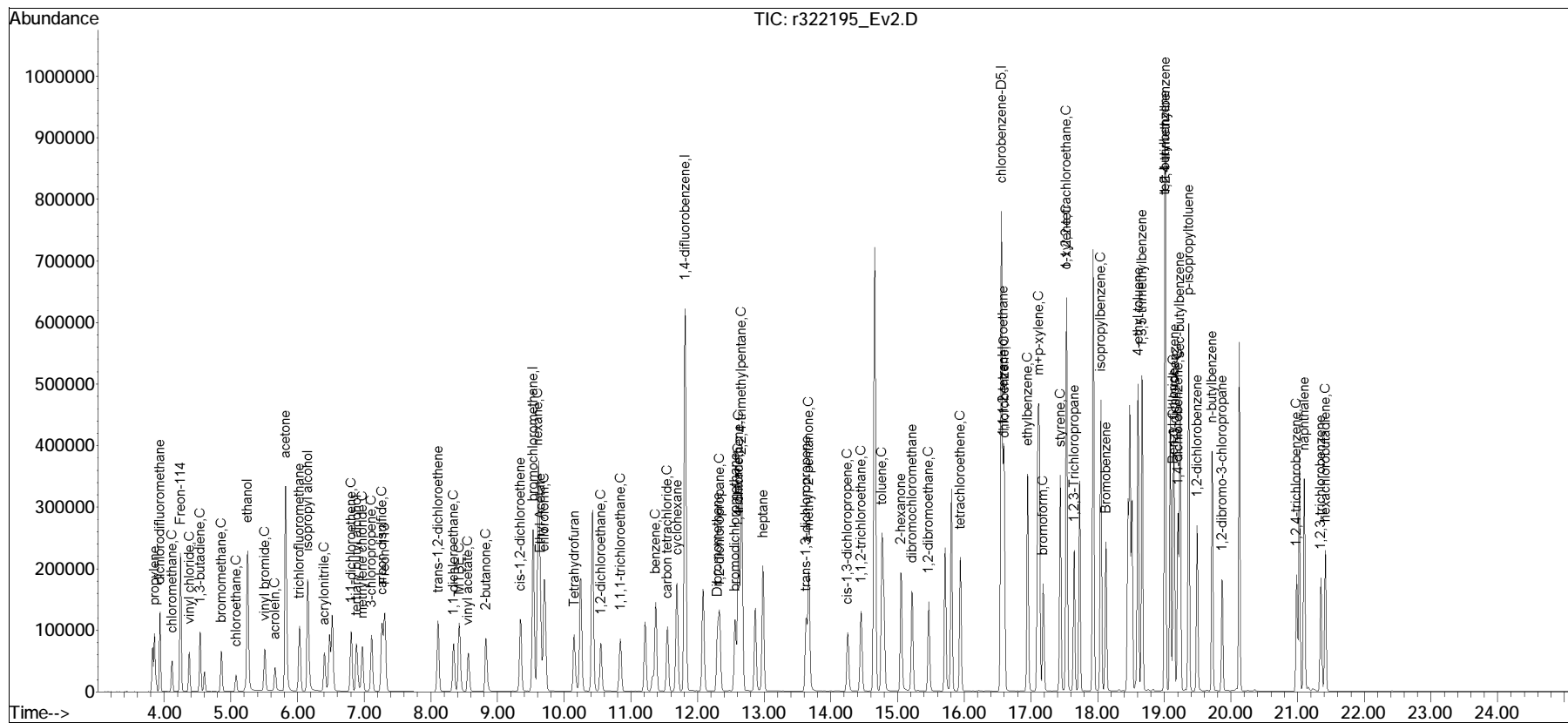
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) 1,4-dichlorobenzene	19.208	146	278846	6.790	ppbV	92
77) sec-butylbenzene	19.233	105	520080	5.786	ppbV	97
78) p-isopropyltoluene	19.367	119	417152	5.530	ppbV	98
79) 1,2-dichlorobenzene	19.492	146	260984	6.578	ppbV	93
80) n-butylbenzene	19.717	91	368257	5.901	ppbV	97
81) 1,2-dibromo-3-chloropr...	19.867	75	97577	6.971	ppbV	98
82) 1,2,4-trichlorobenzene	20.983	180	203910	6.605	ppbV	98
83) naphthalene	21.100	128	520133	6.437	ppbV	99
84) 1,2,3-trichlorobenzene	21.350	180	201484	6.335	ppbV	99
85) hexachlorobutadiene	21.417	225	194804	6.441	ppbV	99

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

Sub List : Default-LCS-AP2 - All compounds listed18SIM\r322195\_Ev2.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\  
Data File : r322195\_Ev2.D  
Acq On : 18 May 2022 2:29 PM  
Operator : AIRPIANO3:TS  
Sample : WG1640149-2,3,250,250  
Misc : WG1640149,ICAL19031  
ALS Vial : 0 Sample Multiplier: 1

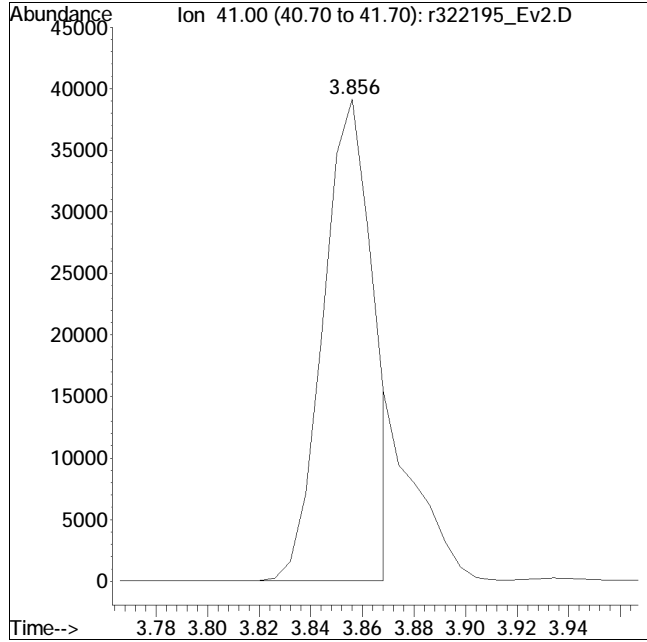
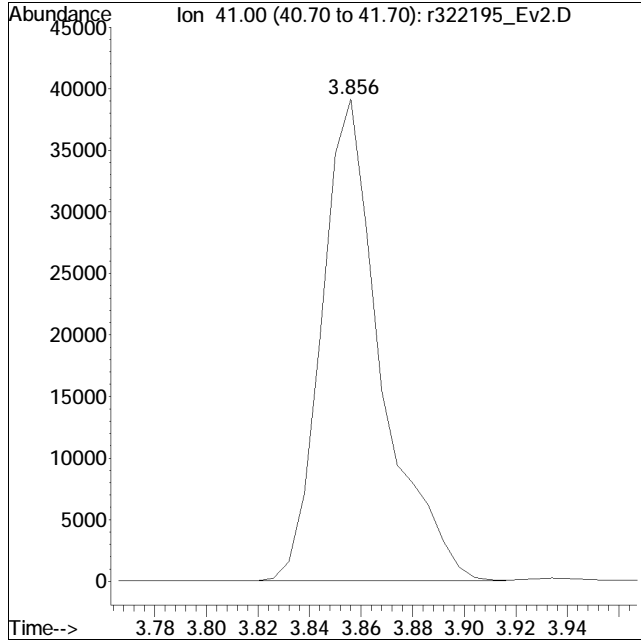
Quant Time: May 18 16:43:16 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\TSIM3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 17:30:54 2022  
Response via : Initial Calibration



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322195\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/18/2020 0:2: 9 Instrument :  
Sample : WG1640149-2,3,250,250 Quant Date : 5/18/2022 3:42 pm

Compound #2: propylene



Original Peak Response = 62901

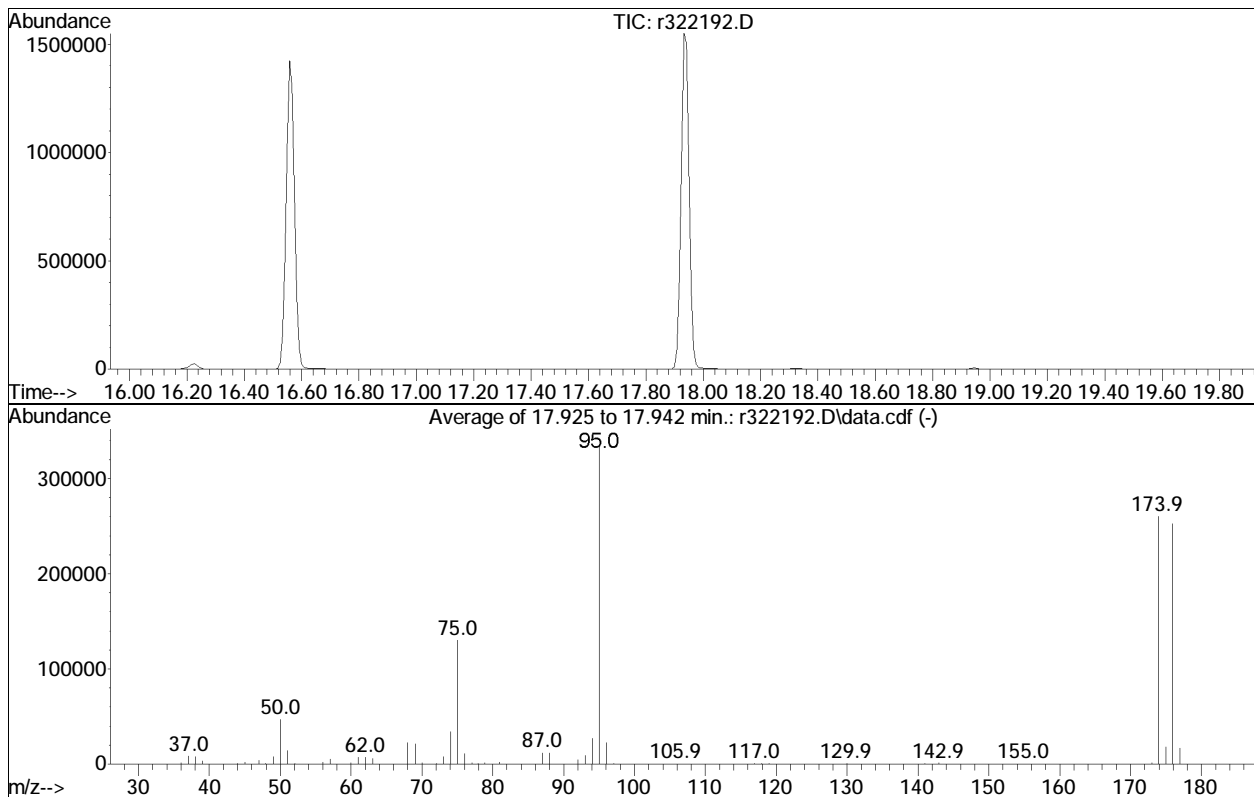
Manual Peak Response = 52717 M6

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

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\  
 Data File : r322192.D  
 Acq On : 18 May 2022 12:23 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640149-1,3,250,250  
 Misc : WG1640149,ICAL19031  
 ALS Vial : 0 Sample Multiplier: 1

Integration File: rteint.p

Method : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\TSIM3\_220516.M  
 Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 Last Update : Tue May 17 17:30:54 2022



Spectrum Information: Average of 17.925 to 17.942 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	14.1	47343	PASS
75	95	30	66	38.8	130380	PASS
95	95	100	100	100.0	335733	PASS
96	95	5	9	6.7	22599	PASS
173	174	0.00	2	0.6	1637	PASS
174	95	50	120	77.5	260295	PASS
175	174	4	9	7.1	18370	PASS
176	174	93	101	97.2	253053	PASS
177	176	5	9	6.6	16803	PASS

# **Volatiles Raw QC Data**



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\  
 Data File : r322197\_Ev2.D  
 Acq On : 18 May 2022 4:43 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640149-4,3,250,250  
 Misc : WG1640149,ICAL19031  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 18 22:29:11 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 17:30:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\r322195\_Ev2.D  
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.542	49	248280	10.000	ppbV	-0.02
Standard Area =	266528		Recovery =		93.15%	
33) 1,4-difluorobenzene	11.820	114	777502	10.000	ppbV	-0.02
Standard Area =	836058		Recovery =		93.00%	
51) chlorobenzene-D5	16.558	54	116717	10.000	ppbV	-0.02
Standard Area =	124605		Recovery =		93.67%	

System Monitoring Compounds

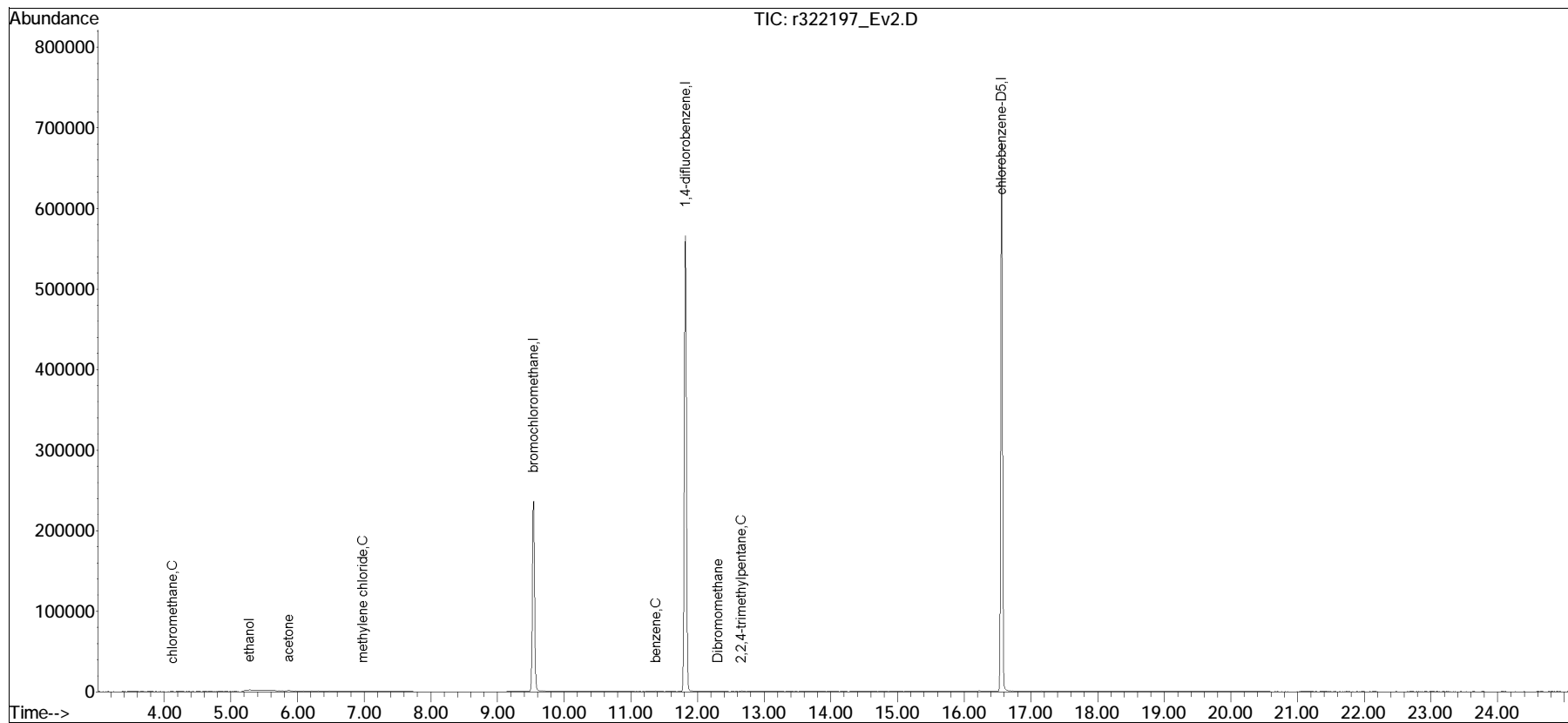
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
6) vinyl chloride	0.000		0		N.D.	
17) 1,1-dichloroethene	0.000		0		N.D.	
28) cis-1,2-dichloroethene	0.000		0		N.D.	
36) 1,1,1-trichloroethane	0.000		0		N.D.	
38) carbon tetrachloride	0.000		0		N.D.	
44) trichloroethene	0.000		0		N.D.	
57) tetrachloroethene	0.000		0		N.D.	

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

Sub List : Default-LCS-AP2 - All compounds listed18SIM\r322195\_Ev2.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\  
Data File : r322197\_Ev2.D  
Acq On : 18 May 2022 4:43 PM  
Operator : AIRPIANO3:TS  
Sample : WG1640149-4,3,250,250  
Misc : WG1640149,ICAL19031  
ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 18 22:29:11 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\TSIM3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 17:30:54 2022  
Response via : Initial Calibration



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322197\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/18/2020 0:4: 3 Instrument :  
Sample : WG1640149-4,3,250,250 Quant Date : 5/18/2022 10:28 pm

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

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\  
 Data File : r322195\_Ev2.D  
 Acq On : 18 May 2022 2:29 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640149-3,3,250,250  
 Misc : WG1640149,ICAL19031  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 18 16:43:16 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 17:30:54 2022  
 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	107	-0.03
2	propylene	5.000	5.197	-3.9	150	-0.01
3	dichlorodifluoromethane	5.000	5.587	-11.7	144	-0.01
4 C	chloromethane	5.000	5.290	-5.8	145	-0.01
5	Freon-114	5.000	5.949	-19.0	149	-0.02
6 C	vinyl chloride	5.000	6.255	-25.1	153	-0.02
7 C	1,3-butadiene	5.000	6.472	-29.4	160	-0.02
8 C	bromomethane	5.000	5.502	-10.0	152	-0.02
9 C	chloroethane	5.000	5.524	-10.5	153	-0.02
10	ethanol	25.000	25.641	-2.6	140	-0.02
11 C	vinyl bromide	5.000	5.582	-11.6	149	-0.02
12 C	acrolein	5.000	1.998	60.0#	134	-0.02
13	acetone	25.000	26.700	-6.8	157	-0.03
14	trichlorofluoromethane	5.000	4.955	0.9	150	-0.02
15	isopropyl alcohol	12.500	15.840	-26.7	169	-0.03
16 C	acrylonitrile	5.000	5.386	-7.7	152	-0.03
17 C	1,1-dichloroethene	5.000	6.449	-29.0	155	-0.02
18	tertiary butyl alcohol	5.000	6.267	-25.3	166	-0.03
19 C	methylene chloride	5.000	4.661	6.8	123	-0.02
20 C	3-chloropropene	5.000	6.259	-25.2	167	-0.02
21 C	carbon disulfide	5.000	5.391	-7.8	144	-0.02
22	Freon 113	5.000	5.685	-13.7	154	-0.02
23	trans-1,2-dichloroethene	5.000	5.906	-18.1	149	-0.03
24 C	1,1-dichloroethane	5.000	6.153	-23.1	153	-0.03
25 C	MTBE	5.000	6.571	-31.4#	157	-0.02
26 C	vinyl acetate	5.000	5.326	-6.5	153	-0.03
27 C	2-butanone	5.000	5.216	-4.3	151	-0.03
28	cis-1,2-dichloroethene	5.000	6.309	-26.2	156	-0.03
29	Ethyl Acetate	5.000	6.030	-20.6	162	-0.02
30 C	chloroform	5.000	6.175	-23.5	155	-0.03
31	Tetrahydrofuran	5.000	5.667	-13.3	152	-0.03
32 C	1,2-dichloroethane	5.000	5.733	-14.7	149	-0.02
33 I	1,4-difluorobenzene	10.000	10.000	0.0	106	-0.03
34 C	hexane	5.000	5.595	-11.9	149	-0.03
36 C	1,1,1-trichloroethane	5.000	6.209	-24.2	157	-0.03
37 C	benzene	5.000	4.667	6.7	150	-0.03
38 C	carbon tetrachloride	5.000	6.100	-22.0	162	-0.03
39	cyclohexane	5.000	5.777	-15.5	155	-0.02

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\  
 Data File : r322195\_Ev2.D  
 Acq On : 18 May 2022 2:29 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640149-3,3,250,250  
 Misc : WG1640149,ICAL19031  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 18 16:43:16 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 17:30:54 2022  
 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	5.108	-2.2	143	-0.02
41 C	1,2-dichloropropane	5.000	6.069	-21.4	154	-0.02
42	bromodichloromethane	5.000	6.326	-26.5	158	-0.03
43 C	1,4-dioxane	5.000	6.011	-20.2	162	-0.03
44 C	trichloroethene	5.000	6.252	-25.0	153	-0.03
45 C	2,2,4-trimethylpentane	5.000	5.895	-17.9	161	-0.03
46	heptane	5.000	5.720	-14.4	154	-0.03
47 C	cis-1,3-dichloropropene	5.000	6.505	-30.1#	142	-0.03
48 C	4-methyl-2-pentanone	5.000	5.953	-19.1	154	-0.03
49	trans-1,3-dichloropropene	5.000	6.965	-39.3#	165	-0.03
50 C	1,1,2-trichloroethane	5.000	6.366	-27.3	155	-0.03
51 I	chlorobenzene-D5	10.000	10.000	0.0	103	-0.02
52 C	toluene	5.000	4.776	4.5	150	-0.02
54	2-hexanone	5.000	5.961	-19.2	148	-0.02
55	dibromochloromethane	5.000	7.037	-40.7#	161	-0.03
56 C	1,2-dibromoethane	5.000	6.376	-27.5	151	-0.02
57 C	tetrachloroethene	5.000	6.048	-21.0	151	-0.02
58	1,1,1,2-tetrachloroethane	5.000	6.104	-22.1	146	-0.02
59 C	chlorobenzene	5.000	6.051	-21.0	152	-0.02
60 C	ethylbenzene	5.000	6.262	-25.2	152	-0.02
61 C	m+p-xylene	10.000	12.755	-27.6	150	-0.02
62 C	bromoform	5.000	7.058	-41.2#	163	-0.02
63 C	styrene	5.000	6.527	-30.5#	151	-0.02
64 C	1,1,2,2-tetrachloroethane	5.000	6.468	-29.4	153	-0.02
65 C	o-xylene	5.000	6.386	-27.7	152	-0.02
66	1,2,3-Trichloropropane	5.000	5.936	-18.7	140	-0.02
68 C	isopropylbenzene	5.000	5.785	-15.7	147	-0.02
69	Bromobenzene	5.000	5.612	-12.2	144	-0.02
70	4-ethyl toluene	5.000	6.596	-31.9#	147	0.00
71	1,3,5-trimethylbenzene	5.000	7.006	-40.1#	151	0.00
72	tert-butylbenzene	5.000	5.869	-17.4	142	0.00
73	1,2,4-trimethylbenzene	5.000	7.085	-41.7#	152	0.02
74 C	Benzyl Chloride	5.000	7.599	-52.0#	174	0.02
75	1,3-dichlorobenzene	5.000	6.858	-37.2#	149	0.02
76 C	1,4-dichlorobenzene	5.000	6.790	-35.8#	148	0.02
77	sec-butylbenzene	5.000	5.786	-15.7	141	0.02
78	p-isopropyltoluene	5.000	5.530	-10.6	131	0.03
79	1,2-dichlorobenzene	5.000	6.578	-31.6#	151	0.03

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\  
 Data File : r322195\_Ev2.D  
 Acq On : 18 May 2022 2:29 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640149-3,3,250,250  
 Misc : WG1640149,ICAL19031  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 18 16:43:16 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 17:30:54 2022  
 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	5.901	-18.0	142	0.04
81	1,2-dibromo-3-chloropropane	5.000	6.971	-39.4#	143	0.04
82 C	1,2,4-trichlorobenzene	5.000	6.605	-32.1#	145	0.04
83	naphthalene	5.000	6.437	-28.7	140	0.05
84	1,2,3-trichlorobenzene	5.000	6.335	-26.7	141	0.04
85 C	hexachlorobutadiene	5.000	6.441	-28.8	146	0.04

\* Evaluation of CC level amount vs concentration.  
 (#) = Out of Range SPCC's out = 0 CCC's out = 8

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\  
 Data File : r322195\_Ev2.D  
 Acq On : 18 May 2022 2:29 PM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640149-3,3,250,250  
 Misc : WG1640149,ICAL19031  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 18 16:43:16 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 17:30:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\r322195\_Ev2.D  
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.533	49	266528	10.000	ppbV	-0.03
Standard Area =	266528		Recovery =	100.00%		
33) 1,4-difluorobenzene	11.813	114	836058	10.000	ppbV	-0.03
Standard Area =	836058		Recovery =	100.00%		
51) chlorobenzene-D5	16.558	54	124605	10.000	ppbV	-0.02
Standard Area =	124605		Recovery =	100.00%		

System Monitoring Compounds

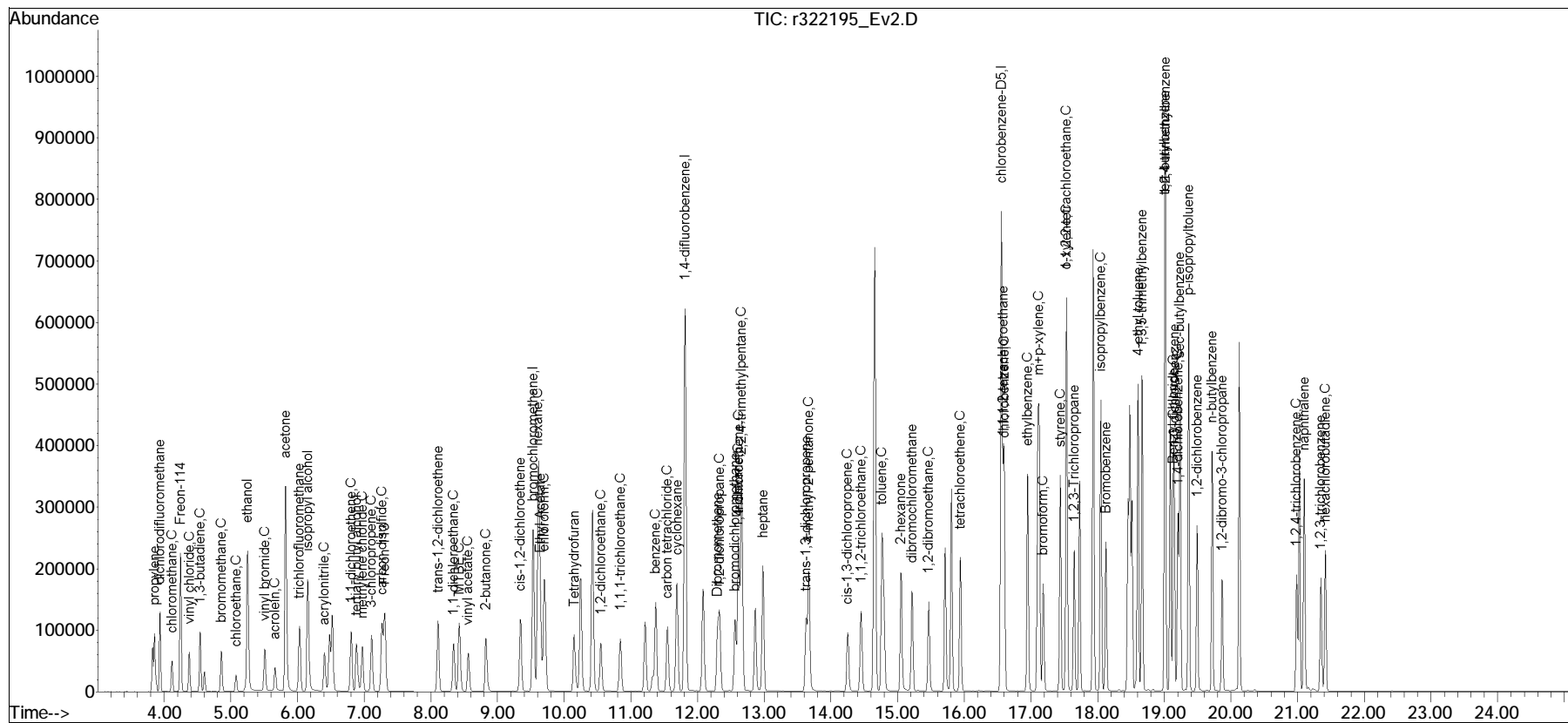
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
6) vinyl chloride	4.378	62	76194	6.255	ppbV	100
17) 1,1-dichloroethene	6.806	61	98970	6.449	ppbV	100
28) cis-1,2-dichloroethene	9.342	61	90864	6.309	ppbV	99
36) 1,1,1-trichloroethane	10.842	97	104493	6.209	ppbV	99
38) carbon tetrachloride	11.547	117	105042	6.100	ppbV	95
44) trichloroethene	12.613	130	113490	6.252	ppbV	96
57) tetrachloroethene	15.942	166	143053	6.048	ppbV	99

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

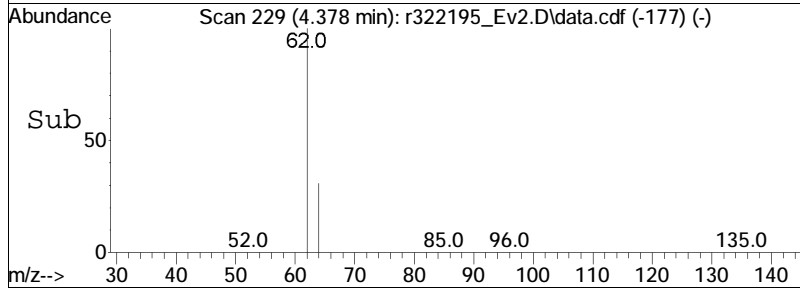
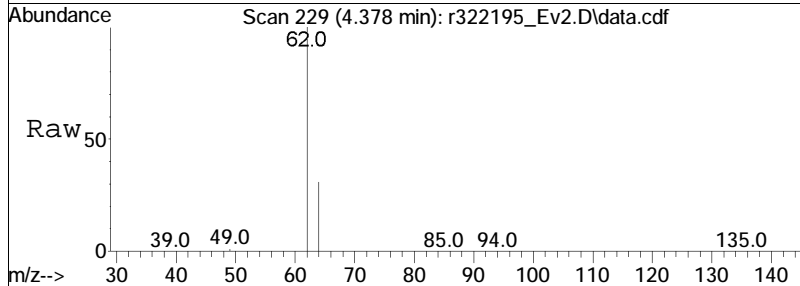
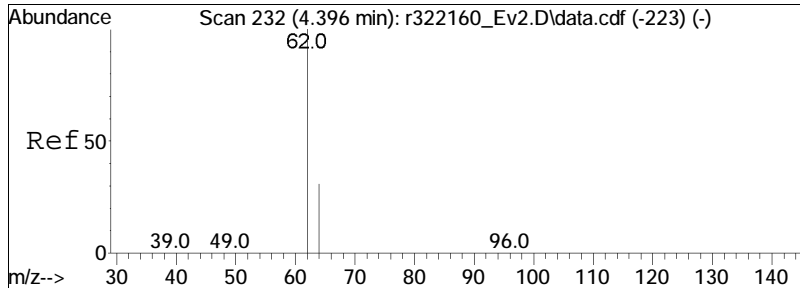
Sub List : Default-LCS-AP2 - All compounds listed18SIM\r322195\_Ev2.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\  
Data File : r322195\_Ev2.D  
Acq On : 18 May 2022 2:29 PM  
Operator : AIRPIANO3:TS  
Sample : WG1640149-3,3,250,250  
Misc : WG1640149,ICAL19031  
ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 18 16:43:16 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\TSIM3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 17:30:54 2022  
Response via : Initial Calibration

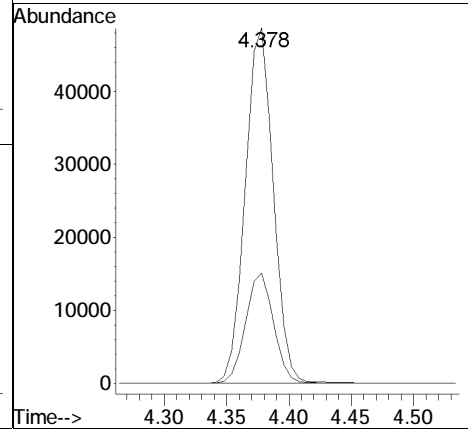


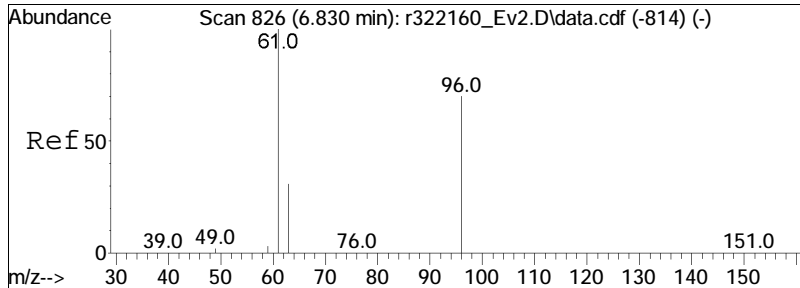




#6  
 vinyl chloride  
 Concen: 6.25 ppbV  
 RT: 4.378 min Scan# 229  
 Delta R.T. -0.018 min  
 Lab File: r322195\_Ev2.D  
 Acq: 18 May 2022 2:29 PM

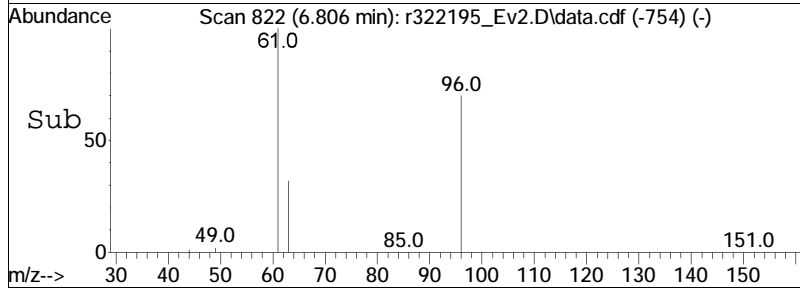
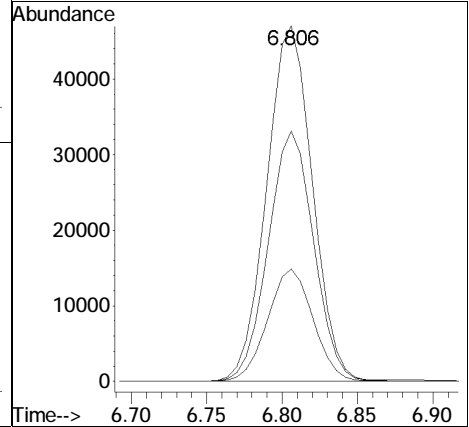
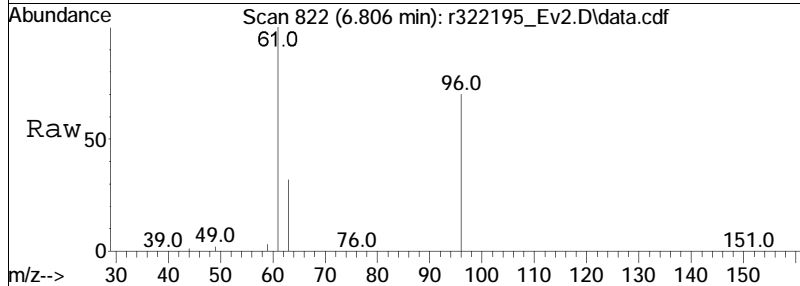
Tgt Ion:	62	Resp:	76194
Ion Ratio	100	Lower	Upper
64	31.0	24.7	37.1

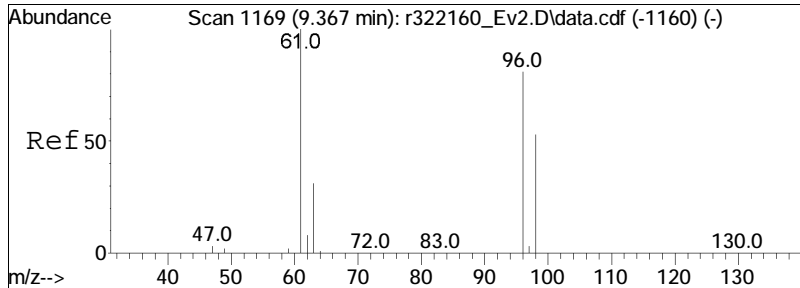




#17  
 1,1-dichloroethene  
 Concen: 6.45 ppbV  
 RT: 6.806 min Scan# 822  
 Delta R.T. -0.024 min  
 Lab File: r322195\_Ev2.D  
 Acq: 18 May 2022 2:29 PM

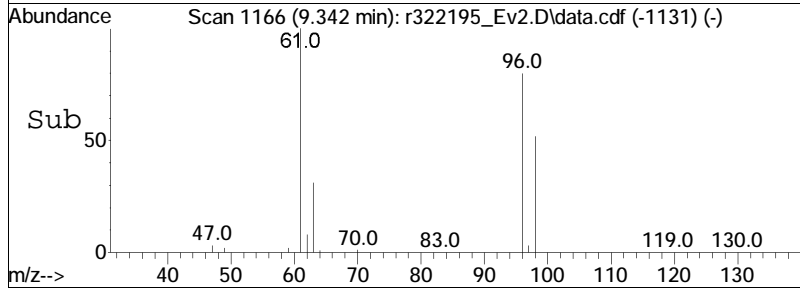
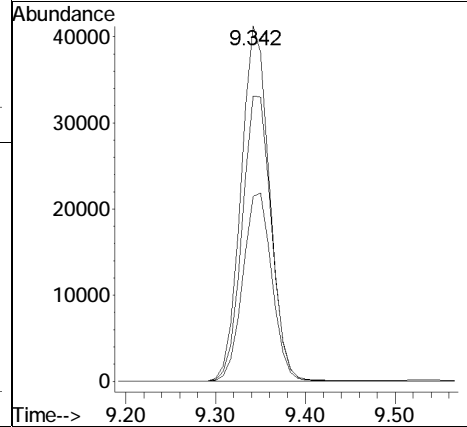
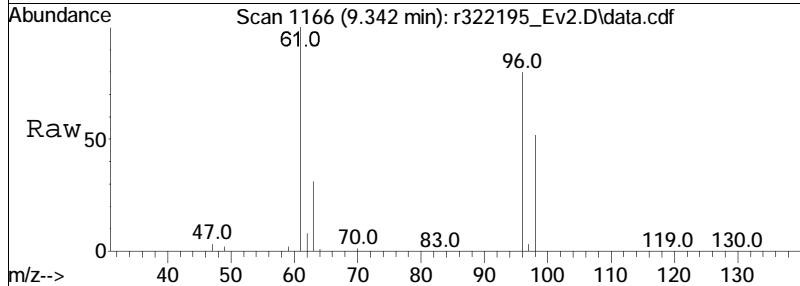
Tgt Ion	Resp	Lower	Upper
61	100		
96	70.5	56.3	84.5
63	31.6	25.1	37.7

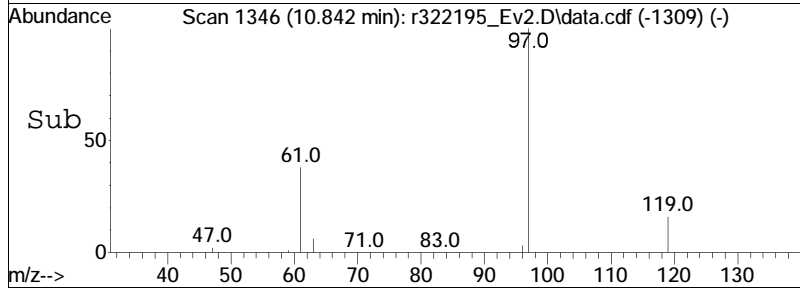
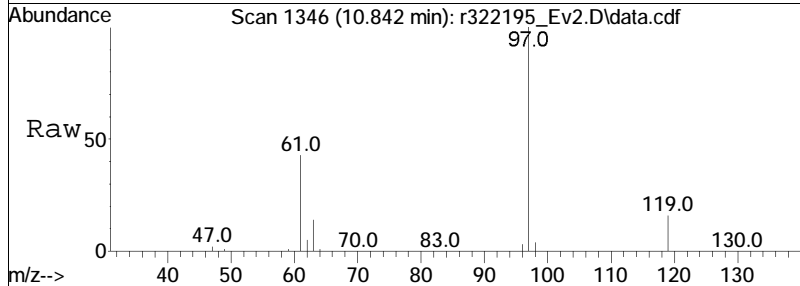
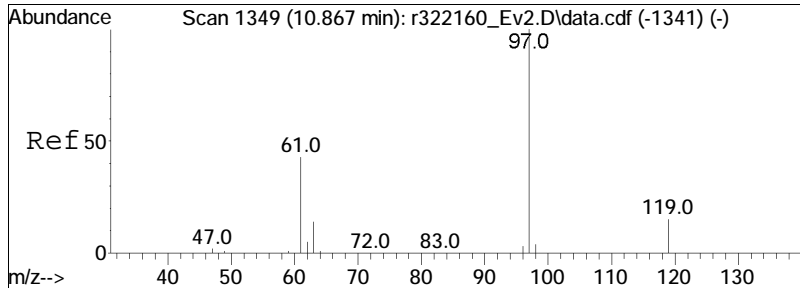




#28  
 cis-1,2-dichloroethene  
 Concen: 6.31 ppbV  
 RT: 9.342 min Scan# 1166  
 Delta R.T. -0.025 min  
 Lab File: r322195\_Ev2.D  
 Acq: 18 May 2022 2:29 PM

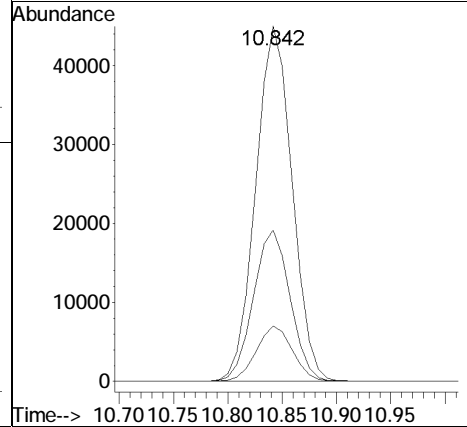
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
61	100		
96	80.4	65.0	97.4
98	52.1	42.9	64.3

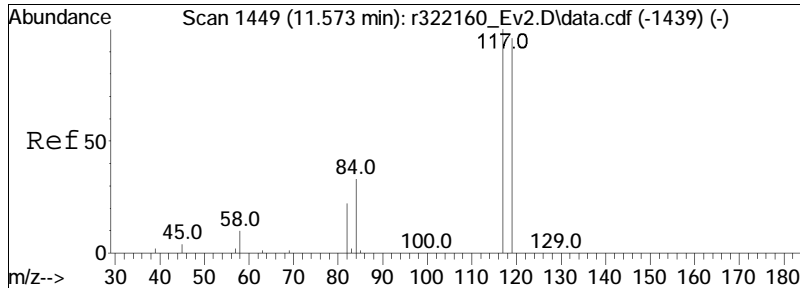




#36  
 1,1,1-trichloroethane  
 Concen: 6.21 ppbV  
 RT: 10.842 min Scan# 1346  
 Delta R.T. -0.025 min  
 Lab File: r322195\_Ev2.D  
 Acq: 18 May 2022 2:29 PM

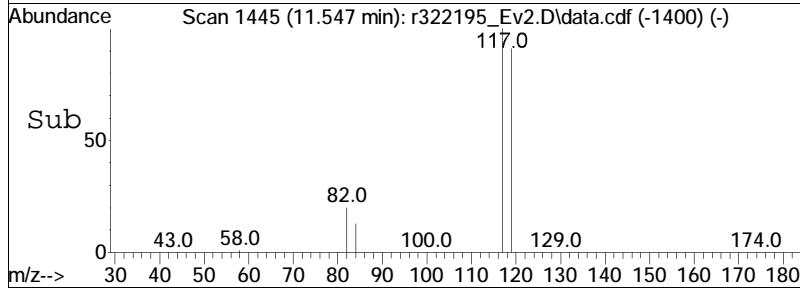
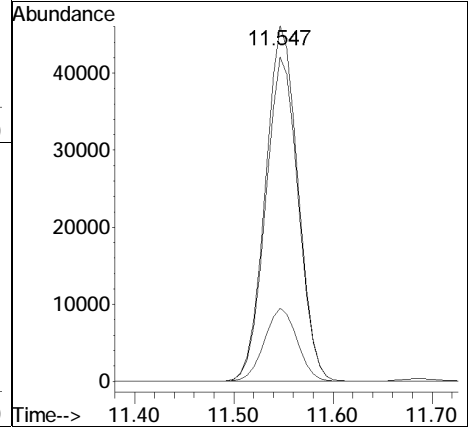
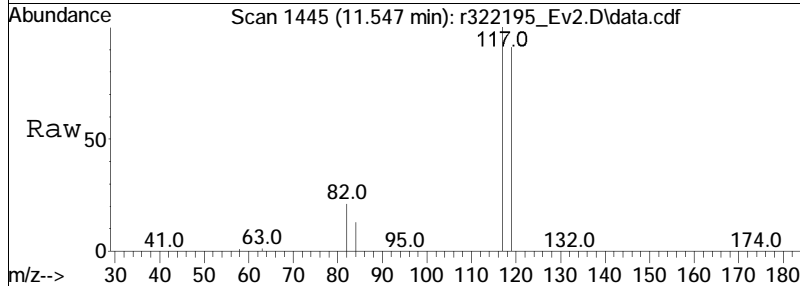
Tgt Ion	Resp	Lower	Upper
97	104493		
61	42.6	34.4	51.6
119	15.6	12.2	18.4

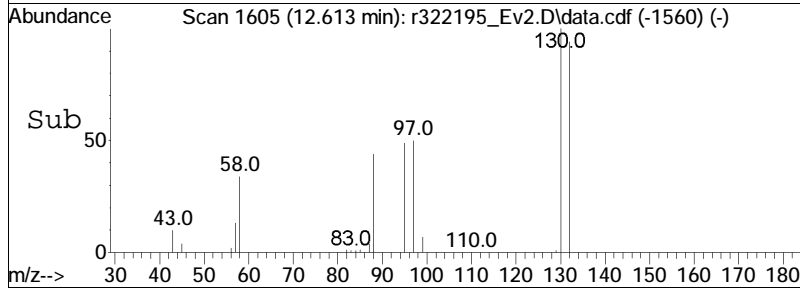
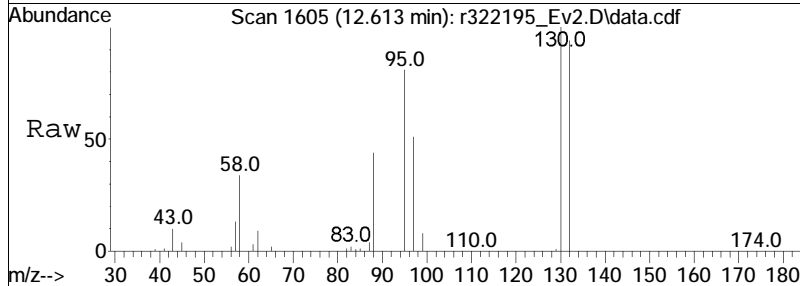
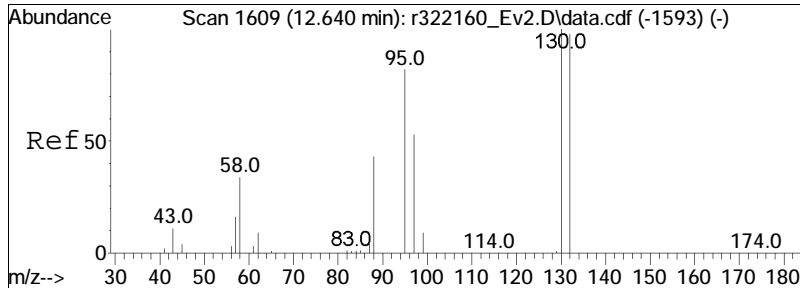




#38  
 carbon tetrachloride  
 Concen: 6.10 ppbV  
 RT: 11.547 min Scan# 1445  
 Delta R.T. -0.027 min  
 Lab File: r322195\_Ev2.D  
 Acq: 18 May 2022 2:29 PM

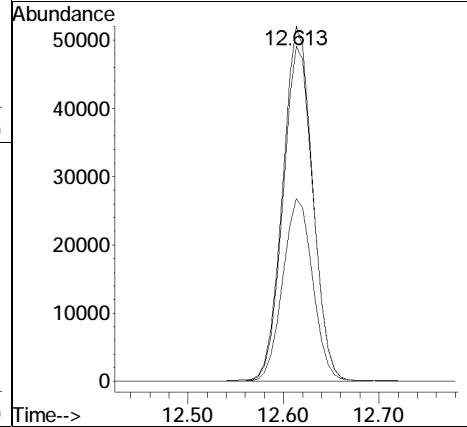
Tgt Ion	Ratio	Lower	Upper
117	100		
119	91.3	77.0	115.4
82	20.6	17.8	26.8

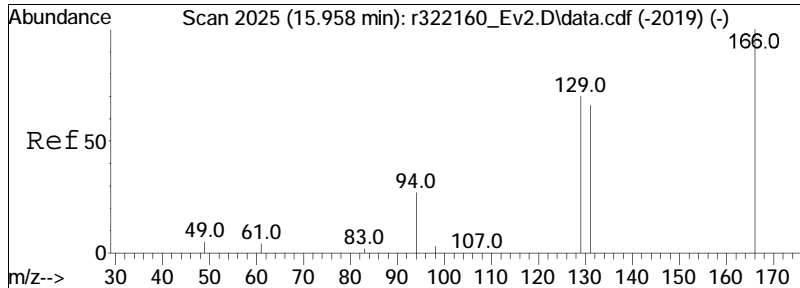




#44  
 trichloroethene  
 Concen: 6.25 ppbV  
 RT: 12.613 min Scan# 1605  
 Delta R.T. -0.027 min  
 Lab File: r322195\_Ev2.D  
 Acq: 18 May 2022 2:29 PM

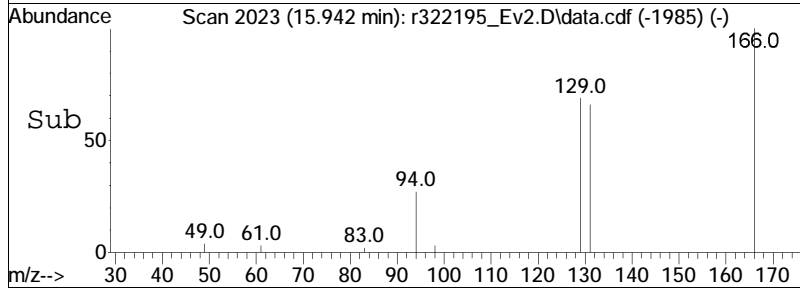
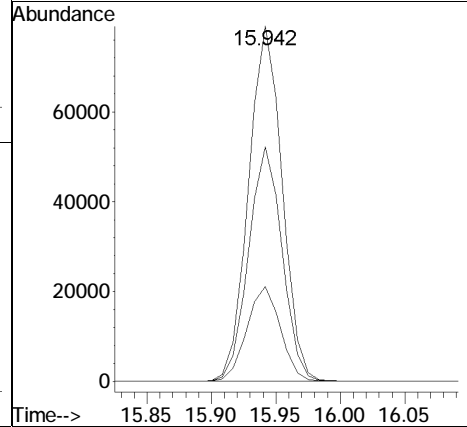
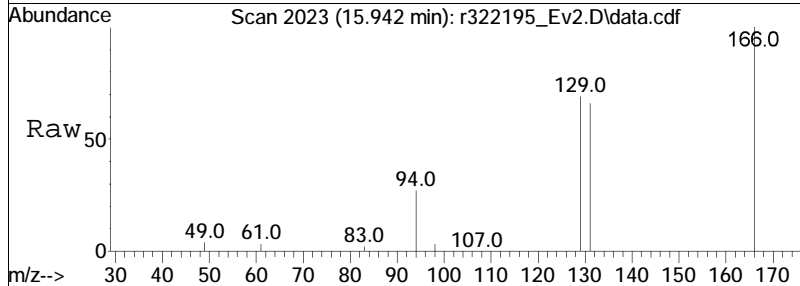
Tgt Ion	Resp	Lower	Upper
130	100		
132	94.4	78.7	118.1
97	51.4	42.6	64.0





#57  
 tetrachloroethene  
 Concen: 6.05 ppbV  
 RT: 15.942 min Scan# 2023  
 Delta R.T. -0.017 min  
 Lab File: r322195\_Ev2.D  
 Acq: 18 May 2022 2:29 PM

Tgt Ion	Ratio	Lower	Upper
166	100		
131	66.0	53.0	79.4
94	26.7	22.0	33.0



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\  
 Data File : r322207\_Ev2.D  
 Acq On : 19 May 2022 12:26 AM  
 Operator : AIRPIANO3:TS  
 Sample : WG1640149-5,3,250,250  
 Misc : WG1640149,ICAL19031  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: May 19 17:19:42 2022  
 Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\TSIM3\_220516.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Tue May 17 17:30:54 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\r322195\_Ev2.D  
 Sub List : 7-NY-SIM - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.533	49	259534	10.000	ppbV	-0.03
Standard Area =	266528		Recovery =		97.38%	
33) 1,4-difluorobenzene	11.813	114	818741	10.000	ppbV	-0.03
Standard Area =	836058		Recovery =		97.93%	
51) chlorobenzene-D5	16.558	54	122354	10.000	ppbV	-0.02
Standard Area =	124605		Recovery =		98.19%	

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
6) vinyl chloride	0.000		0		N.D.	
17) 1,1-dichloroethene	0.000		0		N.D.	d
28) cis-1,2-dichloroethene	0.000		0		N.D.	
36) 1,1,1-trichloroethane	0.000		0		N.D.	
38) carbon tetrachloride	11.547	117	1649	0.098	ppbV	94
44) trichloroethene	12.613		0		N.D.	
57) tetrachloroethene	15.942	166	1583	0.068	ppbV	98

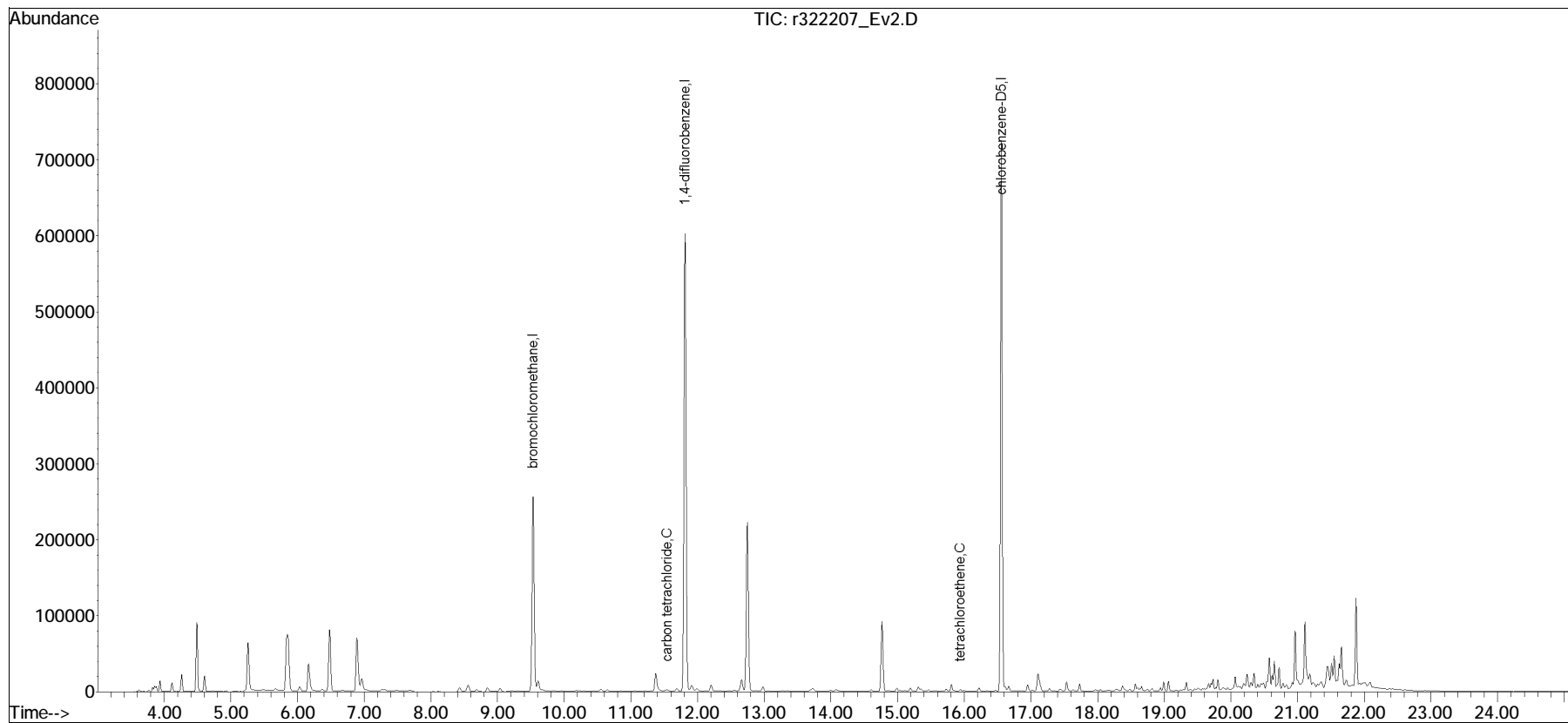
(#) = qualifier out of range (m) = manual integration (+) = signals summed

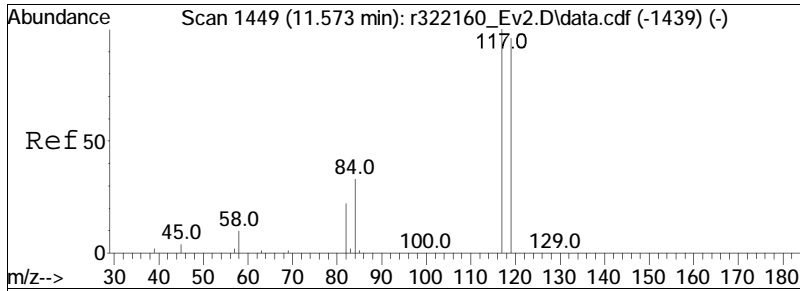


Sub List : 7-NY-SIM - .\Data\Airpiano3\2022\05\0518SIM\r322195\_Ev2.D

Data Path : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\  
Data File : r322207\_Ev2.D  
Acq On : 19 May 2022 12:26 AM  
Operator : AIRPIANO3:TS  
Sample : WG1640149-5,3,250,250  
Misc : WG1640149,ICAL19031  
ALS Vial : 0 Sample Multiplier: 1

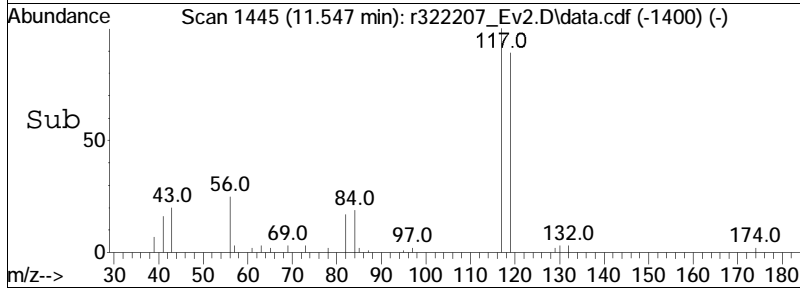
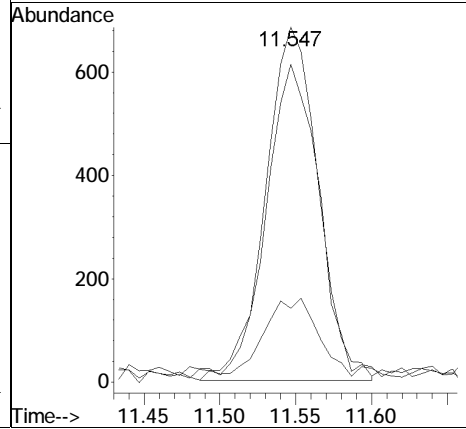
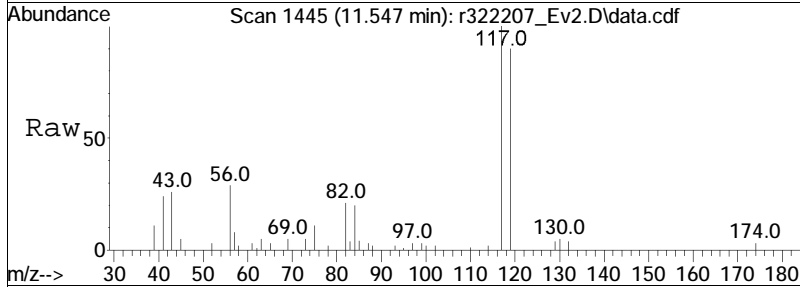
Quant Time: May 19 17:19:42 2022  
Quant Method : O:\Forensics\Data\Airpiano3\2022\05\0518SIM\TSIM3\_220516.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Tue May 17 17:30:54 2022  
Response via : Initial Calibration

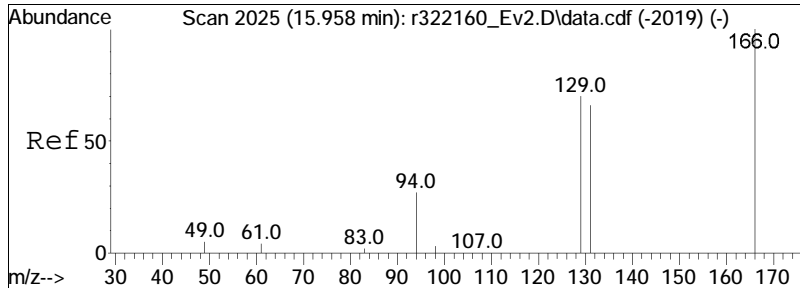




#38  
 carbon tetrachloride  
 Concen: 0.10 ppbV  
 RT: 11.547 min Scan# 1445  
 Delta R.T. -0.027 min  
 Lab File: r322207\_Ev2.D  
 Acq: 19 May 2022 12:26 AM

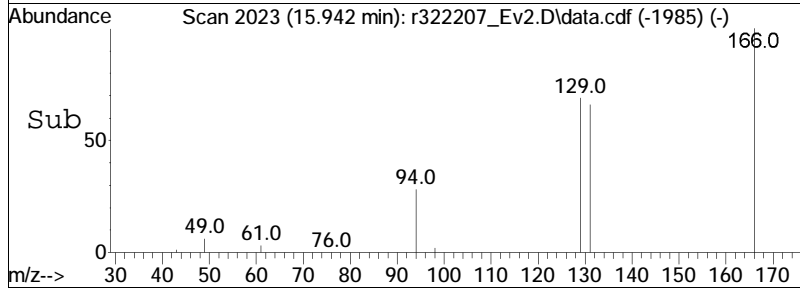
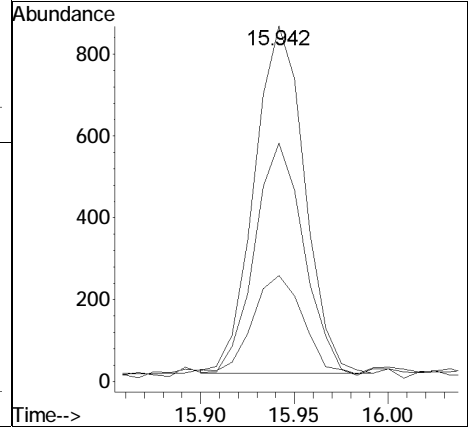
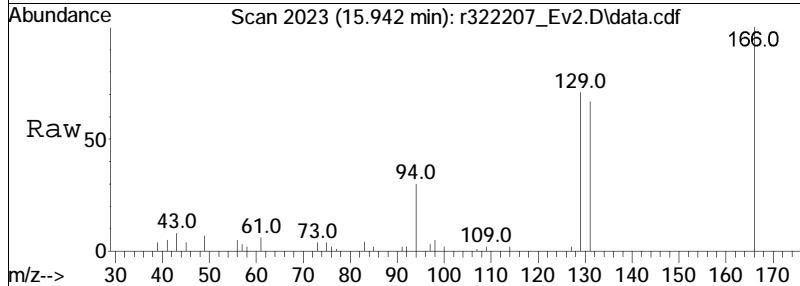
Tgt Ion	Ratio	Resp	Lower	Upper
117	100	1649		
119	89.5	77.0	115.4	
82	20.8	17.8	26.8	





#57  
 tetrachloroethene  
 Concen: 0.07 ppbV  
 RT: 15.942 min Scan# 2023  
 Delta R.T. -0.017 min  
 Lab File: r322207\_Ev2.D  
 Acq: 19 May 2022 12:26 AM

Tgt Ion	Ratio	Lower	Upper
166	100		
131	67.1	53.0	79.4
94	29.8	22.0	33.0



Manual Integration Report

Data Path : O:\Forensics\Data\AirpianoQMethod : TSIM3\_220516.M  
Data File : r322207\_Ev2.D Operator : AIRPIANO3:TS  
Date Inj'd : 5/19/2020 0:2: 6 Instrument :  
Sample : WG1640149-5,3,250,250 Quant Date : 5/19/2022 9:05 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

$$\text{DF} = V_{cf} / V_{ci}$$

Where:

$V_{ci}$  = volume of air in canister prior to pressurization, L

P =

### Conversion of ppbv to $\mu\text{g}/\text{m}^3$

$$\mu\text{g}/\text{m}^3 = (\text{ppbv}) * \text{MW} / 24.47$$

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)

May 20 2022, 10:32 am

Work Group: WG1640149 for Department: 3 GC/MS

Created: 18-MAY-22 Due: Operator: JB

Sample	Client ID	C Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L2224240-06	VTX-AA-1	S TO15-SIM	AIR	DONE	U	0605	0519	1D	Can-6
L2225019-07	BARKER-IA-B07	S TO15-SIM	AIR	DONE	U	0610	0518	2E	Can-6
L2225019-08	BARKER-AA-01	S TO15-SIM	AIR	DONE	U	0610	0518	2E	Can-6
L2225590-06	IA01	S TO15-SIM	AIR	DONE	U	0611	0520	2E	Can-6
L2225590-07	IA02	S TO15-SIM	AIR	DONE	U	0611	0520	2E	Can-6
L2225590-08	IA03	S TO15-SIM	AIR	DONE	U	0611	0520	2E	Can-6
L2225590-09	IA04	S TO15-SIM	AIR	DONE	U	0611	0520	2E	Can-6
L2225590-10	IA05	S TO15-SIM	AIR	DONE	U	0611	0520	2E	Can-6
L2225590-11	AA01	S TO15-SIM	AIR	DONE	U	0611	0520	2E	Can-6
WG1640149-1	MS BFB Tune Standard	S TO15-SIM	AIR	DONE	U				
WG1640149-2	Continuing Calibrati	S TO15-SIM	AIR	DONE	U				
WG1640149-3	Laboratory Control S	S TO15-SIM	AIR	DONE	U				
WG1640149-4	Laboratory Method Bl	S TO15-SIM	AIR	DONE	U				
WG1640149-5	Duplicate Sample	S TO15-SIM	AIR	DONE	U				

Comments:

WG1640149-5 L2225590-10

# Alpha Analytical Air Lab Instrument Run Log

nt ID: Airpiano3  
 Date: 05/16/22  
 Initials: AR

Internal Standard/Surrogate IDs: SS20-028 / SS21-026  
 Internal Standard/Surrogate Volume: 100 ml  
 Sequence File Name: 220516.S

AS Position #	Sample ID	Acquisition Method	Data File ID	Standard ID or Batch ID #, ICAL Ref #	Comment (s)	Product/ sublist	Leak Check Pass? Y/N
1	BA3051601	TO15_SFS.qgm	R322150.qgd	250 mL			NA
1	BA3051602	TO15_SFS.qgm	R322151.qgd	250 mL			NA
1	BA3051603	TO15_SFS.qgm	R322152.qgd	250 mL			NA
1	TA3051601	TO15_SFS.qgm	R322153.qgd	250 mL	TUNE		NA
5	ITO15-SIMSTD0.02	TO15_SFS.qgm	R322154.qgd	50 mL SS21-036D	SIM ONLY	DEF	NA
5	ITO15-SIMSTD0.05	TO15_SFS.qgm	R322155.qgd	125 mL SS21-036D	SIM ONLY	DEF	NA
5	ITO15-SIMSTD0.1	TO15_SFS.qgm	R322156.qgd	250 mL SS21-036D	SIM ONLY	DEF	NA
6	ITO15-SIMSTD0.2	TO15_SFS.qgm	R322157.qgd	50 mL SS21-036C		DEF	NA
6	ITO15-SIMSTD0.5	TO15_SFS.qgm	R322158.qgd	125 mL SS21-036C		DEF	NA
6	ITO15-SIMSTD1.0	TO15_SFS.qgm	R322159.qgd	250 mL SS21-036C		DEF	NA
7	ITO15-SIMSTD5.0	TO15_SFS.qgm	R322160.qgd	125 mL SS21-036B		DEF	NA
7	ITO15-SIMSTD010	TO15_SFS.qgm	R322161.qgd	250 mL SS21-036B		DEF	NA
8	ITO15-SIMSTD020	TO15_SFS.qgm	R322162.qgd	50 mL SS21-036A		DEF	NA
8	ITO15-SIMSTD050	TO15_SFS.qgm	R322163.qgd	125 mL SS21-036A		DEF	NA
8	ITO15-LLSTD100	TO15_SFS.qgm	R322164.qgd	250 mL SS21-036A	LL ONLY	DEF	NA
1	BA3051601	TO15_SFS.qgm	R322165.qgd	250 mL		DEF	NA
1	BA3051602	TO15_SFS.qgm	R322166.qgd	250 mL		DEF	NA
2	CTO15-LLSTD010	TO15_SFS.qgm	R322167.qgd	250 mL SS22-004C	LL ICV	DEF ICV AP2	NA
2	CTO15-SIMSTD5.0	TO15_SFS.qgm	R322168.qgd	125 mL SS22-004C	SIM ICV	DEF ICV AP2	NA





# Alpha Analytical Air Lab Instrument Run Log

nt ID: Airpiano3  
 Date: 05/17/22  
 Initials: JB

Internal Standard/Surrogate IDs: SS20-028 / SS21-026  
 Internal Standard/Surrogate Volume: 100 ml  
 Sequence File Name: 220517.S

AS Position #	Sample ID	Acquisition Method	Data File ID	Standard ID or Batch ID #, ICAL Ref #	Comment (s)	Product/ sublist	Leak Check Pass? Y/N
1	TA3051801	TO15_SFS.qgm	R322192.qgd	250 mL	TUNE		N A
2	CA3051801	TO15_SFS.qgm	R322193.qgd	250mL SS22-006C	NJ CC FAILS		N A
3	CTO15-LLSTD10.0	TO15_SFS.qgm	R322194.qgd	250 mL SS22-005B	LL LCS	BF BC FAIL HIGH	N A
3	CTO15-SIMSTD05.0	TO15_SFS.qgm	R322195.qgd	125 mL SS22-005B	SIM LCS	C12DCE OUT IN ICV	N A
1	BA3051801	TO15_SFS.qgm	R322196.qgd	250 mL	LL BLANK		N A
1	BA3051802	TO15_SFS.qgm	R322197.qgd	250 mL	SIM BLANK		N A
1	L2225019-08,3,250,250	TO15_SFS.qgm	R322198.qgd	WG1640147,ICAL19030		NY-7SIM	Y
2	L2225590-11,3,250,250	TO15_SFS.qgm	R322199.qgd	WG1640147,ICAL19030		NY-7SIM	Y
3	L2224240-06,3,250,250	TO15_SFS.qgm	R322200.qgd	WG1640147,ICAL19030		NY-7SIM	Y
4	L2224240-05,3,250,250	TO15_SFS.qgm	R322201.qgd	WG1640147,ICAL19030	CIS12DCE HIT	NY-7SIM	Y
5	L2224240-04,3,250,250	TO15_SFS.qgm	R322202.qgd	WG1640147,ICAL19030	CIS12DCE HIT	NY-7SIM	Y
6	L2224240-03,3,250,250	TO15_SFS.qgm	R322203.qgd	WG1640147,ICAL19030	CIS12DCE HIT	NY-7SIM	Y
7	L2224240-02,3,250,250	TO15_SFS.qgm	R322204.qgd	WG1640147,ICAL19030	CIS12DCE HIT	NY-7SIM	Y
8	L2224240-01,3,250,250	TO15_SFS.qgm	R322205.qgd	WG1640147,ICAL19030	CIS12DCE HIT	NY-7SIM	Y
9	L2225590-10,3,250,250	TO15_SFS.qgm	R322206.qgd	WG1640147,ICAL19030		NY-7SIM	Y
9	L2225590-10DUP,3,250,250	TO15_SFS.qgm	R322207.qgd	WG1640147,ICAL19030	LL/SIM DUP	NY-7SIM	Y
10	L2225590-09,3,250,250	TO15_SFS.qgm	R322208.qgd	WG1640147,ICAL19030		NY-7SIM	Y
11	L2225590-08,3,250,250	TO15_SFS.qgm	R322209.qgd	WG1640147,ICAL19030		NY-7SIM	Y
12	L2225590-07,3,250,250	TO15_SFS.qgm	R322210.qgd	WG1640147,ICAL19030		NY-7SIM	Y
13	L2225590-06,3,250,250	TO15_SFS.qgm	R322211.qgd	WG1640147,ICAL19030		NY-7SIM	Y
14	L2225019-01,3,250,250	TO15_SFS.qgm	R322212.qgd	WG1640147,ICAL19030	11 DCE AND CIS12DCE HIT	NY-7SIM	Y
15	L2225019-02,3,250,250	TO15_SFS.qgm	R322213.qgd	WG1640147,ICAL19030	CIS12DCE HIT; ETOH OVERCAL	NY-7SIM	Y

## Alpha Analytical Air Lab Instrument Run Log

16	L2225019-03,3,250,250	TO15_SFS.qgm	R322214.qgd	WG1640147,ICAL19030	CIS12DCE HIT; ETOH OVERCAL	NY-7SIM	Y
1	L2225019-04,3,250,250	TO15_SFS.qgm	R322215.qgd	WG1640147,ICAL19030	11 DCE AND CIS12DCE HIT	NY-7SIM	Y
2	L2225019-05,3,250,250	TO15_SFS.qgm	R322216.qgd	WG1640147,ICAL19030	11DCE AND CIS12DCE HIT; ETOH OVERCAL	NY-7SIM	Y
3	L2225019-06,3,250,250	TO15_SFS.qgm	R322217.qgd	WG1640147,ICAL19030	CIS12DCE HIT	NY-7SIM	Y
4	L2225019-07,3,250,250	TO15_SFS.qgm	R322218.qgd	WG1640147,ICAL19030	MECL2 OVERCAL	NY-7SIM	Y
15	L2225019-02D,3,50,250	TO15_SFS.qgm	R322219.qgd	WG1640147,ICAL19030		ETOH	Y
16	L2225019-03D,3,75,250	TO15_SFS.qgm	R322220.qgd	WG1640147,ICAL19030		ETOH	Y
2	L2225019-05D,3,25,250	TO15_SFS.qgm	R322221.qgd	WG1640147,ICAL19030		ETOH	Y
4	L2225019-07D,3,75,250	TO15_SFS.qgm	R322222.qgd	WG1640147,ICAL19030		MECL2	Y

## **ATTACHMENT 4**

### **DATA VALIDATION SUMMATION LETTER**

---

989 Lenox Drive Lawrenceville, NJ 08648 T: 609.282.8000  
Mailing Address: 989 Lenox Drive Lawrenceville, NJ 08648

---

**To:** Rebekah Diehl, Langan Senior Staff Scientist

**From:** Joe Conboy, Langan Staff Chemist

**Date:** May 23, 2022

**Re:** Data Usability Summary Report  
For 57-00, 57-05 47<sup>th</sup> Street  
May 2022 Soil Vapor and Ambient Air Samples  
Langan Project No.: 100965501

---

This memorandum presents the findings of an analytical data validation of the data generated from the analysis of air samples collected in May 2022 by Langan Engineering and Environmental Services at the 57-00, 57-05 47<sup>th</sup> Street site. The samples were analyzed by Alpha Analytical Laboratories, Inc. (NYSDOH NELAP registration # 11148) for volatile organic compounds (VOCs) by the methods specified below.

- VOCs by USEPA Method TO-15 and TO-15 SIM

Table 1, attached, summarizes the laboratory and client sample identification numbers, sample collection dates, and analytical parameters subject to review.

### **Validation Overview**

This data validation was performed in accordance with the following guidelines, where applicable:

- USEPA Region II Standard Operating Procedure (SOP) #HW-31, "Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15" (September 2016, Revision 6),
- USEPA Contract Laboratory Program "National Functional Guidelines for Organic Superfund Methods Data Review" (EPA 540- R-20-005, November 2020), and
- published analytical methodologies.

Validation includes review of the analytical data to verify that data are easily traceable and sufficiently complete to permit logical reconstruction by a qualified individual other than the originator.

Tier 1 data validation is based on completeness and compliance checks of sample-related QC results including: sample receipt documentation; analytical holding times; sample preservation; blank results (method, field, and trip); surrogate recoveries; MS/MSD recoveries and RPDs

# Technical Memorandum

values; field duplicate RPDs, laboratory duplicate RPDs, and LCS/LCSD recoveries and RPDs. Analytical reports described in this assessment underwent Tier 1 validation.

As a result of the review process, the following qualifiers may be assigned to the data in accordance with the USEPA's guidelines and best professional judgment:

- R** – The sample results are unusable because certain criteria were not met when generating the data. The analyte may or may not be present in the sample.
- J** – The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ** – The analyte was not detected at a level greater than or equal to the reporting limit; however, the reported reporting limit is approximate and may be inaccurate or imprecise.
- U** – The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.
- NJ** – The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

If any validation qualifiers are assigned these qualifiers should supersede any laboratory-applied qualifiers. Data that is not qualified as a result of this data validation is considered acceptable on the basis of the items specified for review. Data that is qualified as "R" are considered invalid and are not technically usable for data interpretation. Data that is otherwise qualified due to minor data quality anomalies are usable, as qualified in Table 2 (attached).

The following acronyms may be used in the discussion of data-quality issues:

%D	Percent Difference	MB	Method Blank
CCV	Continuing Calibration Verification	MDL	Method Detection Limit
FB	Field Blank	MS	Matrix Spike
FD	Field Duplicate	MSD	Matrix Spike Duplicate
ICAL	Initial Calibration	RF	Response Factor
ICV	Initial Calibration Verification	RL	Reporting Limit
ISTD	Internal Standard	RPD	Relative Percent Difference
LCL	Lower Control Limit	RSD	Relative Standard Deviation
LCS	Laboratory Control Sample	TB	Trip Blank
LCSD	Laboratory Control Sample Duplicate	UCL	Upper Control Limit

## MAJOR DEFICIENCIES:

Major deficiencies include those that grossly impact data quality and necessitate the rejection of results. No major deficiencies were identified.

# Technical Memorandum

## MINOR DEFICIENCIES:

Minor deficiencies include anomalies that directly impact data quality and necessitate qualification, but do not result in unusable data. The section below describes the minor deficiencies that were identified.

### VOCs by USEPA Method TO-15 and TO-15 SIM:

#### L2225590

Samples SSV02, SSV03, SSV04, SSV05, and IA02 exhibited a laboratory-measured receipt pressures above -2 in. Hg (-1.9 in Hg, -1.9 in Hg, -1.0 in Hg, 0.0 in Hg, and -1.6 in Hg. The associated results in samples SSV02, SSV03, SSV04, SSV05, and IA02 are qualified as J or UJ because of potential indeterminate bias.

The ethanol result for sample SSV04 exceeded the calibration curve. The associated result is qualified J based on potential indeterminate bias.

## OTHER DEFICIENCIES:

Other deficiencies include anomalies that do not directly impact data quality and do not necessitate qualification. The section below describes the other deficiencies that were identified.

### VOCs by USEPA Method TO-15 and TO-15 SIM:

#### L2225590

The LCS for batch WG1640147 exhibited percent recoveries above the UCL for bromoform (132%) and benzyl chloride (148%). The associated results are non-detect. No qualification is necessary.

The LCS for batch WG1640711 exhibited percent recoveries above the UCL for dibromochloromethane (132%), bromoform (136%), and benzyl chloride (150%). The associated results are non-detect. No qualification is necessary.

## CONCLUSION:

On the basis of this evaluation, the laboratory appears to have followed the specified analytical methods with the exception of errors discussed above. If a given fraction is not mentioned above, that means that all specified criteria were met for that parameter. All of the data packages met ASP Category B requirements.

All data are considered usable, as qualified. In addition, completeness, defined as the percentage of analytical results that are judged to be valid, is 100%.

# Technical Memorandum

Data Usability Summary Report  
For 57-00, 57-05 47th Street  
May 2022 Soil Vapor and Ambient Air Samples  
Langan Project No.: 100965501  
May 23, 2022 Page 4 of 4

---

Signed:



Joe Conboy  
Staff Chemist